SOS
CLIMATE
WATER
FRONT

CLIMATE-PROOF PLANNING
CREATIVE DESIGN SOLUTIONS IN STOCKHOLM

KTH ROYAL INSTITUTE OF TECHNOLOGY, SWEDEN
INTERCULT, SWEDEN
GDAŃSK UNIVERSITY OF TECHNOLOGY, POLAND
THE CITY OF GDAŃSK, POLAND
ARISTOTLE UNIVERSITY OF THESSALONIKI, GREECE
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SAPIENZA UNIVERSITY OF ROME, ITALY
ALPHA CONSULT SRL, ITALY
STICHTING CPO NOORD-HOLLAND – CPONH, THE NETHERLANDS

Stockholm is a city deeply connected to its water, but that relationship is slowly changing. Climate change is raising water levels, overtime faster than the land rises, meanwhile increased precipitation is creating challenges from inland. Urban waterfront areas, both existing and future, will need to take these new circumstances into account. However, there are both challenges and opportunities to create pleasant and sustainable developments involving multiple perspectives from stakeholders in the city and its surroundings.

SOS Climate Waterfront aims to bring students, practitioners, and researches from all over Europe and a wide range of disciplines together to create new strategies and sustainable solutions for infrastructure and urban planning. The sites explored during the SOS Climate Waterfront workshop in Stockholm in 2022 provide various challenges regarding contradicting uses, economic tension and, crucially, water levels. Lövholmen is an old industrial site located along Lake Mälaren a lake with an actively managed water level and the crucial fresh water supply of Stockholm; Frihamnen is the site of Stockholm's old free port with many cultural values; and Södra Värtan is home to an active cruise ship terminal.

In this book, the wide range of creative design solutions that have been envisioned for these sites will be presented to adapt to allow these sites to remain climate-proof.

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CLIMATE PROOF PLANNING -
CREATIVE DESIGN SOLUTIONS
IN STOCKHOLM
STOCKHOLM 2022

KTH
VETENSKAP
OCH KONST

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MARIE CURIE ACTIONS

European Commission

Colophon

SOS CLIMATE WATERFRONT

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H2020 MSCA RISE #823901 ***participating institutions:***

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More info:
http://sosclimatewaterfront.eu/

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HAZARTS

Site: Södra Värtan

HAZARTS

Abstract

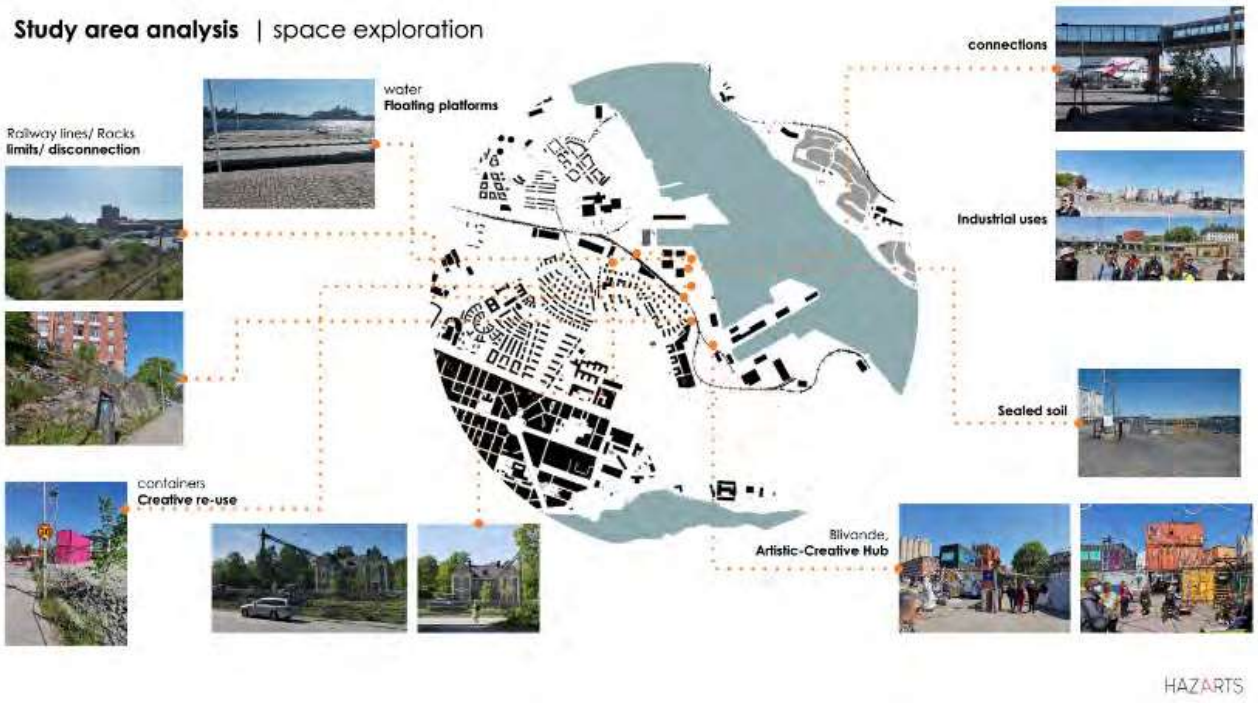
If the city of Stockholm is literally made of islands, the area of Värtahamnen can be described metaphorically as an island in perception. Lower than its surroundings, with a hard border marked by a dismissed railway, it is disconnected from the city – despite being a short distance from the centre – and the nearby green areas, thus contributing to keeping the waterfront and some buildings of historical interest out of the social and urban fabric. Moreover, issues concerning the sealed and contaminated soil, the flooding risk, and the presence of industrial uses and port activities strengthen its character as a place of contrast and transition.

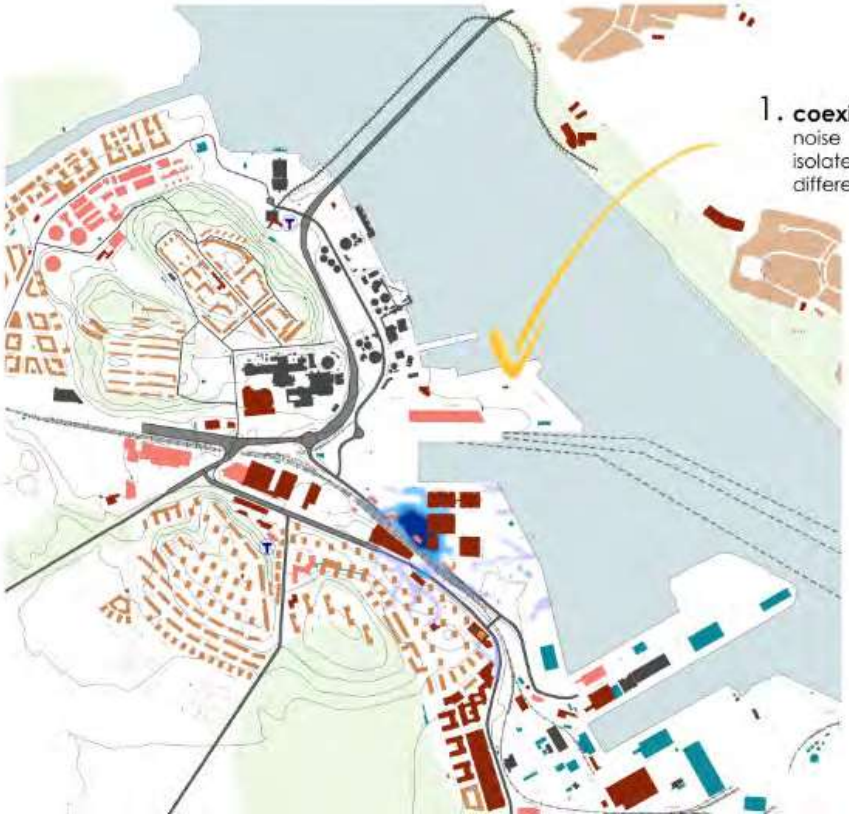
Being aware of the centrality that the port activities have at present and are going to maintain in the future – also due to the increasing number of passengers reaching Stockholm by sea – the renewal project starts with the idea of transforming Värtahamnen from a transit space into a place to stay for tourists and local people. The cultural and artistic dimension is therefore emphasized with the aim of turning it into a creative harbour for different cultures to meet, connect, learn, and create with respect to humans and nature. HAZARTS incorporates our vision for a neighbourhood where our vulnerability to risks and hazards is displayed through art, with a focus on the importance of education and awareness of the many interrelations we depend on to build resilience and adaptation.

This intermediate undefined space opens to the water and the Baltic Sea, and is transformed into a flexible, adaptable, and multifunctional public space that restores the cohesion with the city, the green areas, and the sea by

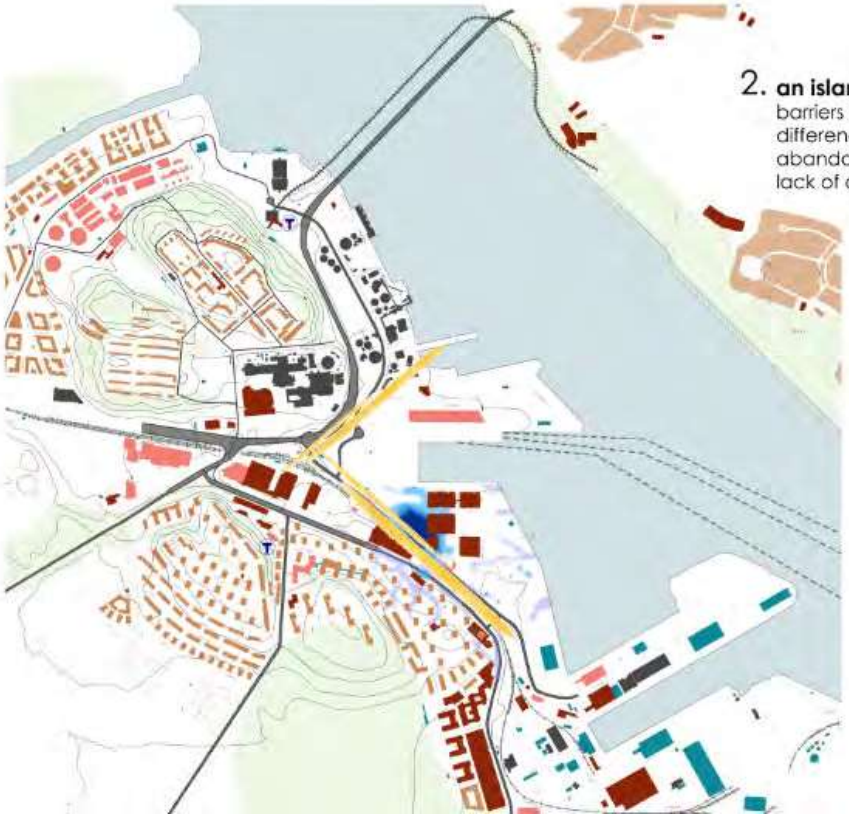
- introducing pedestrian paths and a public transport node;
- preserving and integrating its heritage into the new development as part of a cultural corridor, allowing for creative reuse;
- integrating green-blue adaptable infrastructures that welcome different forms of change connected to water (tourism/floods/sea level rise/land uplift), and finally

- becoming the breeding ground for the development of cultural and artistic activities to stimulate a new attitude towards change, vulnerability, coexistence, and mutual interdependence.

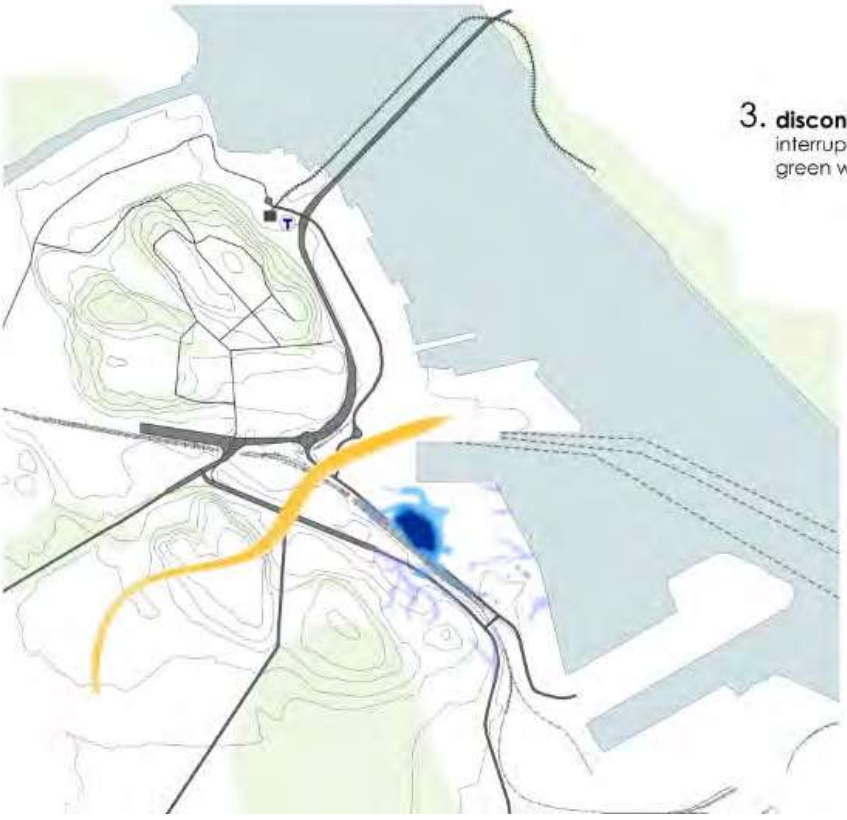

Study area analysis | space exploration
connections
water
Floating platforms
Railway lines/ Rocks
limits/ disconnection
Industrial uses
Sealed soil
containers
Creative re-use
Bilvande,
Artistic-Creative Hub
HAZARTS



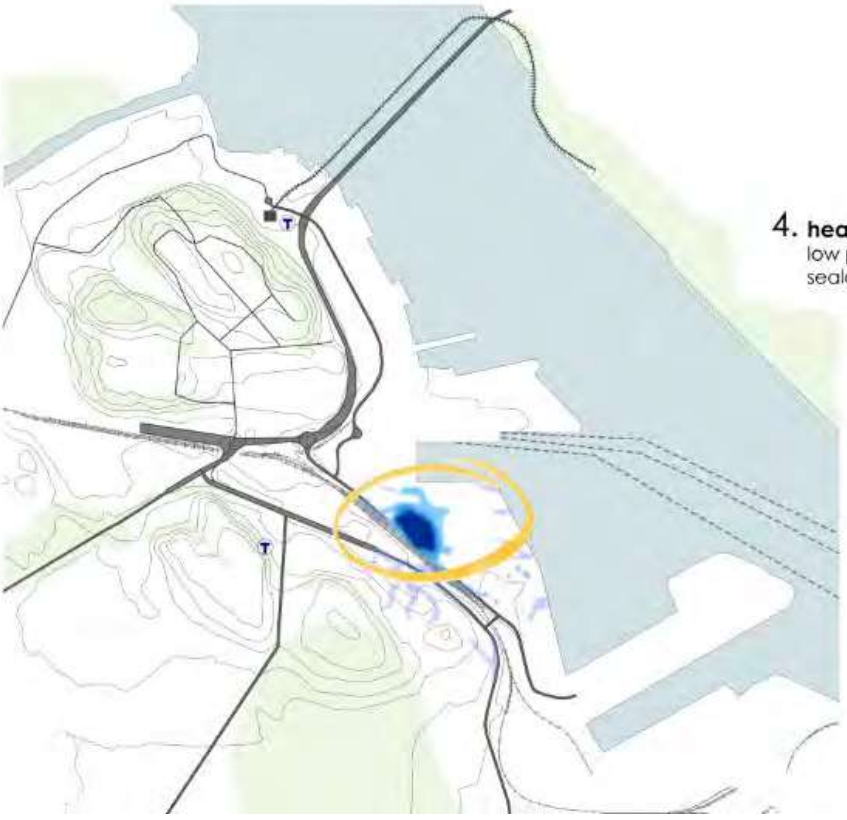
1. **coexistence with port activities**
noise
isolated transit space
different fluxes during the year



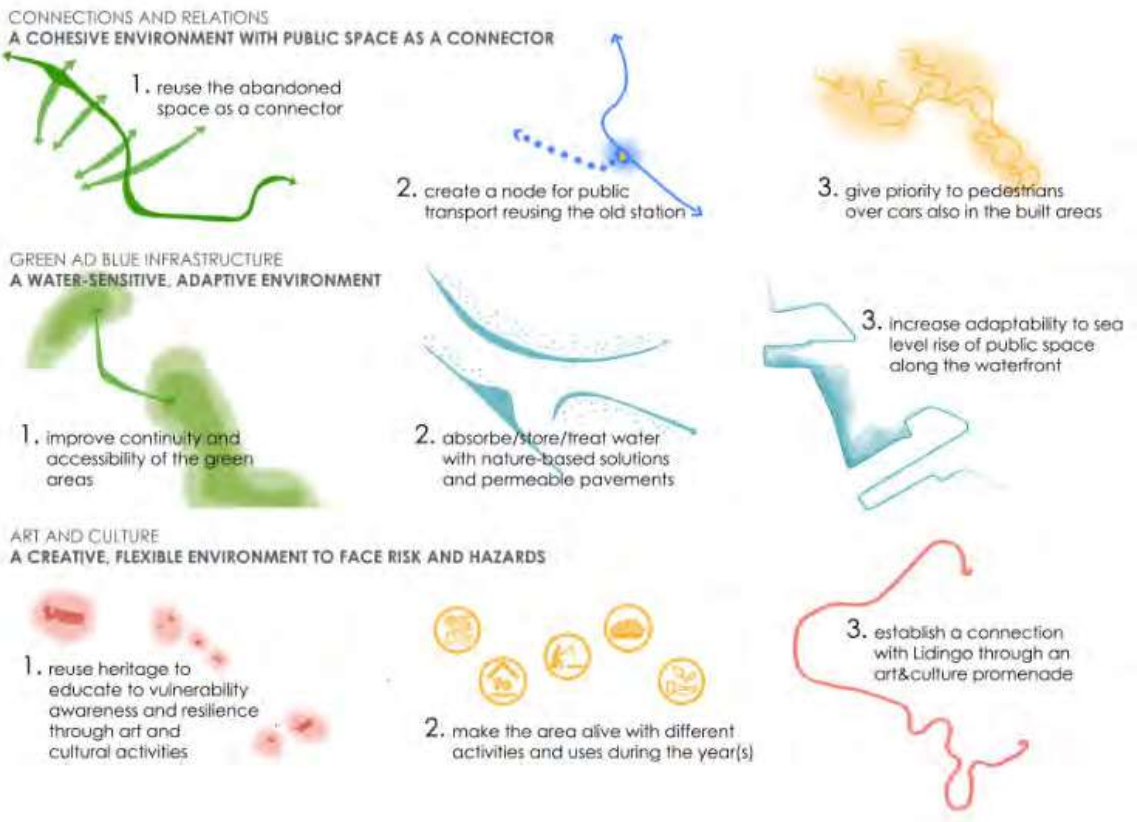
2. **an island in the city**
barriers to the surrounding neighbourhoods:
difference in height
abandoned railway
lack of connection to the centre

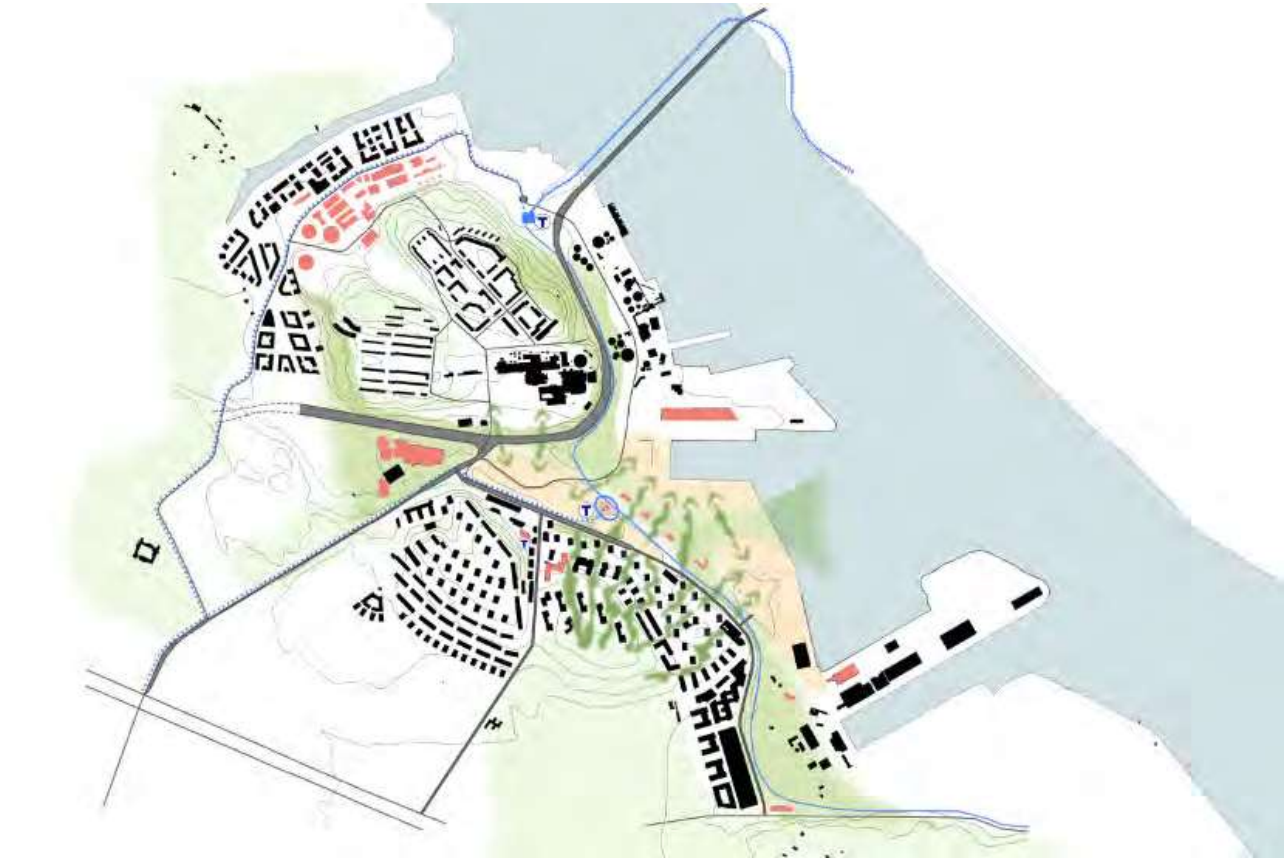


3. **discontinuity of the green infrastructure**
interruption of one of the main
green wedges of the city

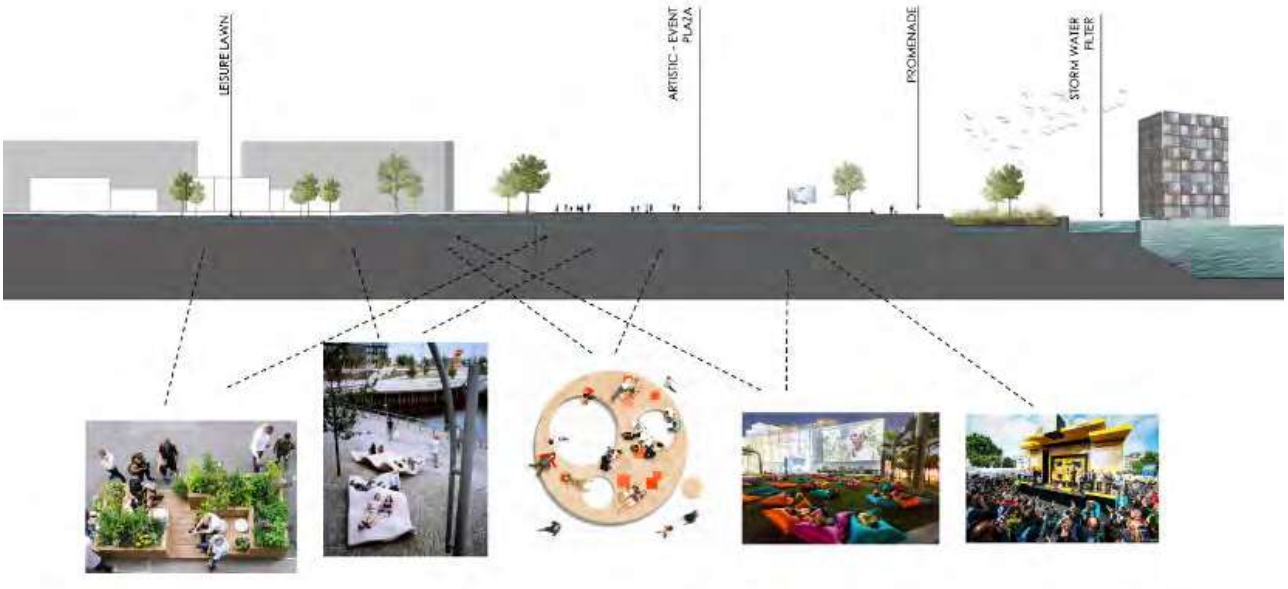


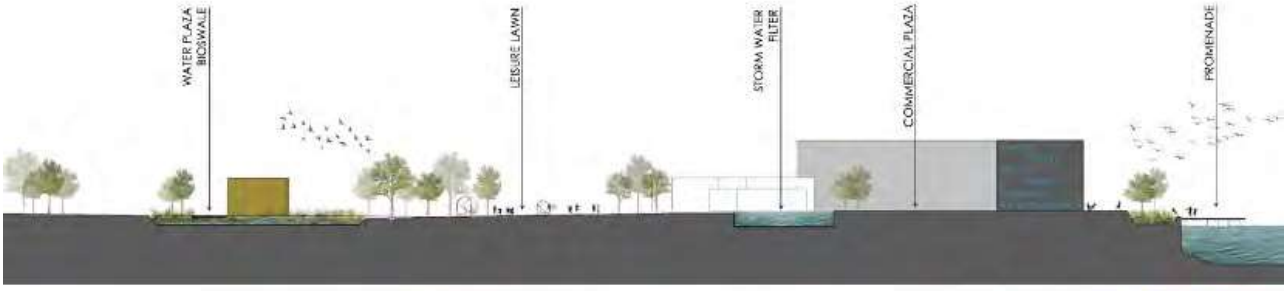
4. **heavy rainfall**
low points close to existing buildings
sealed soil


CONNECTIONS AND RELATIONS
A COHESIVE ENVIRONMENT WITH PUBLIC SPACE AS A CONNECTOR
1. reuse the abandoned space as a connector
2. create a node for public transport reusing the old station
3. give priority to pedestrians over cars also in the built areas
GREEN AD BLUE INFRASTRUCTURE
A WATER-SENSITIVE, ADAPTIVE ENVIRONMENT
1. improve continuity and accessibility of the green areas
2. absorbe/store/treat water with nature-based solutions and permeable pavements
3. increase adaptability to sea level rise of public space along the waterfront
ART AND CULTURE
A CREATIVE, FLEXIBLE ENVIRONMENT TO FACE RISK AND HAZARDS
1. reuse heritage to educate to vulnerability awareness and resilience through art and cultural activities
2. make the area alive with different activities and uses during the year(s)
3. establish a connection with Lidingo through an art&culture promenade




VÄRTA
BUSSA
TUNNELB


LEISURE LAWN
ARTISTIC - EVENT PLAZA
PROMENADE
STORM WATER FILTER


WATER PLAZA
BIOSWALE
LEISURE LAWN
STORM WATER
FILTER
COMMERCIAL PLAZA
PROMENADE