



Herstelling Nollekat, 1945

Tracing Scars Through History

Reimagining Walcheren's Military Landscape
as a Memoryscape for the Future

Yufei Yang 6016952
P5 Presentation

Flowscales Lab: Landscape Architecture Principles
First Mentor: Eric Luiten
Second Mentor: Marie-Thérèse van Thoor

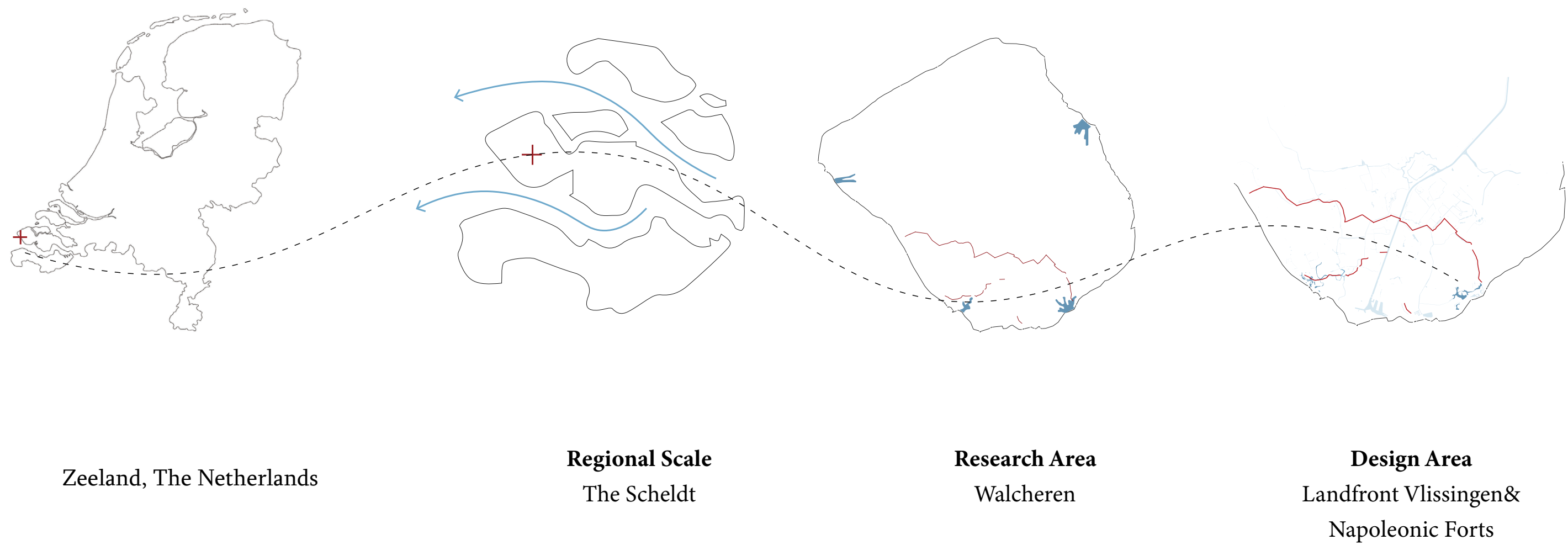
Location



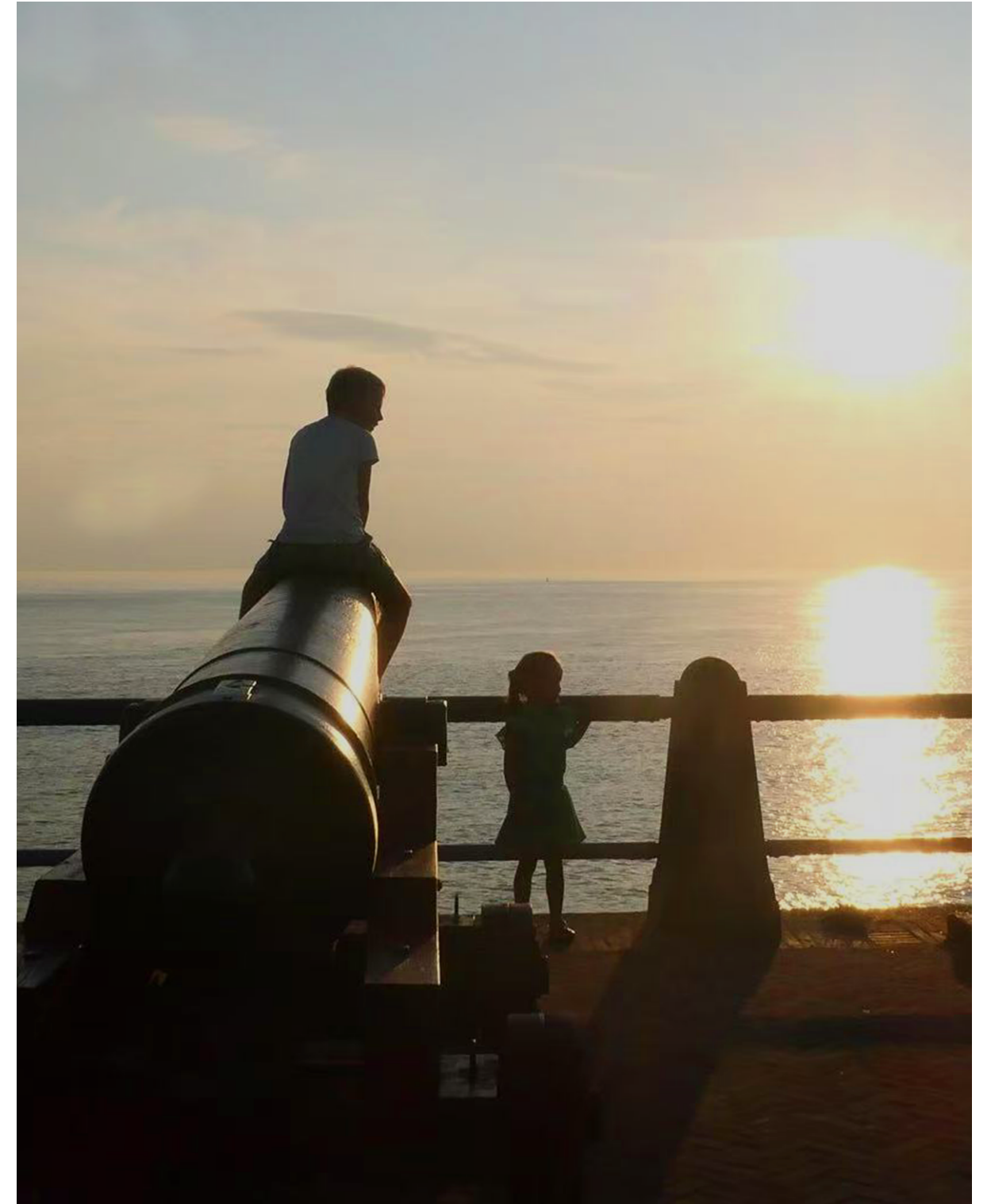
Location



Figure. Zelandia, Ortelius; Heyns, 1598



*The intersection of conflict, nature, and resilience
in Walcheren's layered landscape
reveals a compelling narrative-
one where war, water
and human adaptation converge...*





Landfront Vlissingen, BoschSlabbers, 2009

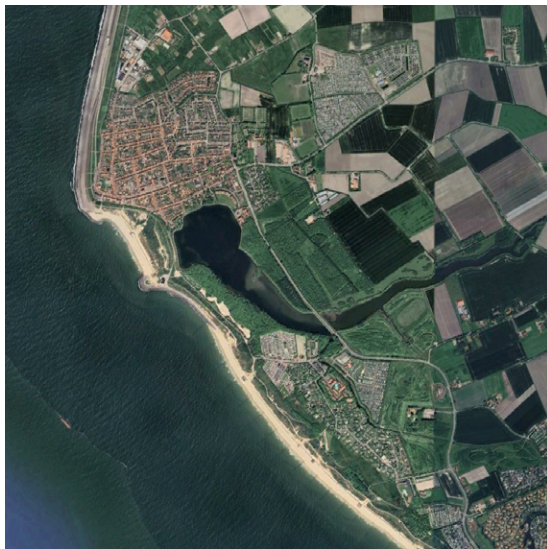


Fort Rammekens, Author, 2024

Fortification System as Narrative War Landscape

It becomes a active story teller, connecting the past to the present through its spatial, cultural, and historical significance.

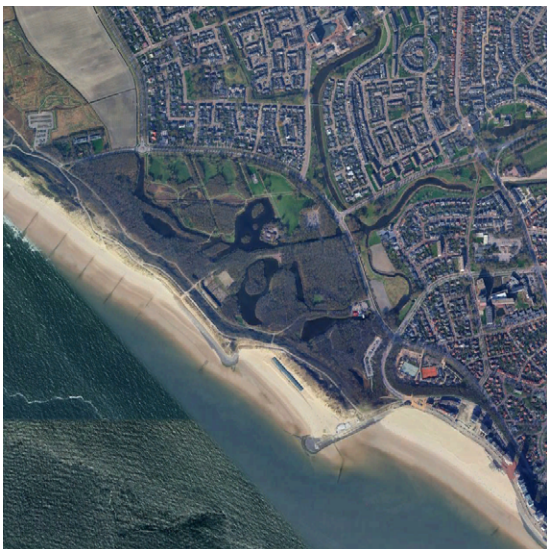
Functional and strategic infrastructure can be transformed into a spatial story that reflects the dynamics of war and the shifting meaning of spaces overtime.



Westkapelse Kreek



Veersche Kreek



De Nolle Bos



Rammekenshoek Kreek

google map, 2024



Freshwater Ecosystem



Coastal Saline Habitat



Hiking Area



Home to Birds

google map, 2025



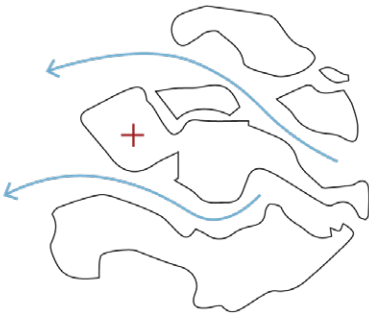
Inundation Creek

A 20th century sea intrusion due to military inundation in World War II
a unique creek landscape where both freshwater and salt-tolerant vegetation coexist
A new layer shaped by a combination of human modification and natural forces

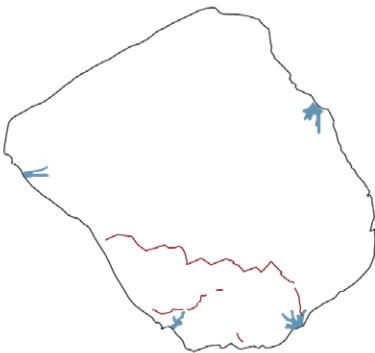
Landscape Scale

Problem Field

Regional Scale
The Scheldt



Research Area
Walcheren



Design Area
Landfront Vlissingen
& Napoleonic Forts



A dynamic area with changing flow,
salinity and sediment distribution

Post-war reconstructed urban
pattern hatched in Pool Landscape

Historical Defensive systems
intergrated in the polder landscape

Ecology

Urbanization

Wartime
Remnants



Figure. Bunker in Vlissingen ,Oorlogzeeland

Lack of Cohesion in Heritage Clusters



Flooding of the territory east of westkapelle, Zeeland Archives

Erosion of Unique Landscape Patterns



ANP, 2020

Growing Demand for High-Quality Living



ANP, 2020

Tourism-driven Pressures in Sensitive Areas



Alexey Demin, 2021

Increased Flood Risk

How can the historical layers of **Walcheren's military landscape** be revealed through design to create a public space that preserves its **historical significance** and transforms into a **socially vital** and **resilient** landscape?

SRQ1

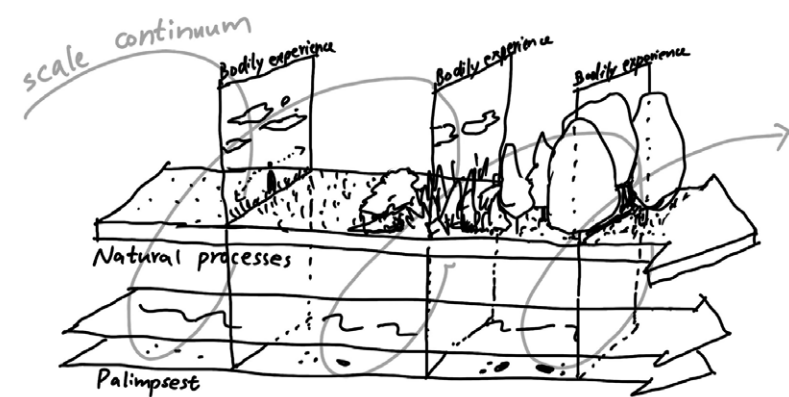
In what ways have specific **military transformations** shaped the **layered identity** of the landscape, as reflected in spatial patterns revealed through **palimpsest mapping**?

SRQ2

Which **military landscape traces** define each historical layer, and are they **sufficiently legible** to convey the historical value of Walcheren's military landscape through **societal engagement**?

SRQ3

How can **design strategies** reveal and enrich the historical and ecological layers of Walcheren's military landscape, making them **legible, accessible, and meaningful** within a contemporary public space?



See four lenses as a whole system of Landscape Architecture Principles (Junhui Zhang, 2024)

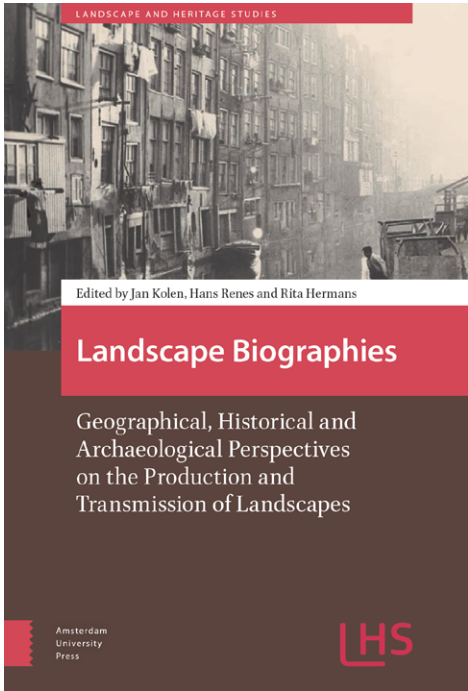
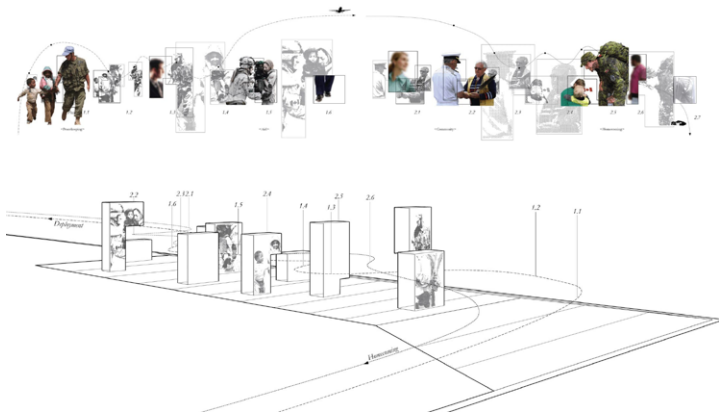


Figure1. Cover of Landscape Biographies.
Source: Kolen, P., Renes, J., & Hermans, R. (Eds.). (2015). Landscape Biographies. Amsterdam University Press.

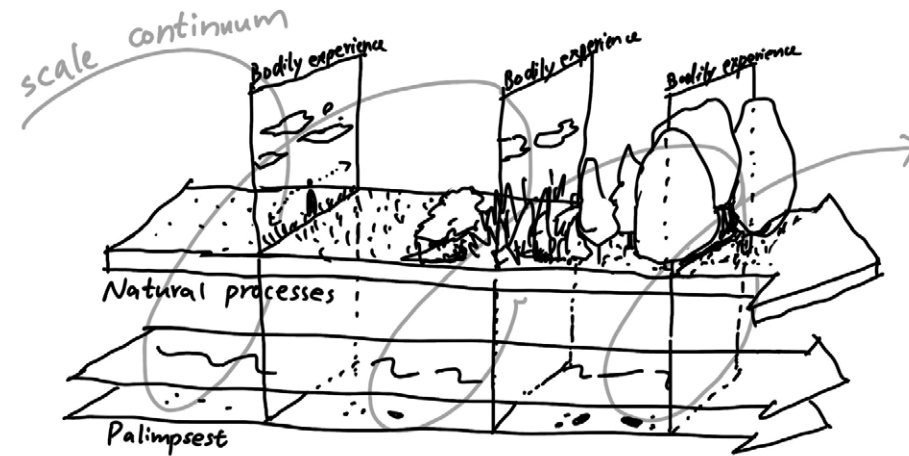


Landscapae Memorial Space, Canada (MBAC, 2024)

Landscape Architecture Principles

Landscape Biographies

Memoryscape



See four lenses as a whole system of Landscape Architecture Principles (Junhui Zhang, 2024)

Landscape Architecture Principles

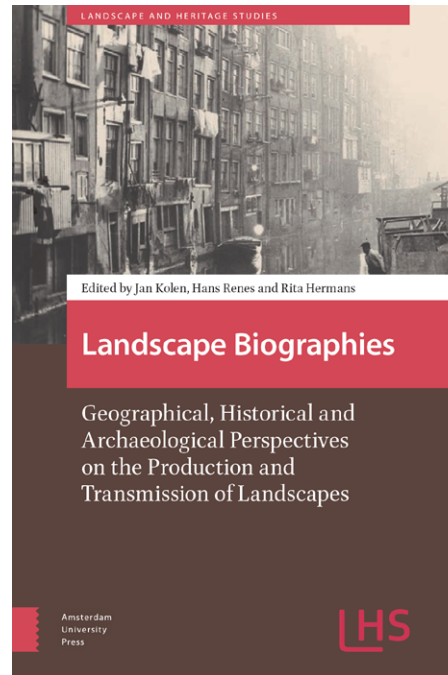
Source:

de Wit, S. I., & Bobbink, I. (2020). *Landscape architectural perspectives as agent for generous design*. Research in Urbanism Series.

Corboz, A. (1983). *Le territoire comme palimpseste*. Diogenes, (121), 14–35.

Historical Palimpsest

- Landscape conceptualized as the product of successive episodes of physical change



Landscape Biographies

Source:

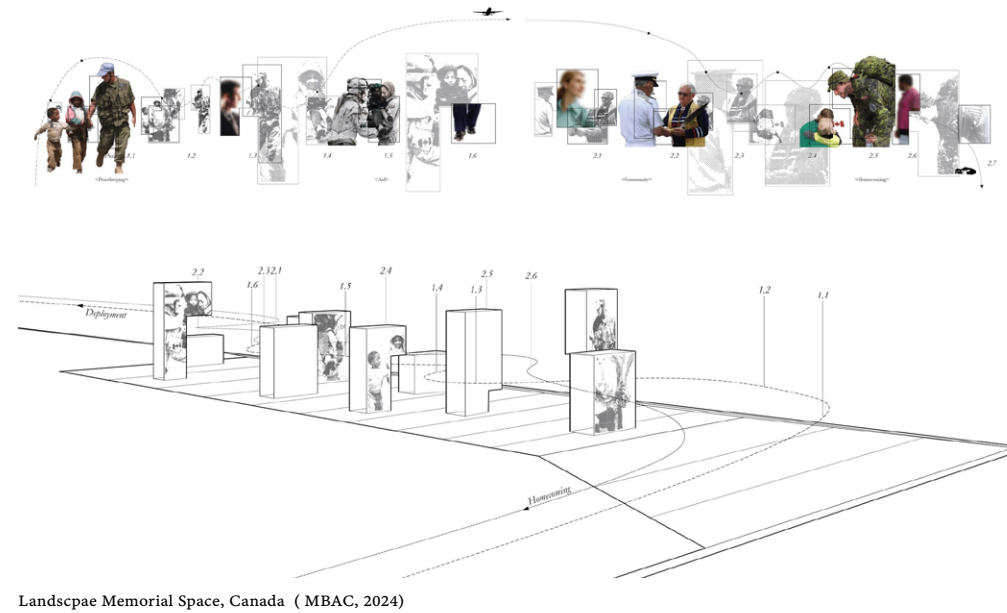
Kolen, P., Renes, J., & Hermans, R. (Eds.). (2015). *Landscape Biographies: Geographical, Historical and Archaeological Perspectives on the Production and Transmission of Landscapes*. Amsterdam University Press.

Double Historical Perspective

- The material continuities of places and monuments
- How different periods and societies have perceived, interpreted, and reused the landscape, embedding their own meanings and layers into it

Co-scripting of Landscape and People

- The intertwined relationship between people and landscapes



Memoryscape and Narrative Experience

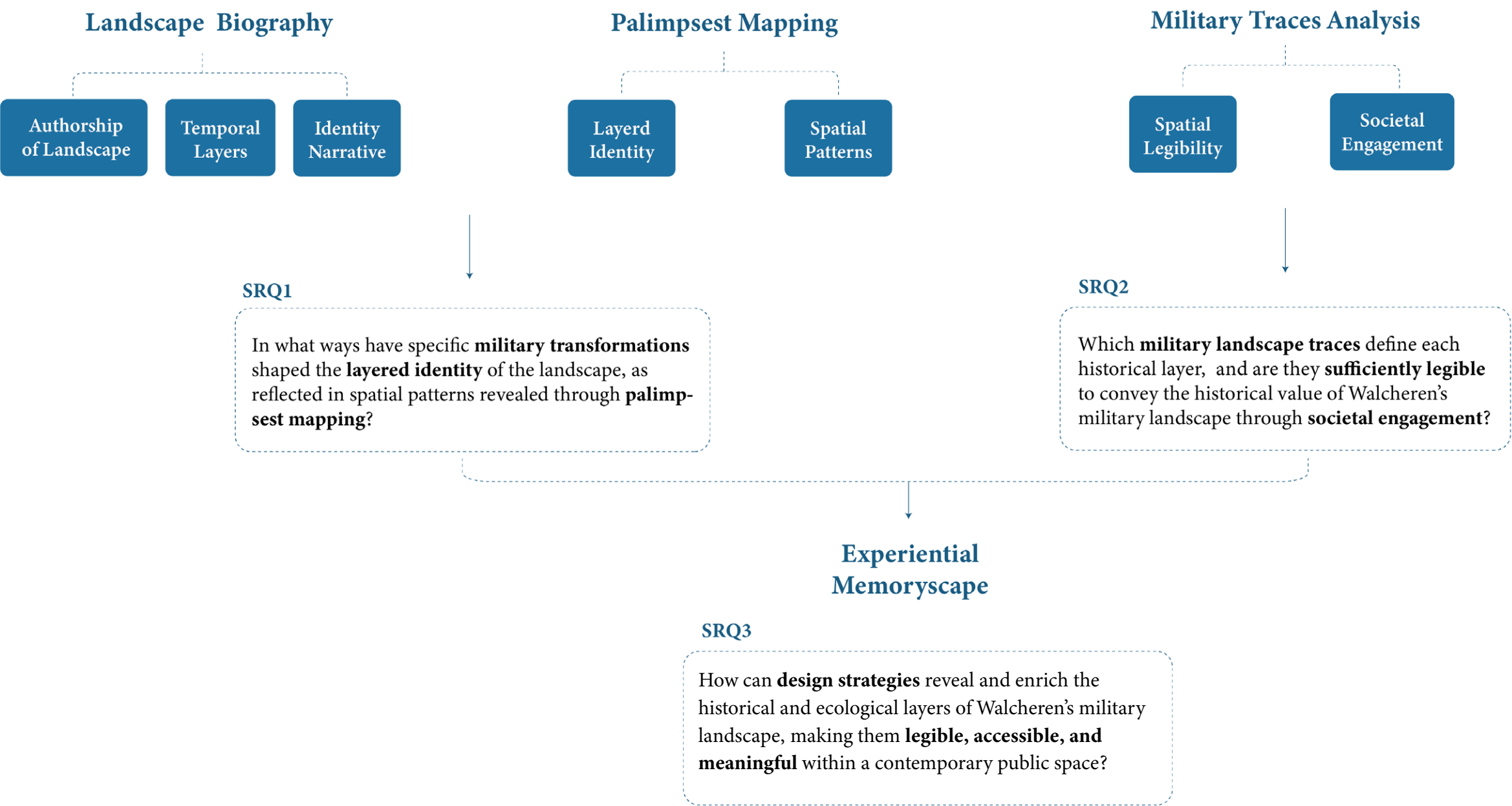
- Memoryscape as a way of engaging with place through sensory and narrative experiences

Memoryscape

Source:

Edensor, T. (1997). *National identity and the politics of memory: Remembering Bruce and Wallace in symbolic space*. *Environment and Planning D: Society and Space*, 15(2), 175–194.

Butler, T. (2007). *Memoryscape: How audio walks can deepen our sense of place by integrating art, oral history and cultural geography*. *Geography Compass*, 1(3), 360–372.





"Landscapes are not merely passive backdrops accumulating traces of human life; rather, they actively shape and are shaped by human experiences over various timescales. This dynamic “co-scripting” process reveals how landscapes and human life worlds continuously influence each other."

Renes & Kolen, 2015

MID 16TH CENTURY

CONSTRUCTION OF FORT RAMMEKENS ON THE MEDIEVAL SEA DIKE

In 1547, as Regent of the Netherlands, I commissioned Fort Rammekens to guard the vital Westerschelde waterway and the port of Middelburg against growing threats.

To withstand gunpowder artillery, I enlisted Italian architect Donato de Boni, who designed a bastion fort with low, earth-reinforced walls. Built into a medieval sea dike, it served both as a military stronghold and a flood barrier.



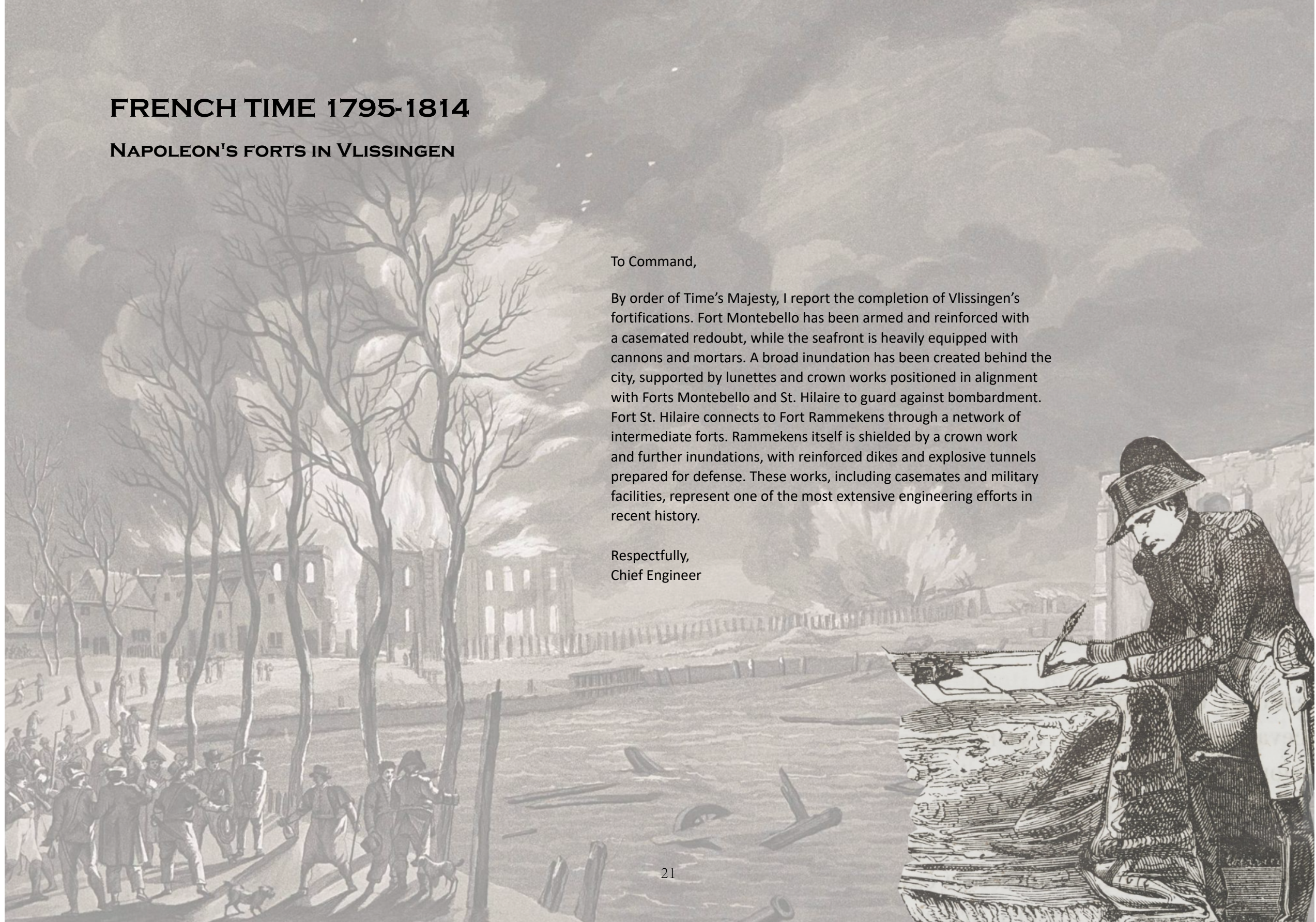
FRENCH TIME 1795-1814

NAPOLEON'S FORTS IN VLISSINGEN

To Command,

By order of Time's Majesty, I report the completion of Vlissingen's fortifications. Fort Montebello has been armed and reinforced with a casemated redoubt, while the seafront is heavily equipped with cannons and mortars. A broad inundation has been created behind the city, supported by lunettes and crown works positioned in alignment with Forts Montebello and St. Hilaire to guard against bombardment. Fort St. Hilaire connects to Fort Rammekens through a network of intermediate forts. Rammekens itself is shielded by a crown work and further inundations, with reinforced dikes and explosive tunnels prepared for defense. These works, including casemates and military facilities, represent one of the most extensive engineering efforts in recent history.

Respectfully,
Chief Engineer



THE SECOND WORLD WAR

ATLANTIC WALL IN WALCHEREN

Hans stood atop Fort Rammekens, the wind heavy with salt and unease. Around him, farmland that once fed villages was being reshaped into a fortress. Concrete bunkers rose from the soft polder soil, alien and unwelcome.

The locals watched in silence—some bitter, others resigned—as the land their families had reclaimed from the sea was taken again, this time by war.



MILITARY INUNDATION & POST-WWII RECOVERY 1945-1953

INUNDATION DURING THE BATTLE OF THE SCHELDT AND POST-WAR DIKE CLOSURE

The war was over, but Walcheren lay broken—its dikes shattered, its fields salted and barren. Still, the people returned, determined to rebuild.

Willem stood at the edge of the breach, a sack of sand on his shoulder, surrounded by men and women working without rest. The air reeked of seawater and mud.

Beside him, Anna tied sandbags with numb fingers. She hadn't imagined this life, but each shovel of dirt felt like resistance—a quiet fight to reclaim the home the sea had nearly stolen.



*The long-term submersion reshaped the landscape,
permanently altering its intricate dike systems and small polder plots.*

*Though Walcheren was restored,
the former "Garden of Zeeland" was irreversibly transformed,
its layered history still imprint in the resilient traces left behind.*

*Visible or invisible,
each layer tells a story about how war shapes, scars, and, sometimes,
regenerates the landscapes it touches.*



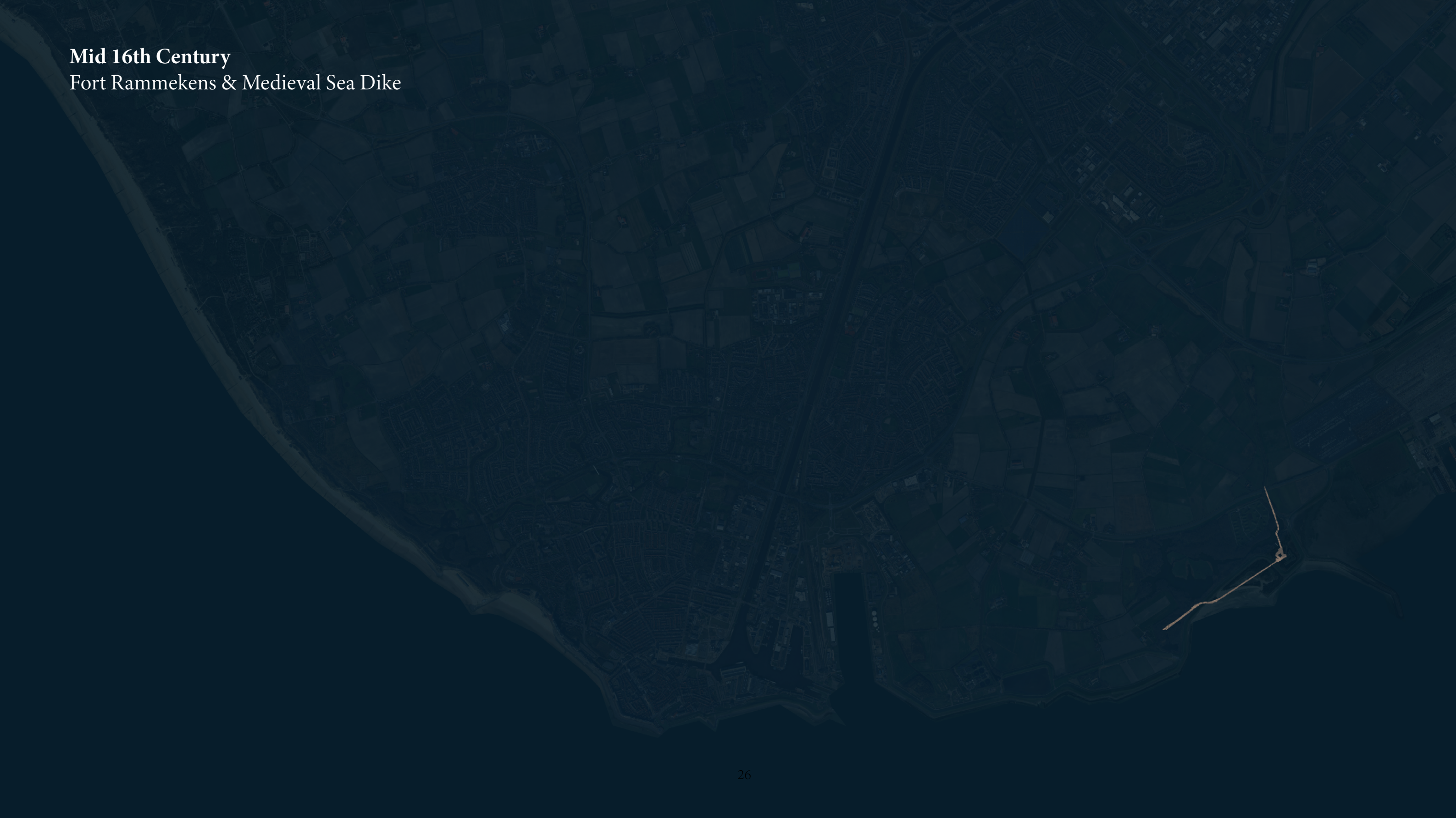
The Battle of the Scheldt (1944-1947)
Military Inundation & Post-war Recovery

The Second World War
The Atlantic Wall in Walcheren

French Time (1795-1814)
Napoleon's Forts System

Mid 16th Century
Fort Rammekens & Medieval Sea Dikey

Mid 16th Century
Fort Rammekens & Medieval Sea Dike



French Time(1795-1814)
Napoleon Forts System



The Second World War

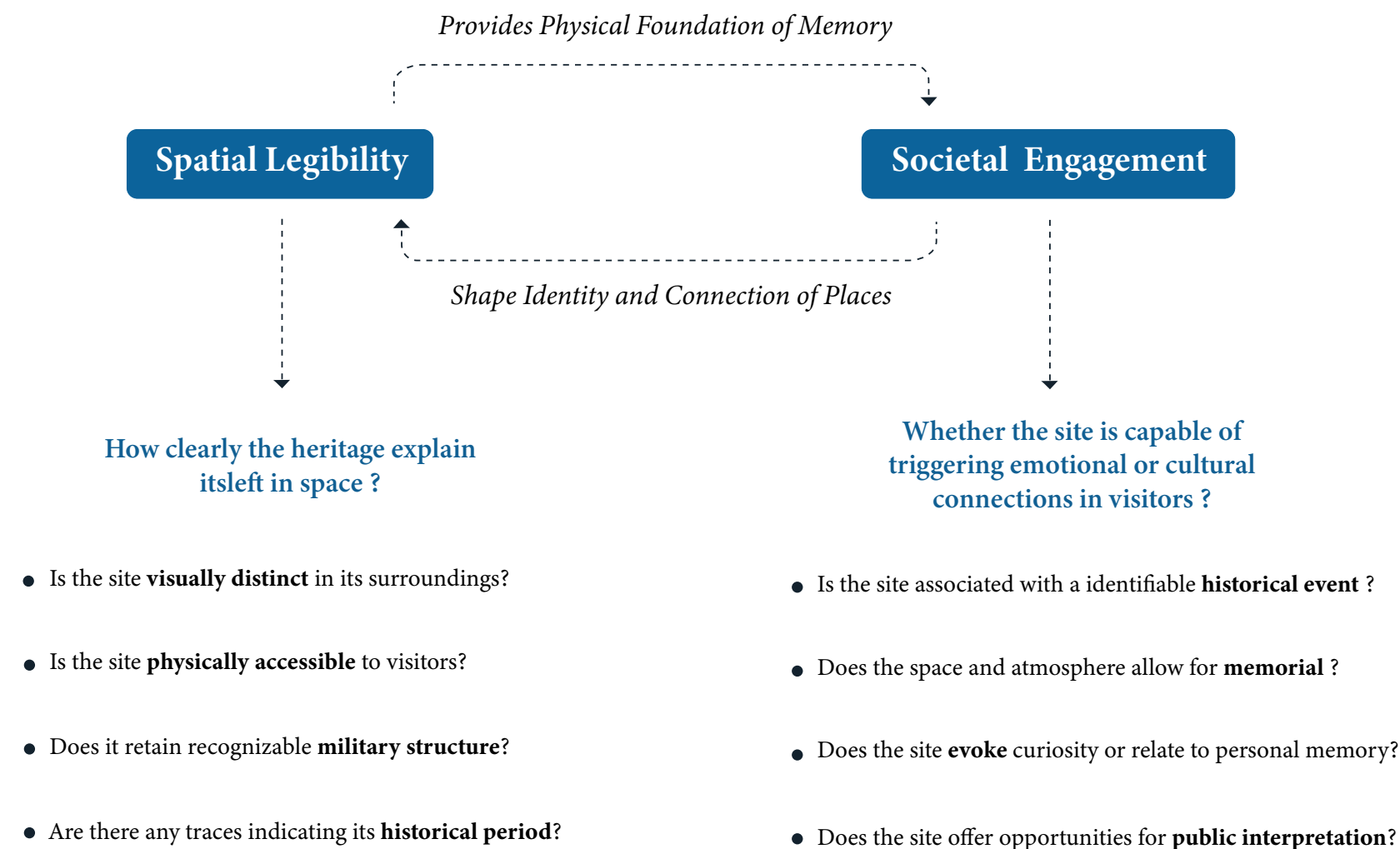
The Atlantic Wall in Walcheren



The Battle of the Scheldt (1944-1947)

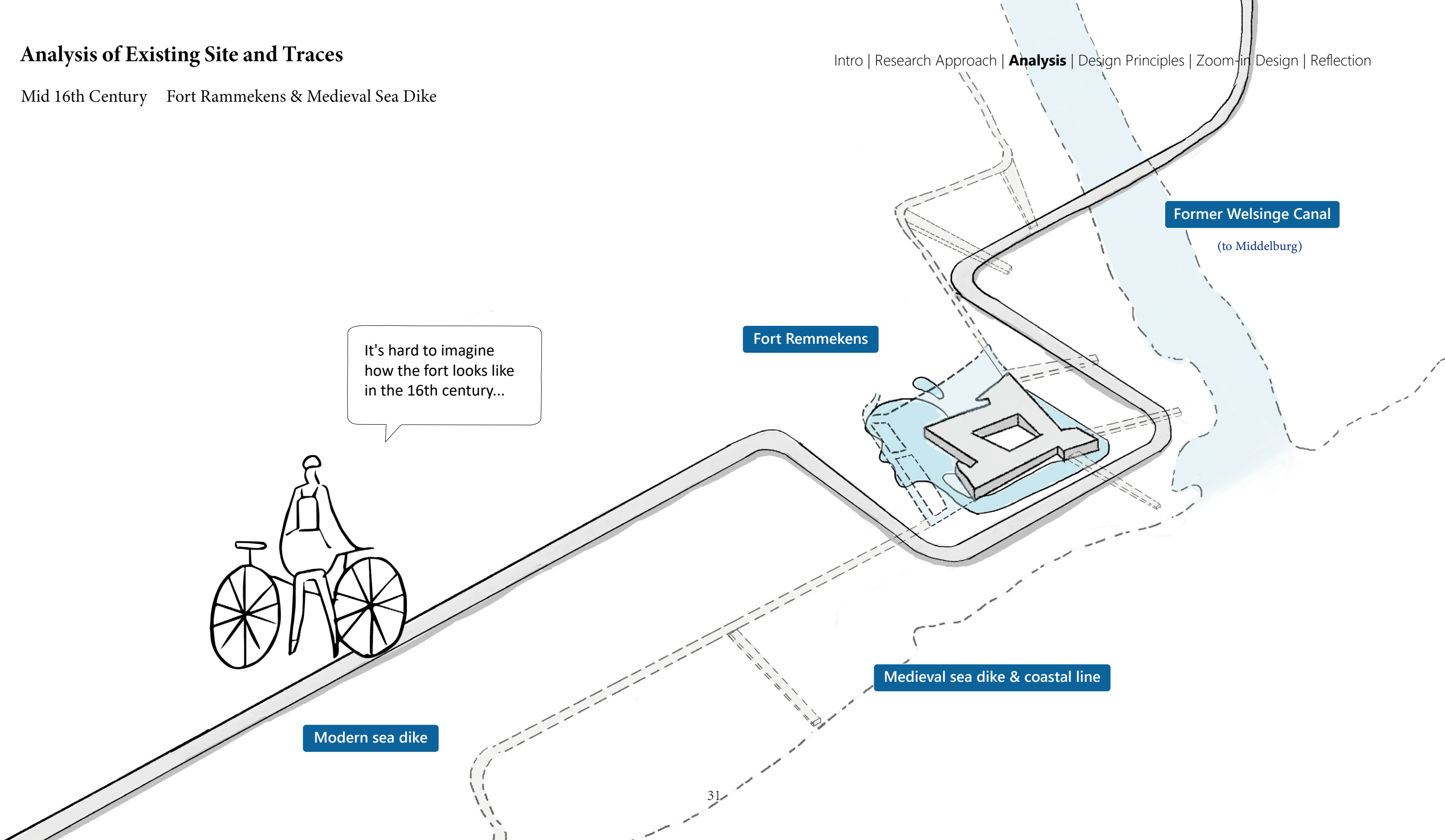
Military Inundation & Post-war Recovery





Analysis of Existing Site and Traces

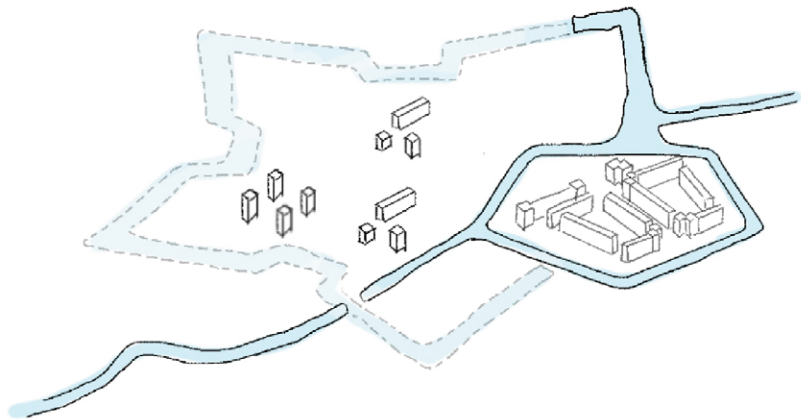
Mid 16th Century Fort Rammekens & Medieval Sea Dike



Analysis of Existing Site and Traces

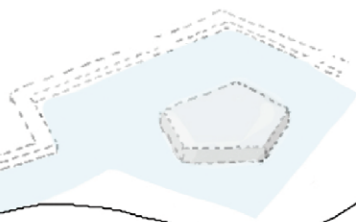
French Time (1795-1814) Napoleon Forts System

The shape of the canal is very interesting.



Moat ramnants of The Left Reduit

Nollestrand is such a nice place to enjoy the sunshine!

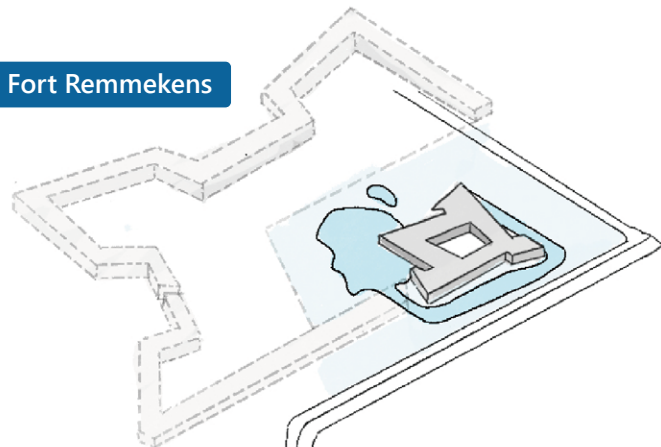


Historica site of Fort De Nolle

The sign says this is the olderst sea fort in Western Europe!



Fort Remmekens



A pond surrounded by trees, easy to miss when passing by...



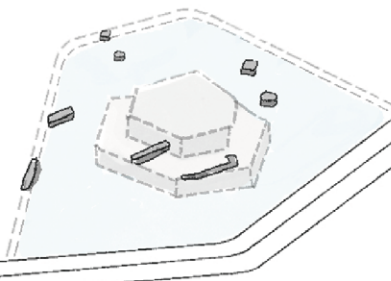
Moat ramnants of Fort Zoutman



I've never noticed so much construction debris here before.

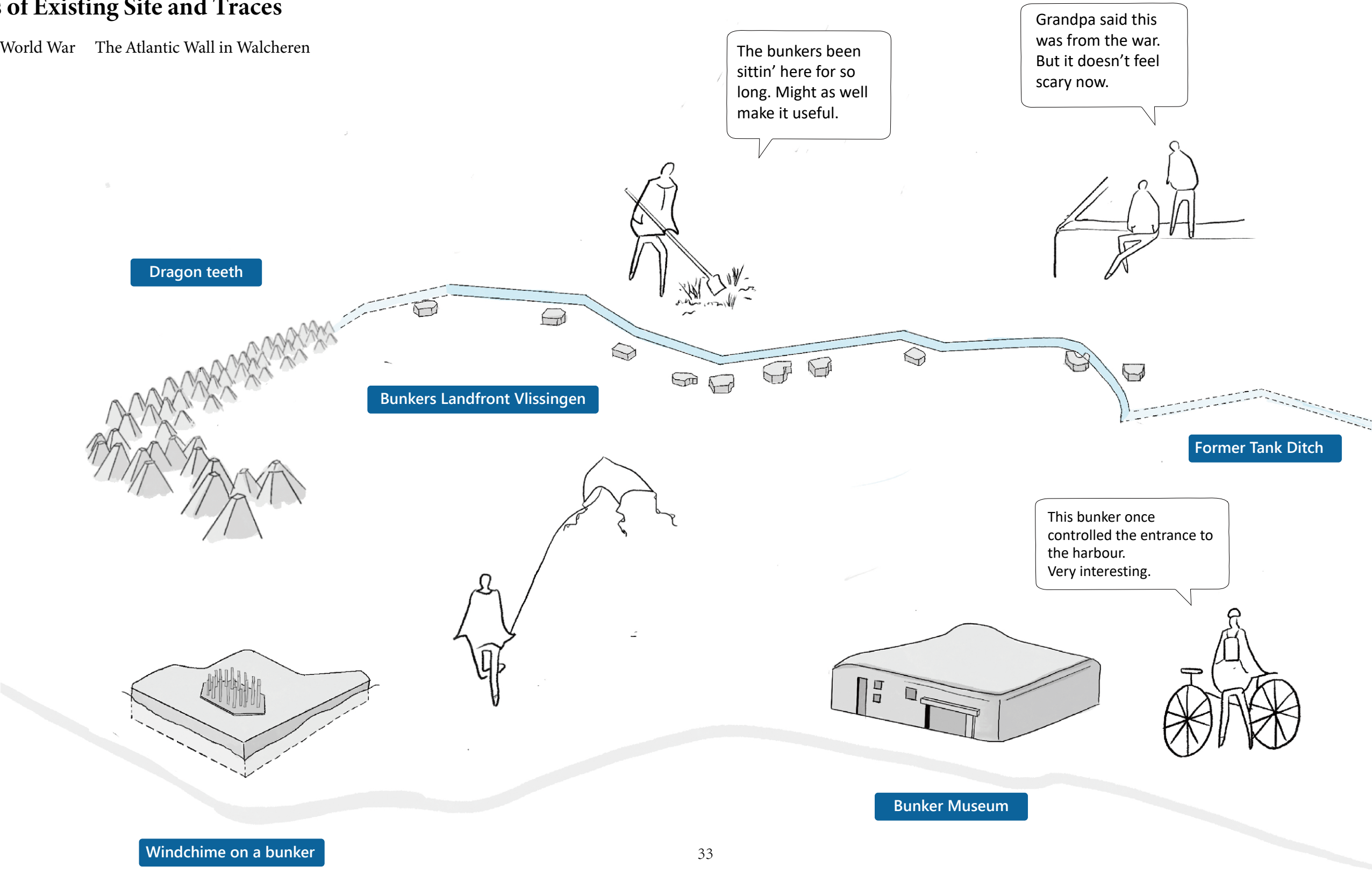


Ruins of Fort De Ruyter



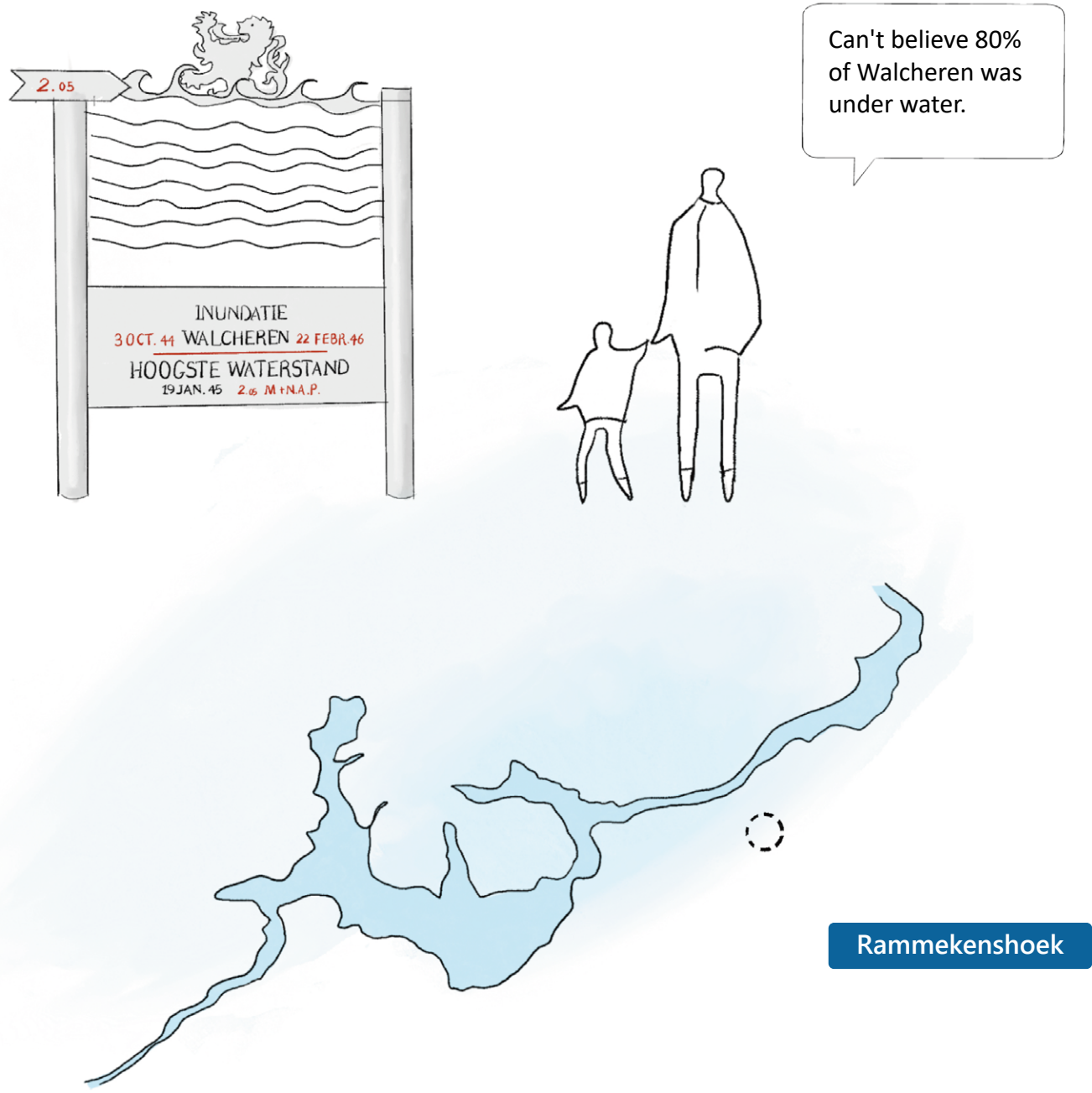
Analysis of Existing Site and Traces

The Second World War The Atlantic Wall in Walcheren



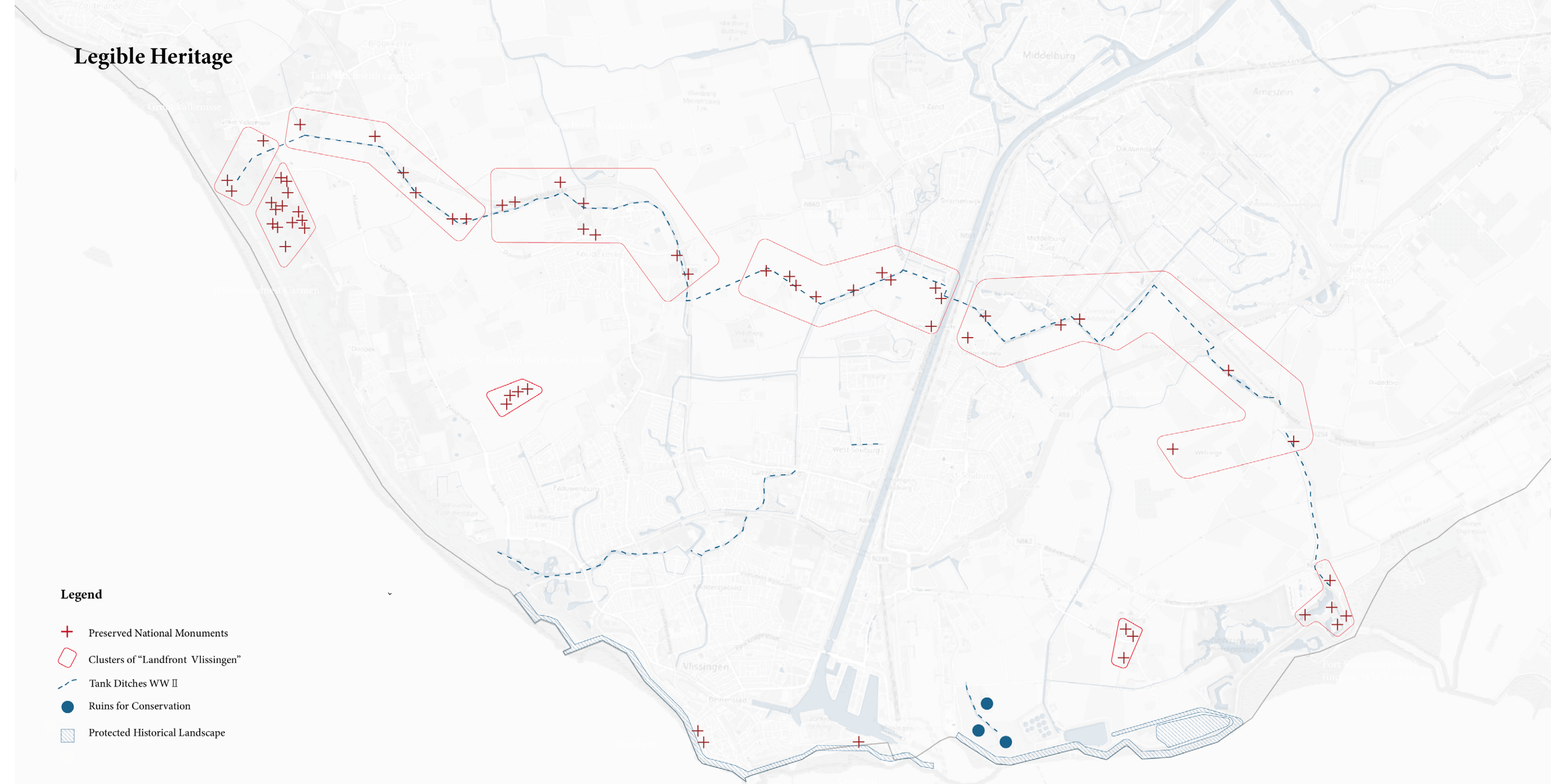
Analysis of Existing Site and Traces

The Battle of the Scheldt(1944) Military Inundation& Post-war Recovery (Untill 1946)



Legible Heritage

- Legend**
- + Preserved National Monuments
 - Clusters of “Landfront Vlissingen”
 - - - Tank Ditches WW II
 - Ruins for Conservation
 - Protected Historical Landscape



Invisible Layers

- Legend**
- Invisible/ Destroyed Construction
 - Moats no longer exists
 - Existing Fortress
 - Remnants of Moats
 - Existing Water System



Spatial Legibility

- **Absence of Physical Remains**
- **Limited Physical Accessibility**
- **Lack of Visual Connectivity**

Legend

- Preserved National Monuments
- Clusters of “Landfront Vlissingen”
- Tank Ditches WW II
- Ruins for Conservation
- Protected Historical Landscape
- Accessible Bunkers
- Agricultural Use Bunkers
- Reused as Museum
- Heritage Cycling Route
- Interactive Storytelling
- Static Plaques
- WW II Memorial
- Landmarks
- Invisible/ Destroyed Construction
- Moats no longer exists
- Existing Fortress

-
- Legend**
- Preserved National Monuments
 - Clusters of “Landfront Vlissingen”
 - Tank Ditches WW II
 - Ruins for Conservation
 - Protected Historical Landscape
 - Accessible Bunkers
 - Agricultural Use Bunkers
 - Reused as Museum
 - Heritage Cycling Route
 - Interactive Storytelling
 - Static Plaques
 - WW II Memorial
 - Landmarks
 - Invisible/ Destroyed Construction
 - Moats no longer exists
 - Existing Fortress

Societal Engagement

- Engagement limited to information panels
- Emotional Responses are mostly triggered by mounments
- Lack of Multi-Sesory Perception



Figure. Ten Water Lines in the Netherlands. Forten, 2024

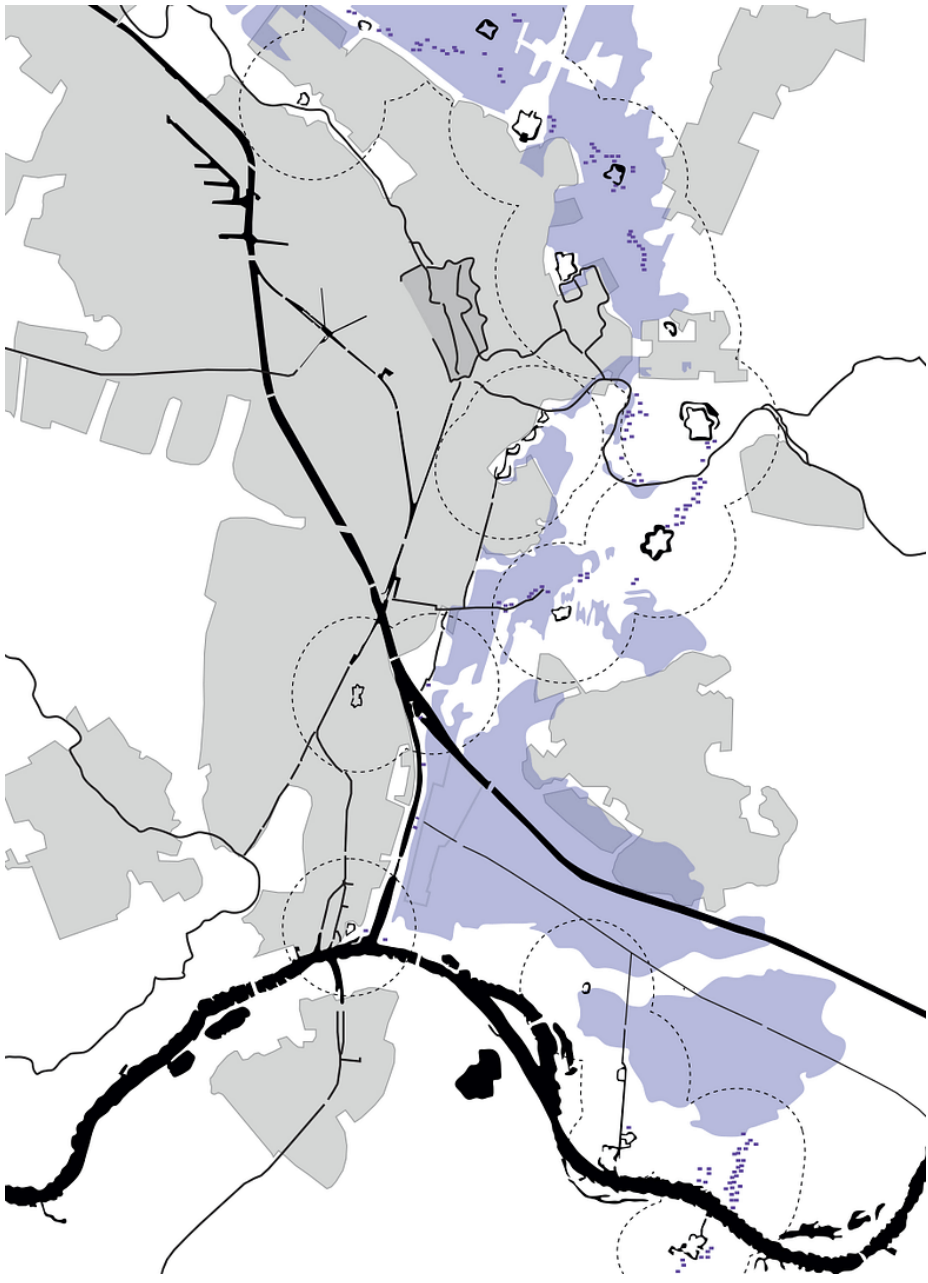


Figure. The Nieuwe Hollandse Waterlinie, Bureau B+B, 2011

Integration of amenity routes
with existing infrastructure network



Design Guideline for The Grebbe Line
Gelderland, NL
REDscape

Recreating the connection between
fortrees remains and urban cotext



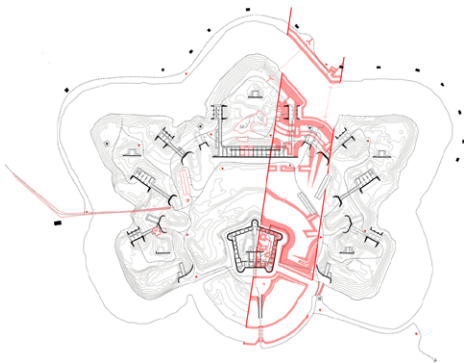
Future Vision for Naarden fortress
Naarden, NL
BoschSlabbers

A museum landscape represent the
history of cannal widening and waterline



Objets Trouvés
Nieuwegein, NL
B+B, H+N+S

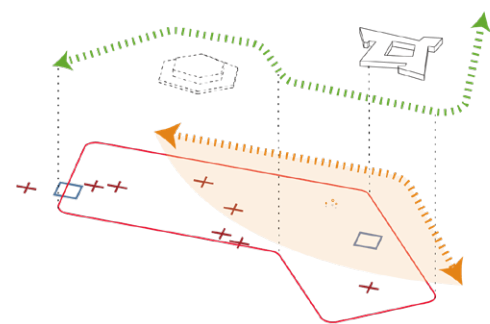
Restoration of a band on
rewilded earthen bastion



Fort bij Vechten, National Waterline Museum,
Bunnik, NL
WEST 8

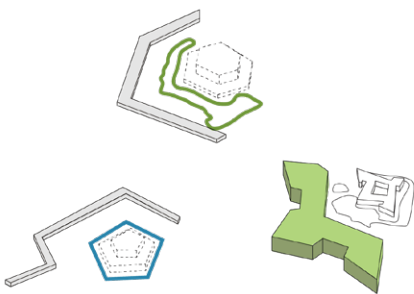


Stratify



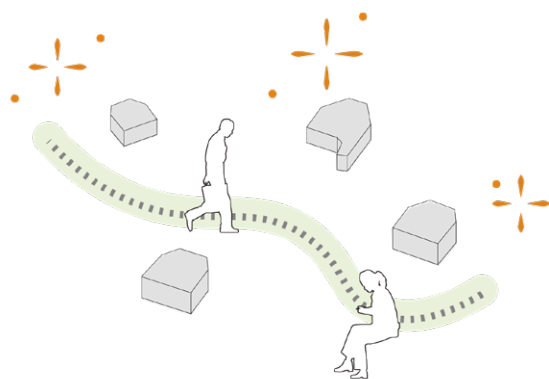
Stratify heritage clusters by historical layers through enhanced visual and spatial continuity

Reveal



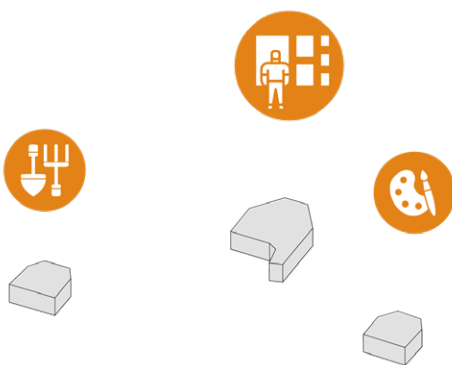
Reveal erased traces by uncovering 4 historical layers and intergrating them into the site's experience.

Evoke



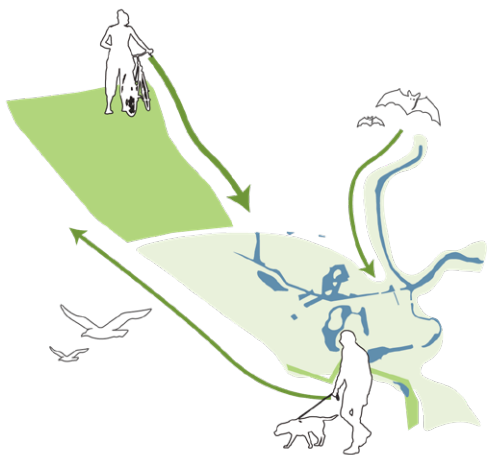
Visitors seek out and re-asembble scenes, to be stitched together through their own experiences and asociations.

Repurpose

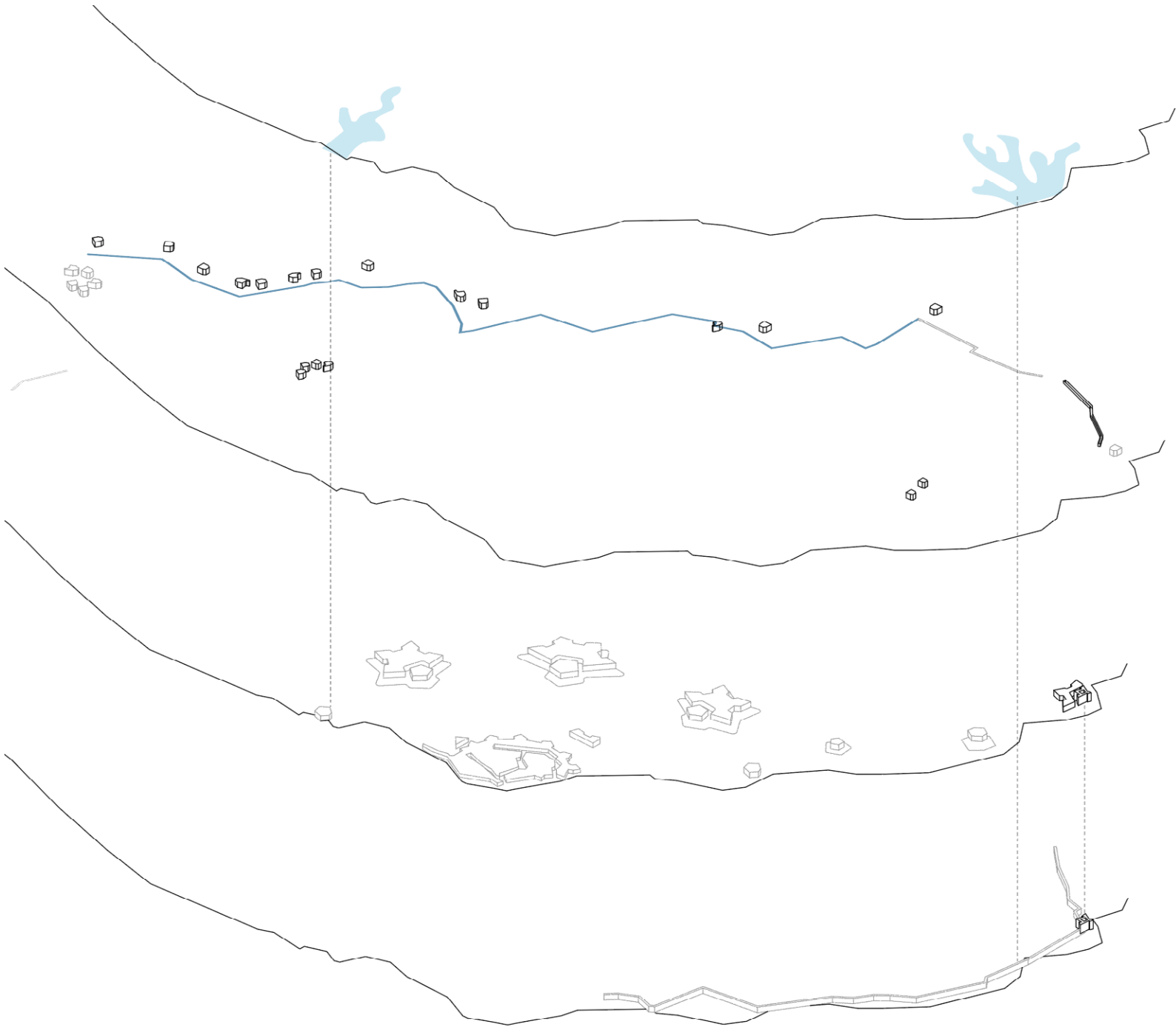


Repurpose spaces for community engagment and ecological integration, foster a dynamic connection with the past.

Connect



Connect fractured historical layers and green spaces through two landscape belts



The Battle of the Scheldt (1944-1947)
Military Inundation& Post-war Recovery

The Second World War
The Atlantic Wall in Walcheren

French Time(1795-1814)
Napoleon Forts System

Mid 16th Century
Fort Rammekens & Medieval Sea

Recreate Historical Context

Mid 16th Century Layer

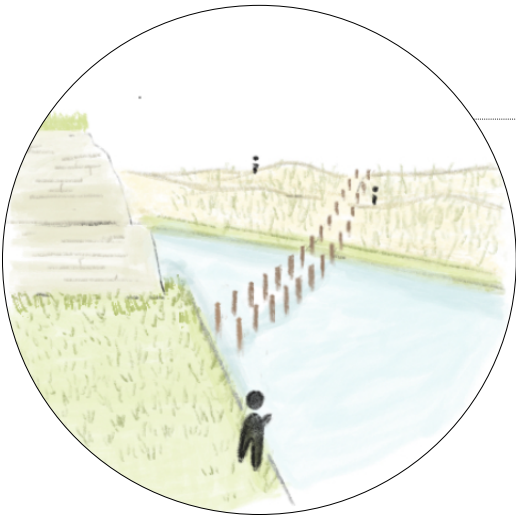
Contextual Landscape Reconstruction



Archaeological Display



Historic-layer integration



Reconstruct the Earthwork

Thrift Wood Fort Outline

Outline the Lost

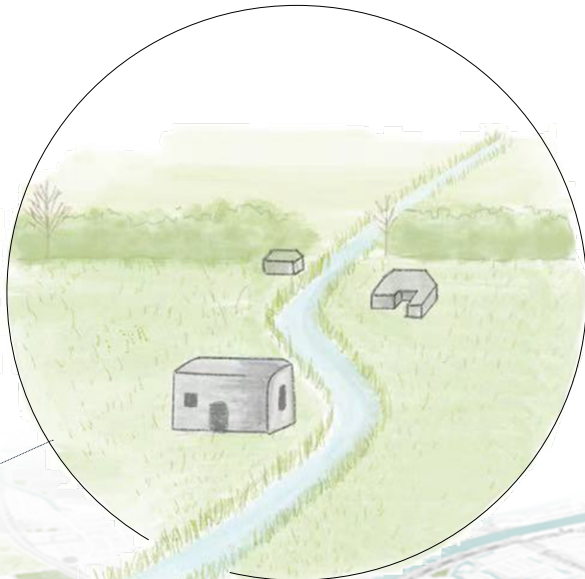


Enhance Visual Connection
The Second World War Layer

Viewing Platform



Landscape Framing

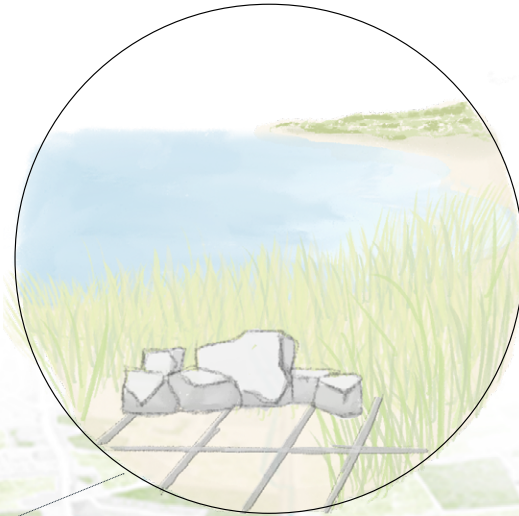


Reviving Historical Scenes to Evoke Collective Memory

Military Inundation& Post-war Recovery

Intro | Research Approach | Analysis | **Design Principles** | Zoom-in Design | Reflection

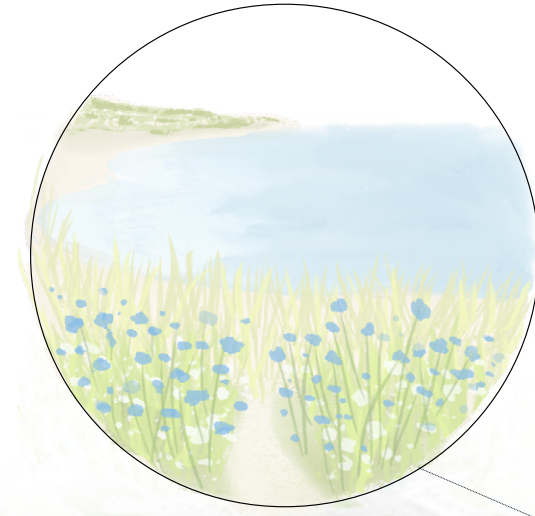
Expose Layers in the Dike



Memory Shelter and Escape Boat



Saline Bloom as Flood Marker



A living Palimpsest



Regional Vision

- Legend
- 1 Fort Rammekens
 - 2 Reconstructed Napoleonic earthwork
 - 3 Moat Remnant
 - 4 Rammekens Dune Beach
 - 5 Saline Bloom- Flood marker
 - 6 Rammekenshoek Nature Reserve
 - 7 Medieval Sea Dike Marker
 - 8 Landfront Vlissingen
 - 9 Tank ditch marker



An Experiential Route

Legend

- Cycling Lane
- Kayaking Route
- Walking Path
- Sightseeing Spot
- Existing Nature Reserve
- New Green Spaces

De Nolle Bos

Landfront Vlissingen

Fort Rammekens



An Experiential Route





De Nolle and The erased Left Reduit



Fort Rammekens and the Creek

*The forts are gone, but subtles- a waterline, a curve, a name-
still hint at what once stood here.*



Windchime, Nollestand. Edith Kuitert, 2024



DE NOLLE BOS

WW2 TANK DITCH

THE LEFT REDUIT

FORT DE NOLLE

Current Site Condition



0 50 100 200m



Master Plan

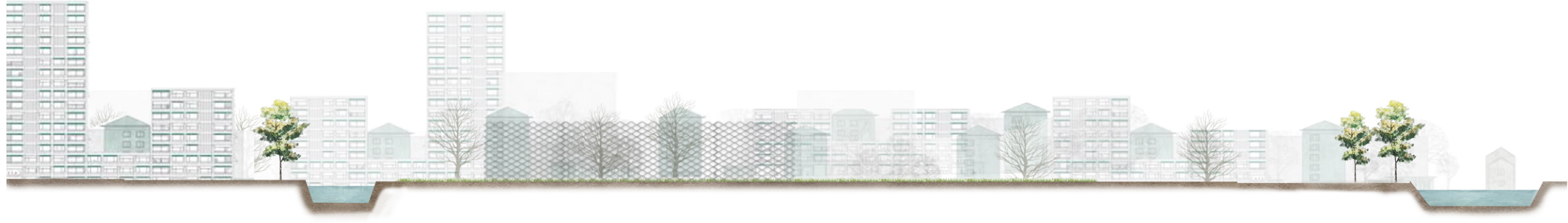


- Legend
- 1 Reconstructed Napoleonic earthwork
 - 2 Trenches Transition Zone
 - 3 WW II Memorial Space
 - 4 Bunker
 - 5 Saline Bloom- Flood marker
 - 6 De Nolle Bos Nature Reserve
 - 7 Napoleonic Fort Trace Marker

0 50 100 200m





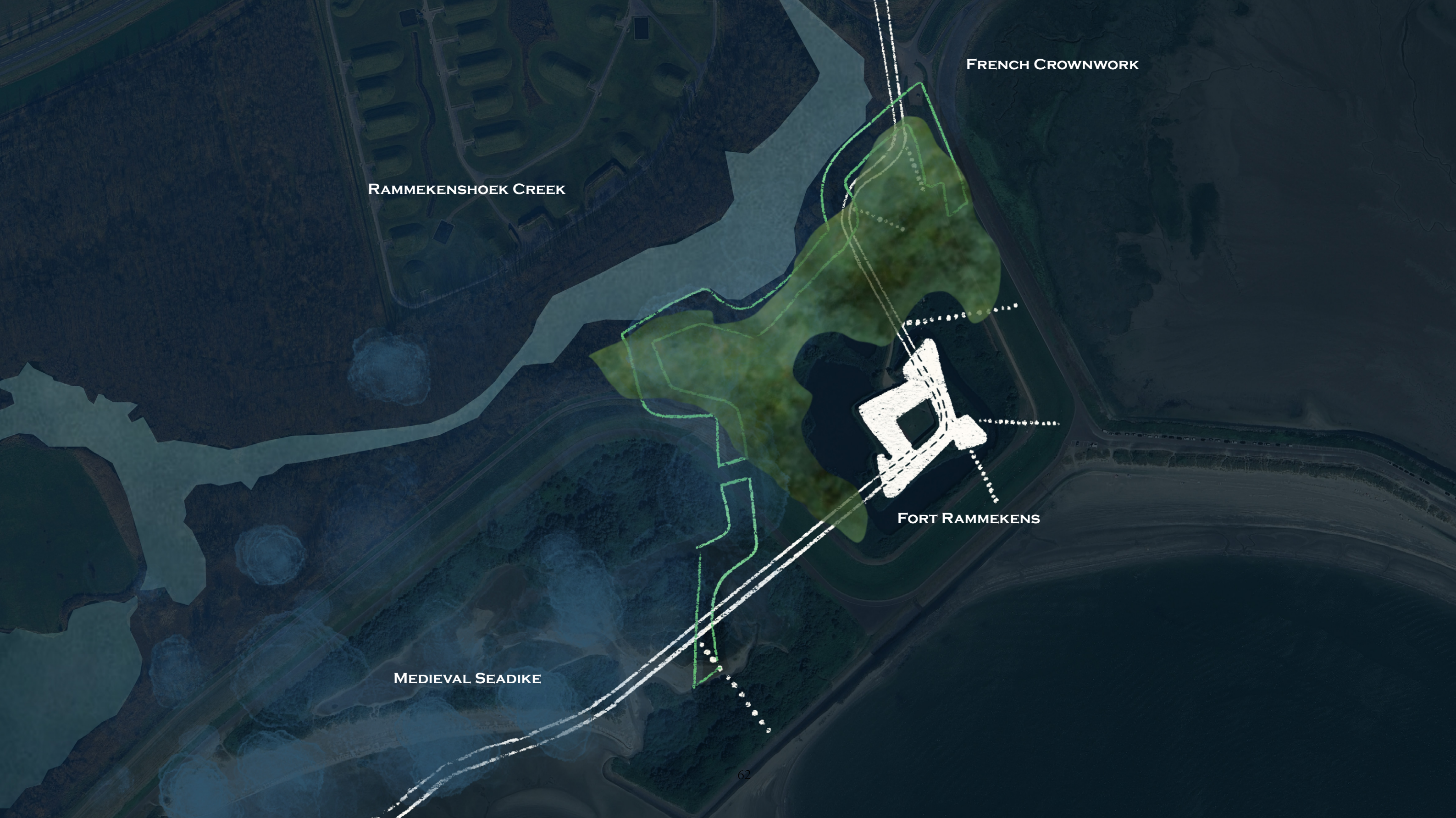




*The battles have faded, the fort stands quiet, yet the slope of a wall, the
stillness of a moat, and the old name remain
— quiet clues to what once was*



Fort Rammekens. Michel's walking page, 2019



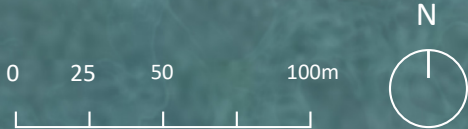
RAMMEKENSHOEK CREEK

FRENCH CROWNWORK

FORT RAMMEKENS

MEDIEVAL SEADIKE

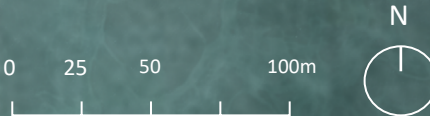
Current Site Condition

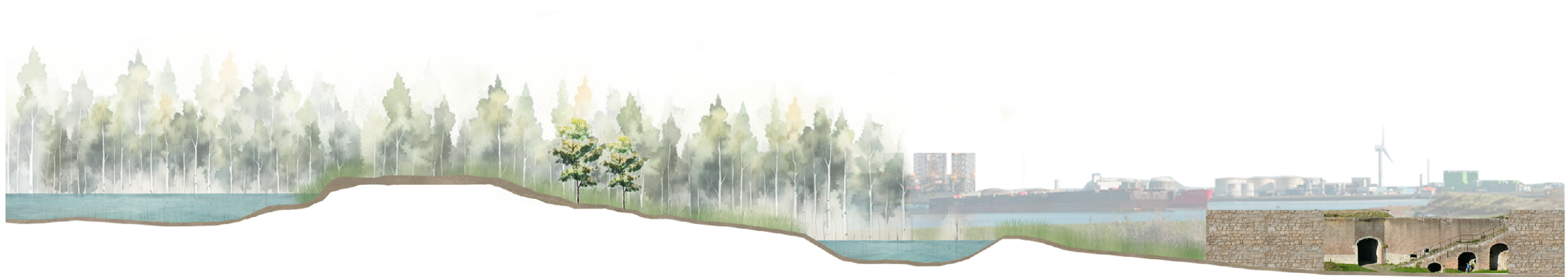


Master Plan



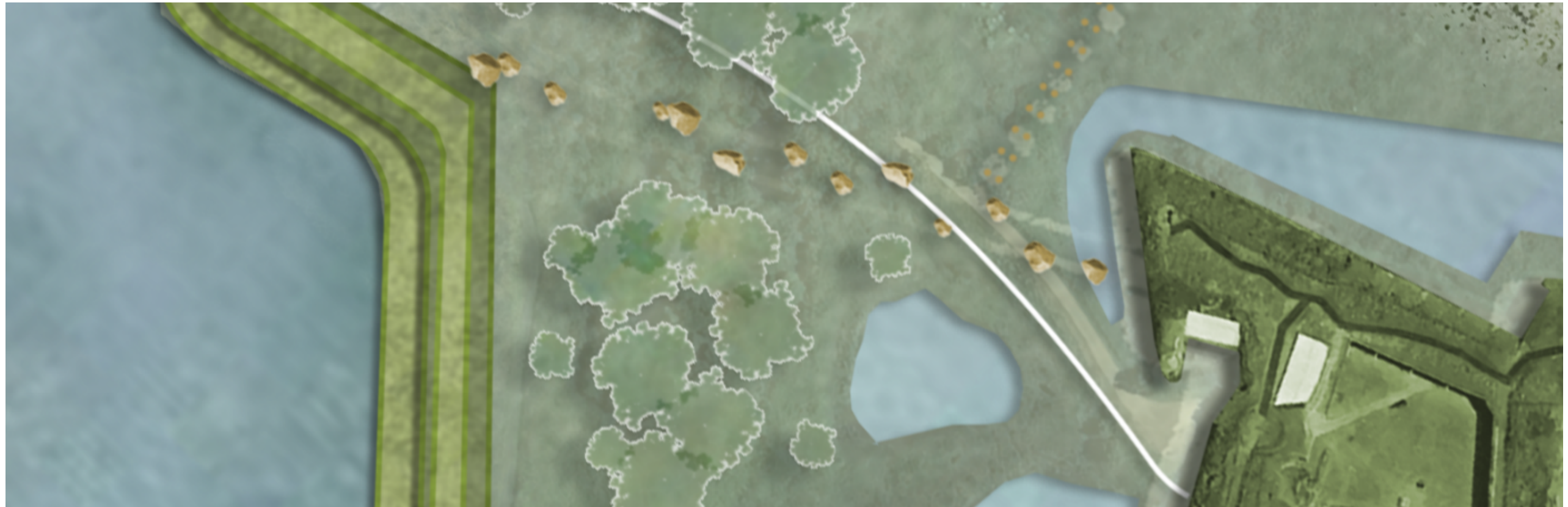
- Legend
- 1 Fort Rammekens
 - 2 Reconstructed Napoleonic earthwork
 - 3 Moat Remnant
 - 4 Rammekens Dune Beach
 - 5 Saline Bloom- Flood marker
 - 6 Rammekenshoek Nature Reserve
 - 7 Medieval Sea Dike Marker





Contrast Between Culture and Nature

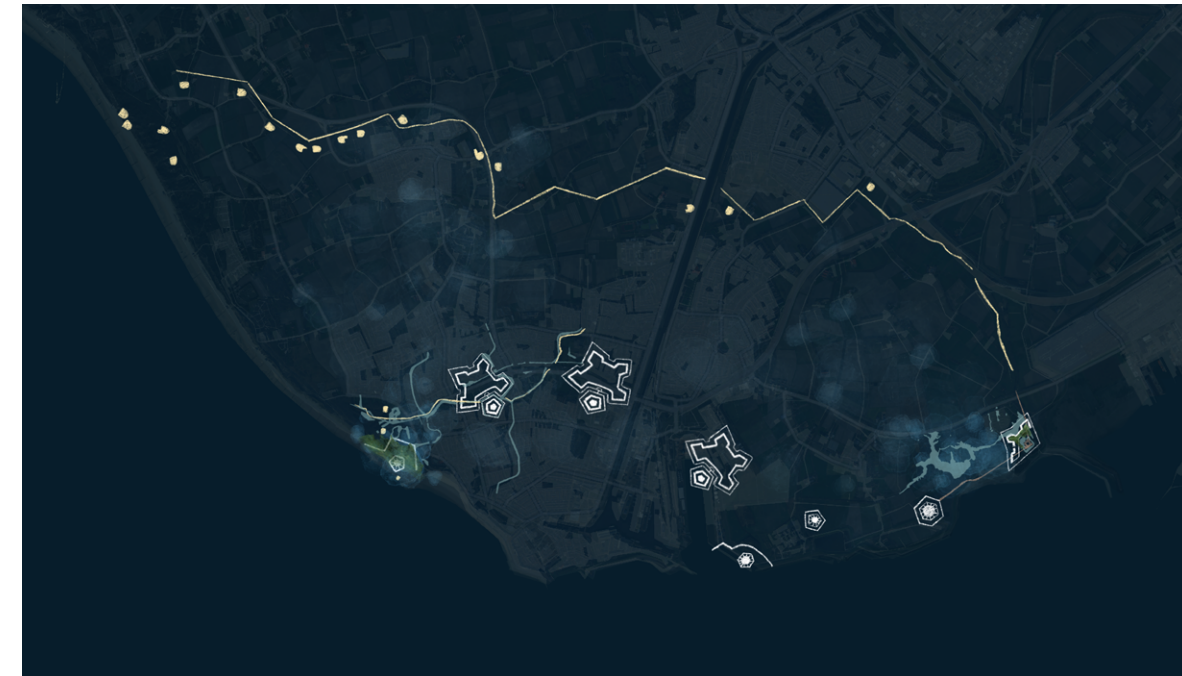
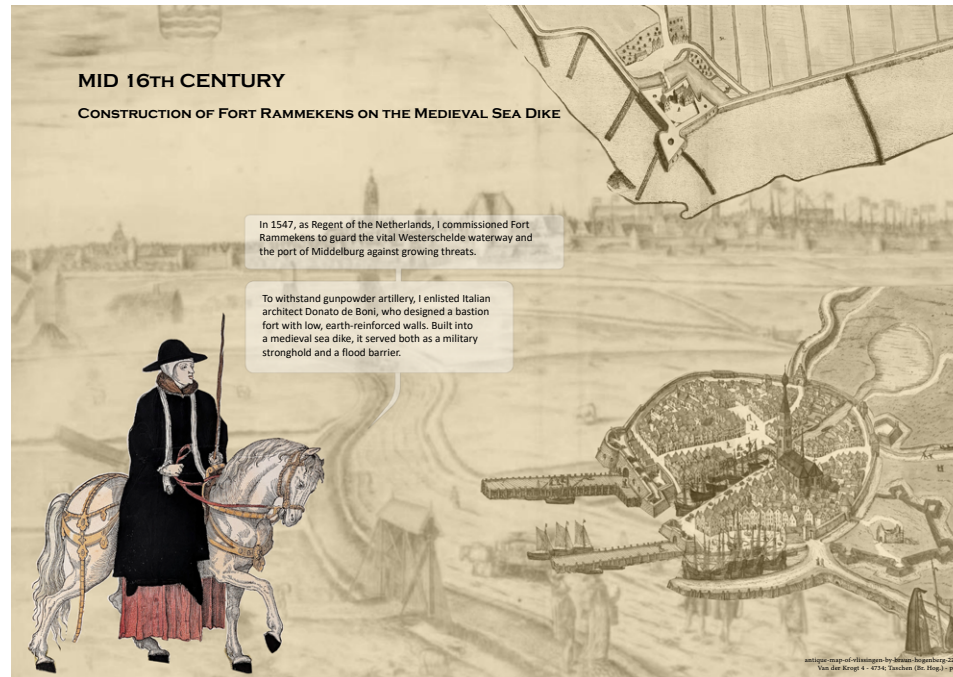
Intro | Research Approach | Analysis | Design Principles | **Zoom-in Design** | Reflection





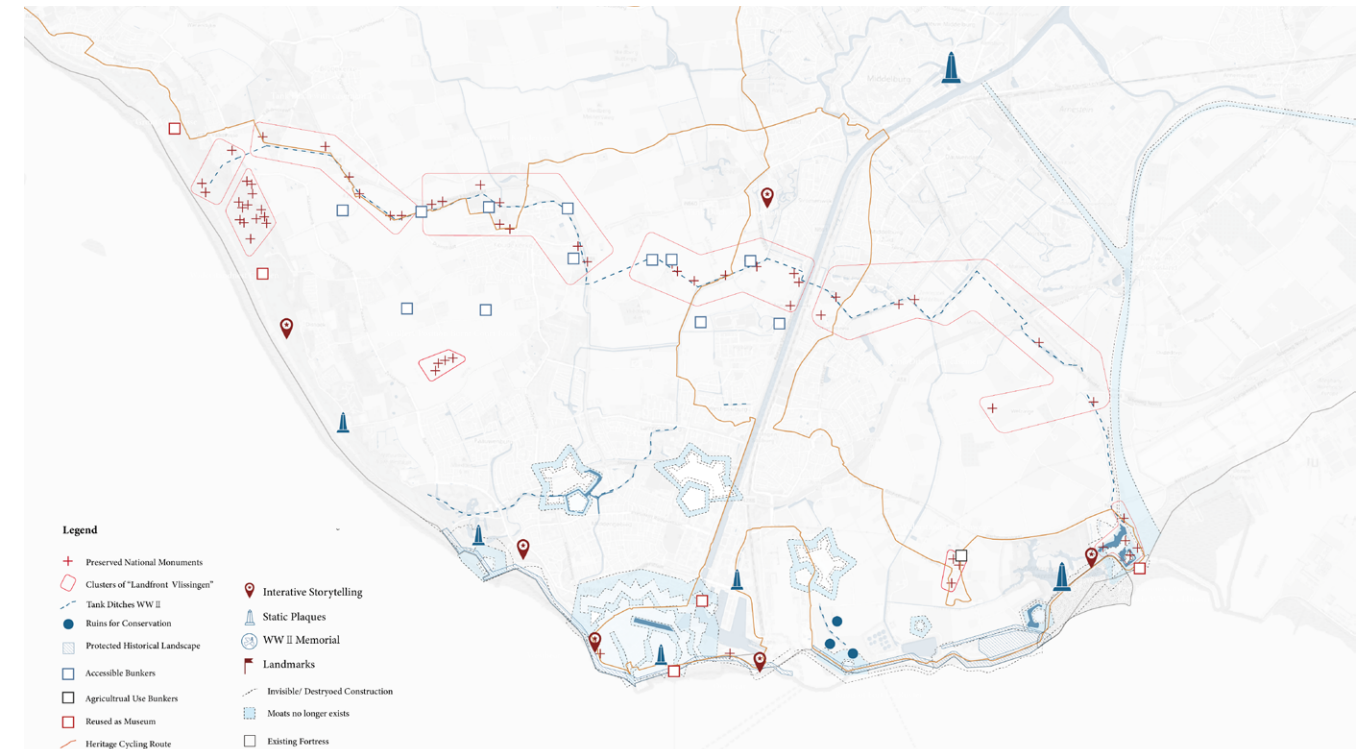
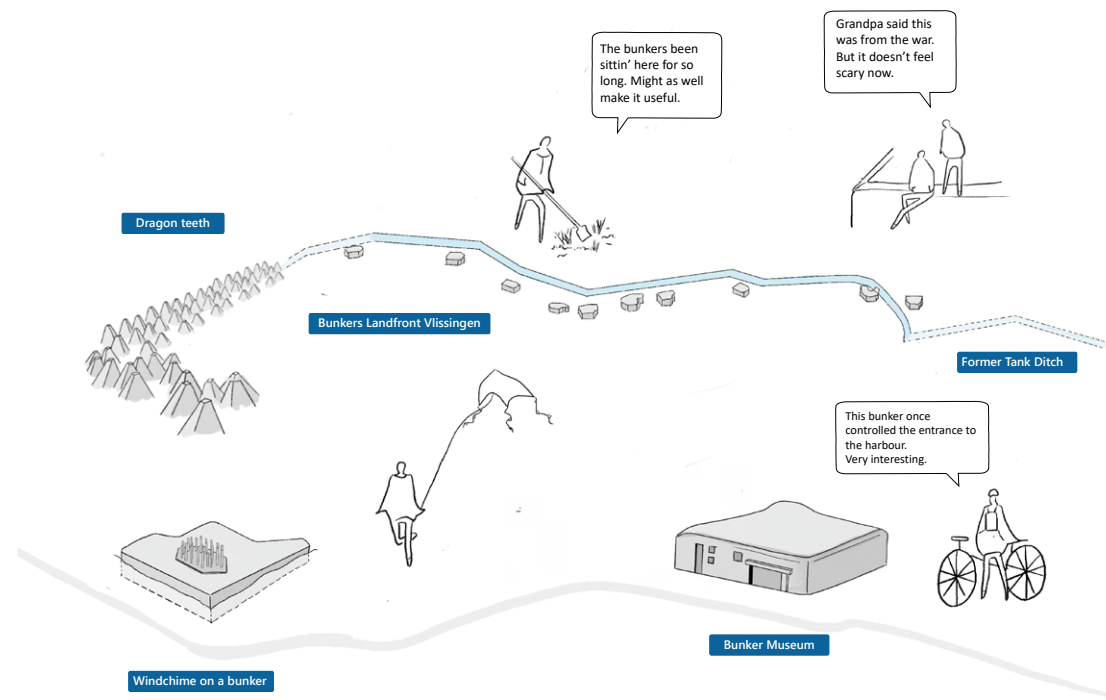
SRQ1

In what ways have specific **military transformations** shaped the **layered identity** of the landscape, as reflected in spatial patterns revealed through **palimpsest mapping**?



SRQ2

Which **military landscape traces** define each historical layer, and are they **sufficiently legible** to convey the historical value of Walcheren's military landscape through **societal engagement**?



SRQ3

How can **design strategies** reveal and enrich the historical and ecological layers of Walcheren's military landscape, making them **legible, accessible, and meaningful** within a contemporary public space?

