

MUSEUM VAN KINDERDIJK



Delft University of Technology

MSc3+4 Revitalising Heritage : Maritime Heritage Studio

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4789563

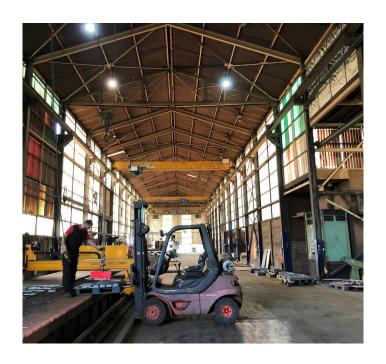
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From, With, and the Water



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.

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01. AnalysisValues, hidden stories, and Now



Arriving Kinderdijk

Motivation



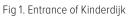




Fig 2. Heritage with Kinderdijk



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.



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?

Arriving Kinderdijk

How to get to know hidden stories from heritage sites?











Entrance





About Kinderdijk

History of Kinderdijk Water system UNESCO KINDERDIJK



Mills

How does it works? How they live?



Barn

lt's more than Object Near Villages Parking

Kinderdijk is a historic and unique location in the Netherlands, primarily renowned for its iconic windmills. While it may not be the most representative space in the Netherlands, it stands out due to its distinctive water management system and famous windmills, attracting many tourists.

Through exploring the background and history of Kinderdijk, one becomes curious about the thoughts and spirit that define this place. Why did Kinderdijk engage in such a struggle against water? What identity does Kinderdijk embody?

Learning about the operation and mechanism of windmills provides insight into the lives of those who operated them. What was life like for these individuals, and how did they interact with their neighbors? What experiences did they undergo?

While Kinderdijk may seem like just a workplace, the curiosity extends to understanding how others worked elsewhere and the stories of the people living in this area.

Motivation Map

How to get to know hidden stories from heritage sites?



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?

EnsembleHow to get to know hidden stories from heritage sites?



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

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

Exceptional man-made LANDSCAPE

Water Management System

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

A unique example of dutch technological development of water drainage

Architectural Ensemble

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



UNESCO management

→ Open for visitors 1. Tourist hotspot and sustainable tourism

Control of the flow of tourism

Too many tourists in the area.

2. Buffer zone Need Buffer zone between locals and visitors

3. Improve the entrace of the area The infrastructure, parking situation

Outstanding Values of Kinderdijk 4. Sight lines and landscape

Transfer of knowledge and improving educati-5. Educational functions

onal materials

6. For the millers Part of this heritage

NEEDS

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

Need boundary and space for locals

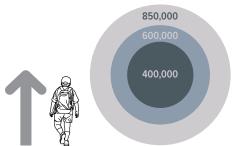
Parking and infrastructure

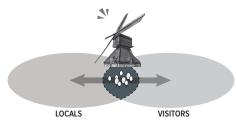
Respect the OUV of Kinderdijk

Needs for spaces of event and educational function

Dillemmas

Tourism and Buffer Zone







Mass Tourism

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

Buffer Zone

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

Open Air Museum

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.



02. ResearchIntangible Heritage to Museum with Community



Re-new the museum with Unseen

The research of Enhancing experience in the museum revealing the intangible heritage in Kinderdijk, UNESCO World Cultural Heritage Sites, by analyzing UNESCO documents, media sources, and Case studies



I have always focused on the unseen intangible values of buildings rather than the buildings themselves. It's about understanding the complexity of the current heritage is both a process and a result of those things. In this situation, could intangible values relate to existing values to reveal them? Is it possible to reveal these values, especially through a museum? Could visitors get more experience through the spatial compositions and senses from spaces in Kinderdijk?

Abstract

The research is what is the intangible cultural heritages of UNESCO World Cultural Heritage Sites, analyzing UNESCO documents and media sources. Additionally, it compares these findings with how current museums enhance the visitor experience of intangible cultural heritage through architectural composition, programs, and community integration.

The research focuses on Kinderdijk, a UNESCO World Cultural Heritage Site in Alblasserdam, the Netherlands. It assesses and compares the core values attributed to Kinderdijk, as outlined in UNESCO documents, with its Intangible Cultural Heritage (ICH), closely linked to the site, including aspects like community and industrial structures. The assessment further explores how these are connected to present communities by extracting and analyzing keywords from various media sources. The research conducts a spatial analysis of museums within Kinderdijk and other museums associated with UNESCO World Cultural Heritage Sites in the Netherlands. It evaluates the combination of spatial elements and ICH, as well as the integration of the community. Furthermore, the research proposes an efficient organizational approach to ICH. The results show a comprehensive understanding of values through diverse approaches and highlight how spatial elements of museums and the integration of community have contributed to intangible values, as illustrated by current case studies.

Keywords

Maritime Heritage, Kinderdijk, Intangible Cultural Heritage, Social Media, Museum, Community

Introduction

Over the past few years, UNESCO has increasingly researched the importance of intangible heritage culture. Consequently, the intangible heritage becomes more important to understand. Intangible heritage, as the term itself suggests, is the heritage that is not immediately noticeable. It remains hidden, not easily discovered at first, blurred by the background or the local surroundings. Therefore, visitors to UNESCO World Cultural Heritage sites often focus on the tangible heritages. Particularly, current museums associated with UNESCO World Cultural Heritage sites have been struggling to keep up with this trend.

In these days, Kinderdijk has experienced significant changes since being selected as a UNESCO World Cultural Heritage site. After COVID, there has been a steady increase in visitors to Kinderdijk, and the committee of Kinderdijk tries to give various experiences and events to visitors, which are from around the world, to fulfill their experience through its museums. However, the paradigm of museums is changing. Museums are evolving into places that not only display collections of old items but also be the community-center that have been preserved over time, engaging with the locals.

In this context, first, the intangible heritage of Kinderdijk is revealed. Also, it is important to research how this intangible heritage is effectively shown in the museum to visitors to enhance their experience by setting the spaces and connecting with the locals in Kinderdijk. To research this, the problem statement and sub-questions are:

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Problem Statement

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?

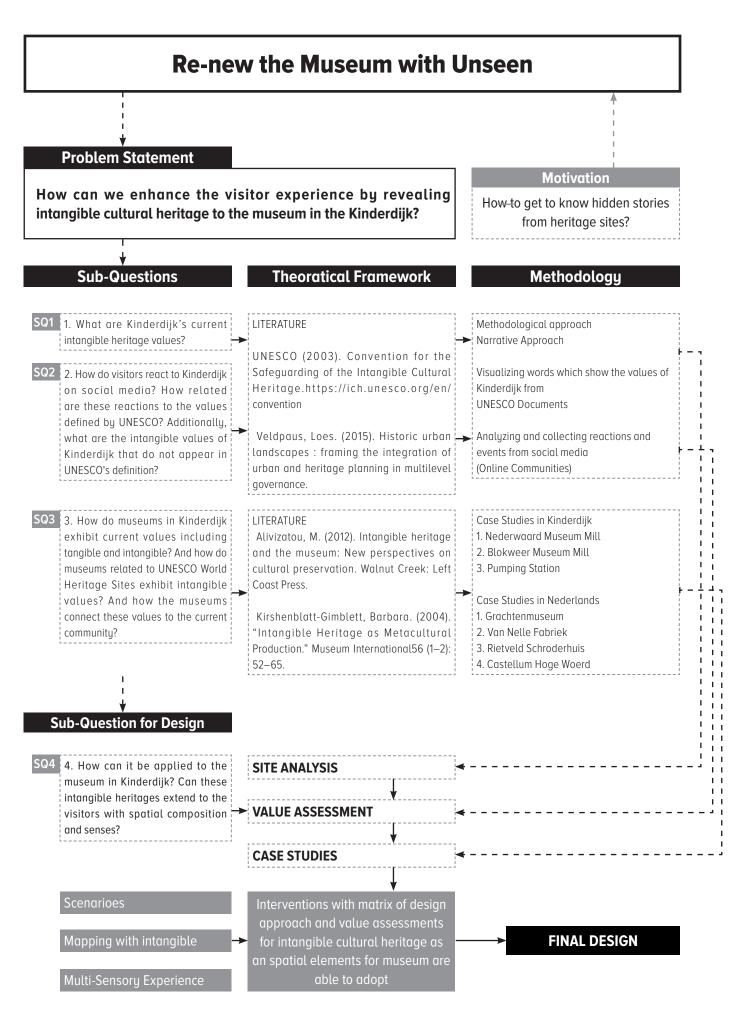
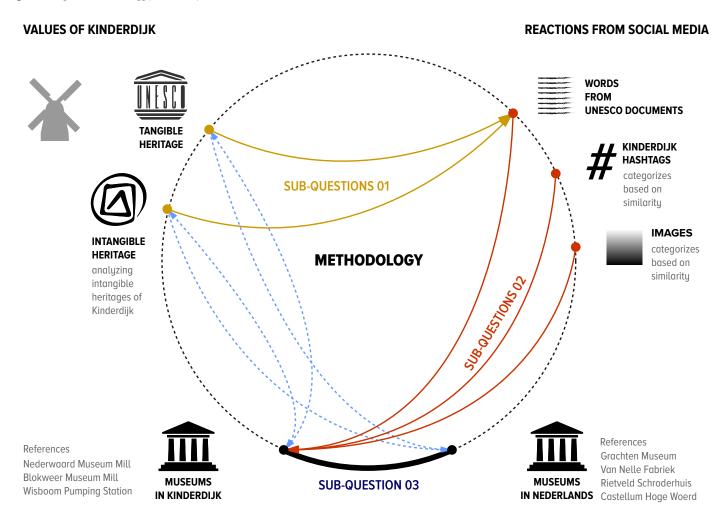


Figure 2. From Research to Design diagram (Author, 2024)

Methodology

Figure 3. Diagram of Methodology (Author, 2024)



Results

1. What are Kinderdijk's current intangible heritage values?



The intangible heritage of Kinderdijk today encompasses various elements not explicitly specified by UNESCO. Particularly, the value in the '2 Relations to context' in the table includes not only the Kinderdijk region but also the geographical surroundings of Kinderdijk. The vicinity of Kinderdijk has been historically significant, hosting diverse shipbuilding companies with a long-established history. Additionally, situated midway between Rotterdam and Dordrecht, it has served as a space for various material exchanges. These historical backgrounds and stories constitute another important intangible aspect of Kinderdijk.

'16 Community/People' has migrated to this area, especially forming a community of workers who were involved in the shipbuilding industry. Over time, a unique community has developed, centered around the church, as residents have lived here for an extended period.

In the 'Unplanned process/evolution', the relationships between houses and industrial facilities built along or on the dikes are crucial. These dikes have constantly evolved and shaped to prevent water, giving rise to the current roadways and bicycle paths in Kinderdijk. Furthermore, this spatial evolution represents the typologies of houses on the dikes around 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.

Results

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?

On Instagram, people post and document their emotions, impressions, and experiences. The role of images on Instagram goes beyond just remembering a place; it involves interacting with others to recreate and reshape the memory of that place. By extracting images related to #kinderdijk, we can understand how the current perception of Kinderdijk is recorded, recognized, and being recreated. Analyzing a total of 1200 posted images, we can cluster them based on the similarity of the images into four categories:

Cluster 1. Activities, commercial advertisements, and related content associated with Kinderdijk: 42 images

Cluster 2. Landscapes and windmills of Kinderdijk: 1041 images

Culster 3. Portraits taken with Kinderdijk in the background: 42 images

Cluster 4. Nature landscapes and water-related images associated with Kinderdijk: 35 images

From this analysis, it becomes evident that the images people associate with Kinderdijk predominantly feature the iconic Dutch elements of water and windmills, as well as the human-made natural environment. People seem to emphasize the scenery itself over events or activities related to the area, museums, or the UNESCO values highlighting the lives of millers or the workings of water. Considering the nature of the Instagram platform, which is a tool for sharing and self-expression, showcasing beautiful photos becomes crucial. Therefore, individuals are likely to share images that not only capture the essence of Kinderdijk but also serve as important photos representing the identity of the Netherlands.

Based on the analysis of Figure 3 and Table 3 in the UNESCO document, it can be inferred that the document places a greater emphasis on water and landscape. This aligns with what they refer to as Outstanding Universal Value (OUV). However, the intangible aspects of culture, such as the lives and histories of millers mentioned in the UNESCO document, are not extensively covered in the text. This is consistent with observations made from hashtags and images associated with #Kinderdijk.

Most images and hashtags primarily focus on the scenic views of Kinderdijk and the mill buildings themselves. The historical background that shaped this area, industrial context, or the surrounding community mentioned in Table 1 is almost absent or not prominently featured. Additionally, museums within Kinderdijk are showcased in the background of photos, with images mostly looking outward, but the connection to intangible heritage within the museums is challenging to find. Through this comparison between social media content and the UNESCO document, it becomes apparent that the majority of visitors tend to focus on the tangible heritage aspects that Kinderdijk offers.



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.

Results

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?

The museum has been the central building that not only displays collections but also serves as an accumulations of history (Davis, Mairesse, & Desvallées, 2010, p. 12). After expansions of the meanings of heritage, UNESCO has expanded the definition of museums. Rather than being spaces focused on collections, museums have evolved into non-profit spaces where the local community, along with visitors, come together. From this perspective, the research evaluates museums currently located in Kinderdijk and those related to UNESCO through the following four assessements.

How the museum represent Intangible Cultural Heritage?
How the museum integrate Intagible and Tangible heritage?
How the museum support to the local community with events and space?
How the museum provide the space for visitors to experience and engage with community?

The four UNESCO-related museums are each constructed by reusing existing buildings, reflecting their values and current situations. However, due to spatial limitations, the assessment mentioned earlier may not be entirely accurate. These museums adopt various approaches to handling tangible and intangible heritages and integrating with the community.

Most of these museums reuse existing buildings. For example, Rietveld Schroderhuis preserves the original house and delivers its intangible values through audio guides, showing re-compositions of the layout to demonstrate its architectural significance. Similarly, the Van Nelle Factory provides integrated experiences of its intangible and tangible values through daily tours. In contrast, the Grachten Museum conveys its values through multi-media-based exhibitions by telling a story. While the building itself is important, it effectively uses multimedia and compositions of space to present historical backgrounds and stories associated with iconic buildings.

The Castellum Hoge Woerd, a relatively recently built museum, integrates its tangible cultural heritage and its treatment with the community. It prioritizes community spaces over traditional collection-focused museums, featuring wide community areas, participation of locals, and event spaces. With a restaurant on the ground floor, a cinema on the upper floor, and a space that supports archaeological excavations, it facilitates interaction between locals and visitors.

While these museums lack community spaces due to limitations of space, they effectively integrate tangible and intangible heritages through their spaces and events. Especially, the Rietveld House, due to spatial constraints, collaborates with the nearby Utrecht Central Museum to adequately show the background and stories of Schroderhuis and their family.



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.

Conclusion

This research begins with motivation and progresses through the problem statement, providing answers to sub-questions in a logical sequence. Kinderdijk represents the cultural heritage of the Netherlands, designated as a UNESCO World Heritage site in 1997. Since then, various plans and changes have been tried and implemented, including the recent construction of a visitor center to enhance convenience for visitors to Kinderdijk. UNESCO's management plans have extended beyond mere facility expansion and improved accessibility; they aim to preserve Kinderdijk, display its core values related to water management, and pass these on to future generations by educating them. To achieve this, understanding the current values is important.

The value of Kinderdijk includes not only UNESCO documents and management plans but also the context and history, such as the community, industrial structure, and geological formation issued in Table 1. When combined and rearranged with the existing intangible and tangible heritages, these intangible heritages become essential elements that help safeguard the value of Kinderdijk. In this process of integration, museums play a significant role.

From this perspective, the integration and display of both intangible and tangible cultural heritages to visitors are important. Analysis of Instagram photos and hashtags with #Kinderdijk reveals that most visitors have more connection to tangible heritage rather than intangible heritage with Kinderdijk. Even significant intangible heritages, like the lives and stories of the millers noted in UNESCO documents and historical facts on the Kinderdijk website, appear unrelated to visitors' reactions. While the landscape itself is linked to intangible heritage, a more direct display of intangible heritage is needed, particularly within the museum.

The current UNESCO-related museums are integrating intangible and tangible heritages. They show the background and stories of heritages through spatial compositions, methods of exhibition, and audio guides. Additionally, by providing community spaces, they communicate with locals and offer visitors diverse experiences. These elements are considered necessary additions to the museums currently present in Kinderdijk. Despite efforts by the current museums in Kinderdijk to connect and integrate intangible and tangible heritages through various events and guides, they have not been effective.

Kinderdijk's uniqueness as an open-air museum makes it possess a more intangible heritage compared to other cultural heritages. Its closeness to residential areas and shared natural environments deepens its inherent value and connection with the surrounding community. These interconnected and shared values can establish new standards alongside the transformed museum paradigm. Furthermore, Kinderdijk can become a museum not only for visitors to enjoy its inherent value but also as a space for communication and community programs among locals.

This research is focused on preserving the intangible heritage following the expansion of the meaning of heritage and applying a paradigm shift in museums. More specifically, the goal is to preserve the intangible values of heritages, utilize them spatially, and integrate them with tangible values. This study is specific to a graduation project, and it serves as an example of a research project exploring the valuation of intangible heritage and the role of museums as community centers.

Discussion and Further process

This research used a method of collecting visitor responses through strategic inference using social media this methodology is also currently employed in various fields. However, it suggests possibilities of widening or narrowing the scope of inference due to a lack of amounts of samples, data selection errors, and time constraints, which may consequently restrict the results. Additionally, the analysis of intangible values related to the community may also be limited, as an accurate assessment requires long-term observation and exploration of the community and its environment.

Future steps involve closely monitoring and supplementing these limitations through more extensive online communities related to Kinderdijk, along with a thorough examination of literature and historical references. In the process of spatial substitution, the results of such studies need to be incorporated by design. The design aims to preserve Kinderdijk's artificial landscape by harmonizing it with the current tangible heritage and forming a cohesive ensemble. Furthermore, it plans to expand the functions of the museum, respecting the community, creating spaces following their needs, and establishing interconnection with visitors. The design desires to be a form of development that integrates cultural heritage, transforming the town into a design that evolves alongside cultural heritage rather than being isolated from it.

03. Design *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

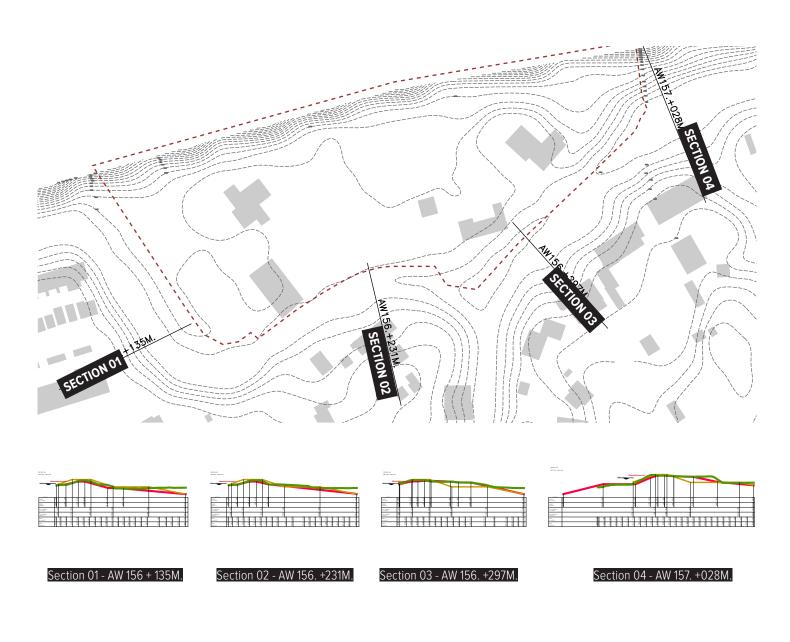
Site analysis





Dijken and Water Levels

Water level and how to approach



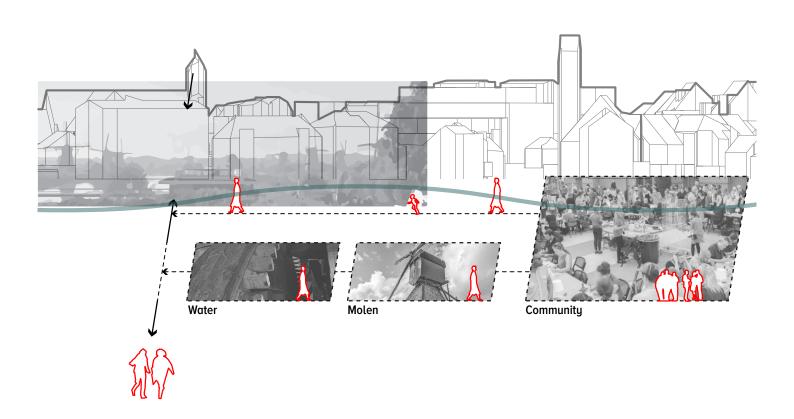
MAY

SEP

NOV

JAN

Experience with Promenade

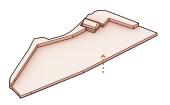


Promenade

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







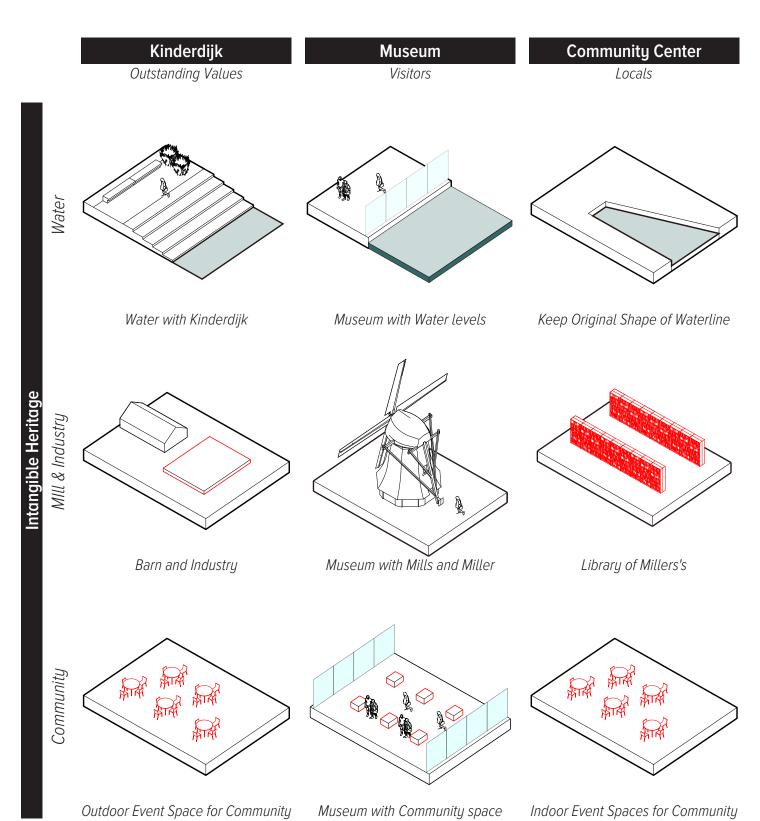


Lifting the site Upon the Water Level

Placing the Mass Along the Dyke

Connect between the Program

Ensemble with Mass

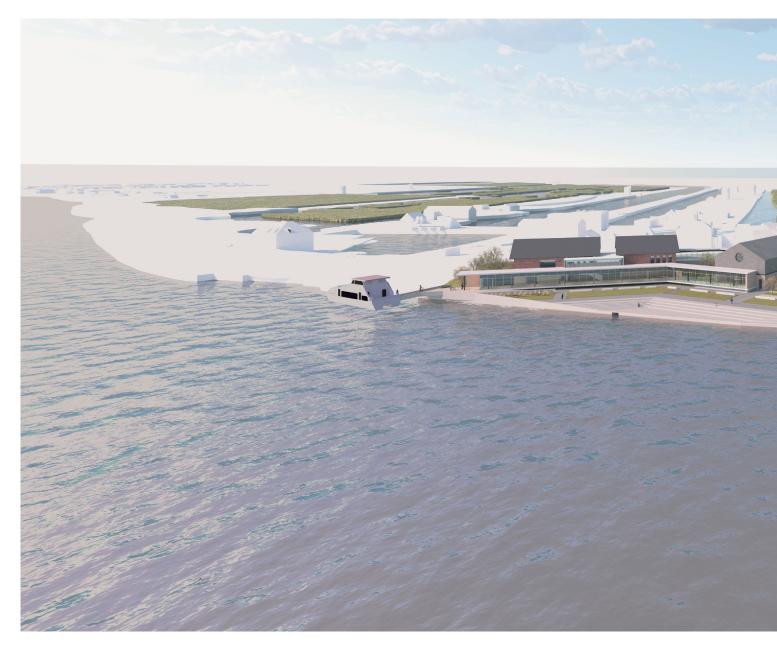




A museum is located along the way to Kinderdijk, blending harmoniously with the landscape of Kinderdijk. The buffer zone is used to separate two programs, allowing both locals and visitors to coexist and interact seamlessly.

ENSEMBLE

Enesemble 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.





West Elevation

East Elevation

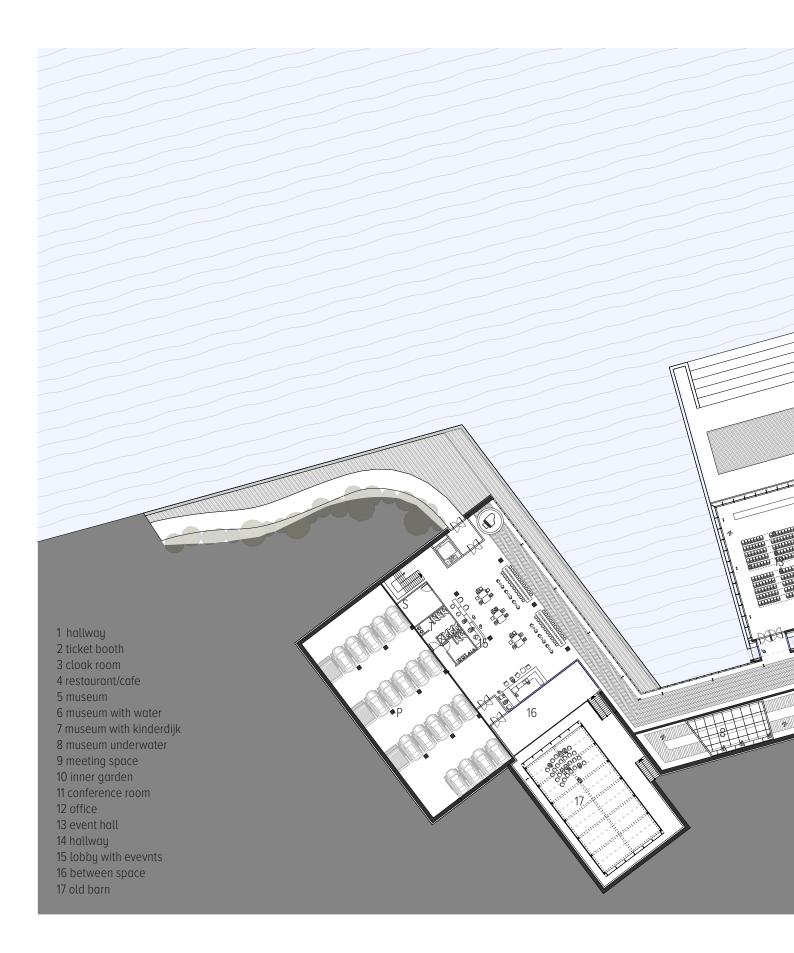
ENSEMBLE

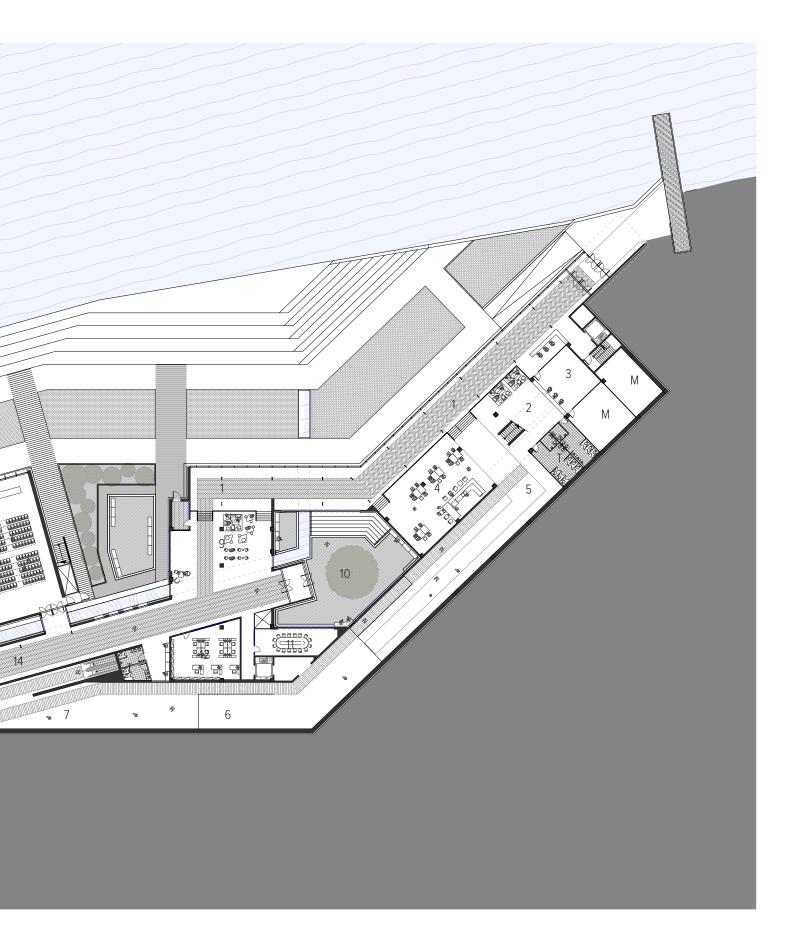
Enesemble with surroundings



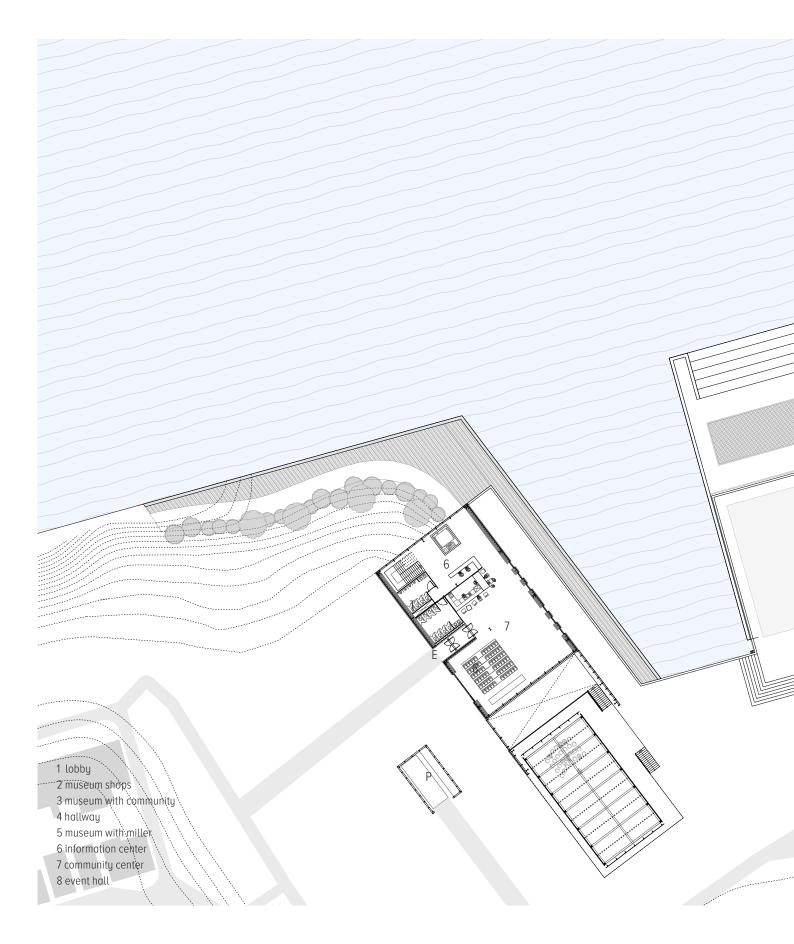


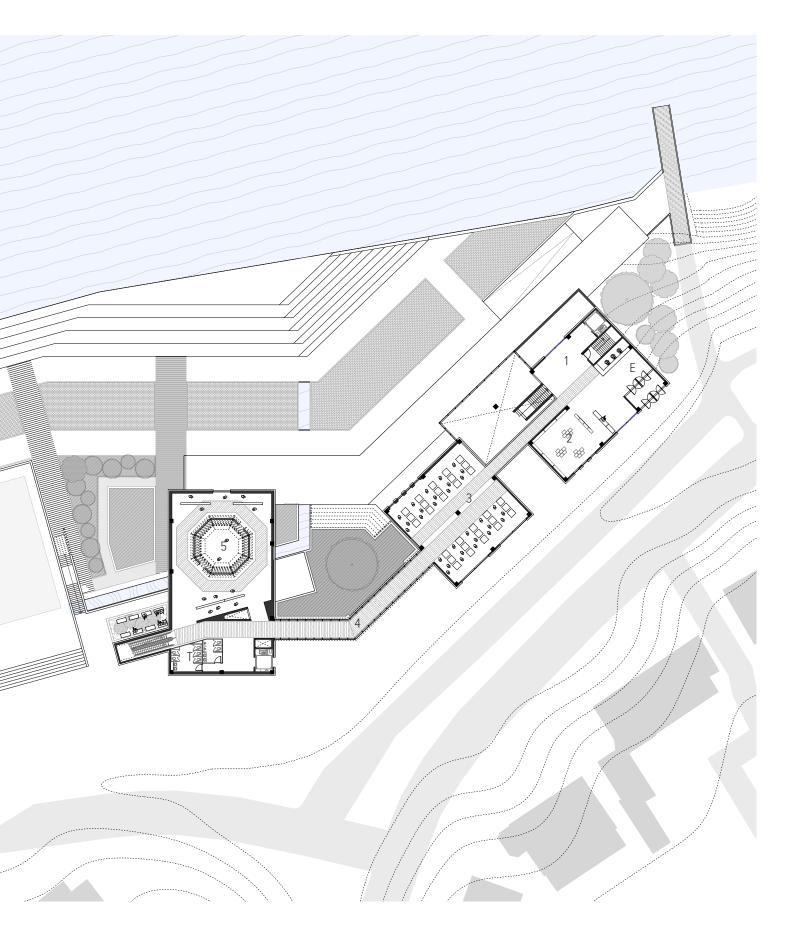
GF Plan

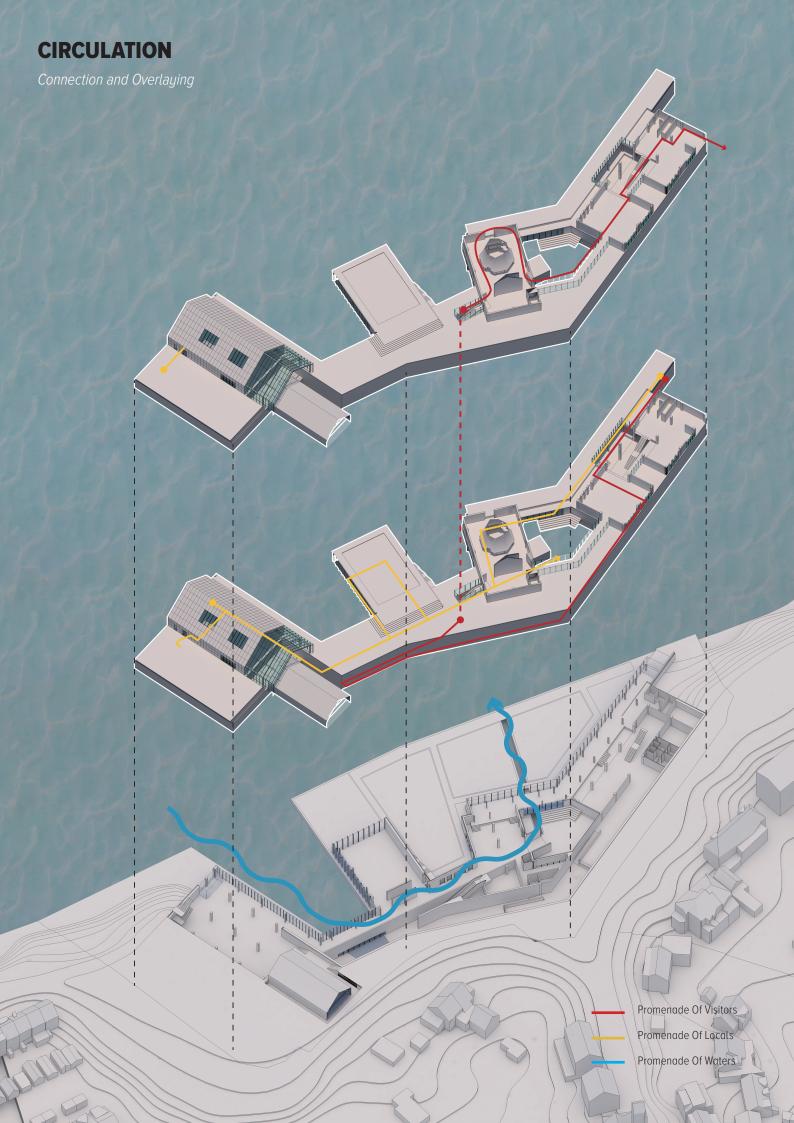




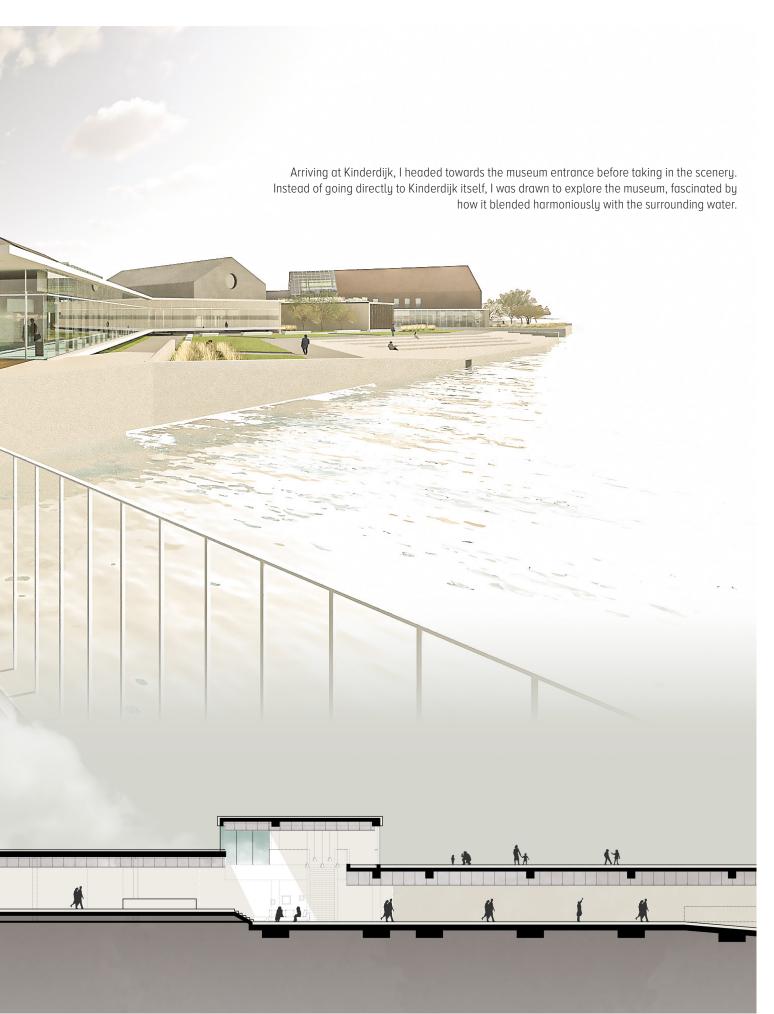
1F Plan









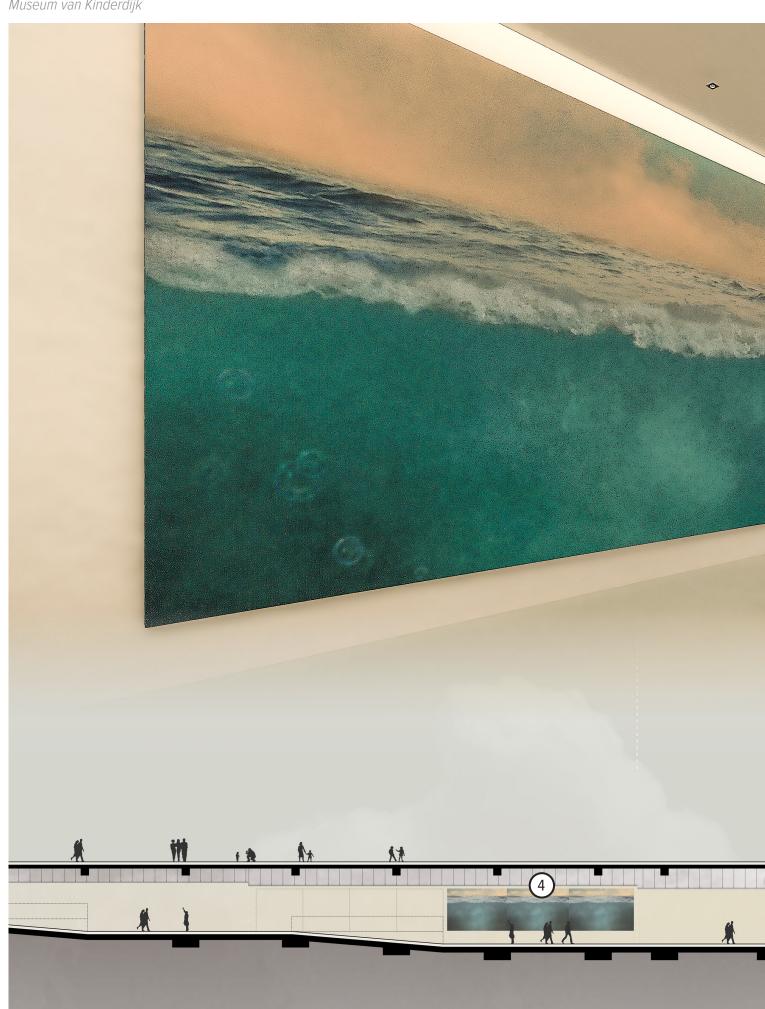




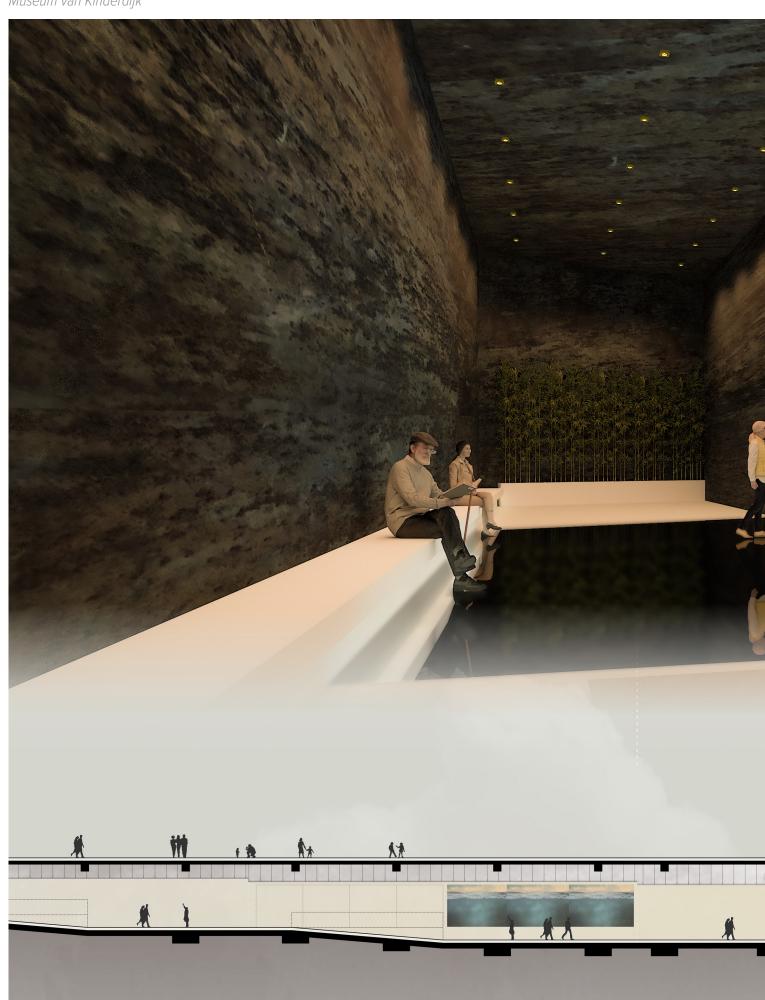


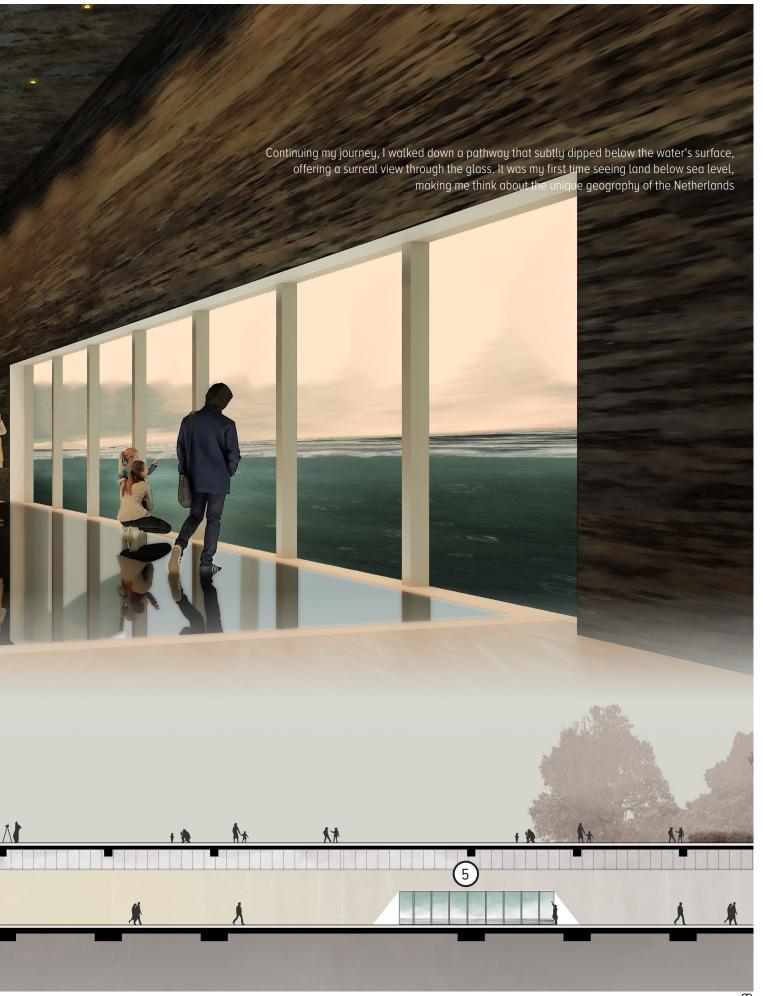


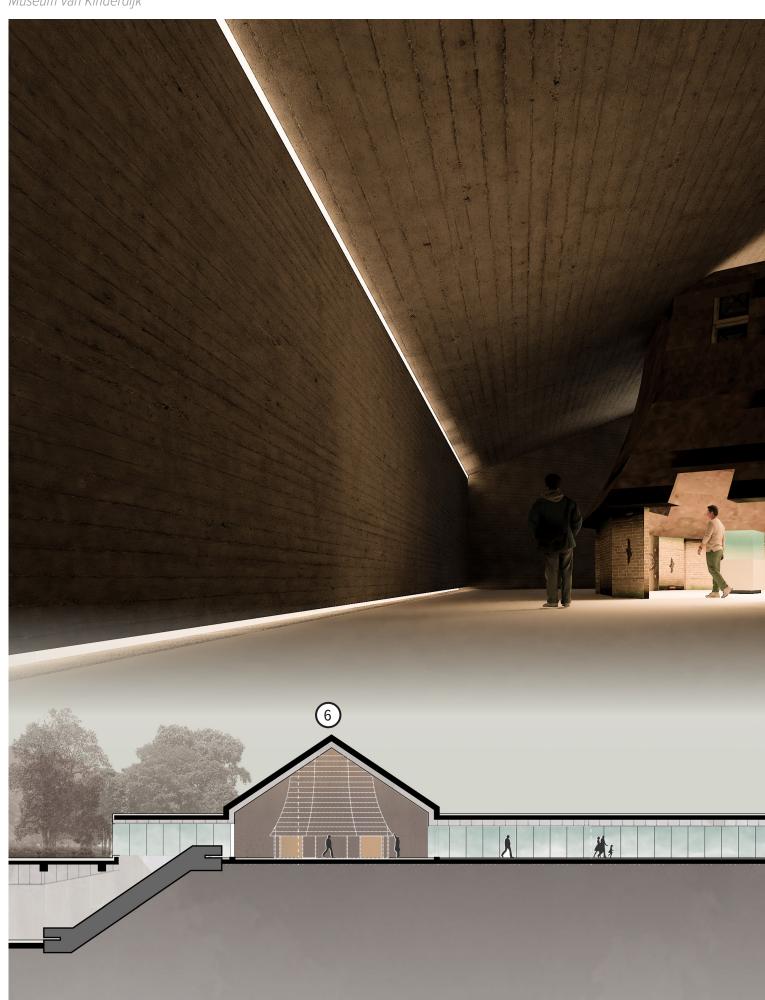






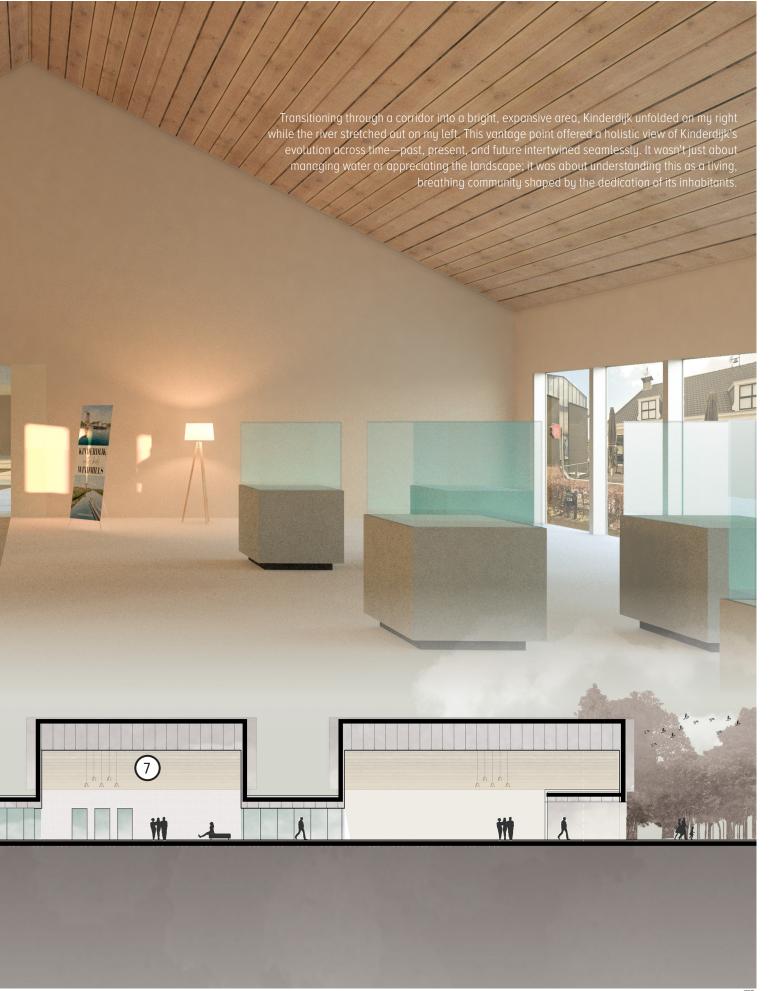












Promenade

Museum van Kinderdijk

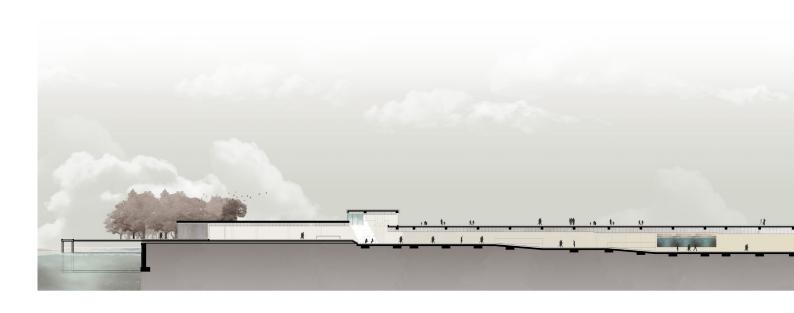




Promenade

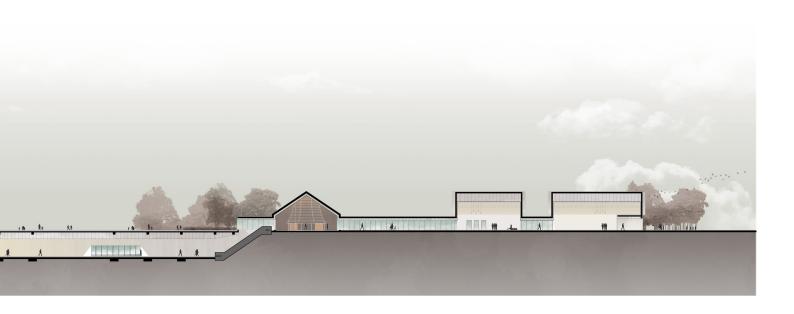
Museum van Kinderdijk







------> ENTRANCE



Barn and Community

Heritage and Structure







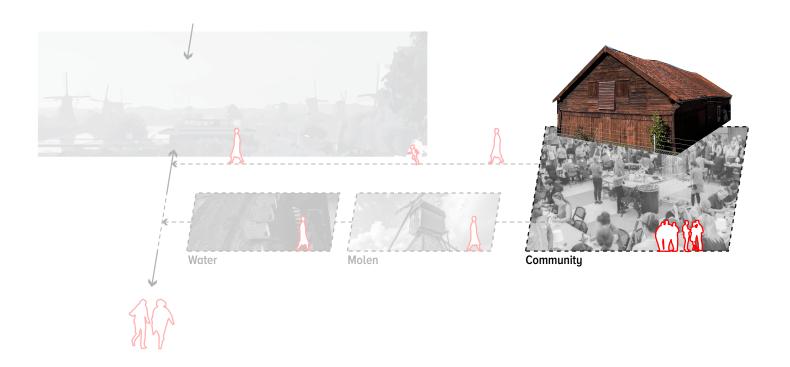
Near community on Kinderdijk



Structure of Dutch Barn

Community Space

Community space with Barn

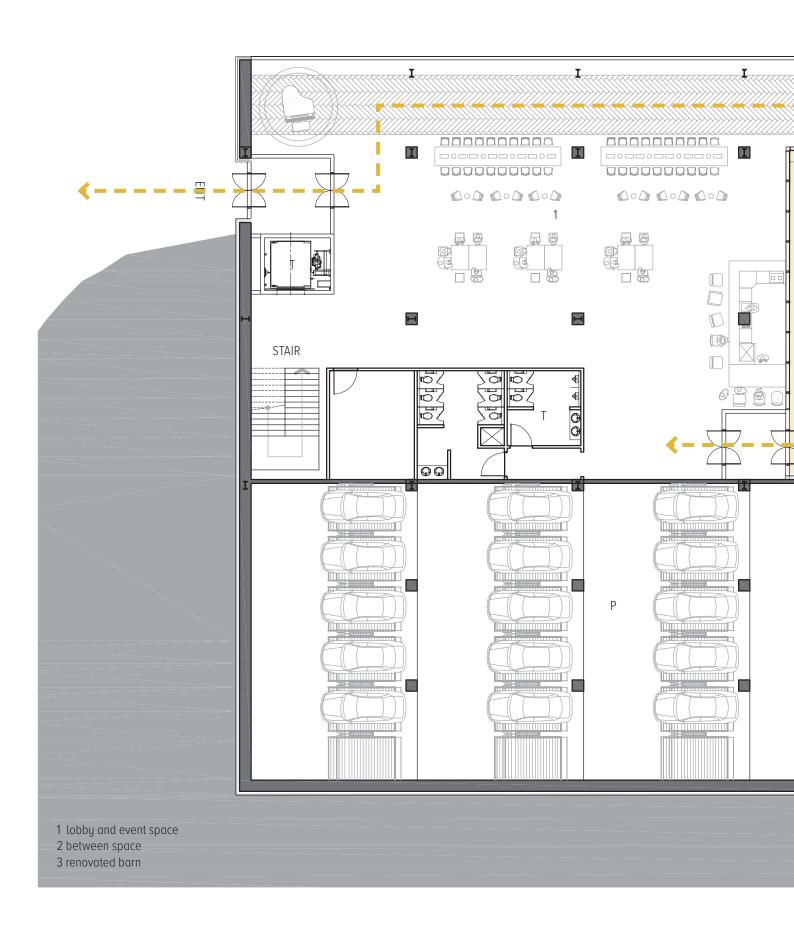


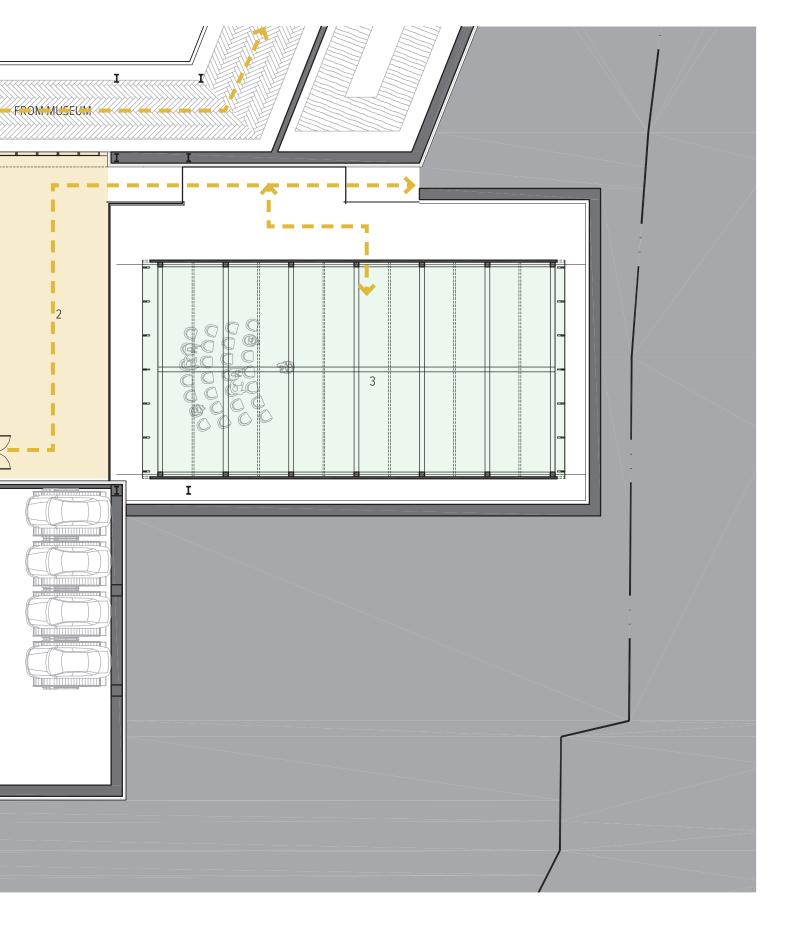
Barn and Community Center

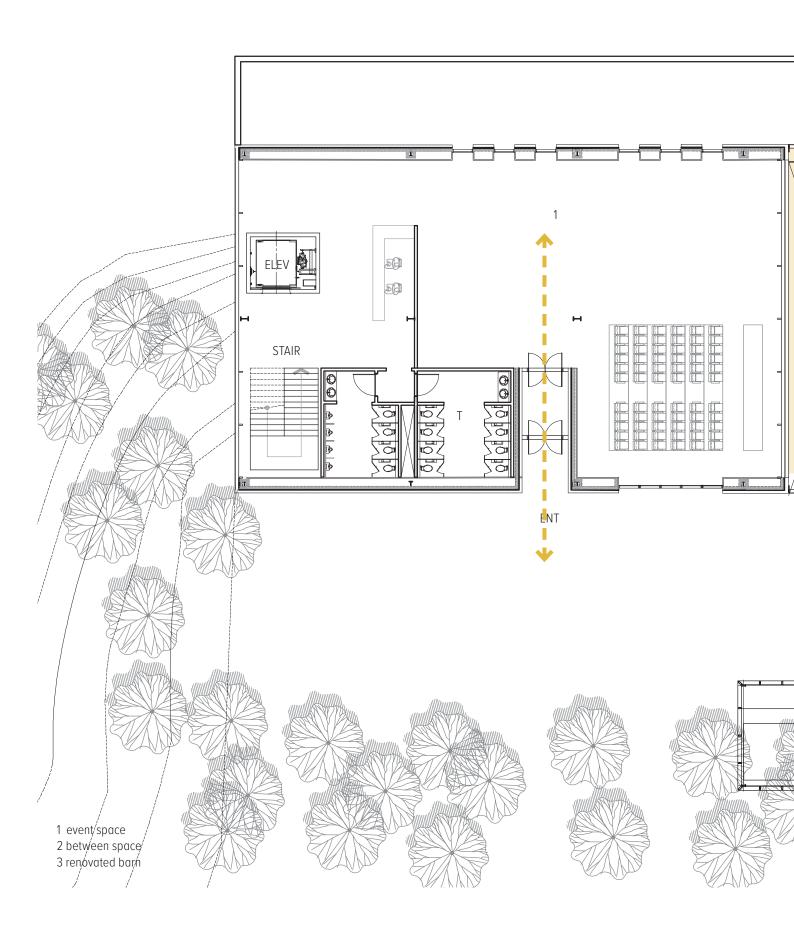
The community center has been designed to be easily accessible and in close proximity to the current community. It allows easy access from pathways and creates a rich interior space with diverse areas and event spaces. By incorporating the old barn, it blends

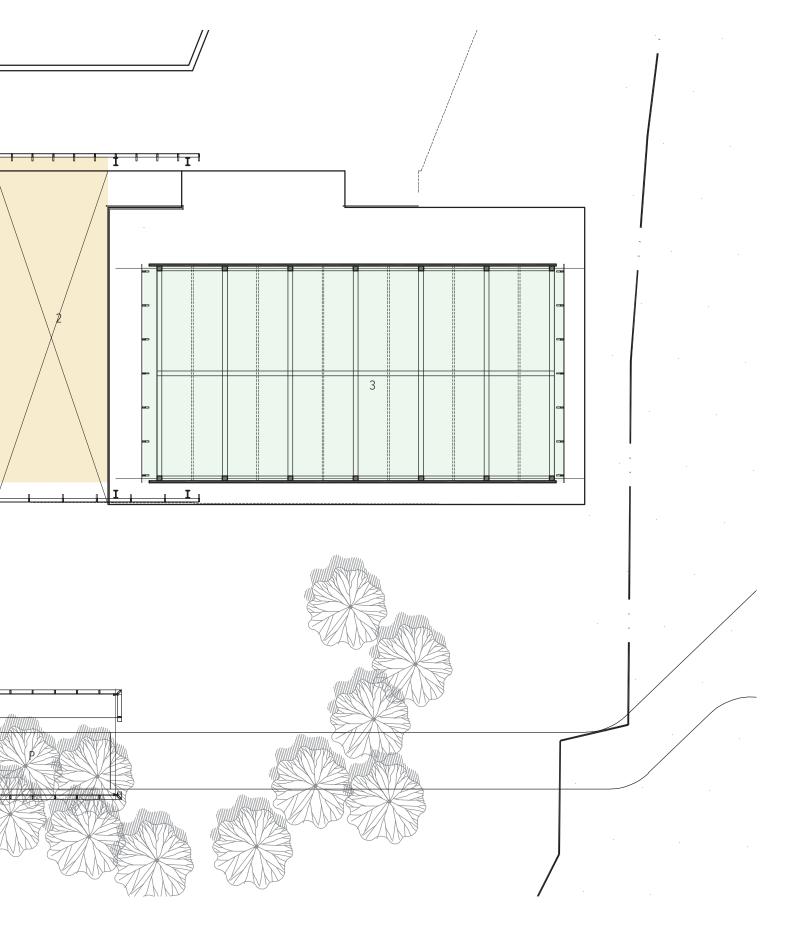
GF Plan

community center



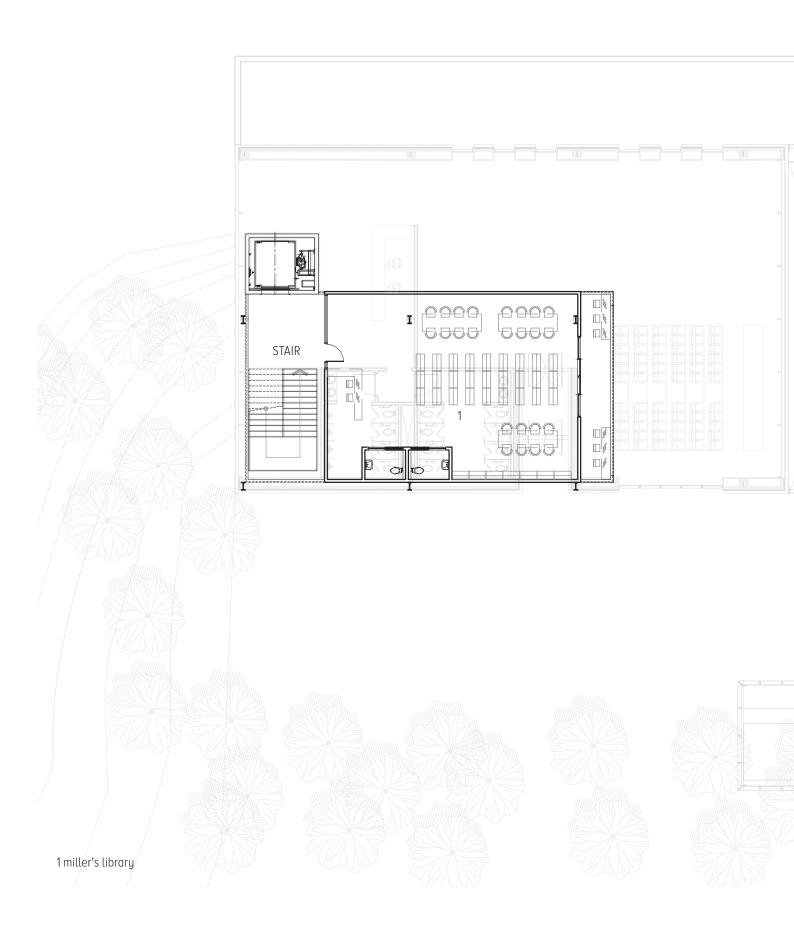


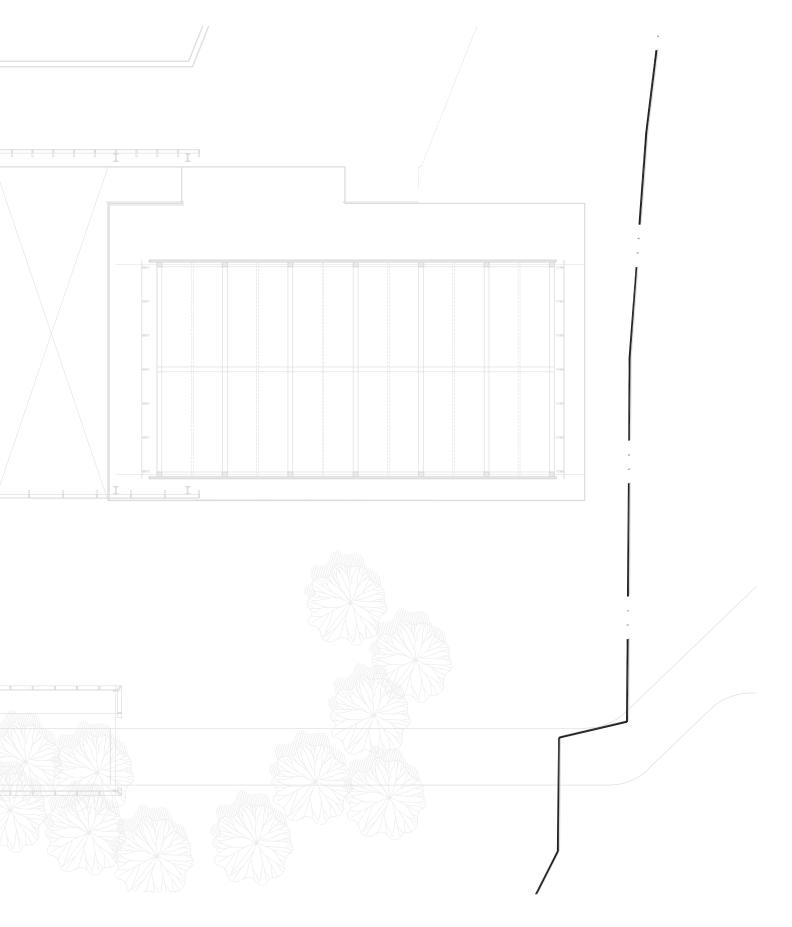




1F Plan

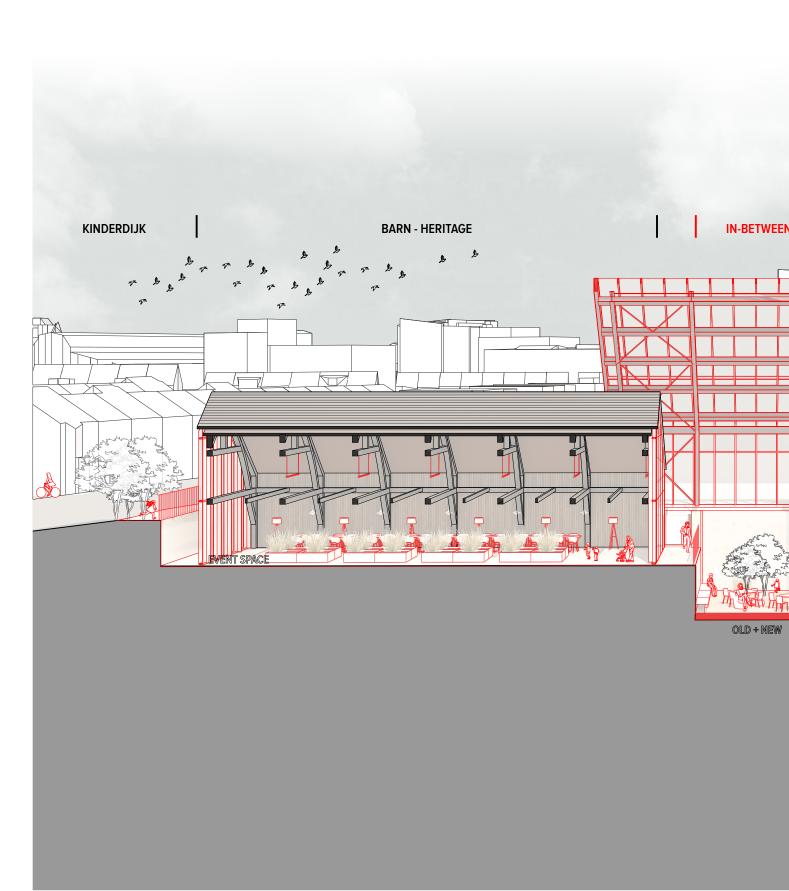
community center

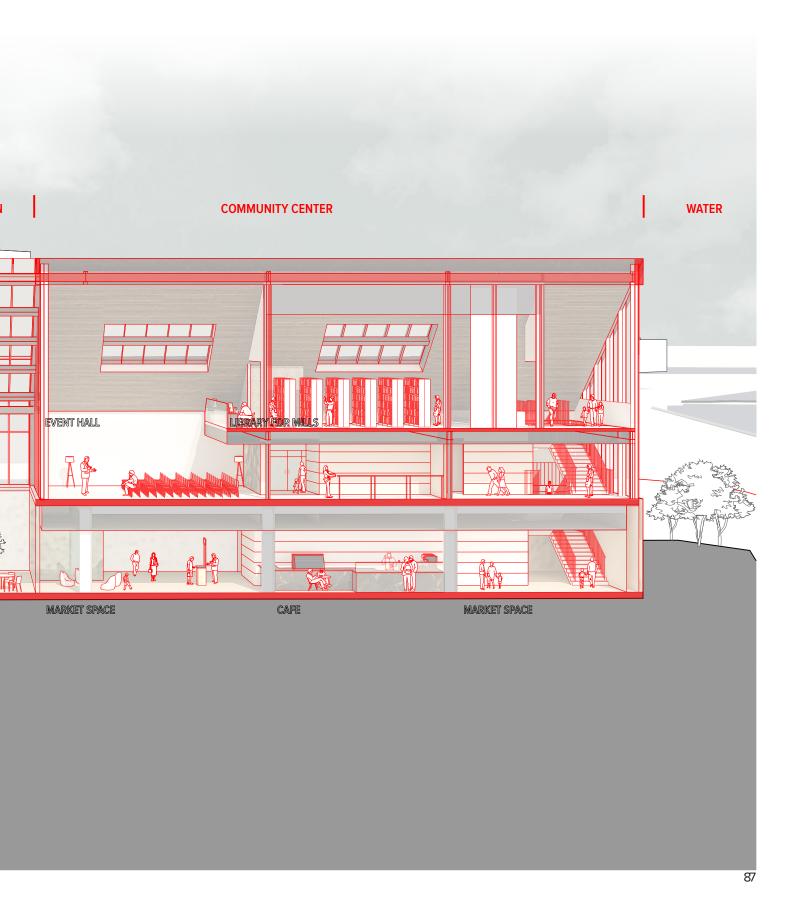




EVENT in BARN and COMMUNITY CENTER

Activities on Community Center

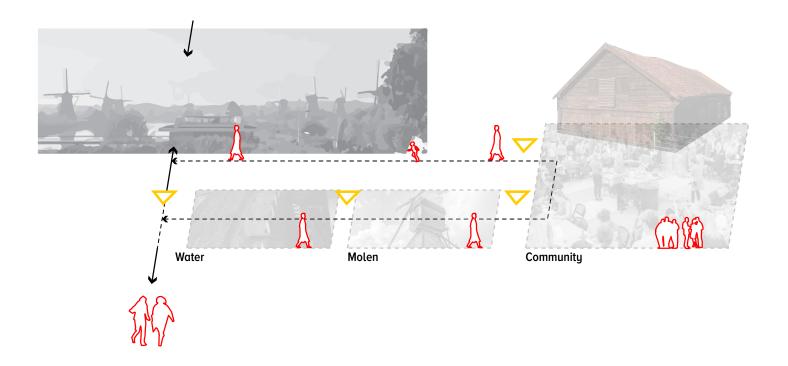








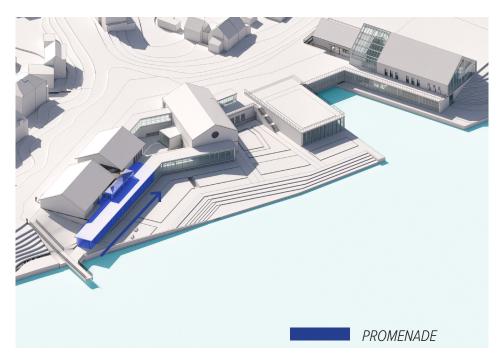
Overlay of Circulation



Barn and Community Center

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.

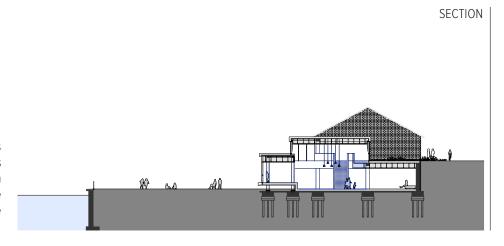
Lobby and Meeting Point



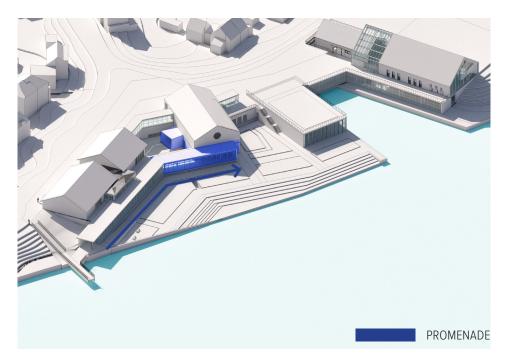


GF - Museum Lobby & Restaurant

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.



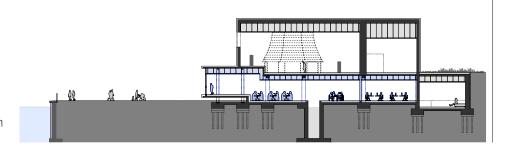
Lobby and Meeting Point





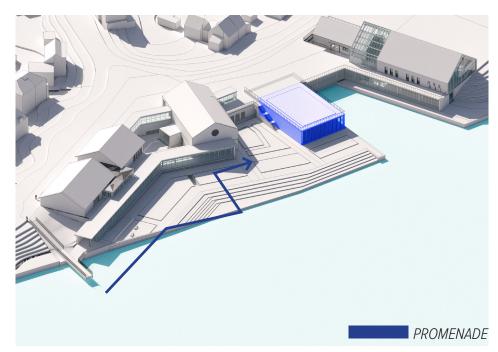
GF - Office and Meeting

SECTION



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

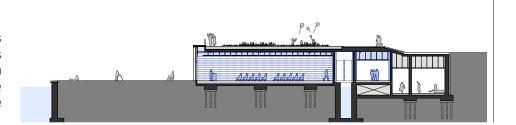
Lobby and Meeting Point





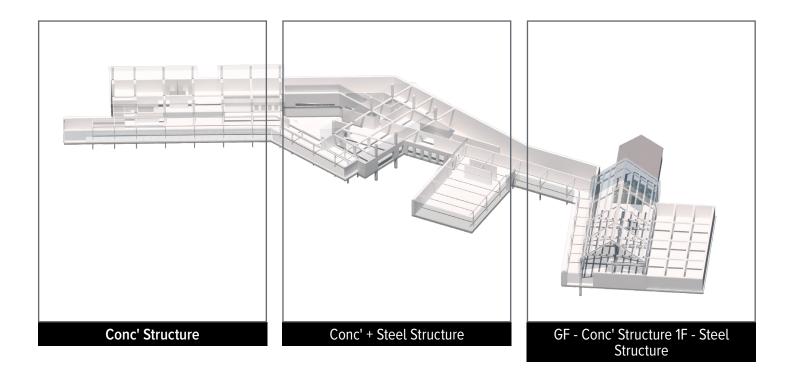
GF - Event Hall SECTION

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.



Structural Concept

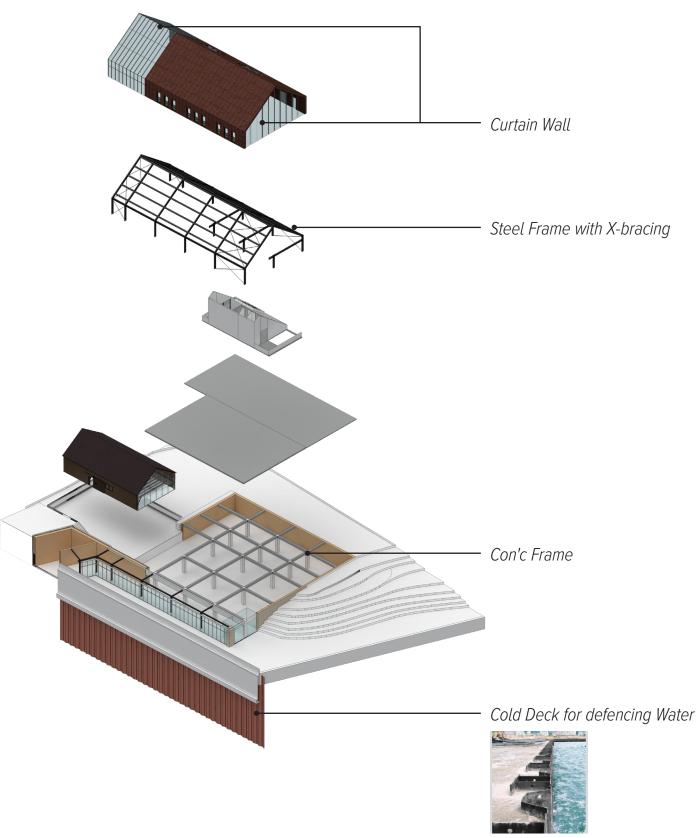
Along the dijk

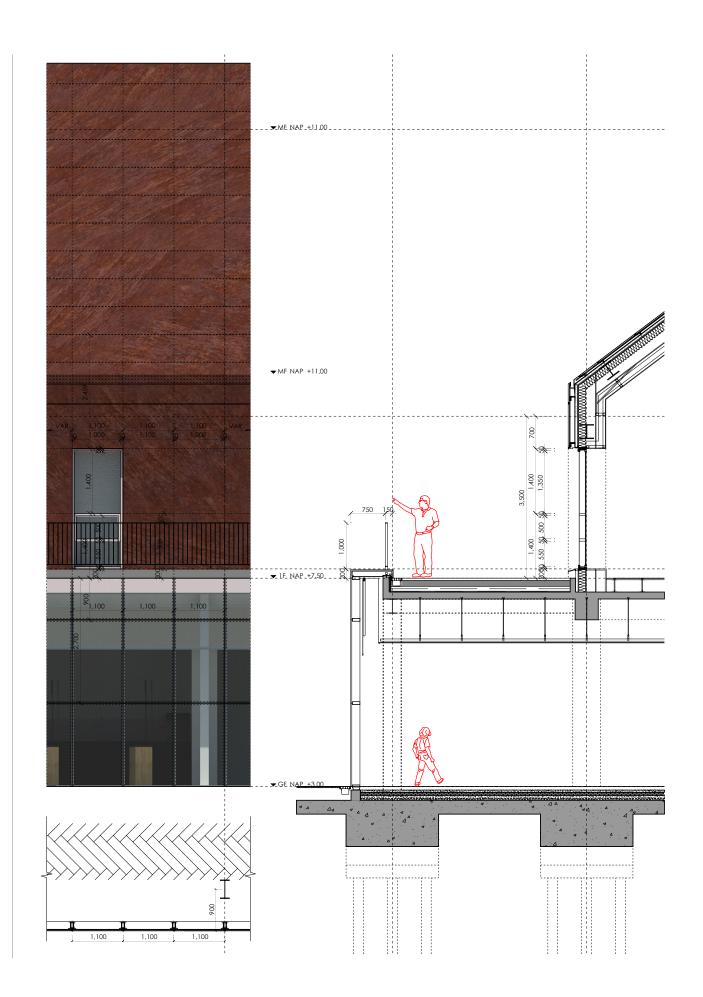


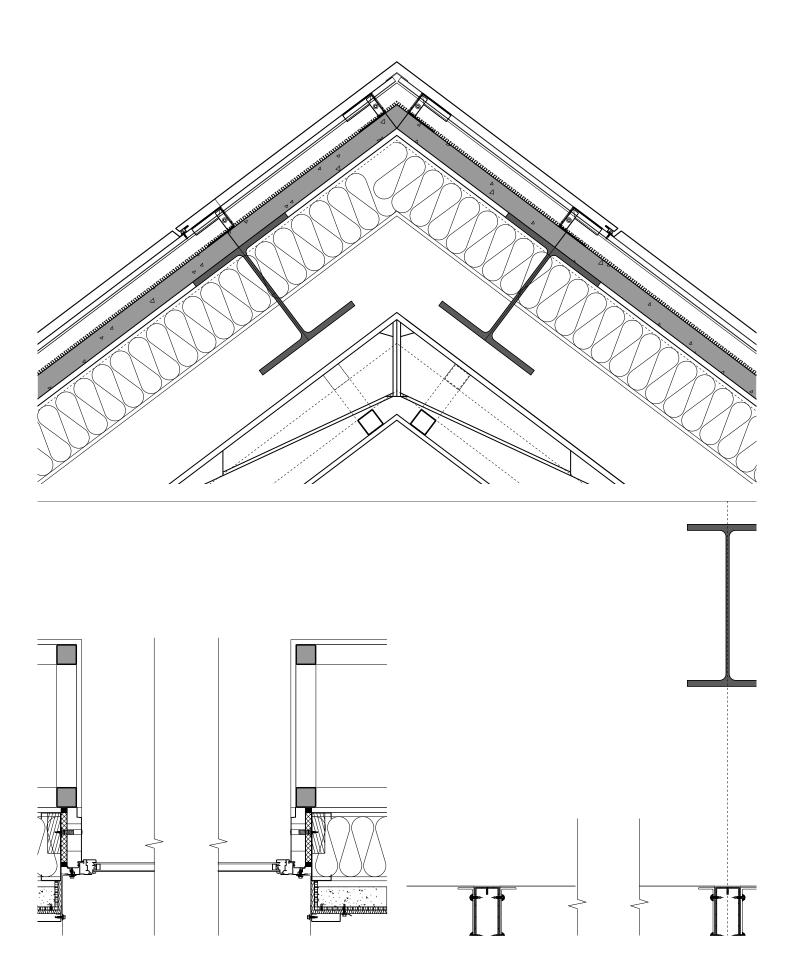
The entrance and welcome area near Kinderdijk are constructed with buildings of similar concrete structures to the surroundings. Concrete walls reinforcing the dyke extend along the dike, with rectangular frames and surrounding pathways connected by steel beams.

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.

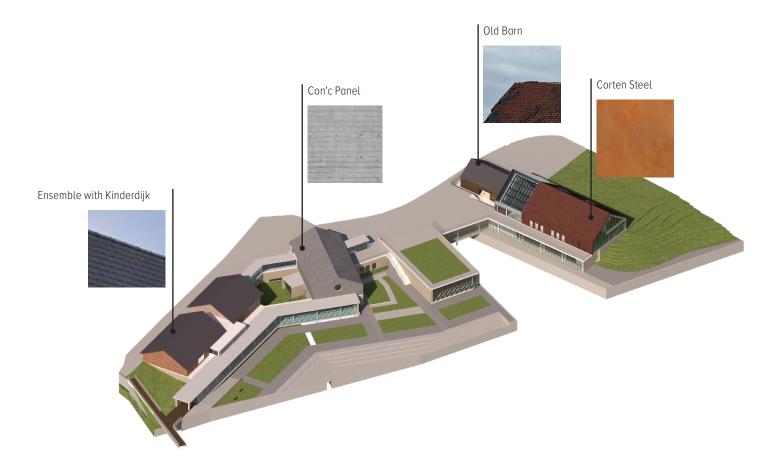
The community hall is primarily planned with a steel frame structure. Particularly, in connection with the heritage barn, it showcases the evolution of industrial structures by exposing them through curtain walls. Specifically designed with a steel frame structure resembling the form of factories, it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







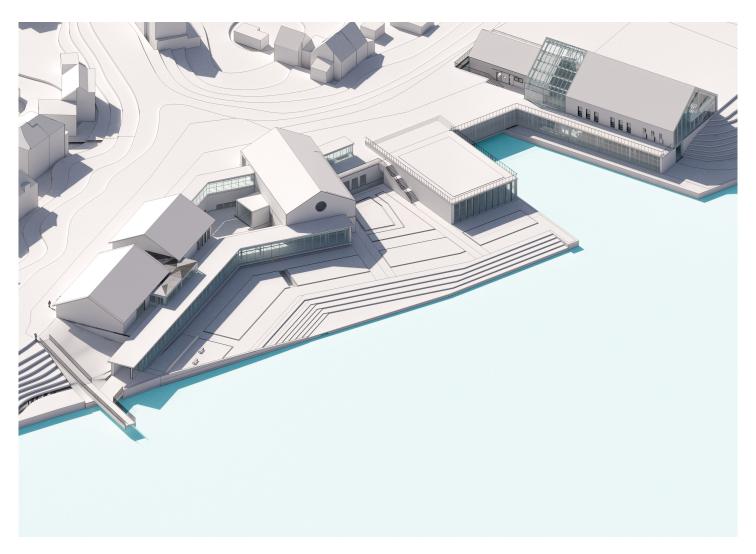
Material Transition



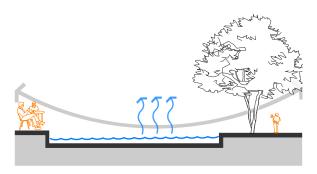
Transition of Materials



Water System



Climate control for inner garden



Collecting the water for reuse

