



# MUSEUM VAN KINDERDIJK

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Graduation year 2023/2024

# MARITIME HERITAGE

*Shaping the country's relationship and Identity*

# Maritime Heritage

*All about the water*

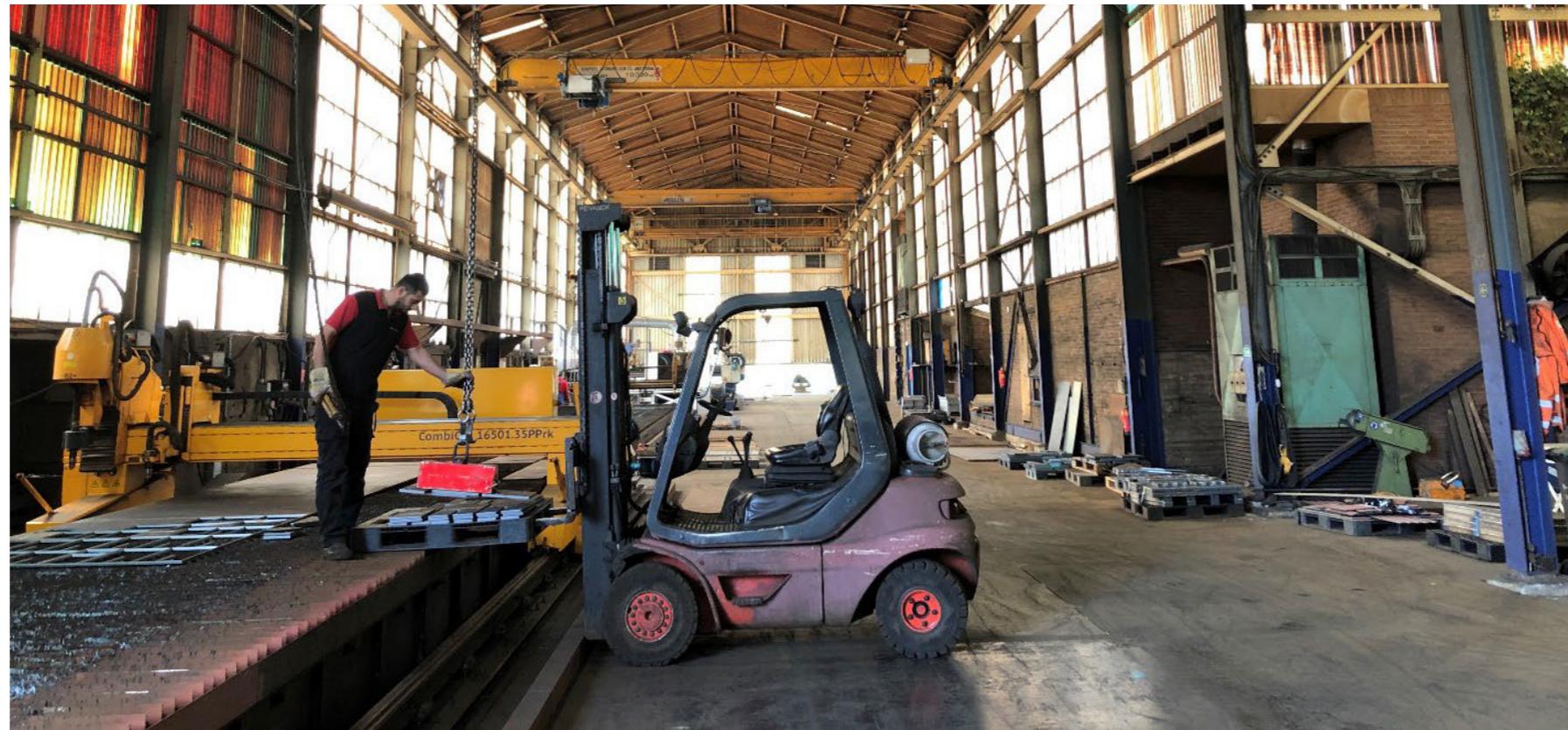


Fig 1. the photos from Studio Manual

The Netherlands is a country shaped by water. Throughout history, to protect life from water and manage it effectively, various water management systems have been developed. In this process, the Netherlands not only safeguarded life from water but also utilized it to foster various industries. Water is not just a part of the Dutch landscape but also a vital element intertwined with their way of life.

## **Values and Assessment**

*Values, hidden stories, and Now*

## Arriving Kinderdijk

*Congestion on Entrance*



Fig 1. Entrance of Kinderdijk



Fig 2. Heritage with Kinderdijk



Fig 3. Playground near the entrance

As soon as you get off the boat, you can see that many things are focused around the entrance and it feels crowded. The scenery at Kinderdijk shows cultural heritage sites, the entrance, and the nearby community all close together.

## Over the landscape

Stories of Kinderdijk



Fig 4. Entrance of Kinderdijk



Fig 5. Photos of miller's family



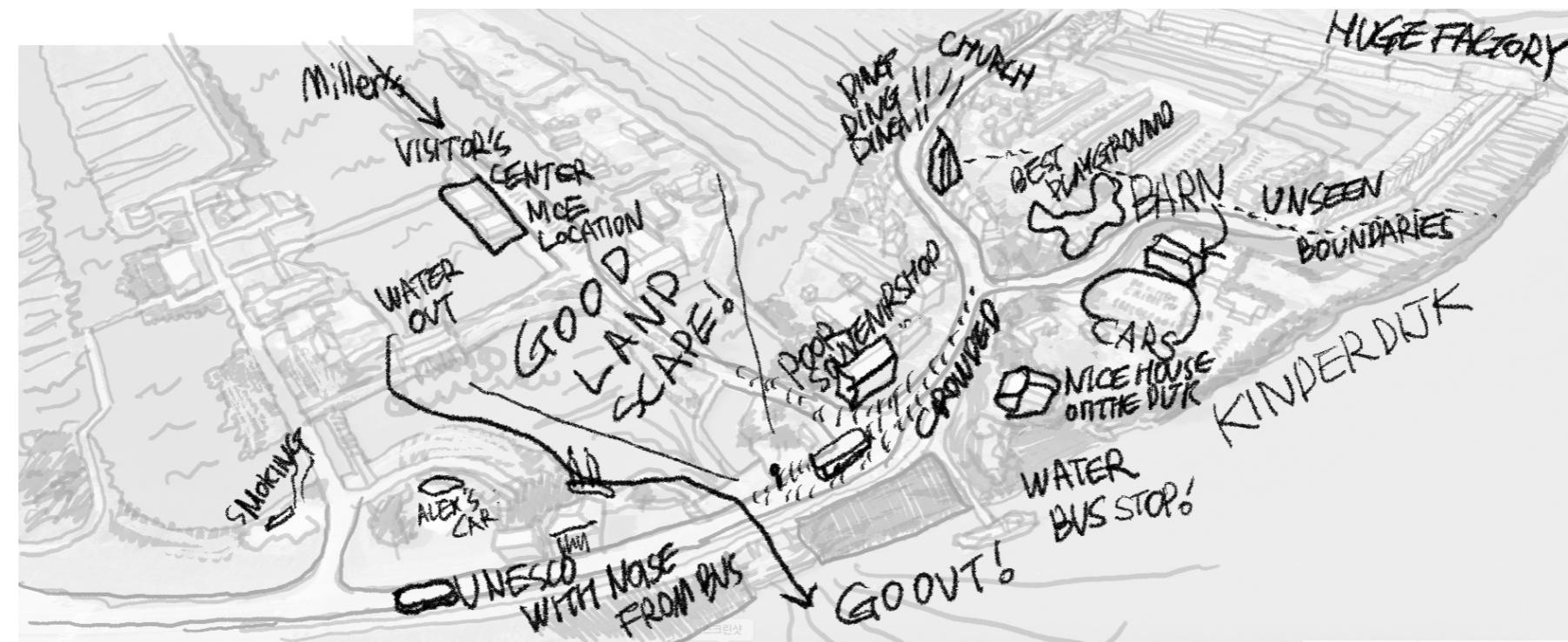
Fig 6. Stories on small window

Drinking tea on a Sunday afternoon in summer. With family outside in front of the mill dressed up for Sunday.

Hidden behind the scenery of Kinderdijk are the lives of the millers and the cultures they have sustained, which are scattered throughout the area. These stories and artifacts have shaped the Kinderdijk we see today. So, does Kinderdijk, often referred to as an open-air museum, effectively exhibit these stories and histories?

## Motivation

Images and Events



Motivation Sketches of Kinderdijk

As I entered Kinderdijk, I realized that there are more hidden stories than just the landscapes and windmills I was seeing. The thoughts and tales I heard from the locals suggested a rich tapestry of history and culture waiting to be discovered. Is it possible to present these hidden stories to visitors in a multifaceted way? Additionally, can these narratives be integrated with the surrounding community to create a harmonious experience?

## Ensemble



Fig 7. Landscape of Kinderdijk

How can we address the interconnectedness of stories and the invisible hidden values of the landscape and its people?

## Values in Kinderdijk

Outstanding Values from UNESCO



LANDSCAPE



WATER MANAGEMENT SYSTEM



ARCHITECTURAL ENSEMBLE

## Exceptional man-made LANDSCAPE

Canals, dikes, reed and meadows and the vertical rhythm of the windmill system.

## The ingenious hydraulic system, the rhythm of the 18th century windmills

A unique example of dutch technological development of water drainage

## Architectural ensemble and cultural landscape

High and low polders, drainage canals, dikes and quays, 19 windmills, 3 pumping stations, 2 locks and 2 water authority buildings.

## Hidden values

*water and community*



Stories & History with Water



Industry and Water



Community in Kinderdijk

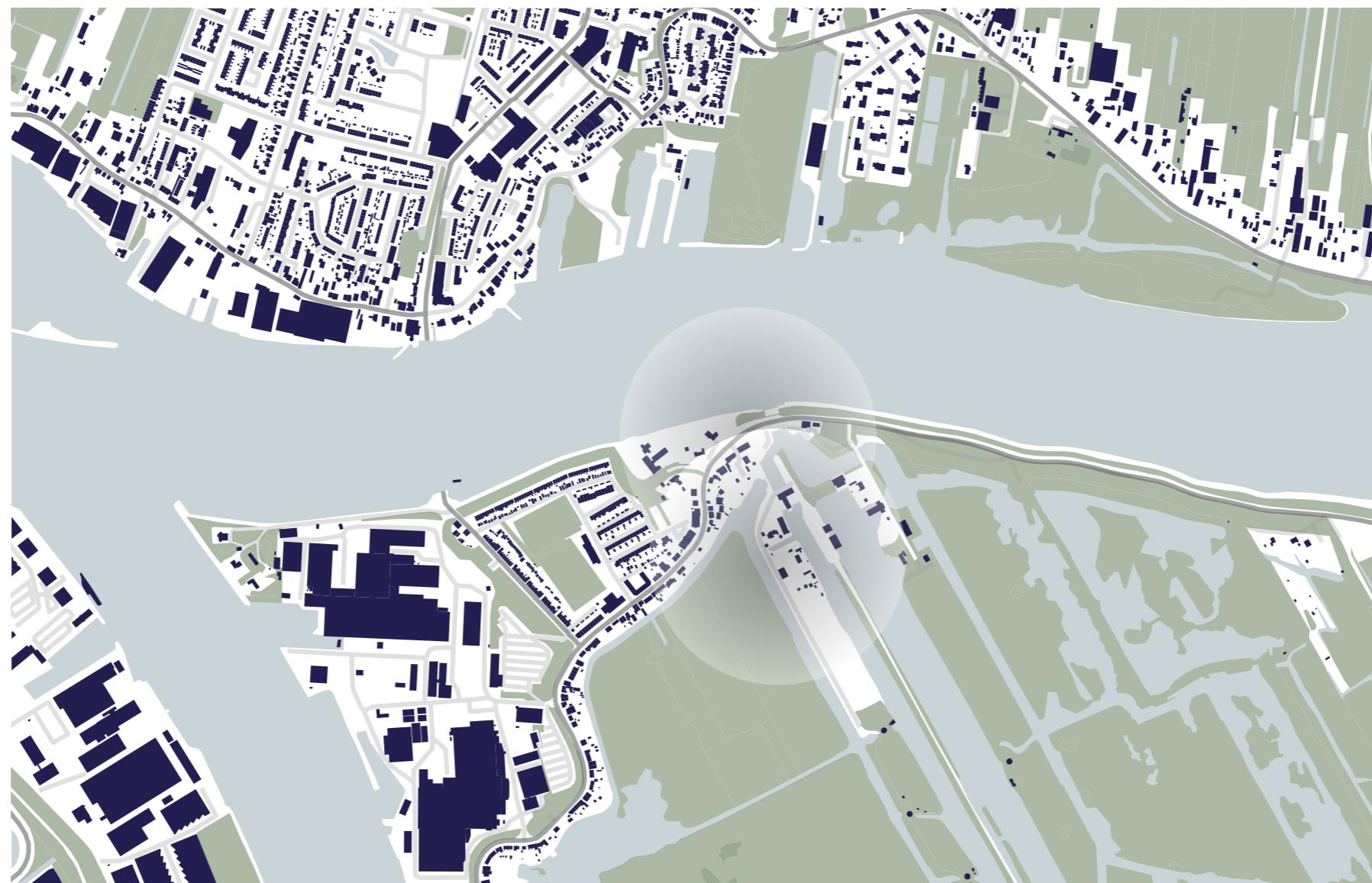
Water holds crucial value and embodies significant intangible cultural heritage with historical significance in this locale. It is intricately connected to the lives of the millers, showcasing technological advancements, and the management of water is an indispensable aspect of Kinderdijk's identity.

The industrial structure that originated from water is a significant background story supporting Kinderdijk, where the majority of the residents are workers contributing to the Kinderdijk's iconic windmills. These industrial narratives are crucial elements hidden from plain view in Kinderdijk.

The community shaping this place is a vital factor in fostering pride for Kinderdijk and maintaining its unique identity. Particularly, the church, bakery, gathering spaces, and events are essential elements that reveal the essence of this place.

# Management World Heritage Kinderdijk-Elshout

Future plans



## NEEDS

### 1. Tourist hotspot and sustainable tourism

*Open for visitors*

*Control of the flow of tourism*

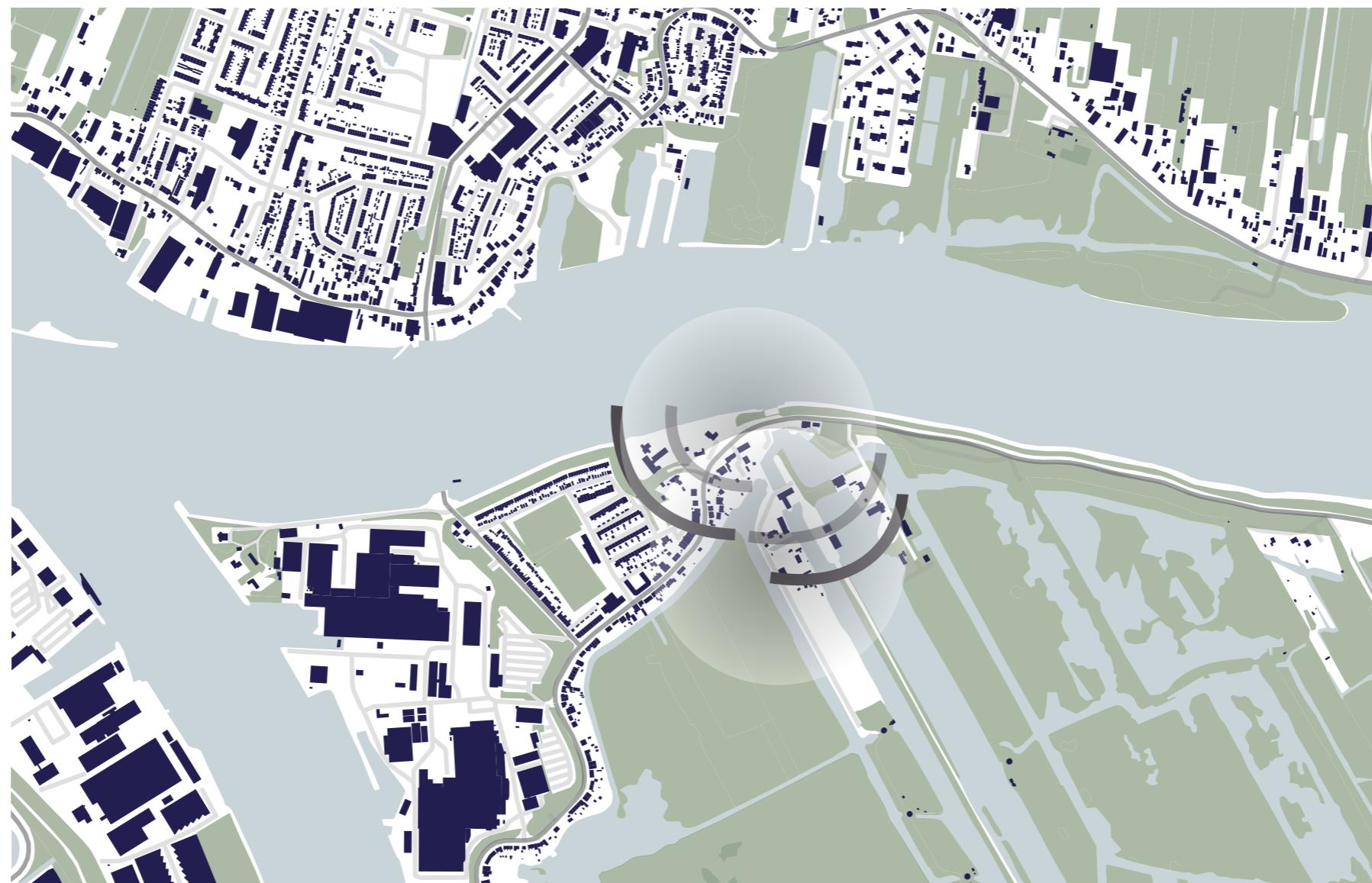
*Too many tourists in the area.*

*Needs for more spaces for visitors and indoor museum.*

*How to control the visitors*

# Management World Heritage Kinderdijk-Elshout

Future plans



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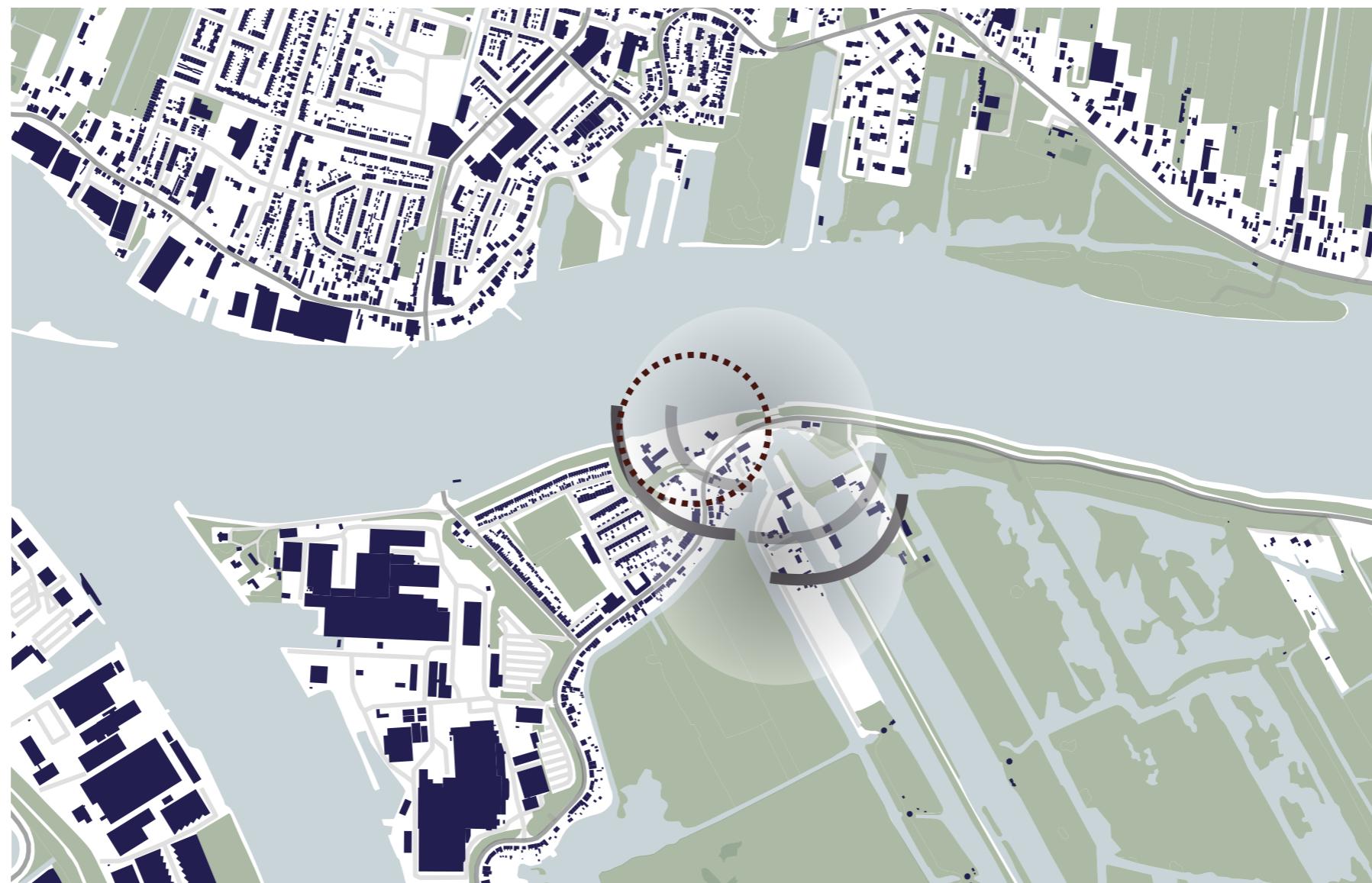
### 2. Buffer zone

*Need Buffer zone between locals and visitors*

*Need boundary and space for locals*

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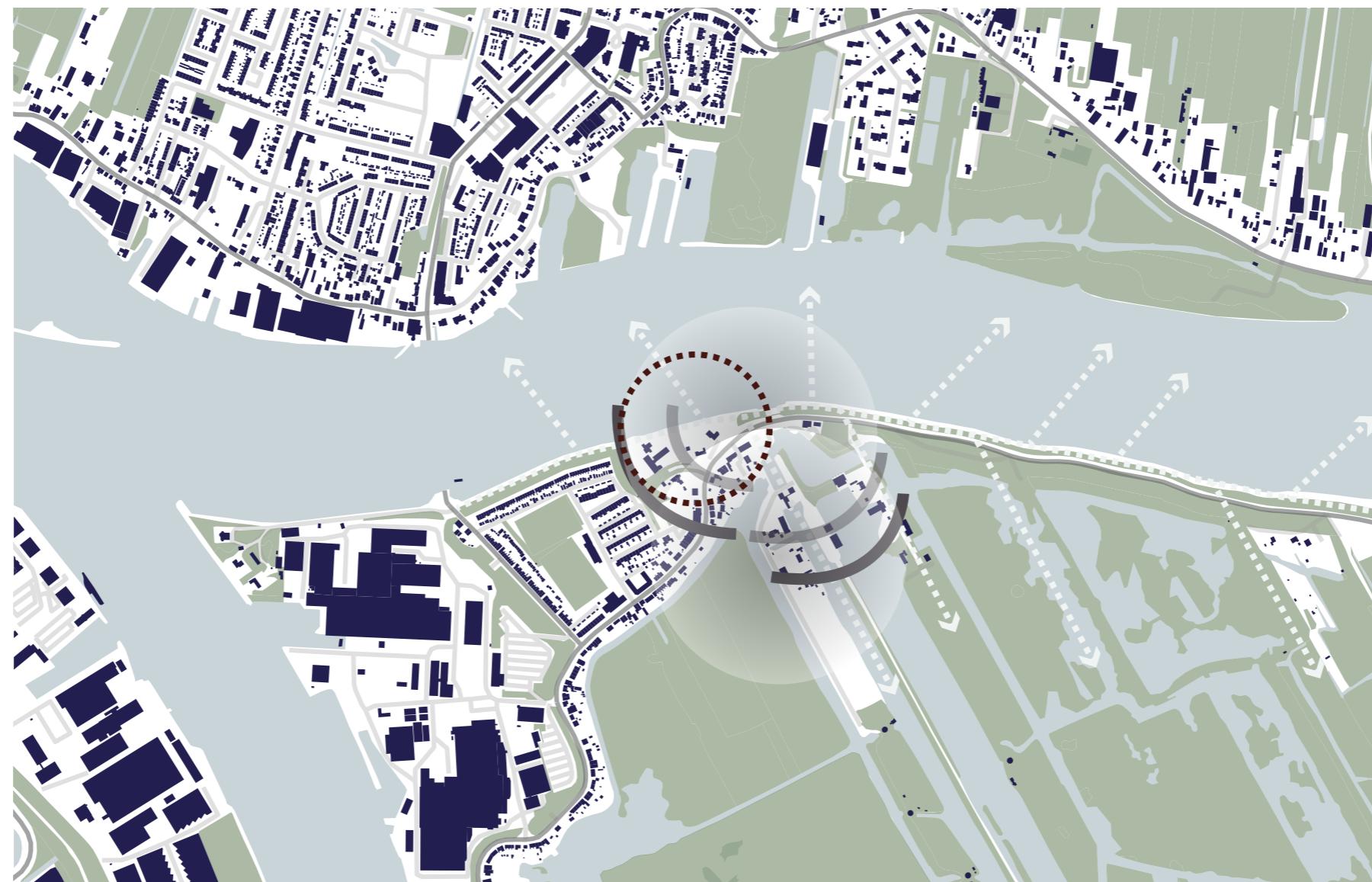
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*The infrastructure, parking situation*

*Parking and infrastructure*

# Management World Heritage Kinderdijk-Elshout

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*Parking and infrastructure*

### 4. Sight lines and landscape

*Outstanding Values of Kinderdijk*

*Respect the OUV of Kinderdijk*

# Management World Heritage Kinderdijk-Elshout

Future plans



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*Respect the OUV of Kinderdijk*

### 5. Educational functions

*Transfer of knowledge and improving educational materials*

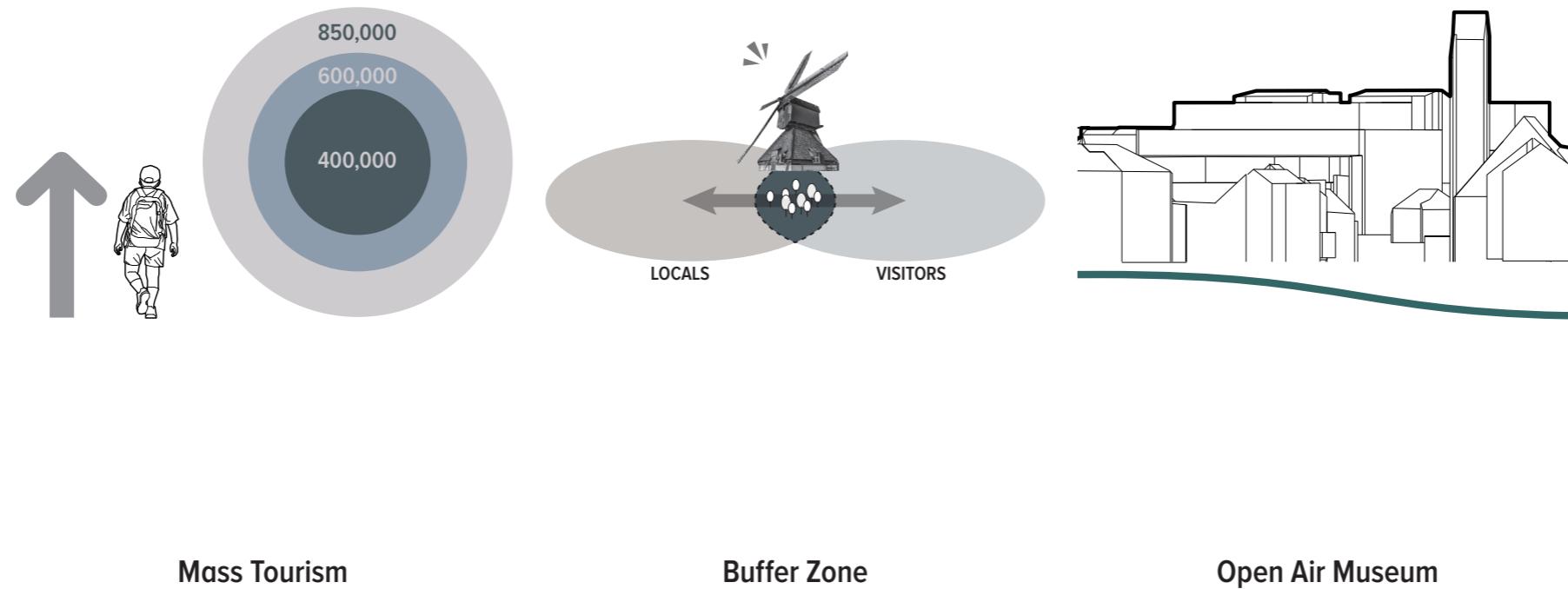
*Needs for spaces of event and educational function*

### 6. For the millers

*Part of this heritage*

## Dilemmas

*Tourism and Buffer Zone*



The number of tourists increases every year. While this rise is necessary for revenue, it is challenging to manage.

The museum is closely intertwined with the residents' areas, their lives are being disrupted by the influx of tourists.

The museum is open and accessible to visitors, but its openness makes it highly susceptible to weather conditions. Additionally, due to its expansiveness, it encroaches on the residents' areas.

## **Values and Assessment**

*Values, hidden stories, and Now*

## **Research**

*Intangible Heritage to Museum with Community*

**Research Plan**  
*Problem Statement*

**HOW CAN WE ENHANCE THE VISITOR's EXPERIENCE BY REVEALING  
INTANGIBLE CULTURAL HERITAGE TO THE MUSEUM IN THE  
KINDERDIJK?**

## Research Plan

*Sub - Questions*

# HOW CAN WE ENHANCE THE VISITOR's EXPERIENCE BY REVEALING INTANGIBLE CULTURAL HERITAGE TO THE MUSEUM IN THE KINDERDIJK?

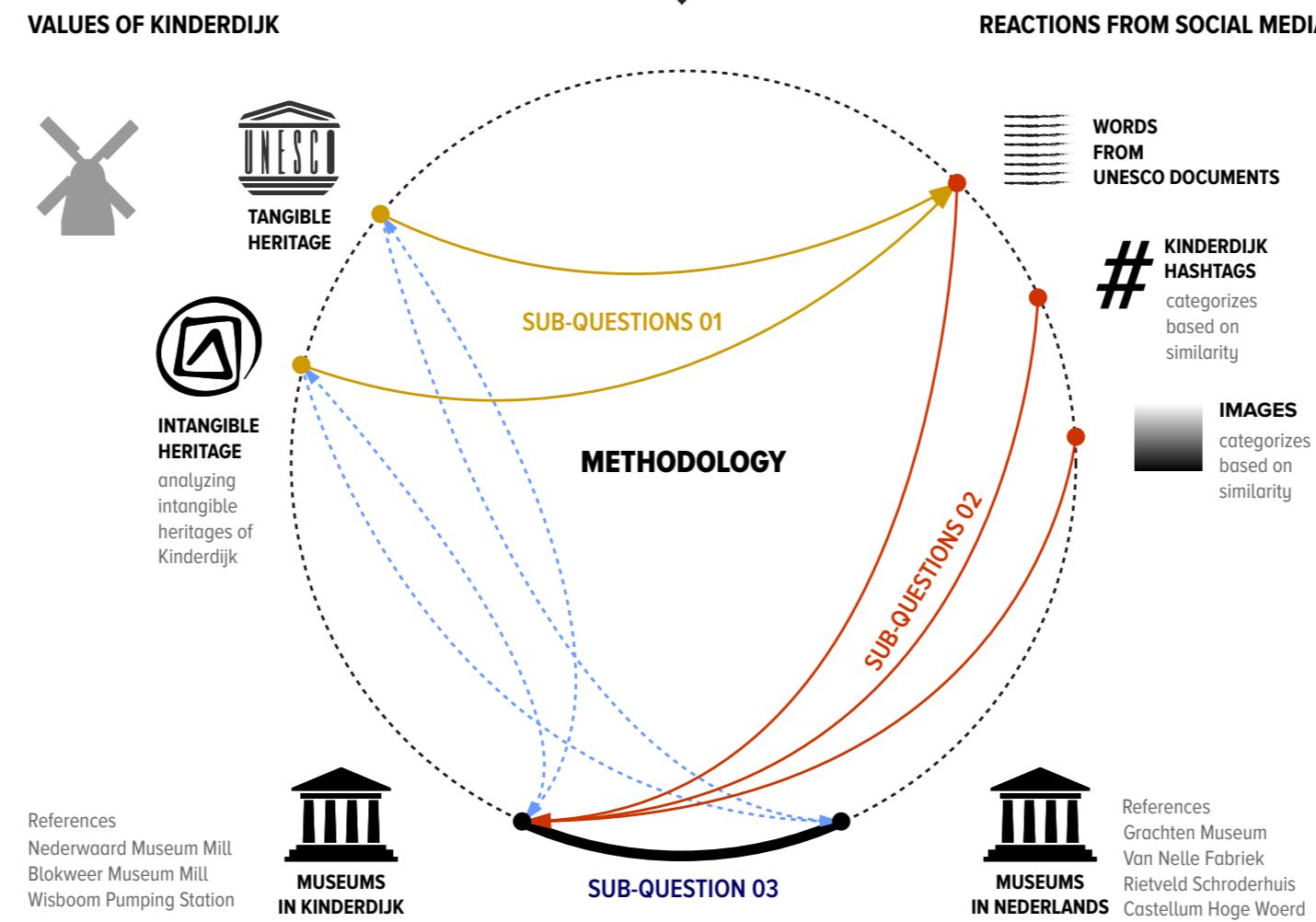
1. What are Kinderdijk's current intangible heritage values?
2. How do visitors react to Kinderdijk on medium? How related are these reactions to the values defined by UNESCO? Additionally, what are the intangible values of Kinderdijk that do not appear in UNESCO's definition?
3. How do museums in Kinderdijk exhibit current values including tangible and intangible? And how do museums related to UNESCO World Heritage Sites exhibit intangible values? And how the museums connect these values to the current community?

## Research Plan

### Methodology

# HOW CAN WE ENHANCE THE VISITOR's EXPERIENCE BY REVEALING INTANGIBLE CULTURAL HERITAGE TO THE MUSEUM IN THE KINDERDIJK?

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## Research Plan

*understanding Kinderdijk*

ence of diverse historical designs, with **BUILDINGS COMBINING MODERN AND TRADITIONAL TECHNOLOGIES**.

but has also evolved over time. It was for water management, with cultivated storage. However, the factories and culturally developed, leading to continuous **RESPONSE TO THE EVOLVING SUR-**

It features a convergence of diverse historical designs, with building **COMBINING MODERN AND TRADITIONAL TECHNOLOGIES**.

•

**Development Evolution**

**Community People**



**Knowledge Tradition Custom**

Connected to the **RIVER** it is characterized by the presence of particularly **SHIPS**, linked to the entire region.

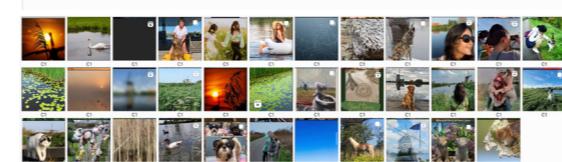
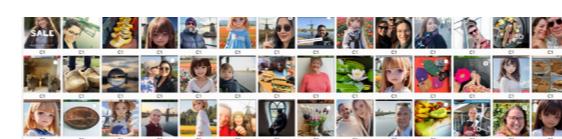
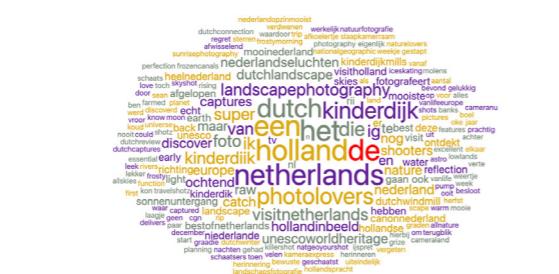
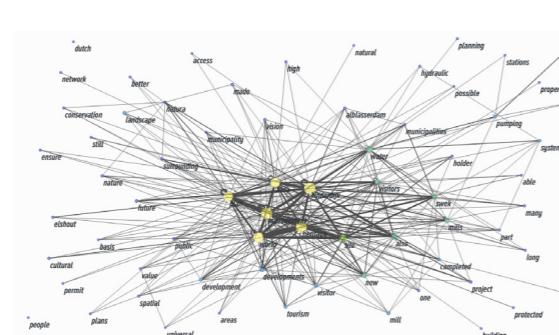
It possesses a unique identity **BLENDING MODERN AND TRADITIONAL ATMOSPHERES**.

The region has played a crucial role not only in **WATER MANAGEMENT** but also as the location for shipbuilding.

Serving as an important harbor, the area not only played a pivotal role in the region's economy but also serves as a tangible representation of the technology and knowledge associated with the area. The **LIVES OF THE RESIDENTS ARE INTERCONNECTED**, with various communities linked to both.

# Research Plan

## *Collecting Reactions*



## Cluster 1

Activities, commercial advertisements, and related content associated with Kinderdijk

42 images

## Cluster 2

## Landscapes and windmills of Kinderdijk

1041 images

### Cluster 3

Portraits taken with  
Kinderdijk in the background

42 images

## Cluster 4

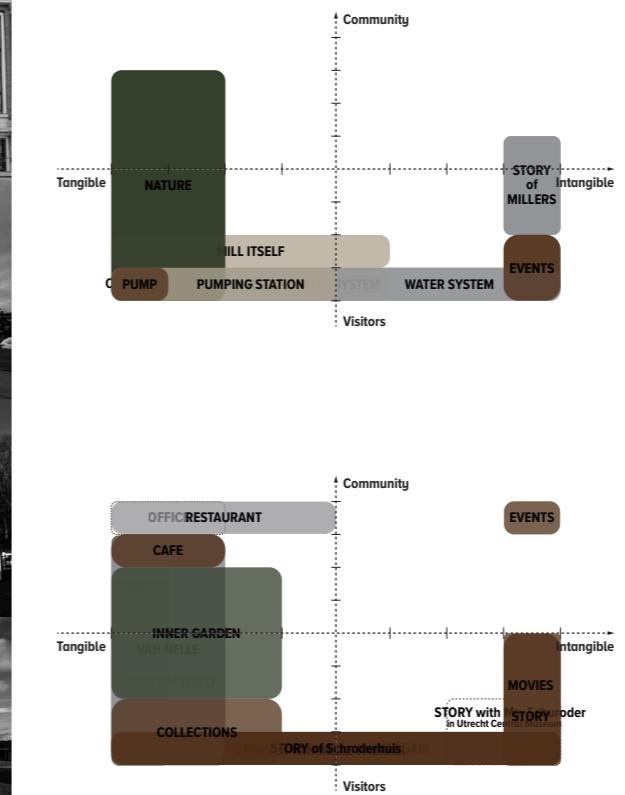
35 images

# Research Plan

## Museums in Nederlands



WORLD UNESCO Heritage



SPACE Composition and Community

## Research Plan

understanding Kinderdijk



1	Concept / Artistic Trend
2	Relations to Context (Location)
3	Character
4	Use / Function
5	Knowledge / Tradition / Customs
6	Relation to Meaning
7	Community / People
8	Planned Process / Development
9	Unplanned Process / Evolution

Intangible Heritage of Kinderdijk

Value Assessment of Kinderdijk



Reactions from Social Netwrok

# KINDERDIJK



Museum with Unesco

Case Studies of UNESCO Museum in Nederlands

Analysis of Intangible values in Kinderdijk. This table based on Taxonomy of attributes.

Analyzing and collecting reactions and events from social media (Online Communities)

Activities, advertisements : 42 images  
 Landscapes and windmills : 1041 images  
 Portraits taken with Kinderdijk : 42 images  
 Water-related images associated : 35 images

Paradigm Shift :  
 Showcases to Community Based Museum

# Findings

*experience and community*



## Intangible Heritage of Kinderdijk

Currently, Kinderdijk preserves the core values designated by UNESCO, but there is a need for a space that can effectively showcase its hidden stories.

## Findings

*experience and community*



Intangible Heritage of Kinderdijk



Museum

Currently, Kinderdijk preserves the core values designated by UNESCO, but there is a need for a space that can effectively showcase its hidden stories.

Unlike other UNESCO museums, Kinderdijk is closely connected to its surrounding context and is an open space. Therefore, the museum at Kinderdijk requires a different approach compared to other UNESCO museums.

## Findings

*experience and community*



Intangible Heritage of Kinderdijk



Museum



Museum with Unesco

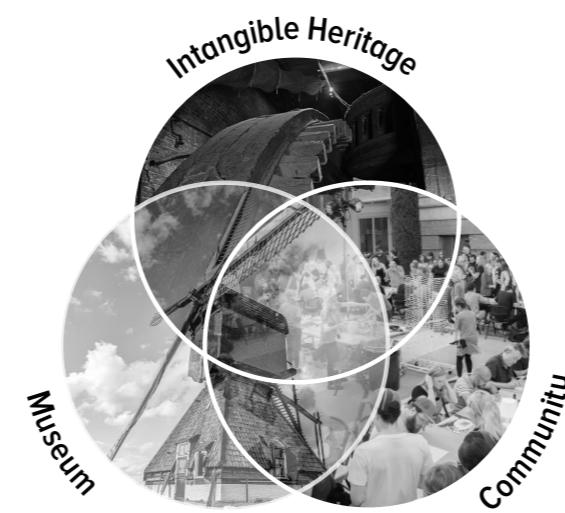
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The paradigm of museums is changing. Instead of merely displaying artifacts, they now focus on sharing space with the community and fostering natural participation with residents.

# Findings

*experience and community*



## Intangible Heritage of Kinderdijk

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## Museum

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## Museum with Unesco

The paradigm of museums is changing. Instead of merely displaying artifacts, they now focus on sharing space with the community and fostering natural participation with residents.

## **Values and Assessment**

*Values, hidden stories, and Now*

## **Research**

*Intangible Heritage to Museum with Community*

## **Approach**

*Ensemble*

## Context

*Around Kinderdijk*



Needs for more spaces for visitors and indoor museum. How to control the visitors

Need boundary and space for locals

Parking and infrastructure

Respect the OUV of Kinderdijk

Needs for spaces of event and educational function

## Condition in Kinderdijk

*Site Analysis*



# Condition in Kinderdijk

*experience and community*



# Condition in Kinderdijk

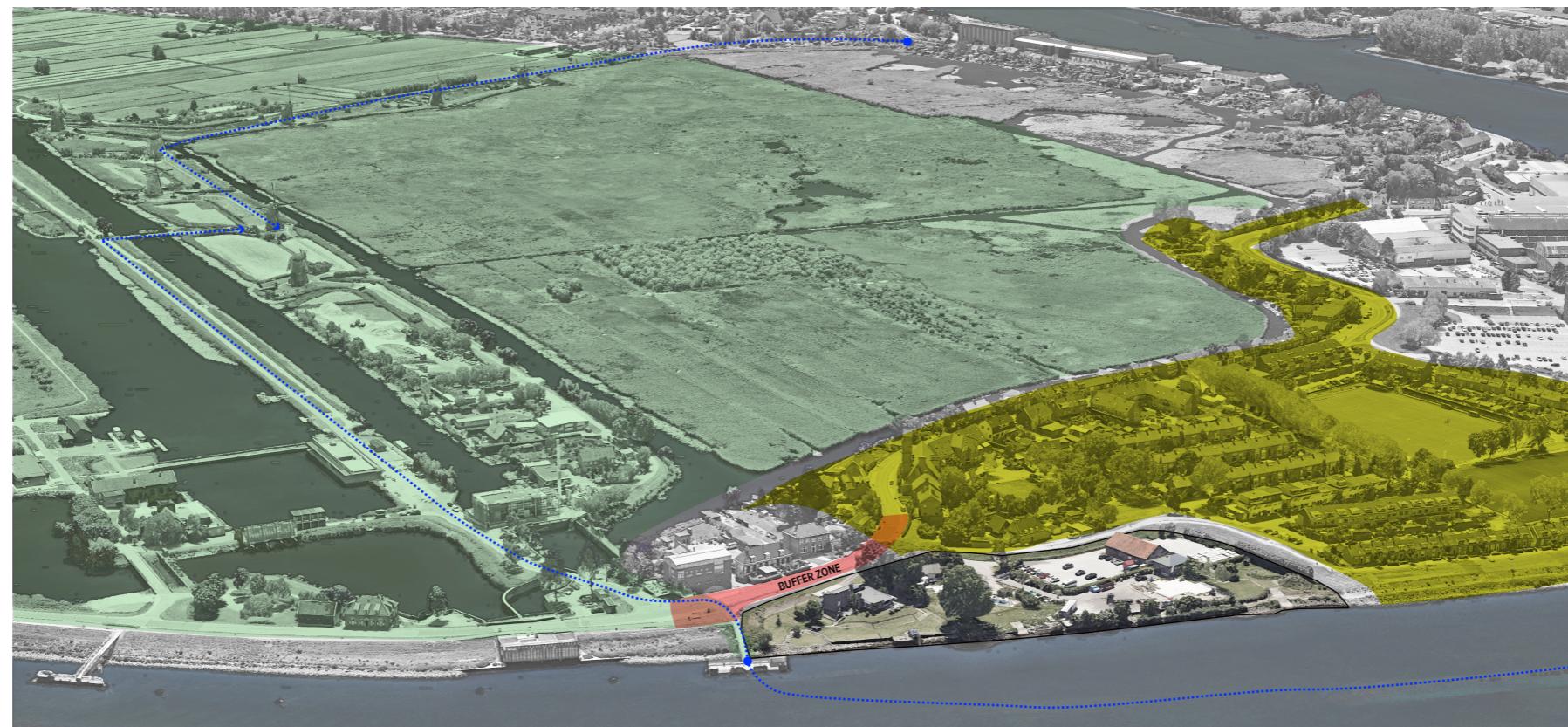
*experience and community*



- Buffer Zone
- Kinderdijk Museum
- community

# Condition in Kinderdijk

*experience and community*



- Access Point
- Buffer Zone
- Kinderdijk Museum
- community

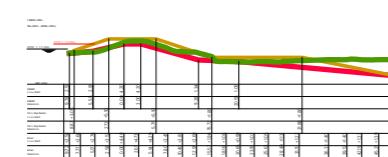
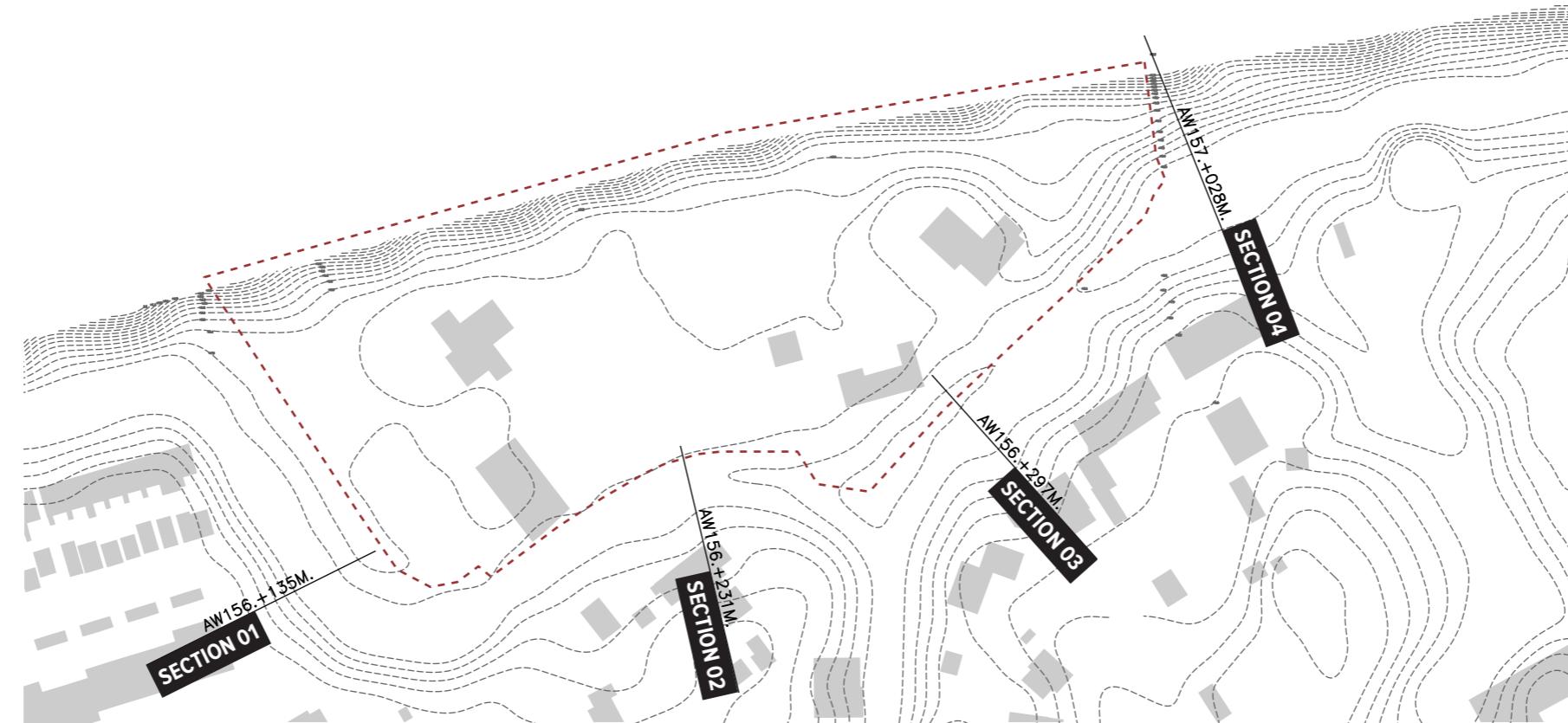
# Condition in Kinderdijk

*experience and community*

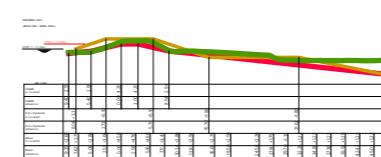


## Dijken and Water Levels

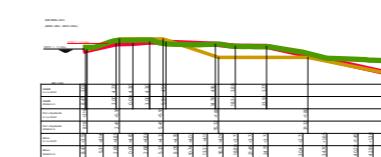
Water level and how to approach



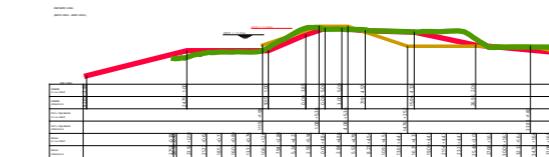
Section 01 - AW 156. +135M.



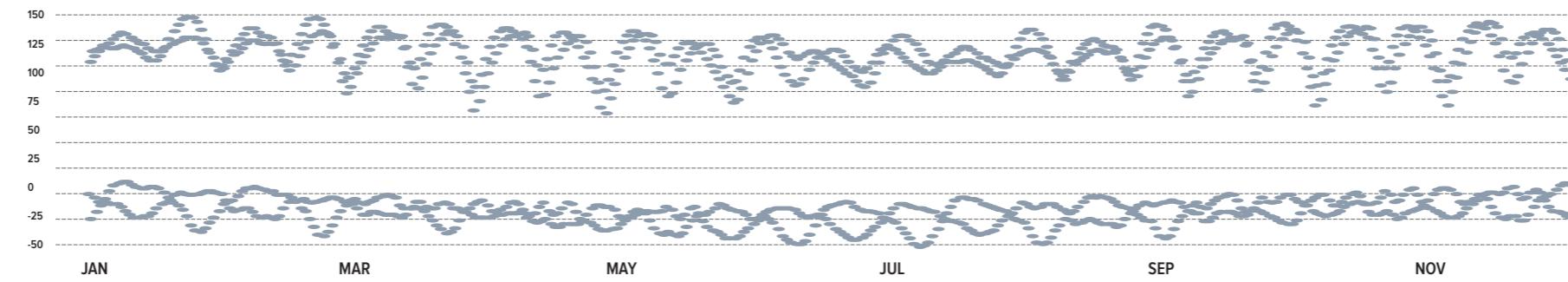
Section 02 - AW 156. +231M.



Section 03 - AW 156. +297M.



Section 04 - AW 157. +028M.



## **Values and Assessment**

*Values, hidden stories, and Now*

## **Research**

*Intangible Heritage to Museum with Community*

## **Concept**

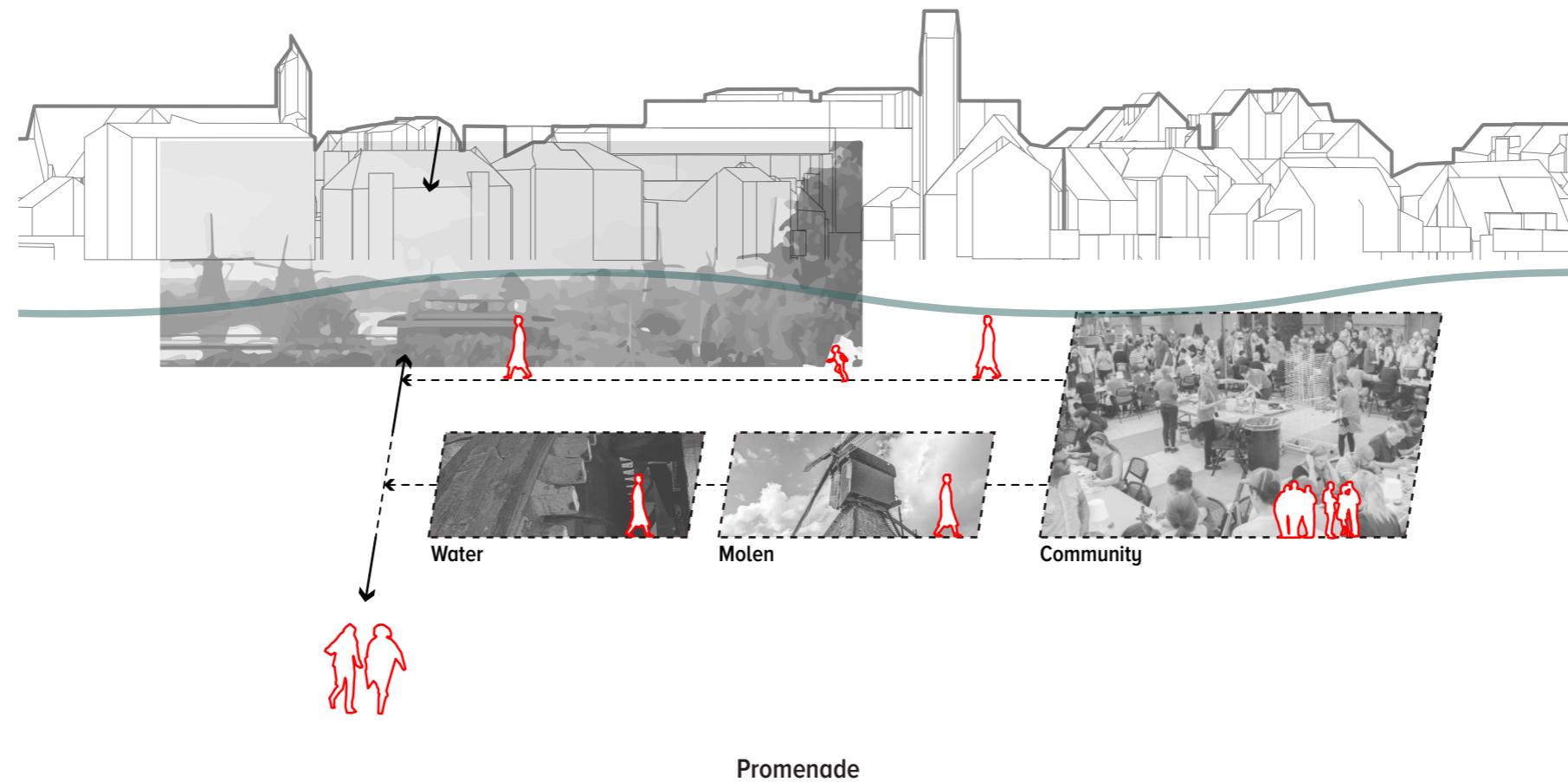
*Ensemble*

## **Design**

*Museum van Kinderdijk*

## Concept

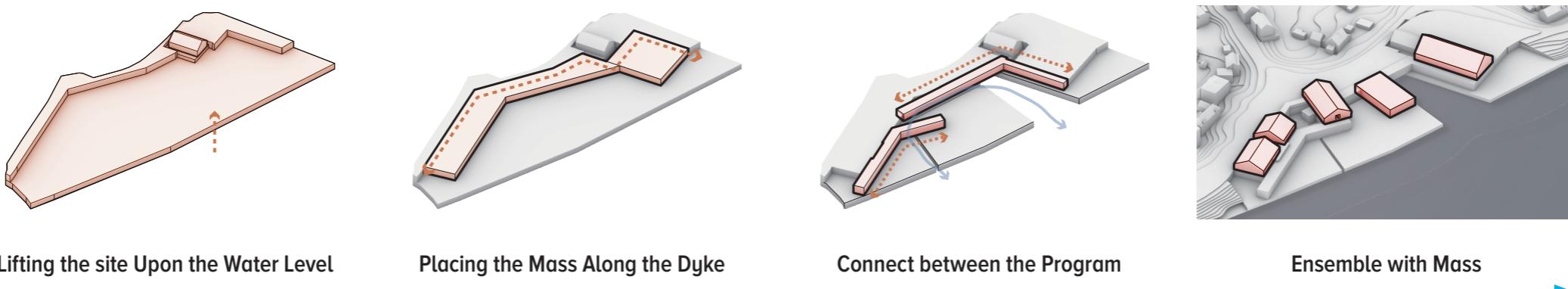
*Experience with Promenade*



Expanding knowledge about the experience before entering Kinderdijk extends the pathways for visitors. As they follow these pathways and learn about the intangible heritage, they will see Kinderdijk in a new light upon their return. This process can also work in reverse. After experiencing Kinderdijk, acquiring new knowledge deepens their understanding, offering an integrated perspective that combines experience and knowledge.

# PROCESSING

*Massing*



Lifting the site Upon the Water Level

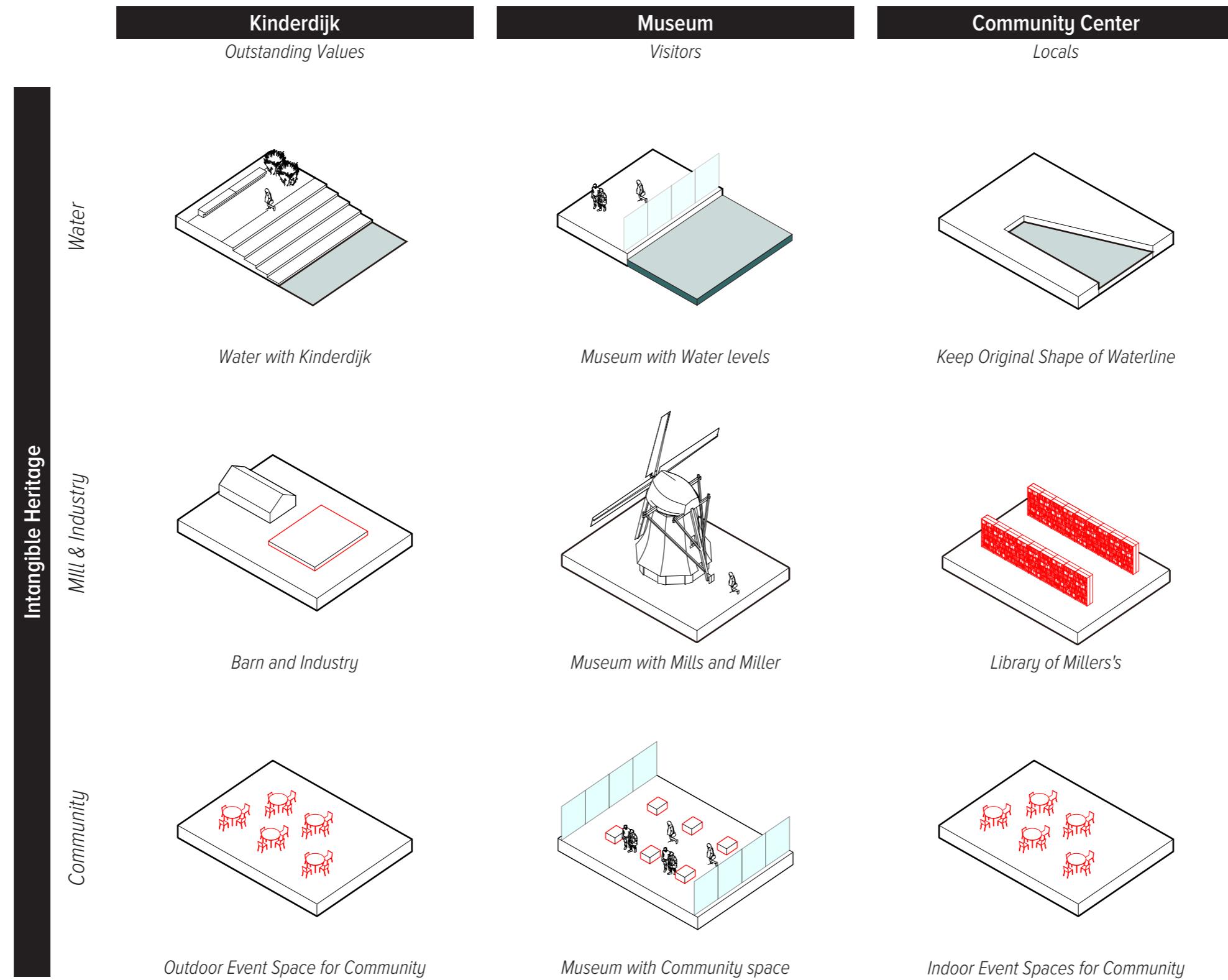
Placing the Mass Along the Dyke

Connect between the Program

Ensemble with Mass

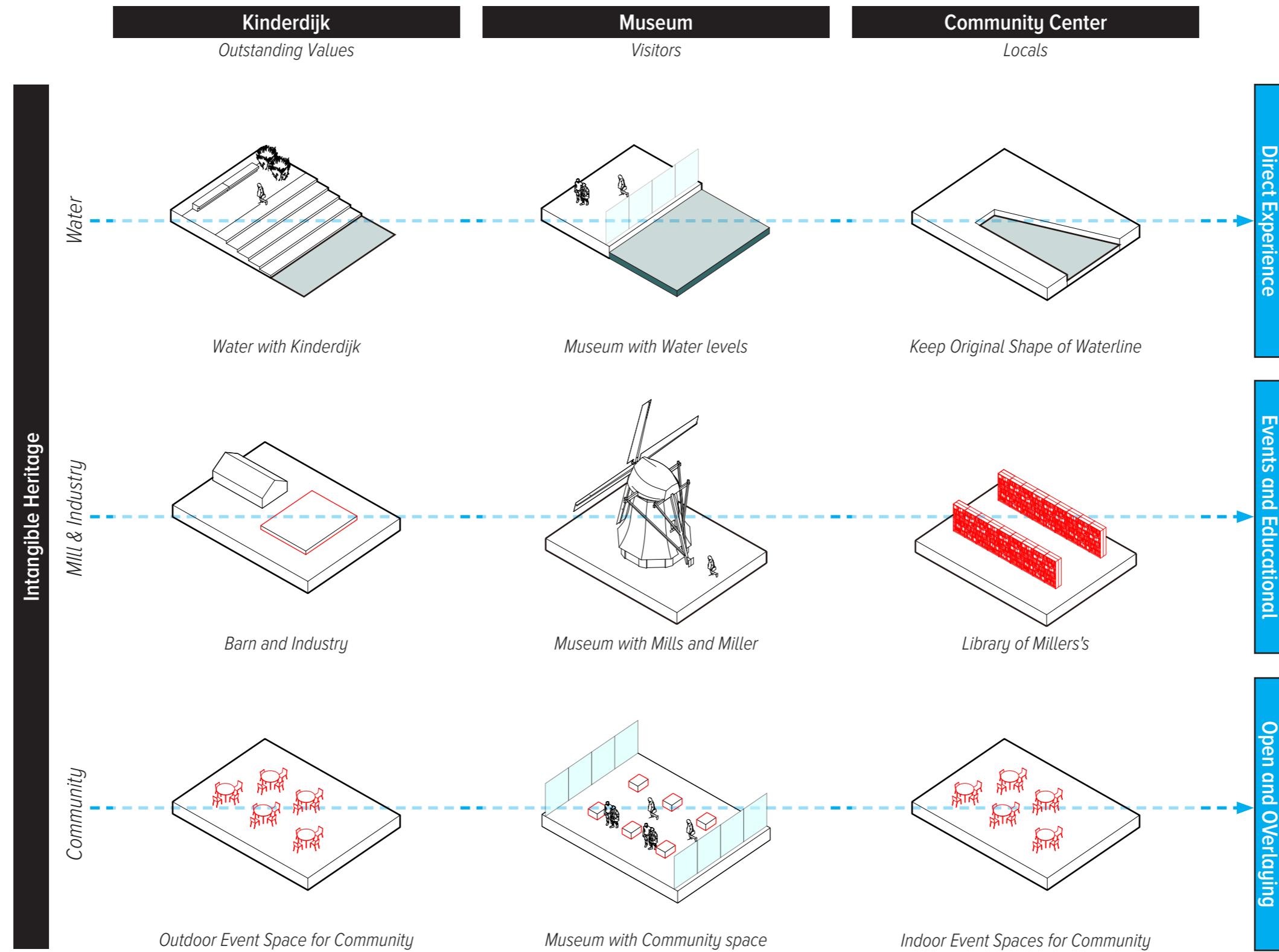
# Program

Space Organization



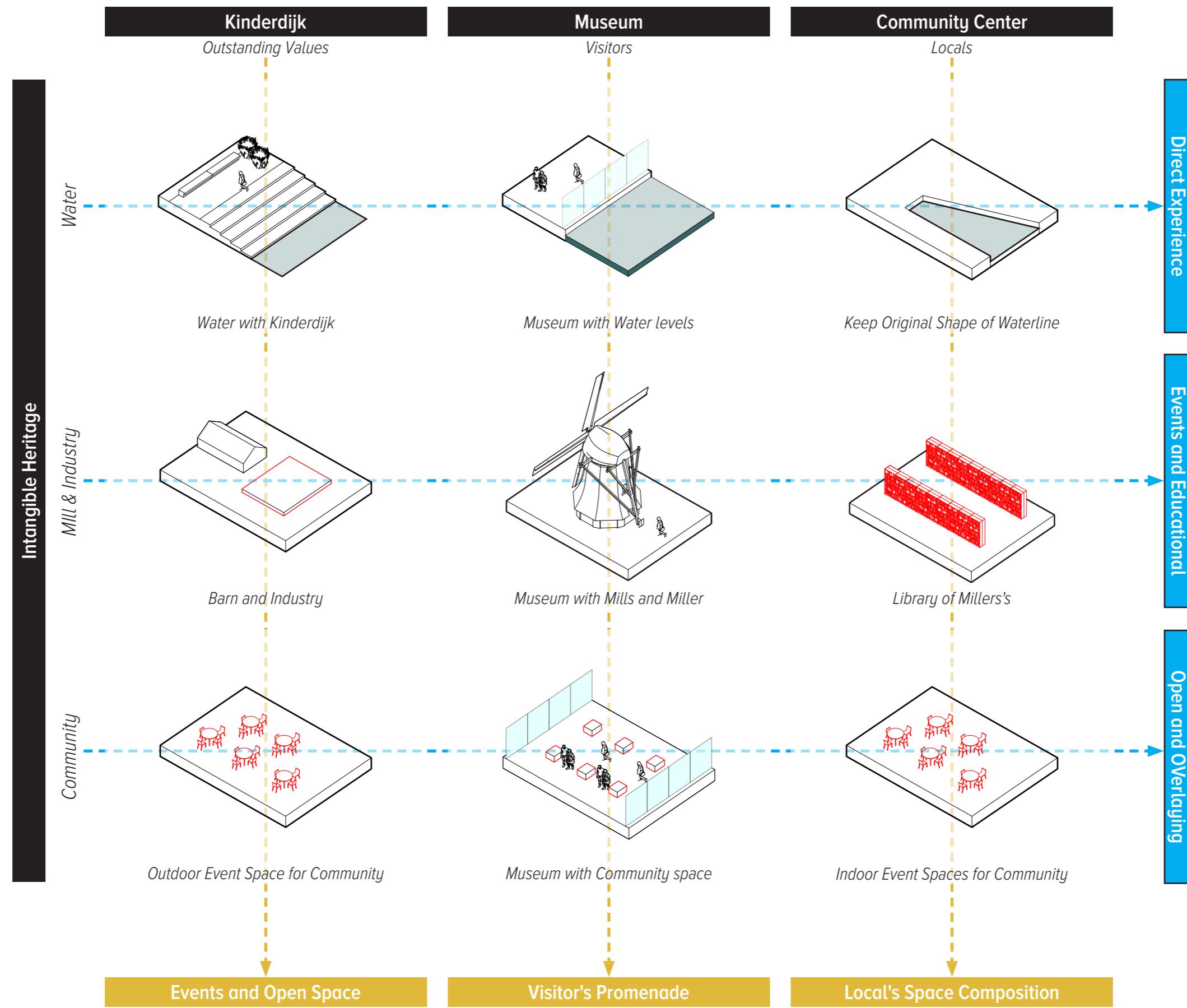
# PROCESSING

*Intangible Heritage with Program*



# PROCESSING

*Promenade*



# Masterplan

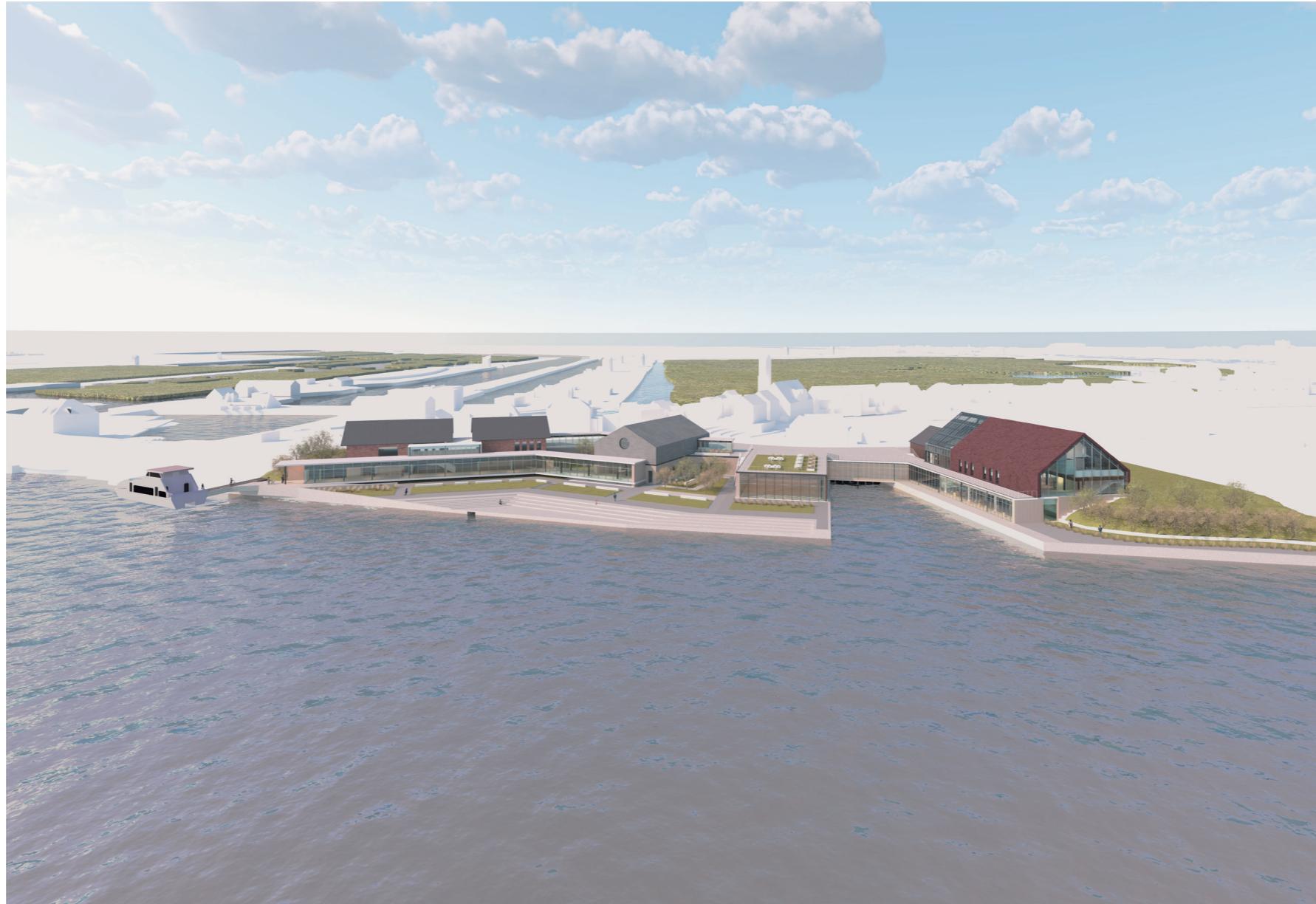
*Ensemble with surroundings*



A museum is located along the way to Kinderdijk, blending harmoniously with the landscape of Kinderdijk. The buffer zone is used to separate two programs, allowing both locals and visitors to coexist and interact seamlessly.

# ENSEMBLE

*Ensemble with surroundings*



**Front Elevation**

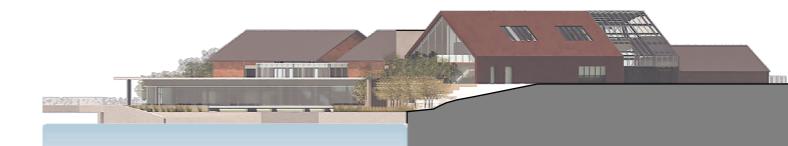
The design alters the massing to resemble the forms of surrounding buildings, ensuring that the original values of Kinderdijk are preserved.

# ENSEMBLE

*From the locals*

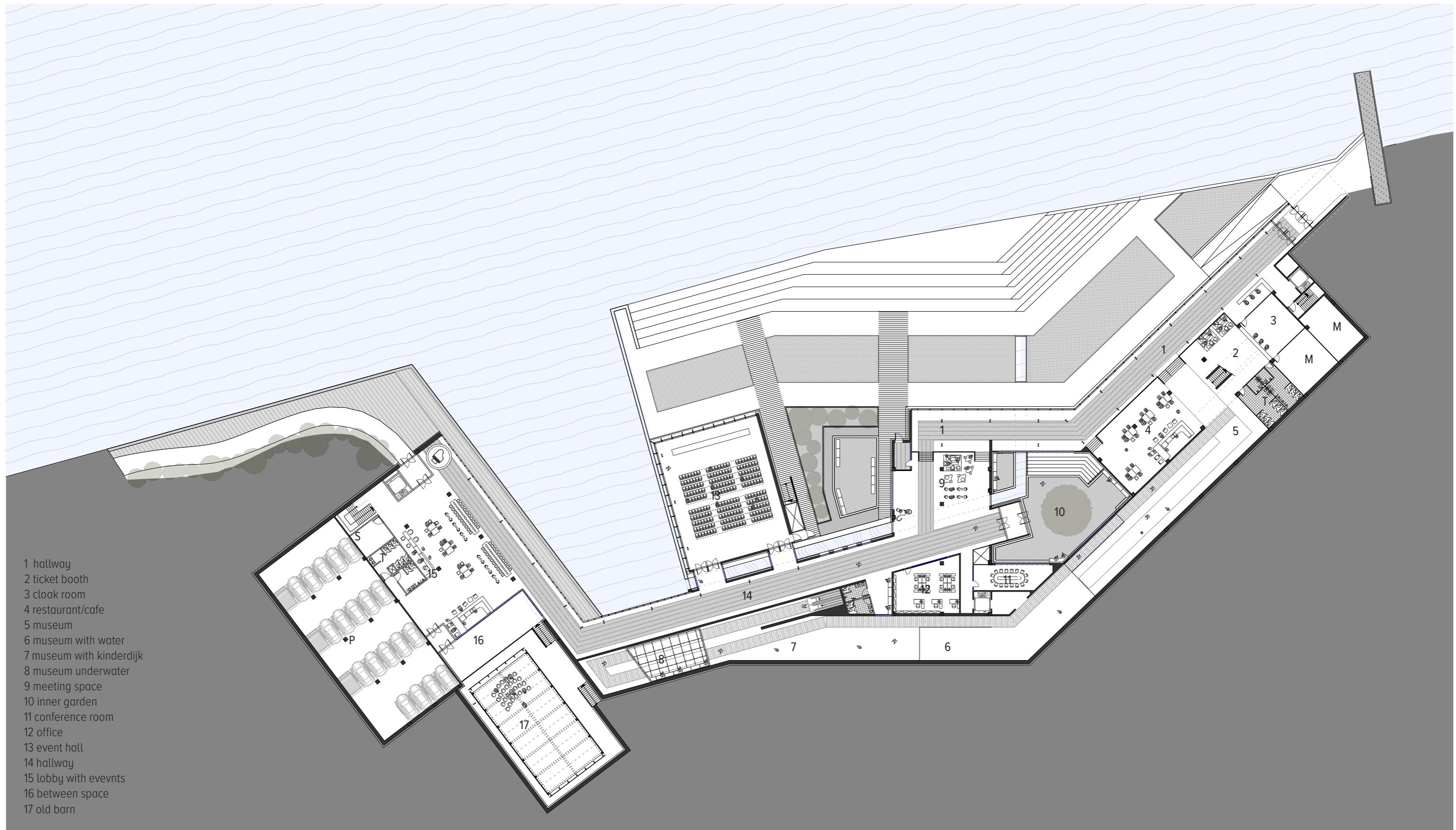


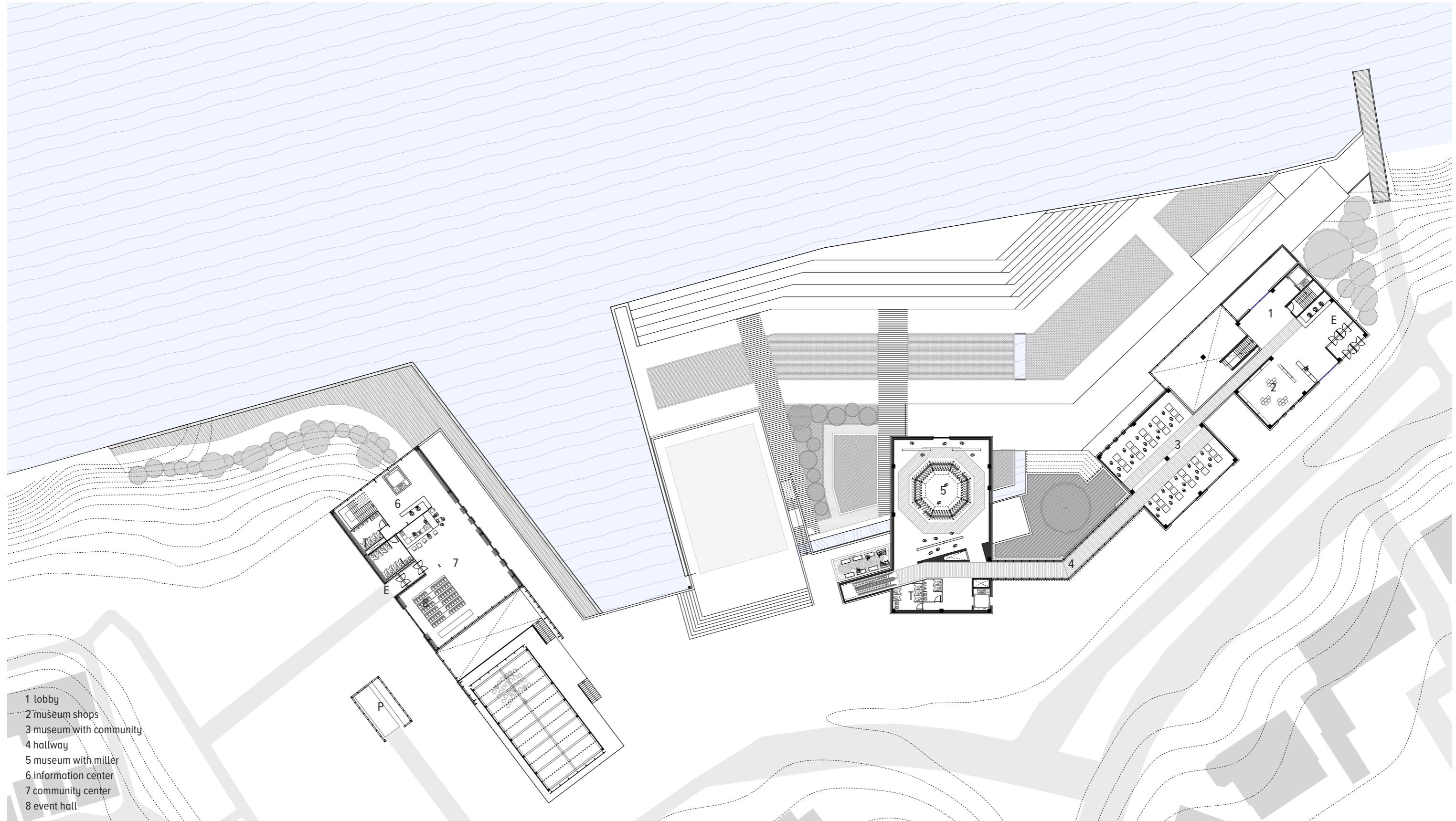
West Elevation



East Elevation

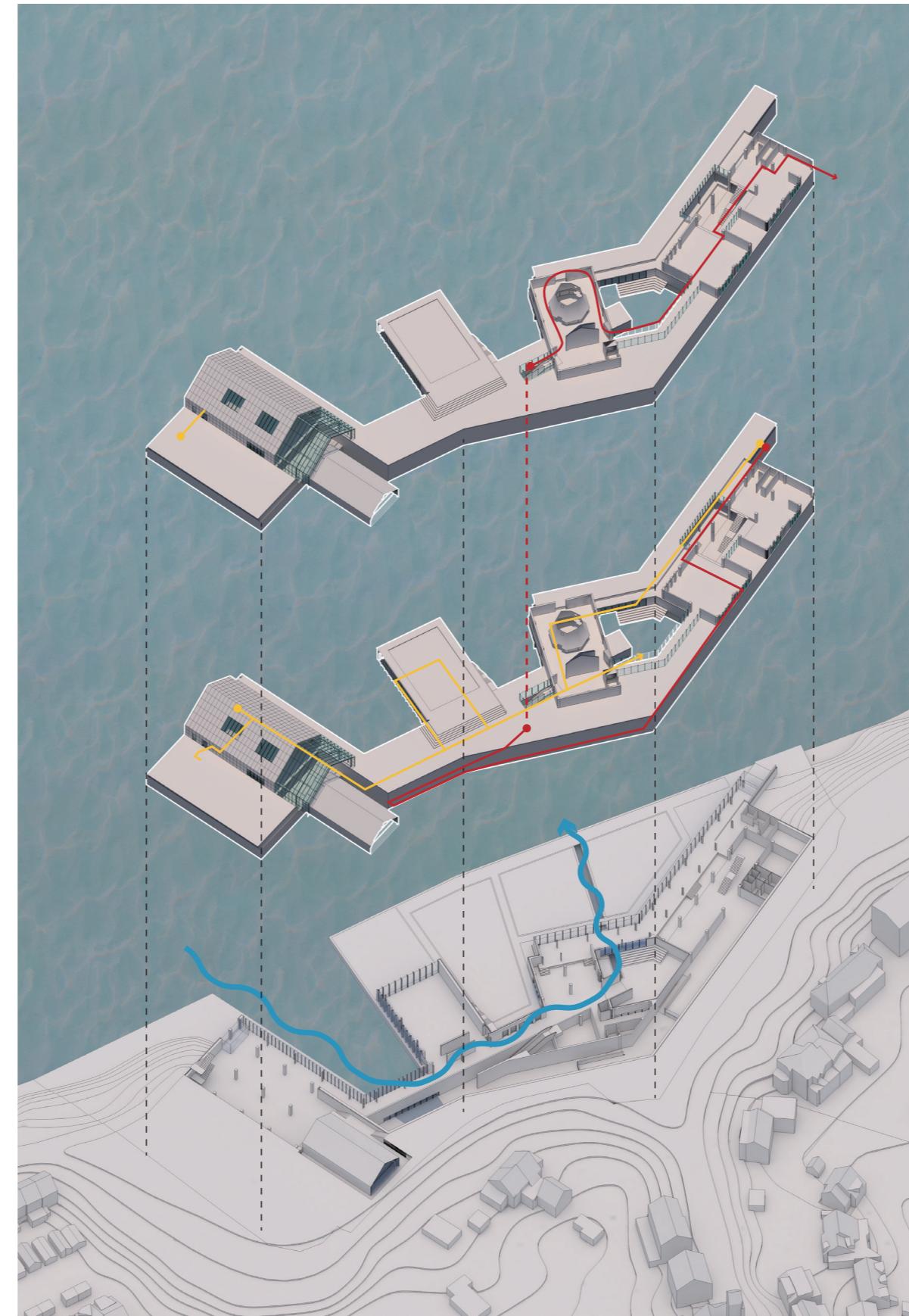
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**GF PLAN***Enesemble with surroundings*

**1F PLAN***Enesemble with surroundings*

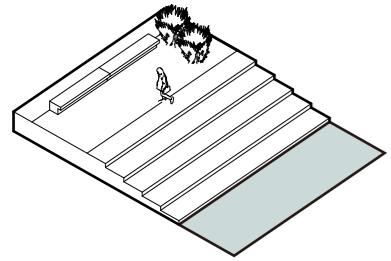
## CIRCULATION

*Connection and Overlaying*



## PROMENADE IN MUSEUM

*Entrance of Museum*

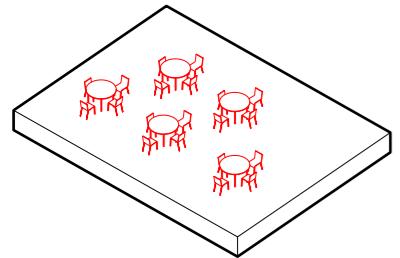


*Arriving at Kinderdijk, I headed towards the museum entrance before taking in the scenery. Instead of going directly to Kinderdijk itself, I was drawn to explore the museum, fascinated by how it blended harmoniously with the surrounding water.*



## PROMENADE

Hallway



Outdoor Event Space for Community

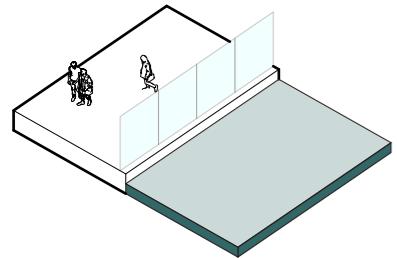


Inside, large windows offered expansive views of both the museum's interior and the lively surroundings outside. After checking my coat, I entered a spacious area above, inviting me further into the heart of Kinderdijk.



## PROMENADE

Museum van Kinderdijk



Museum with Water levels

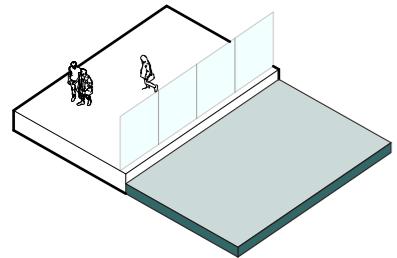


Moving forward, I noticed exhibition arranged along a pathway in the distance. As I explored the history and stories of Kinderdijk on pictures and photos, I followed the promenade downwards, gradually descending into the inner space of museum. The sight of the water level seen from outside the museum windows served as a constant reminder of the intricate balance of land and water management.



## PROMENADE

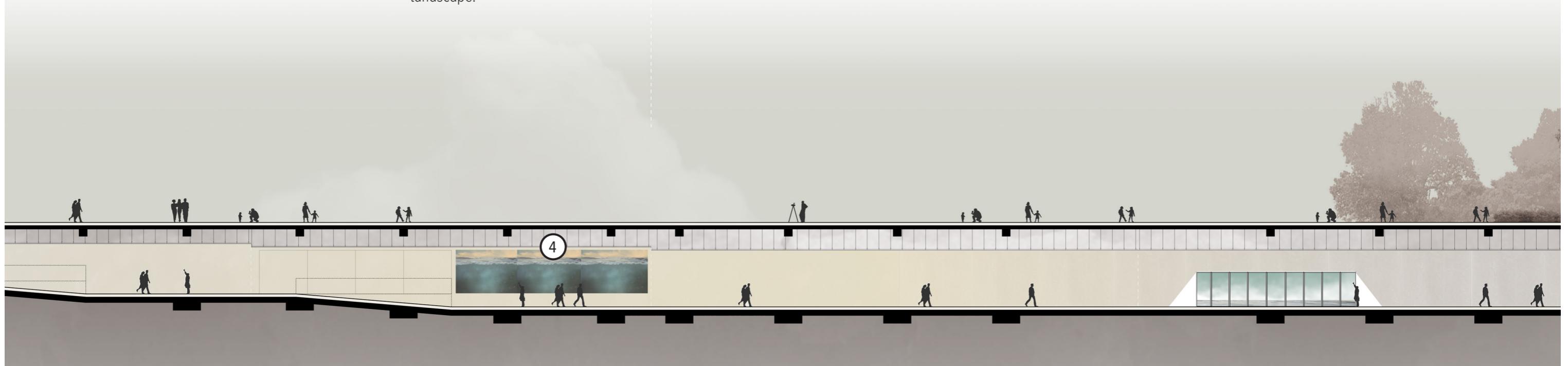
*Museum with Water*



*Museum with Water levels*

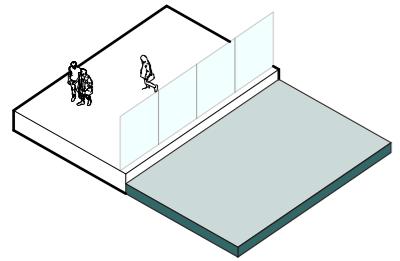


Through interactive screens, I observed the current water levels at Kinderdijk, their management linked to weather situations like raining. This display deepened my understanding of how crucial water management was to sustaining this unique landscape.



## PROMENADE

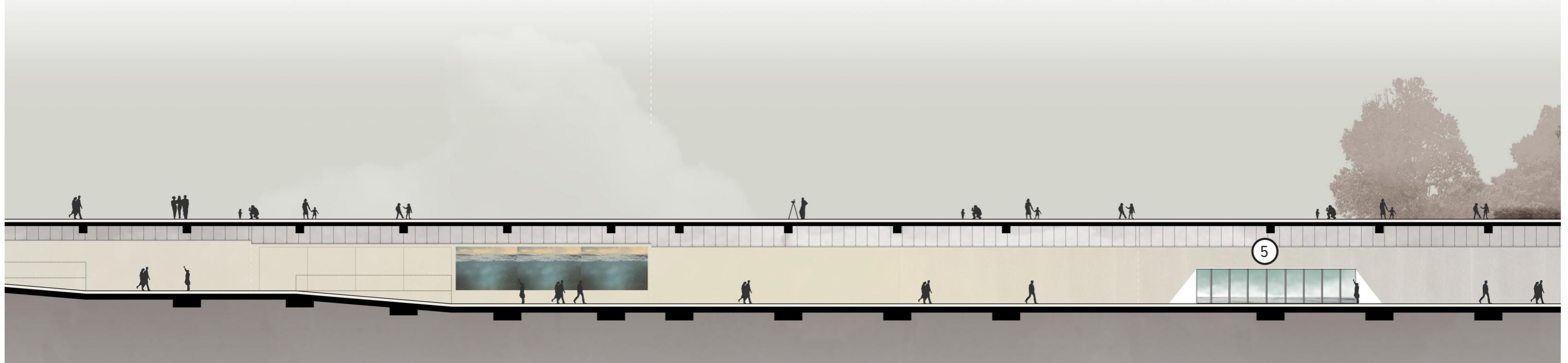
*Kinderdijk and Water*



Museum with Water levels

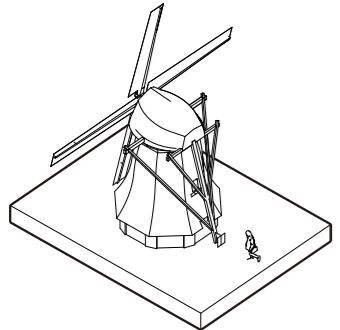


Continuing my journey, I walked down a pathway that subtly dipped below the water's surface, offering a surreal view through the glass. It was my first time seeing land below sea level, making me think about the unique geography of the Netherlands



## PROMENADE

*Miller's Museum*



Museum with Mills and Miller

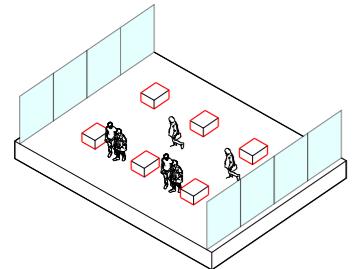


Ascending an escalator, I emerged above the waterline once more, greeted by panoramic views of the surrounding landscape. Walking into a dark room, I explored the cultural stories of Kinderdijk, especially interested in the lives of millers and industrial workers shown in a film inside a windmill.



## PROMENADE

*Museum with community*



Museum with Community space



Transitioning through a corridor into a bright, expansive area, Kinderdijk unfolded on my right while the river stretched out on my left. This vantage point offered a holistic view of Kinderdijk's evolution across time—past, present, and future intertwined seamlessly. It wasn't just about managing water or appreciating the landscape; it was about understanding this as a living, breathing community shaped by the dedication of its inhabitants.



## PROMENADE

*To the Kinderdijk*

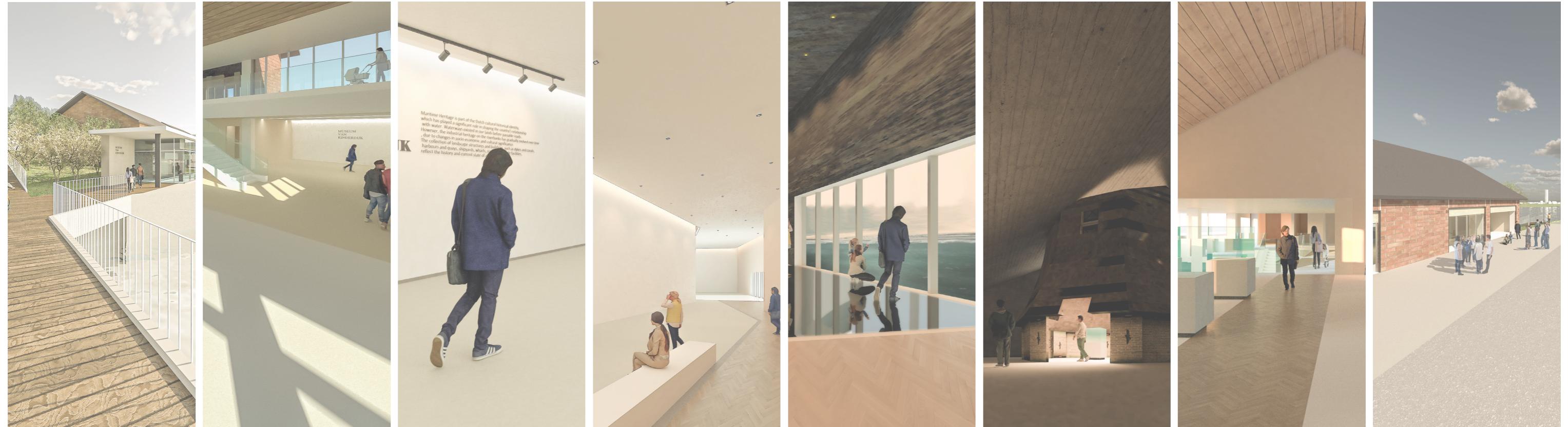


Exiting the museum, I stepped into Kinderdijk, my museum experience providing a newfound appreciation for its details and layered history. Each step forward revealed a fresh perspective, allowing me to embrace Kinderdijk in its entirety, enriched by the stories and insights gathered along the way.



## PROMENADE

*Along the Museum*



ENTRANCE



ENTRANCE



## Barn and Community

Heritage and Structure



Heritage - Barn



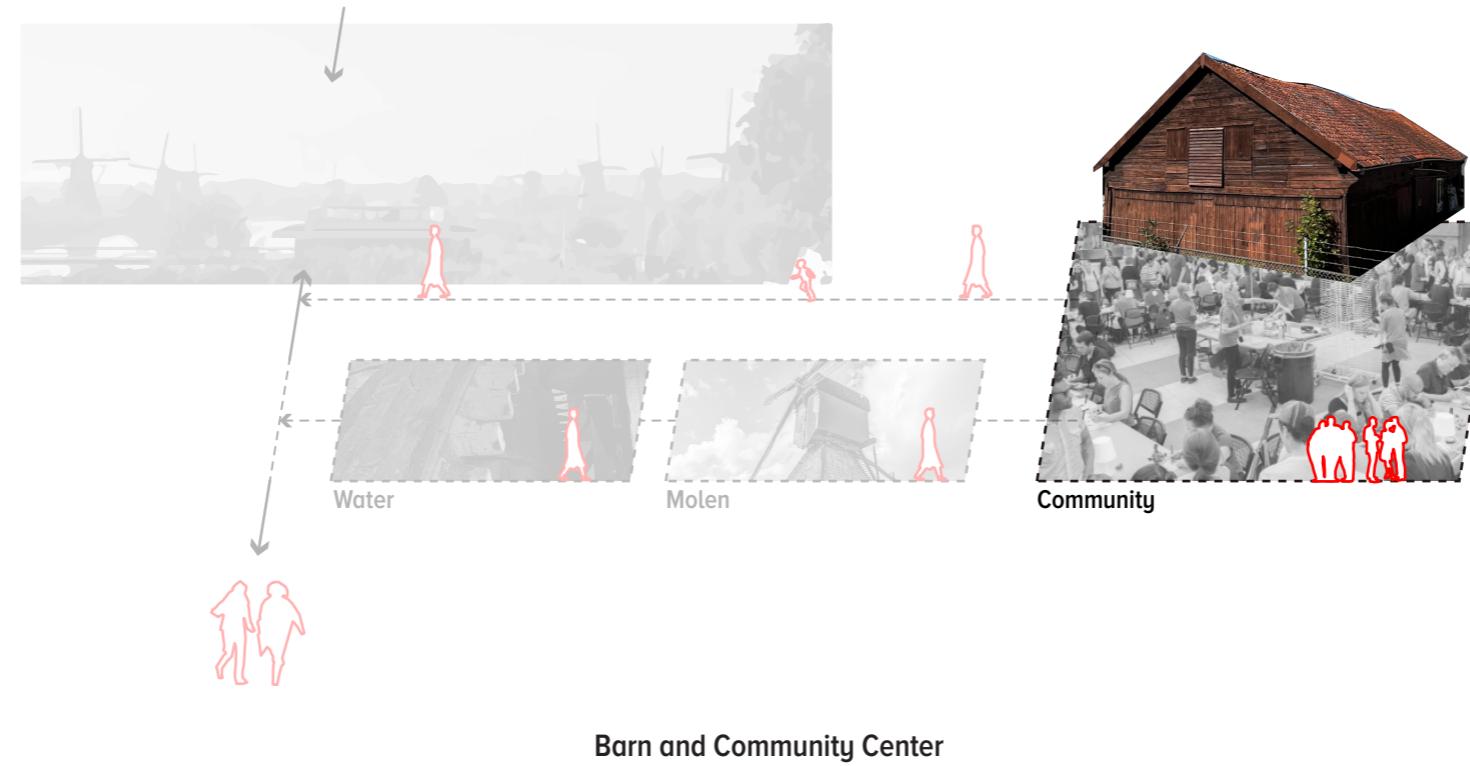
Near community on Kinderdijk



Structure of Dutch Barn

## Community Space

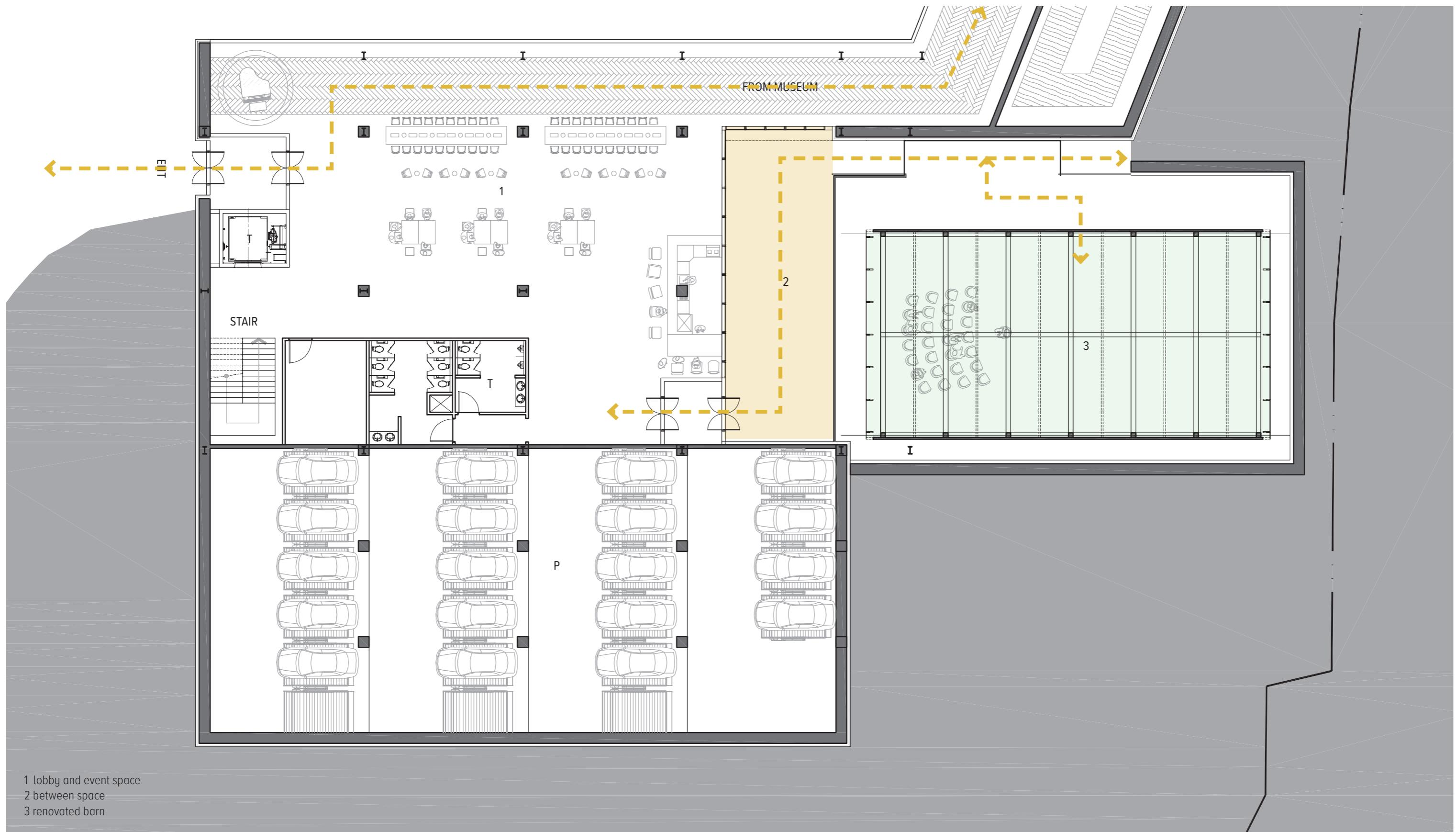
*Community space with Barn*



The community center has been designed to be easily accessible and in close proximity to the current community. It allows easy access from pathways and creates a rich interior space with diverse areas and event spaces. By incorporating the old barn, it blends cultural heritage with contemporary elements.

## Community Space

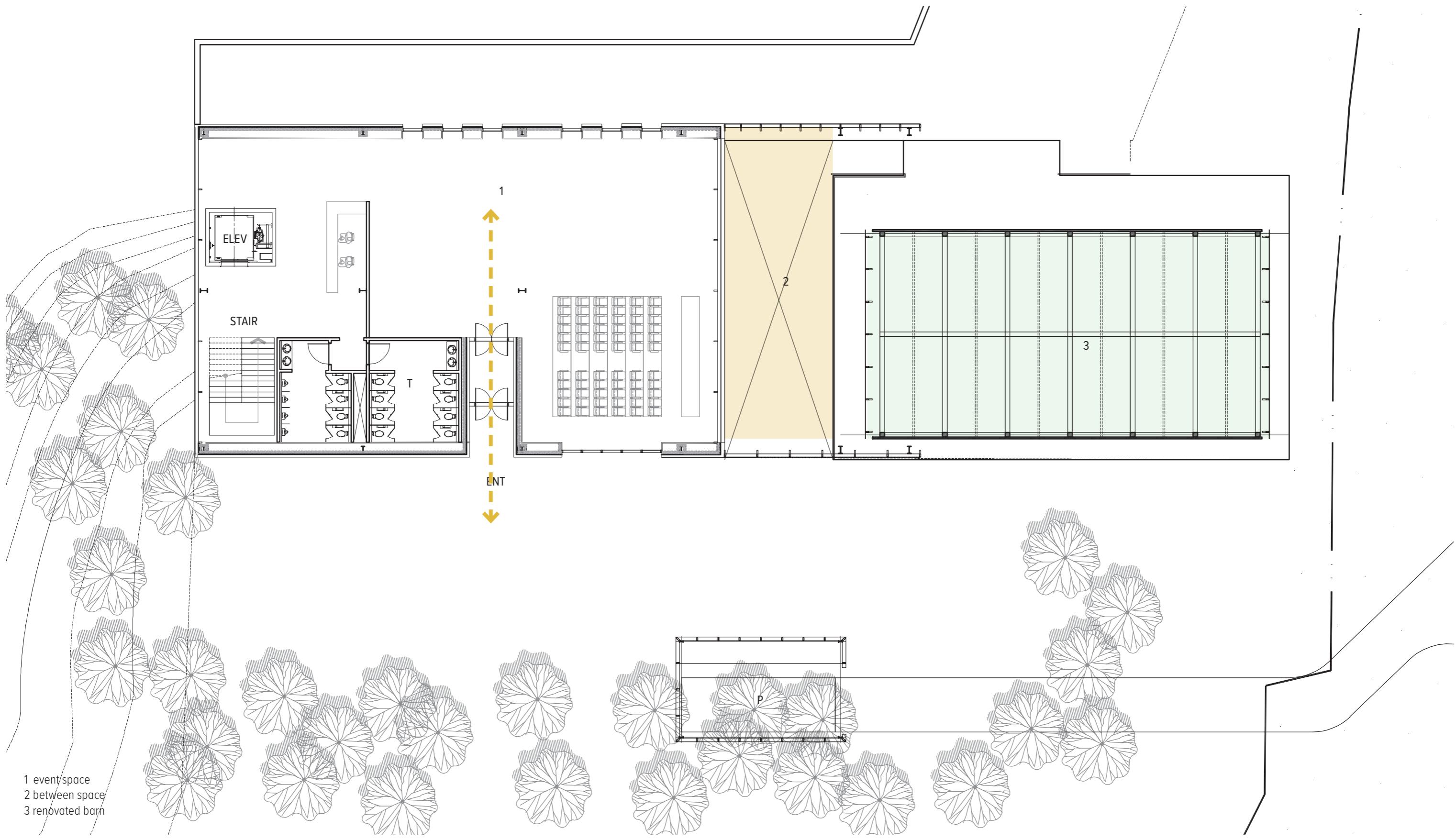
GF



1 lobby and event space  
 2 between space  
 3 renovated barn

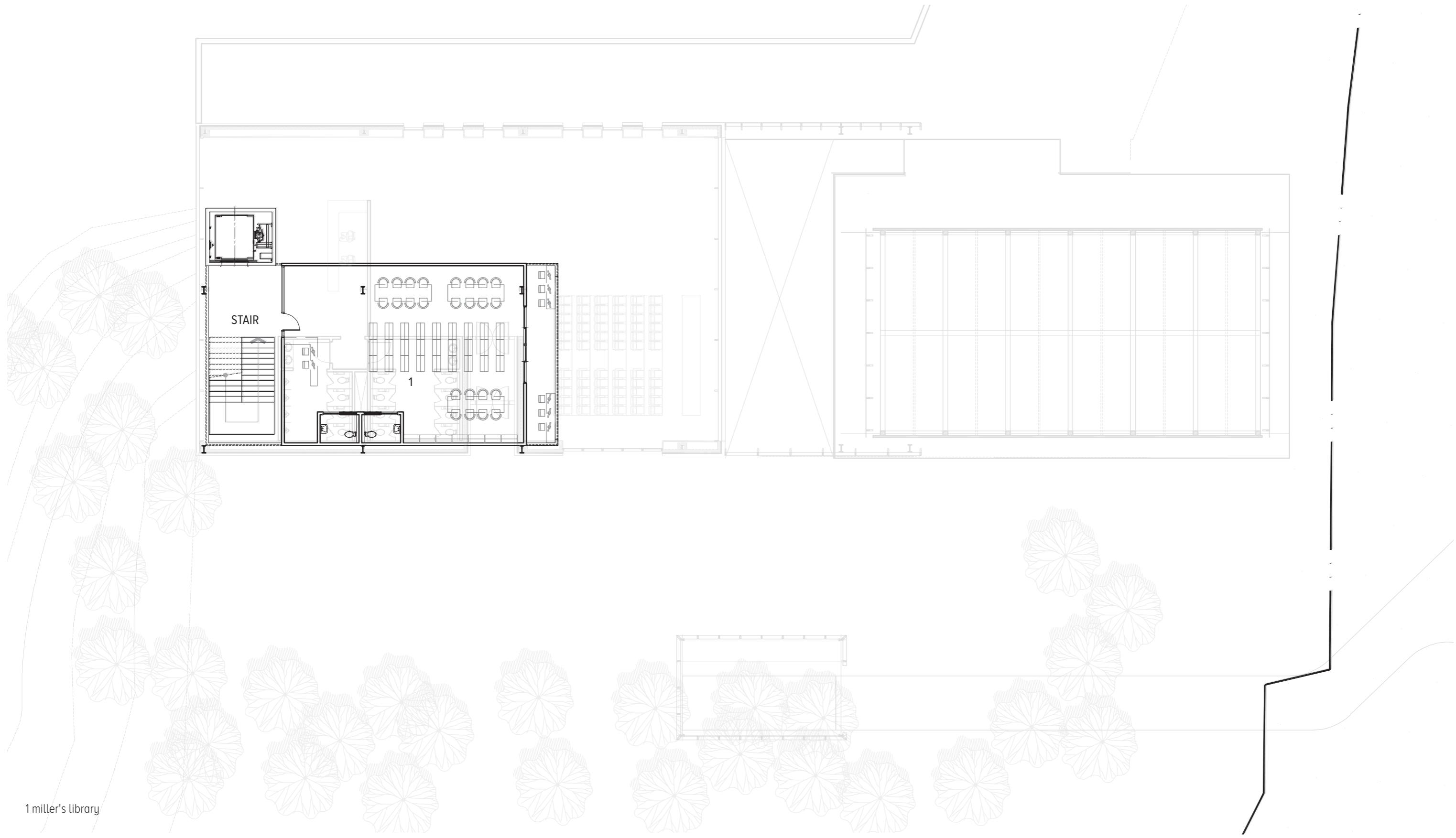
## Community Space

1F



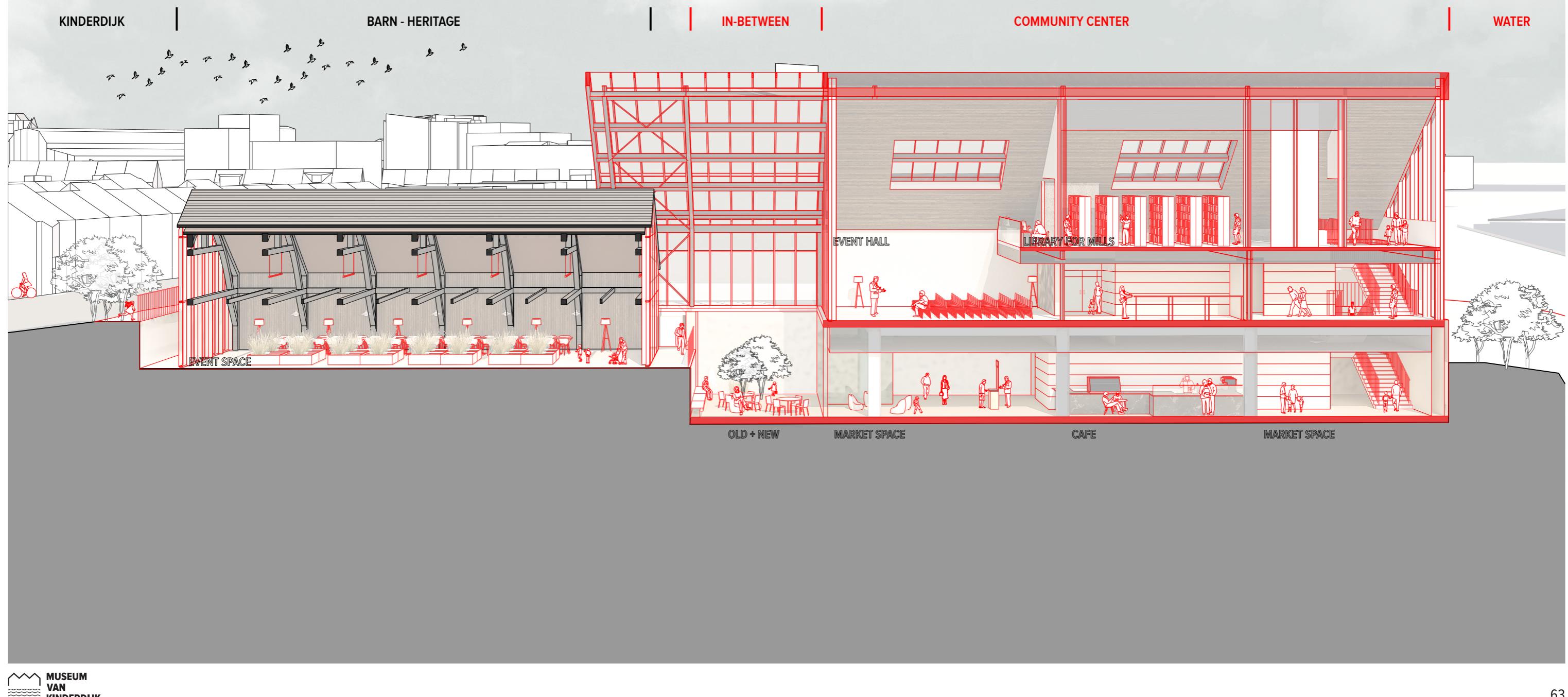
## Community Space

MF



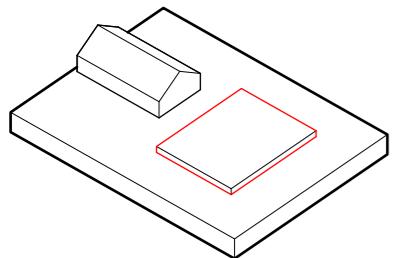
# EVENT in BARN and COMMUNITY CENTER

Activities on Community Center



## Between Old and New

*Experience with Old and New*



Barn and Industry



## Meeting Place

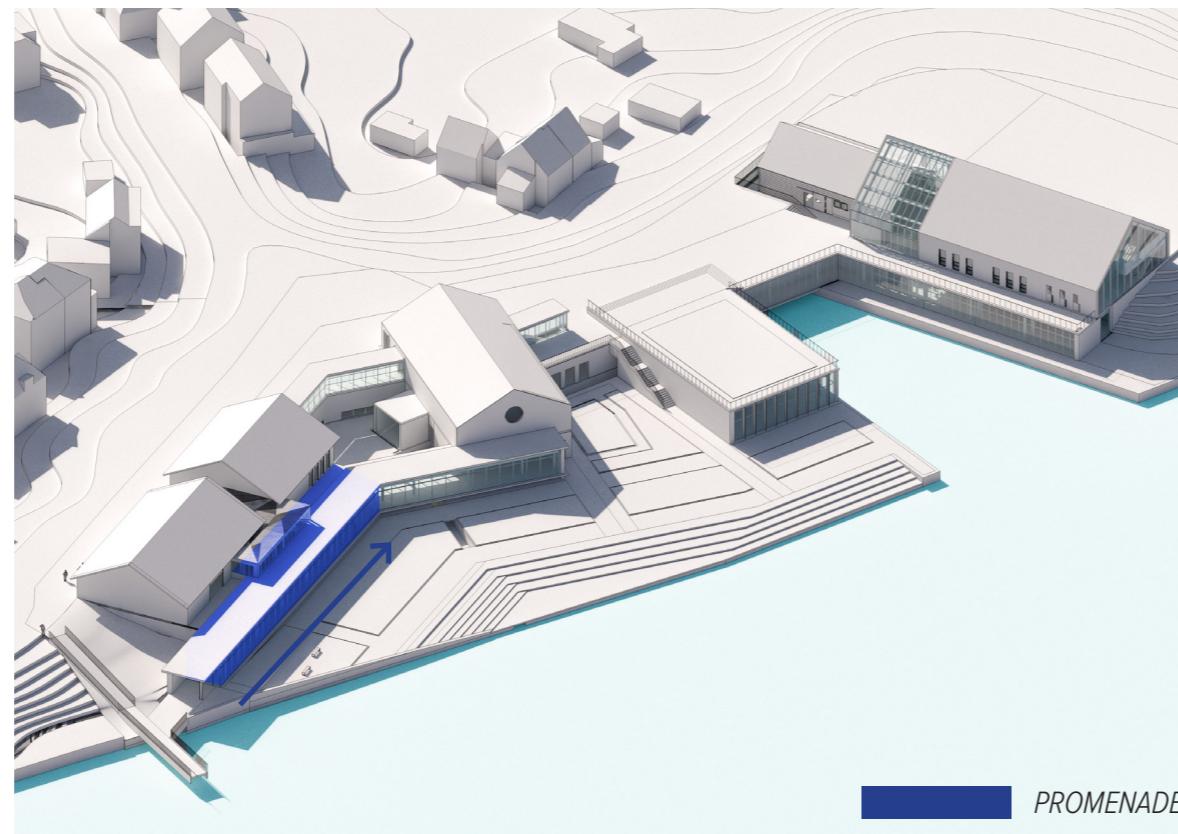
*Overlay of Circulation*



By extending the promenade and placing community spaces where people's paths intersect, we create gathering areas. This arrangement of spaces helps connect them and foster relationships.

## Meeting Space

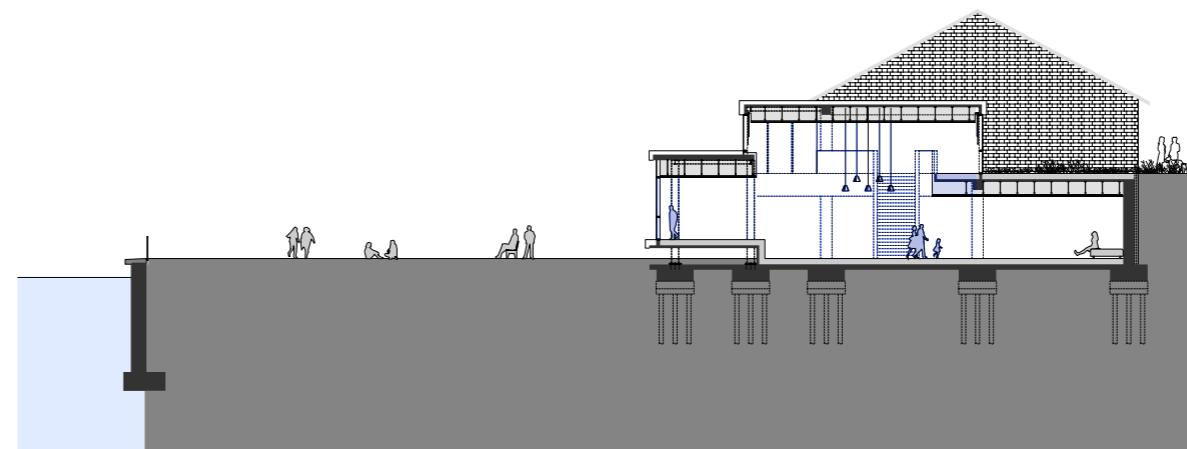
*Lobby and Meeting Point*



GF - Museum Lobby &amp; Restaurant



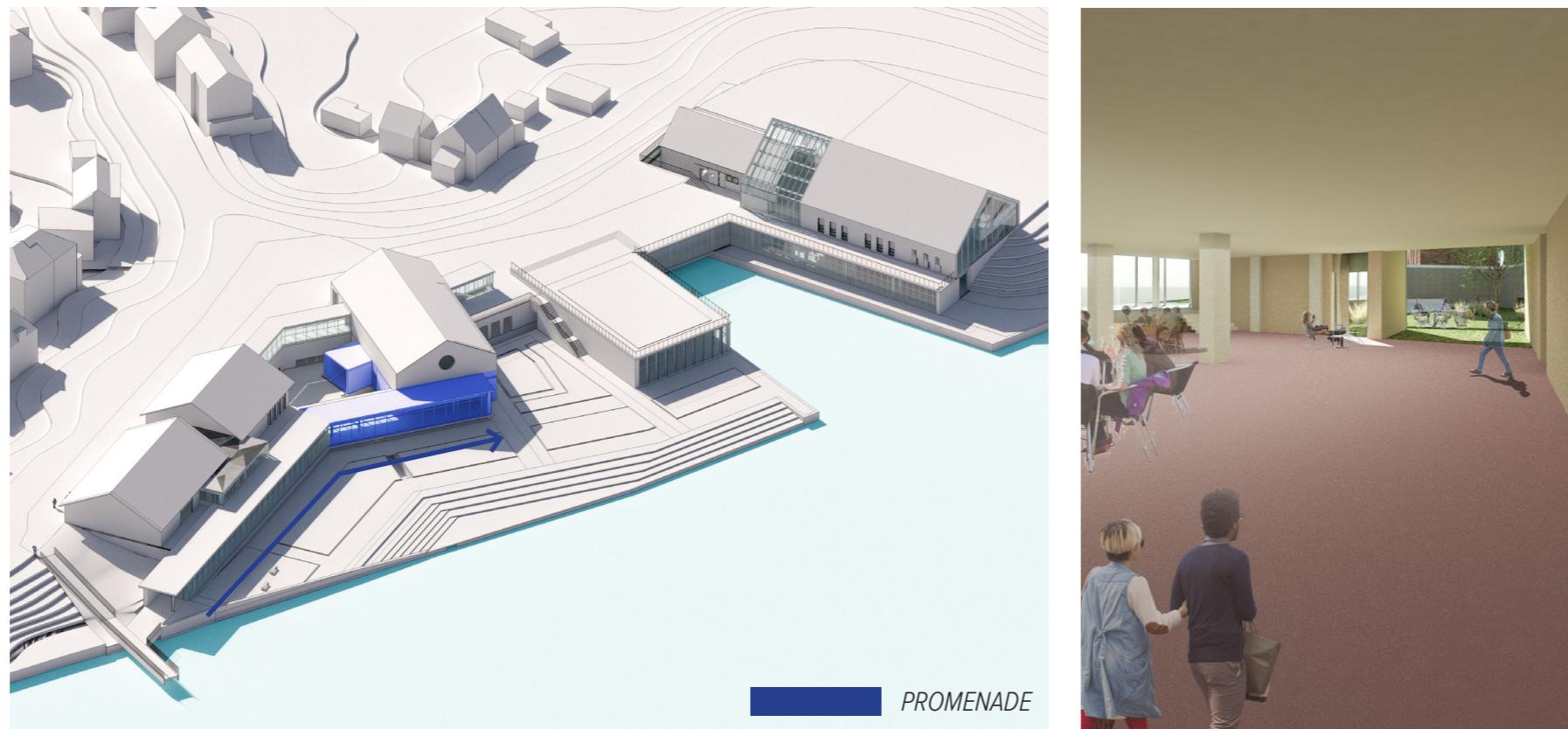
SECTION



The meeting spaces extend from the promenade's expansion. The first meeting space harmonizes with the museum entrance and integrates with the exterior landscape views. It serves as a place where visitors and community users can come together.

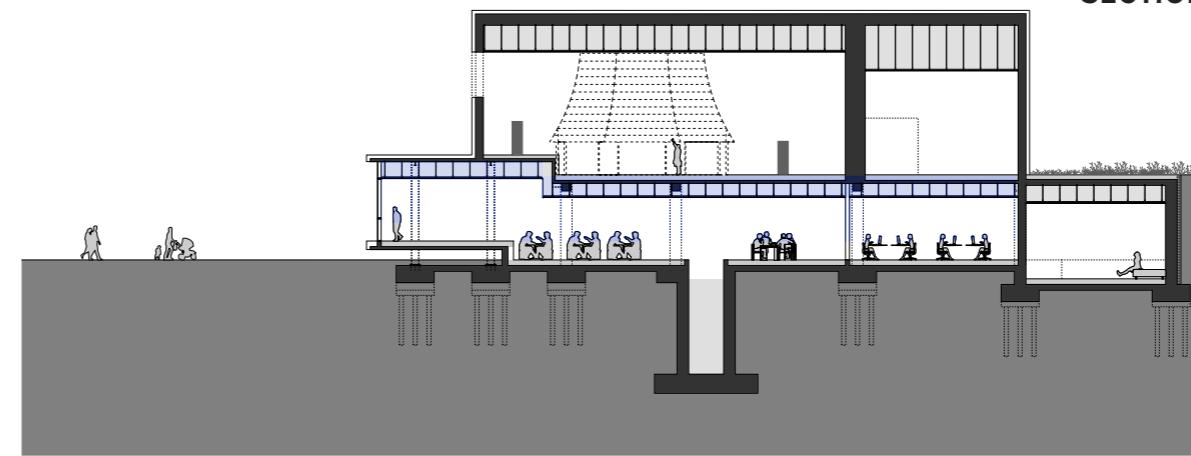
## Meeting Space

*With Water space*



GF - Office and Meeting

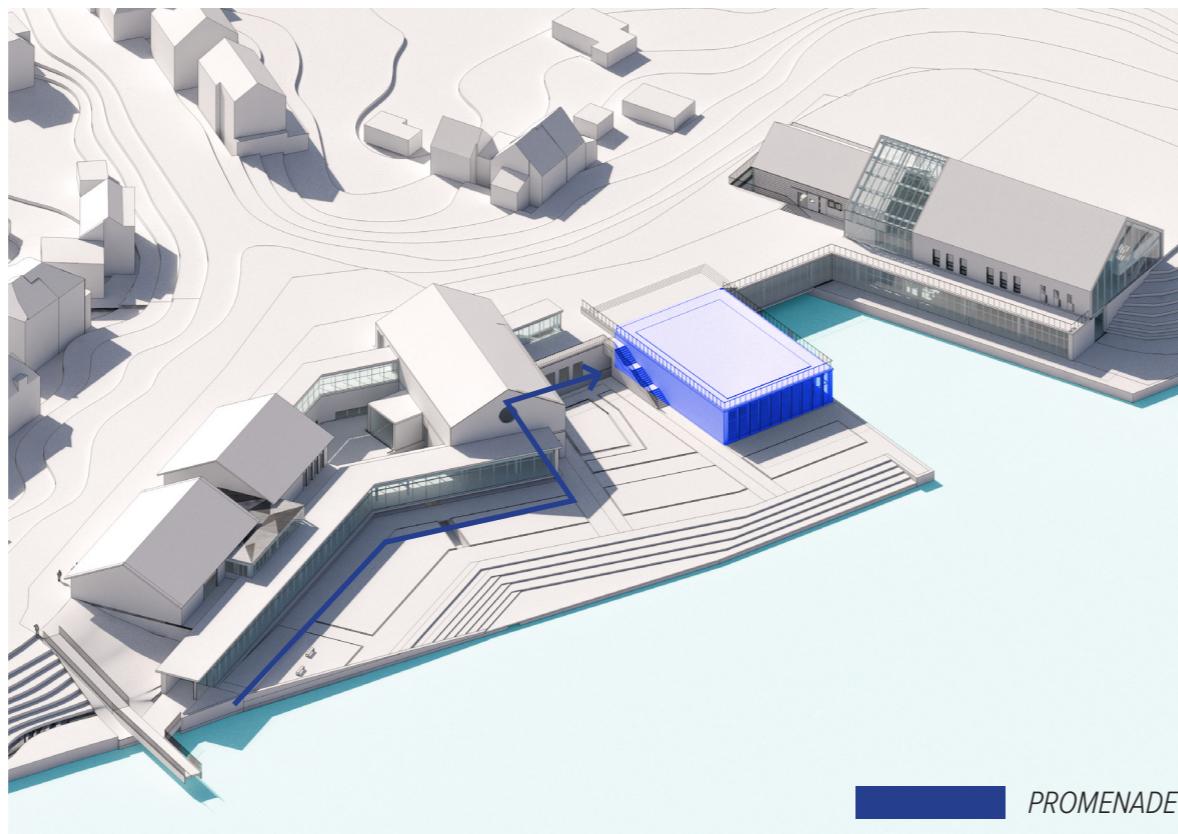
SECTION



The second meeting space is integrated with offices and blends with the surrounding people.

## Meeting Space

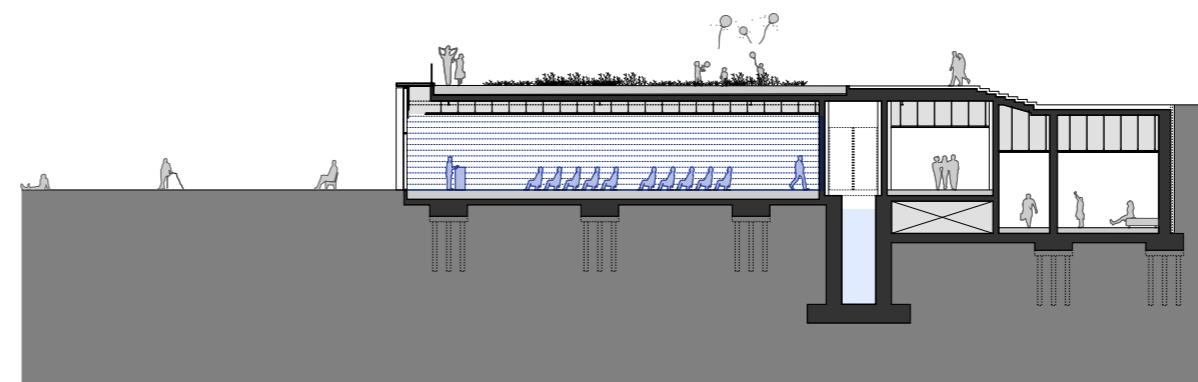
Meeting Hall



GF - Event Hall



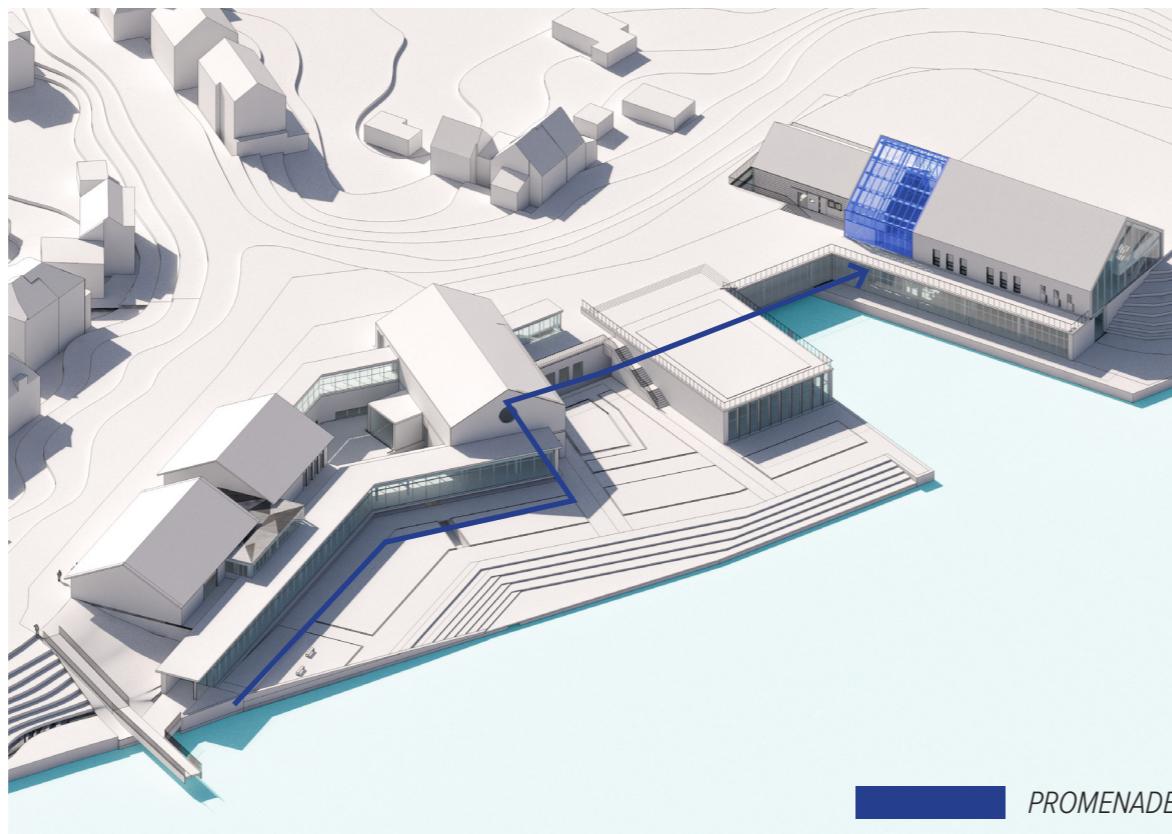
SECTION



The meeting spaces extend from the promenade's expansion. The first meeting space harmonizes with the museum entrance and integrates with the exterior landscape views. It serves as a place where visitors and community users can come together.

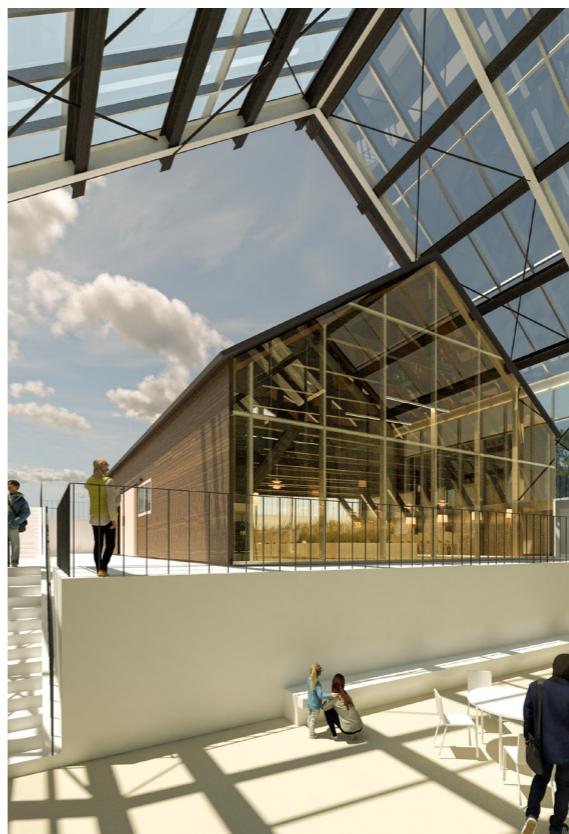
## Meeting Space

*Between Barn and Community Center*

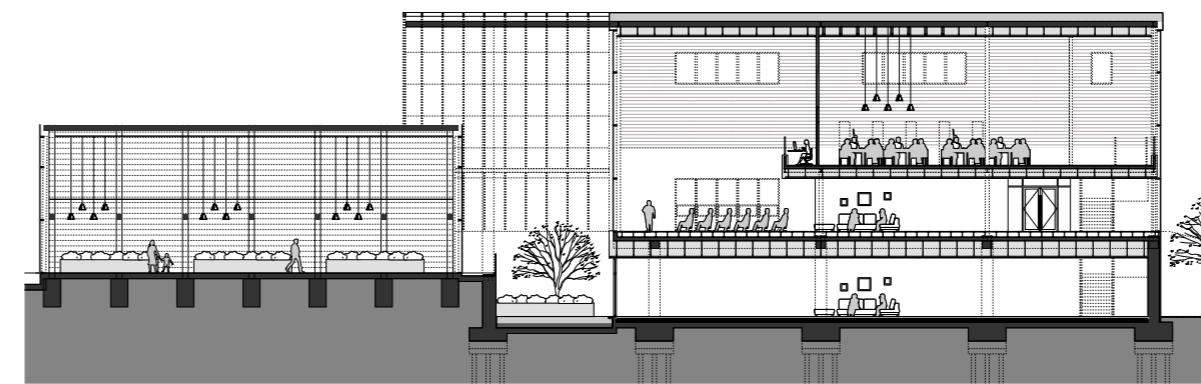


### Between Barn and Community Center

The juxtaposition of the cultural heritage barn and the new community center creates a new space. This formation contrasts the timber structure of the barn, which reflects its historical origins, with the dramatic steel framework of the new community center. Through this contrast and spatial composition, people are brought together to reconcile the past and present, creating a space for new encounters.



### SECTION



## **Values and Assessment**

*Values, hidden stories, and Now*

## **Research**

*Intangible Heritage to Museum with Community*

## **Concept**

*Ensemble*

## **Design**

*Museum van Kinderdijk*

## **BT**

*Museum van Kinderdijk*

## BT Concept



### STRUCTURE

#### Structural Design

- *The structure shifts following the circulation*

#### Following the Dijk

- *The structure following the Dykes*

#### Blocking the Water

- *Strong, Durable the structure with piles toward the water*



### MATERIALITY

#### Material Design

- *Resemble with vernacular material*

#### Re-use the materials from industrial site

- *Reusing the materials*

#### Sustainable Concrete

- *Using industrial waste aggregate around*



### WATER SYSTEM

#### Using the water to use in the building

- *Re-use the water inside the buildings*

#### Heating and cooling system with the water

- *Using the heating and cooling system with the water*

#### Blocking the Water

- *Strong, Durable the structure with piles toward the water*

# Structural Concept

Along the dijk



## STRUCTURE

### Structural Design

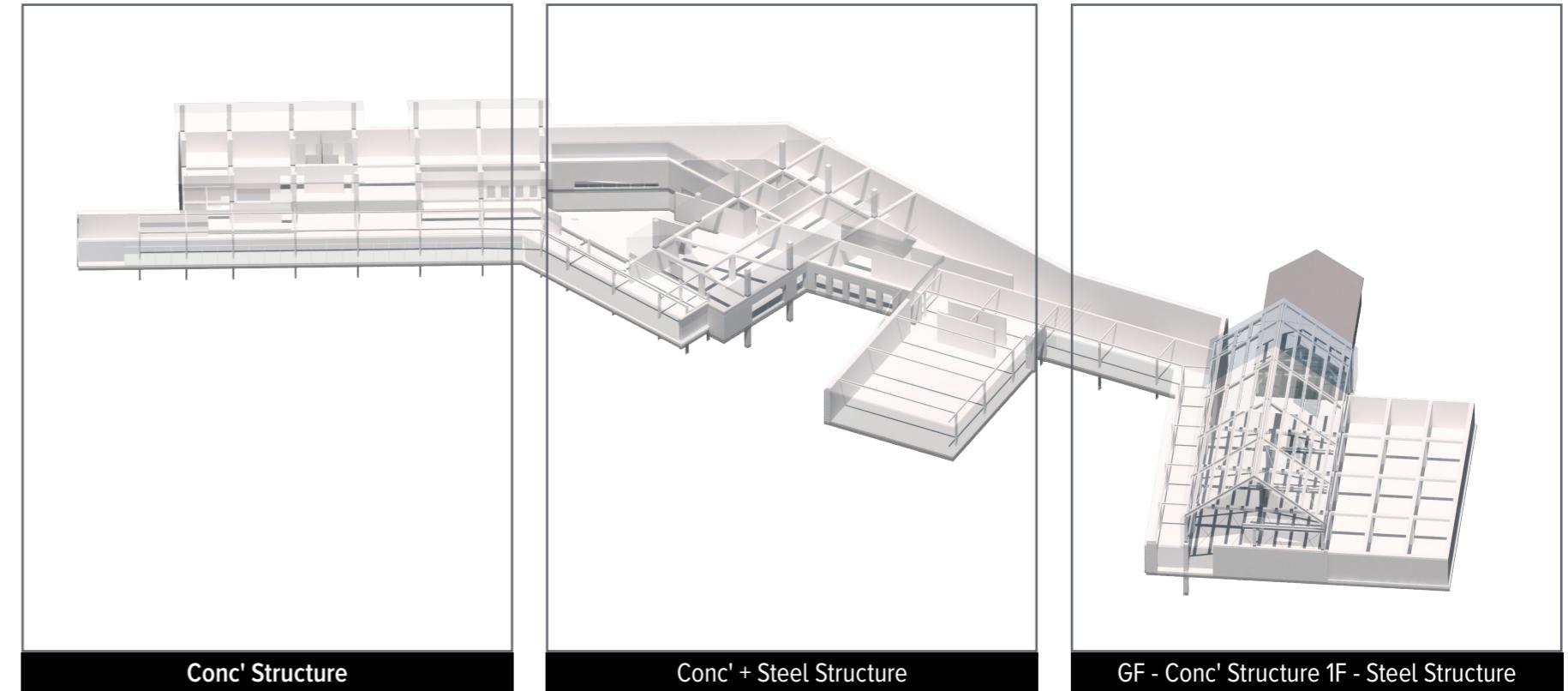
- The structure shifts following the circulation

### Following the Dijk

- The structure following the Dykes

### Blocking the Water

- Strong, Durable the structure with piles toward the water



The entrance and welcome area near Kinderdijk are constructed with buildings of similar concrete structures to the surroundings. Concrete walls reinforcing the dyke extend along the dike, with rectangular frames and surrounding pathways connected by steel beams.

The large hall are constructed with steel frames, allowing for natural structural changes, while connecting to the concrete structures in between. Specifically, the space connecting the museum interior to the dike is planned with concrete structure, while the large spaces are designed with steel frames, enabling flexibility for future spatial modifications.

The community hall is primarily planned with a steel frame structure. Particularly, in connection with the heritage barn, it showcases the evolution of industrial structures by exposing them through curtain walls. Specifically designed with a steel frame structure resembling the form of factories, it can also exhibit similarities with surrounding industrial buildings.

# Structural Concept

Community Center



## STRUCTURE

### Structural Design

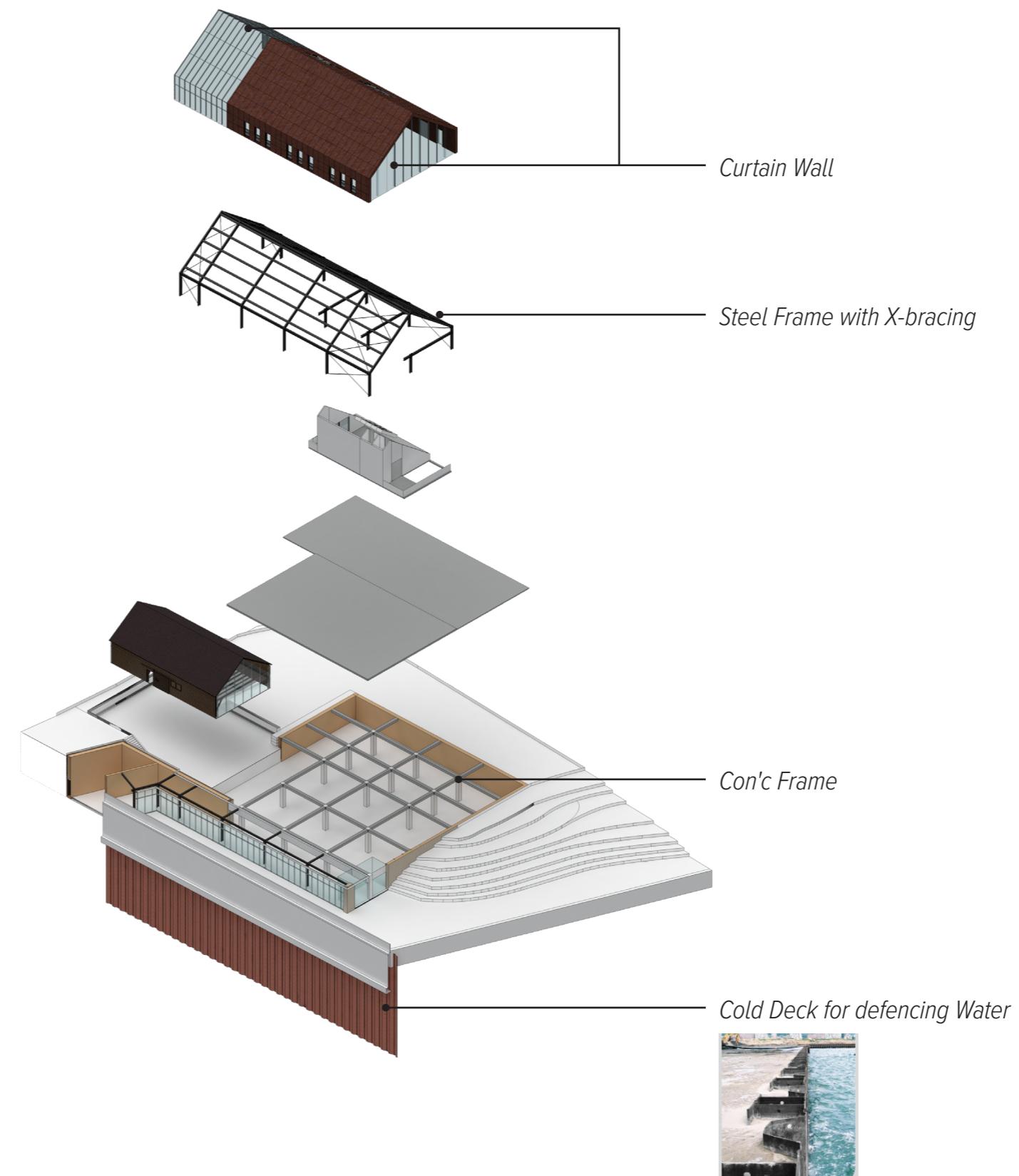
- The structure shifts following the circulation

### Following the Dijk

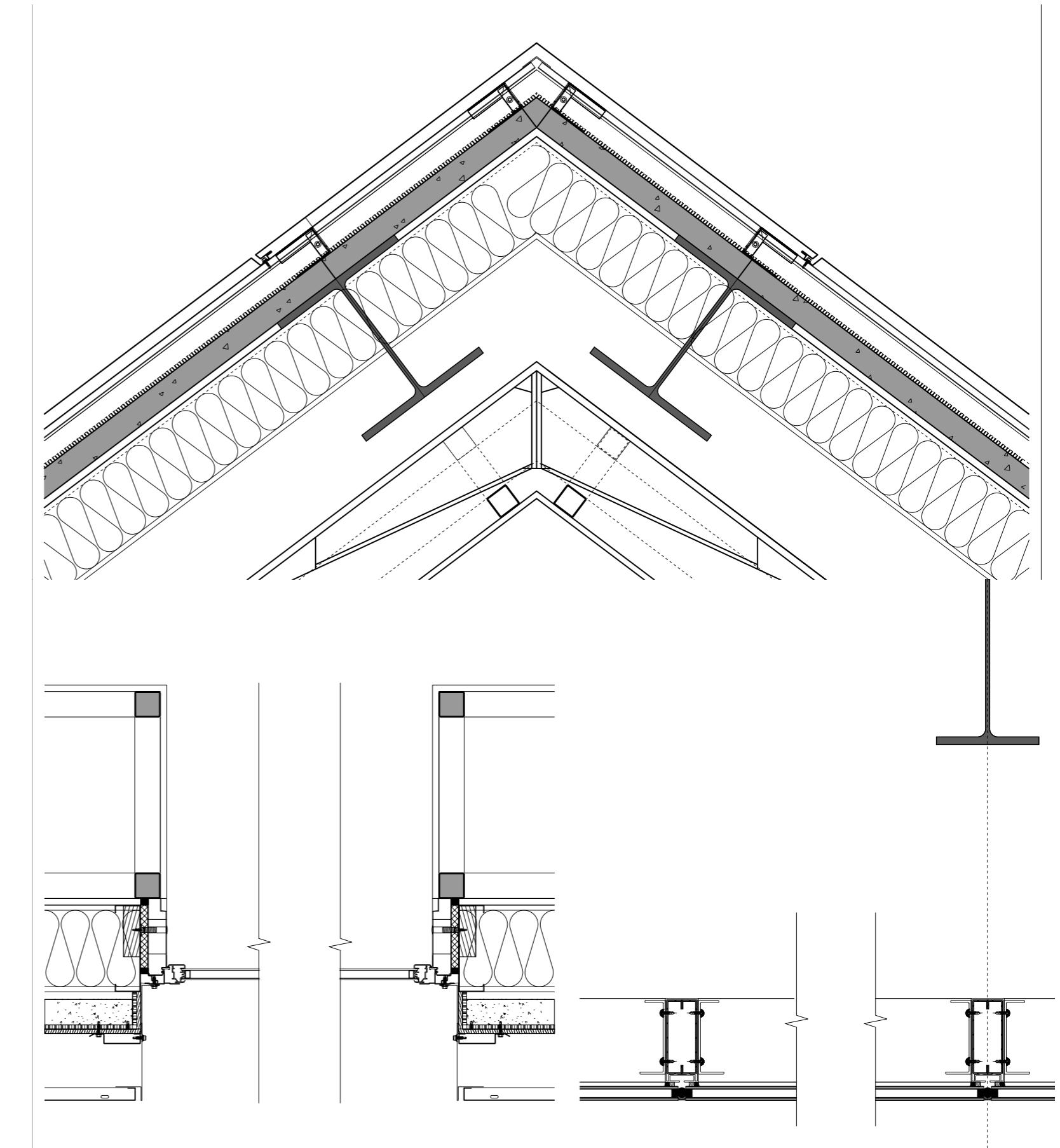
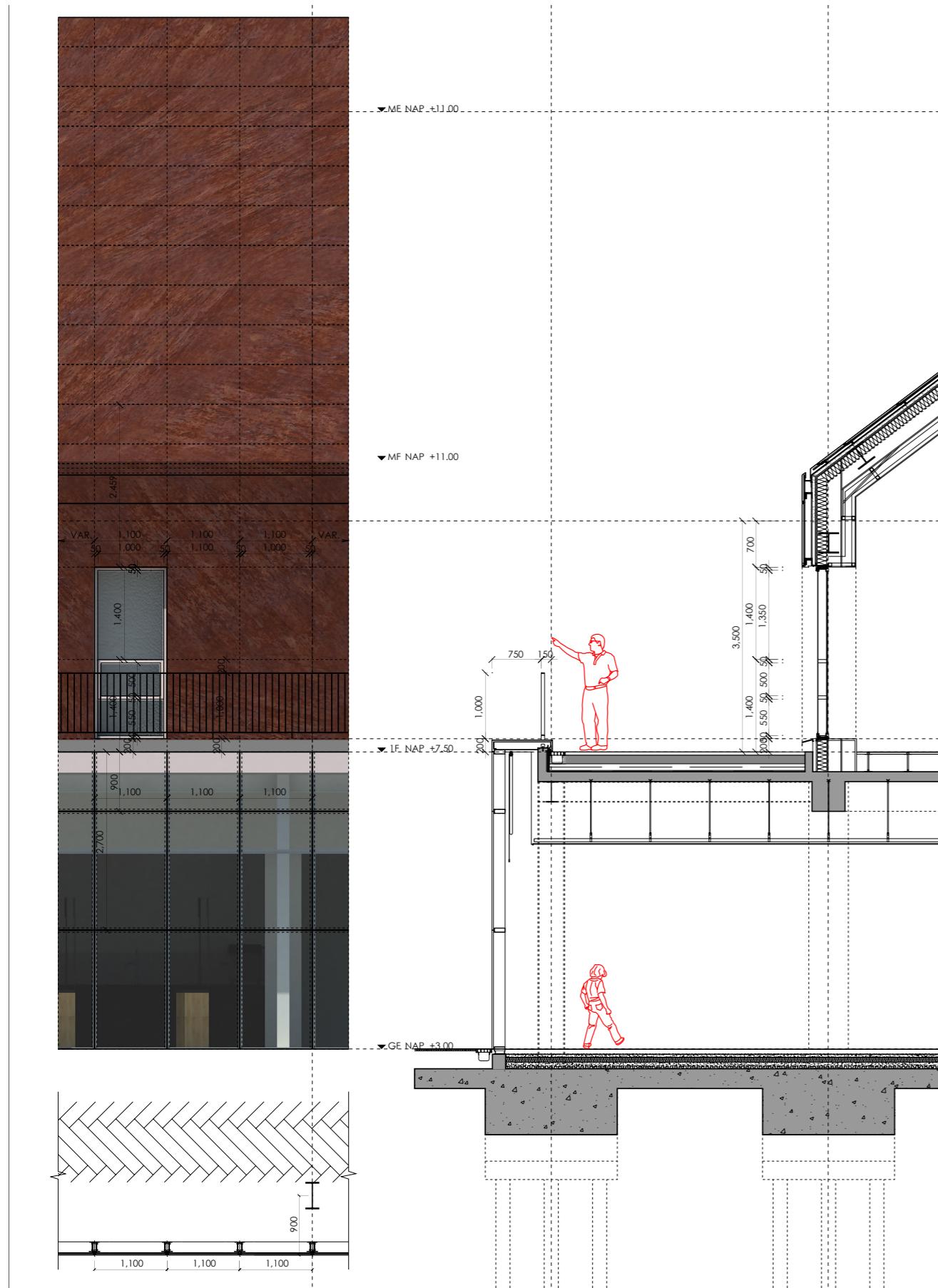
- The structure following the Dykes

### Blocking the Water

- Strong, Durable the structure with piles toward the water



## Structural Detail



# Material Concept

Ensemble



## MATERIALITY

### Material Design

- Resemble with vernacular material

### Re-use the materials from industrial site

- Reusing the materials

### Sustainable Concrete

- Using industrial waste aggregate around



Transition of Materials



# Material Concept

To the Kinderdijk



## MATERIALITY

### Material Design

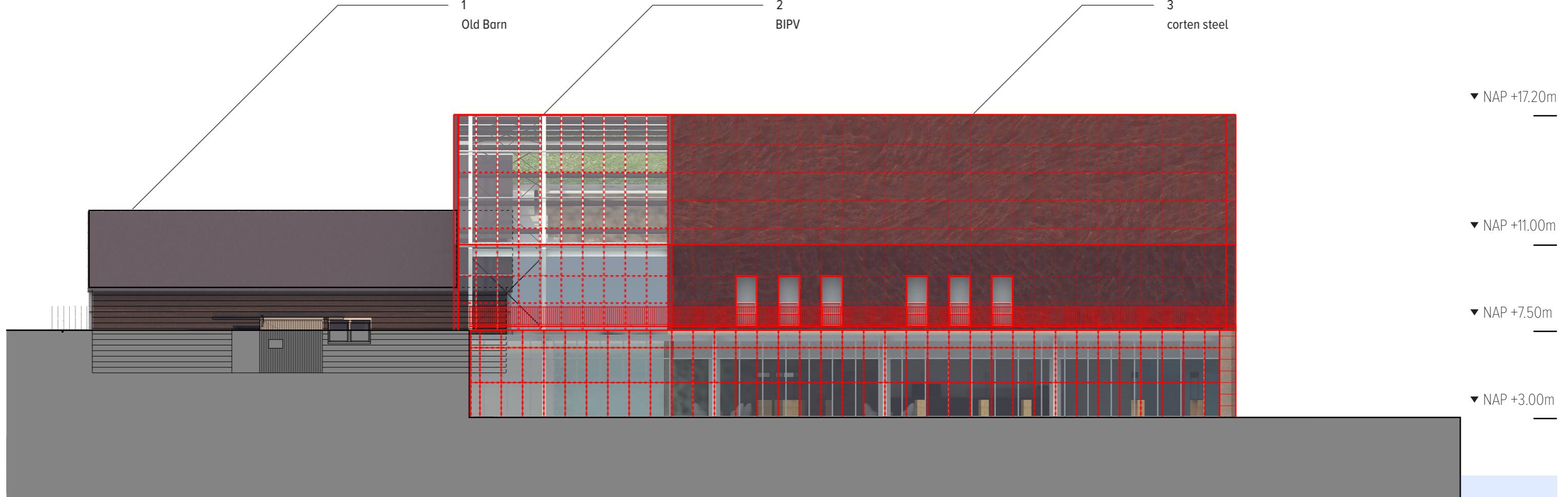
- Resemble with vernacular material

### Re-use the materials from industrial site

- Reusing the materials

### Sustainable Concrete

- Using industrial waste aggregate around



## Water Systems

Re-use and Cooling



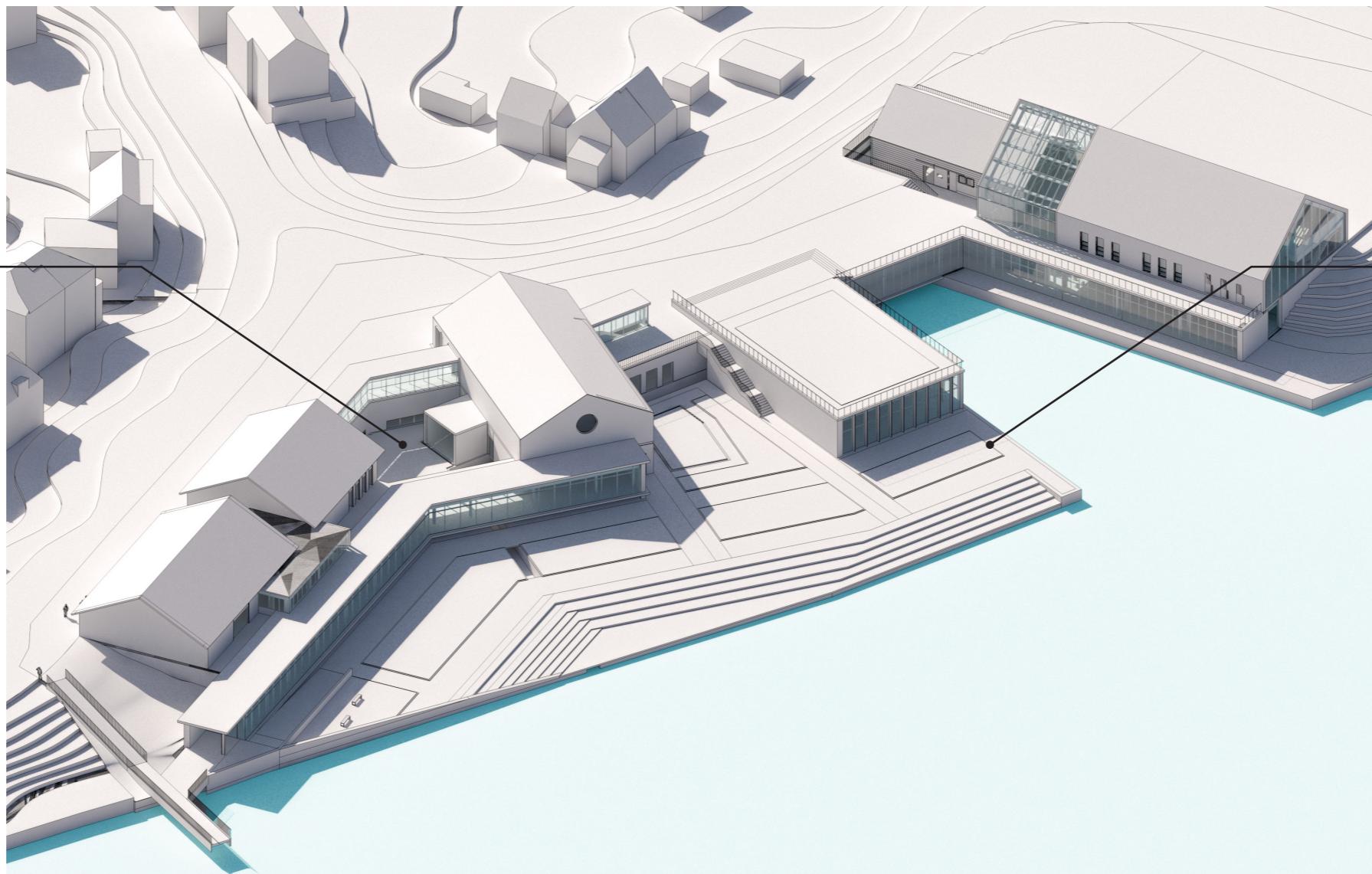
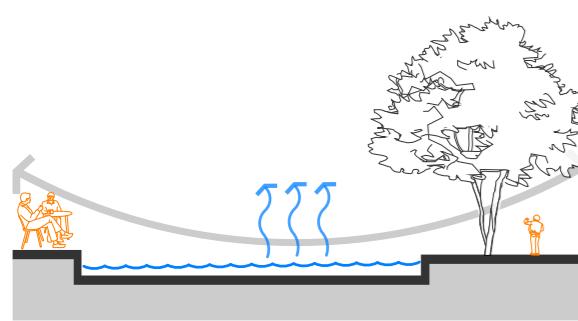
### WATER SYSTEM

Using the water to use in the building  
 - *Re-use the water inside the buildings*

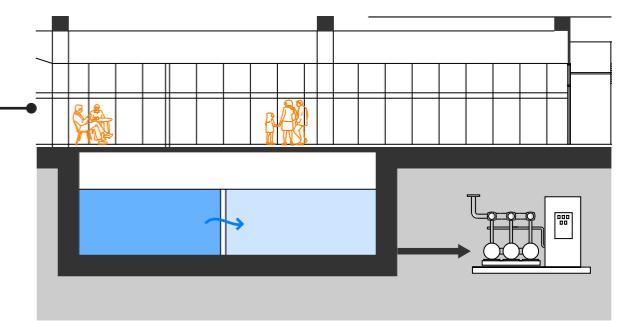
Heating and cooling system with the water  
 - *Using the heating and cooling system with the water*

Blocking the Water  
 - *Strong, Durable the structure with piles toward the water*

Climate control for inner garden



Collecting the water for reuse



# Water Systems

To the Kinderdijk



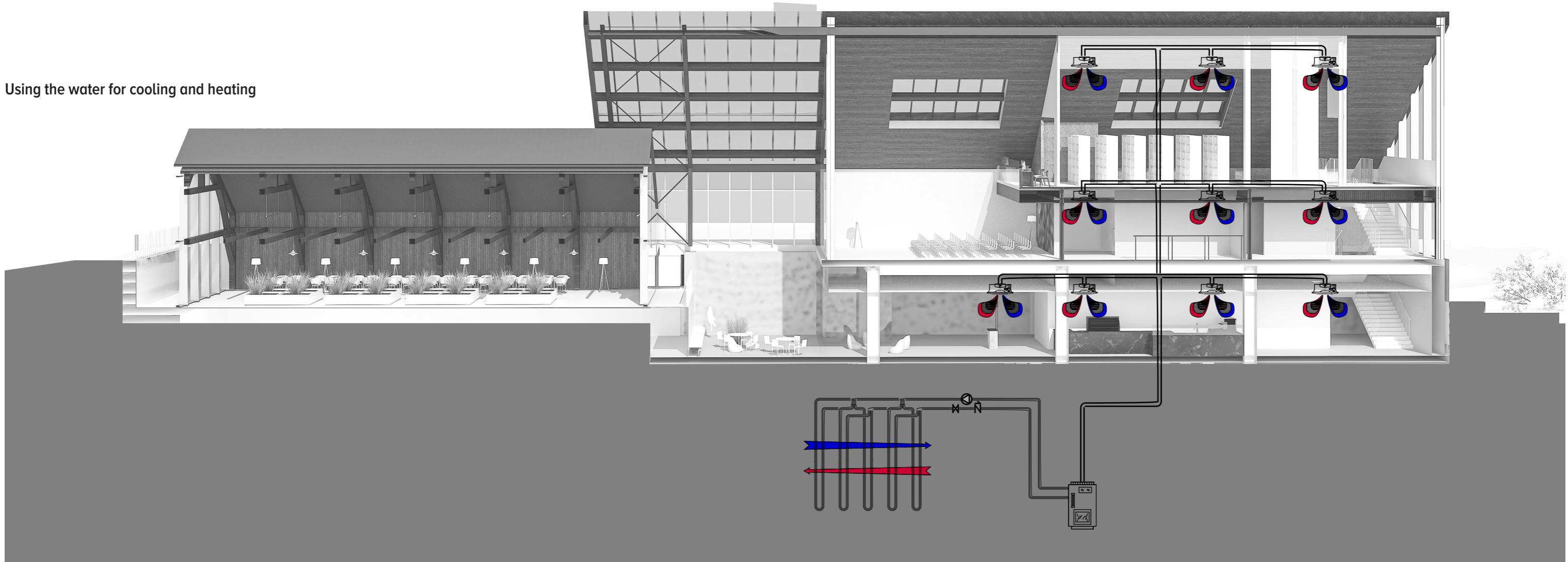
## WATER SYSTEM

Using the water to use in the building  
- *Re-use the water inside the buildings*

Heating and cooling system with the water  
- *Using the heating and cooling system with the water*

Blocking the Water  
- *Strong, Durable the structure with piles toward the water*

Using the water for cooling and heating



## Museum van Kinderdijk





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