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# Re-new the Museum with Unseen

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# MOTIVATION



**Figure 1**. *A photo of Exhibition in Grachten Museum,  Author(2023).*

 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?

# CONTENTS

# 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*

## 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*

# 1. Introduction

1.1 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.

1.2 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.

# 2. Problem Statement

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 :

## 2.1 Main research question:

How can we enhance the visitor experience by revealing intangible cultural heritage to the museum in the Kinderdijk?

## 2.2 Sub-questions:

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?

# Re-new the Museum with Unseen

## Problem Statement

**How can we enhance the visitor experience by revealing intangible cultural heritage to the museum in the Kinderdijk?**

### Motivation

How to get to know hidden stories from heritage sites?

## Sub-Questions | Theoratical Framework | Methodology

**SQ1** 1. What are Kinderdijk's current intangible heritage values?

**LITERATURE**

UNESCO (2003). Convention for the Safeguarding of the Intangible Cultural Heritage.https://ich.unesco.org/en/convention

**Methodological approach**
**Narrative Approach**

Visualizing words which show the values of Kinderdijk from UNESCO Documents

**SQ2** 2. How do visitors react to Kinderdijk on social media? 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?

Veldpaus, Loes. (2015). Historic urban landscapes : framing the integration of urban and heritage planning in multilevel governance.

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

**SQ3** 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?
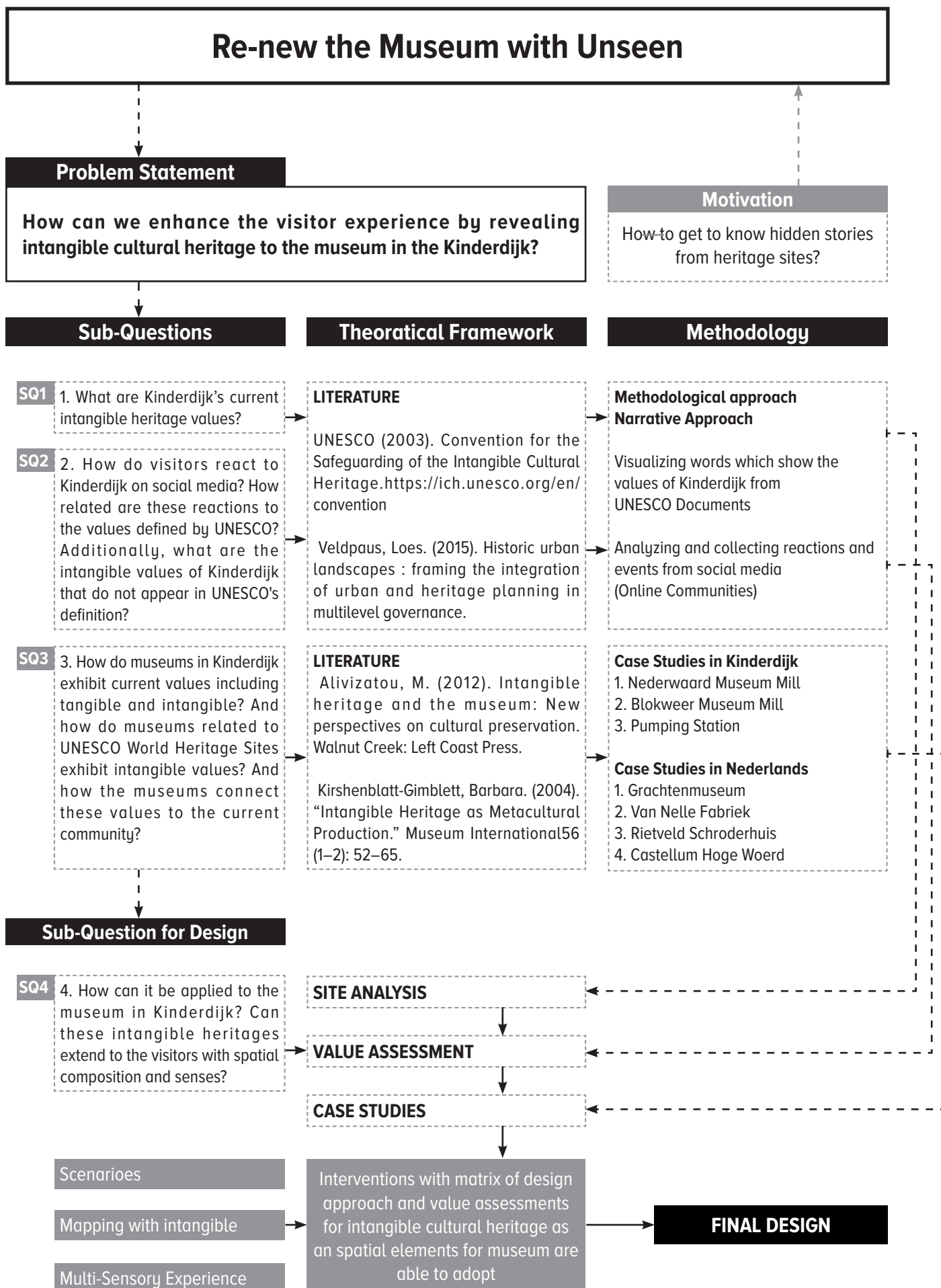
**LITERATURE**
Alivizatou, M. (2012). Intangible heritage and the museum: New perspectives on cultural preservation. Walnut Creek: Left Coast Press.

Kirshenblatt-Gimblett, Barbara. (2004). "Intangible Heritage as Metacultural Production." Museum International56 (1–2): 52–65.

**Case Studies in Kinderdijk**
1. Nederwaard Museum Mill
2. Blokweer Museum Mill
3. Pumping Station

**Case Studies in Nederlands**
1. Grachtenmuseum
2. Van Nelle Fabriek
3. Rietveld Schroderhuis
4. Castellum Hoge Woerd

## Sub-Question for Design

**SQ4** 4. How can it be applied to the museum in Kinderdijk? Can these intangible heritages extend to the visitors with spatial composition and senses?

**SITE ANALYSIS**

**VALUE ASSESSMENT**

**CASE STUDIES**

Scenarioes

Mapping with intangible

Multi-Sensory Experience

Interventions with matrix of design approach and value assessments for intangible cultural heritage as an spatial elements for museum are able to adopt

**FINAL DESIGN**

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

# 3. Methodology

The research can be approached in three phases. Each corresponds to three sub-questions. In the first phase, intangible values from Kinderdijk are has according to the theoretical framework mentioned above. It will be assessed using UNESCO documents and value assessments of Taxonomy of Veldpaus. And it will be  intangible values can be extracted.

 The second sub-question will be conducted through a narrative approach. Visitor responses will be compared with the intangible values assessed in Kinderdijk's UNESCO document in the previous phase. Through a program that networks the similarity of words(e.g., Figure 4,5), I will determine how connected words are in context and classify them what value is receiving attention from visitors. The third sub-question can be approached how tangible and intangible values are revealed through case studies of museums. In particular, World Heritage-related museum and current Kinderdijk Museums can be compared and analyzed how they express ICH and how they display their collections in different ways. Furthermore, by combining research from the IHC museum frameworks, it wll be examined whether museums in Kinderdijk are viewed as spaces where diverse visitors share ideas and gather together with the participation of local residents, and whether Kinderdijk's core values and ideas are provided through experiences and participatory approaches in open spaces.

**Figure 3**. *Diagram of Methodology (Author,2024)*
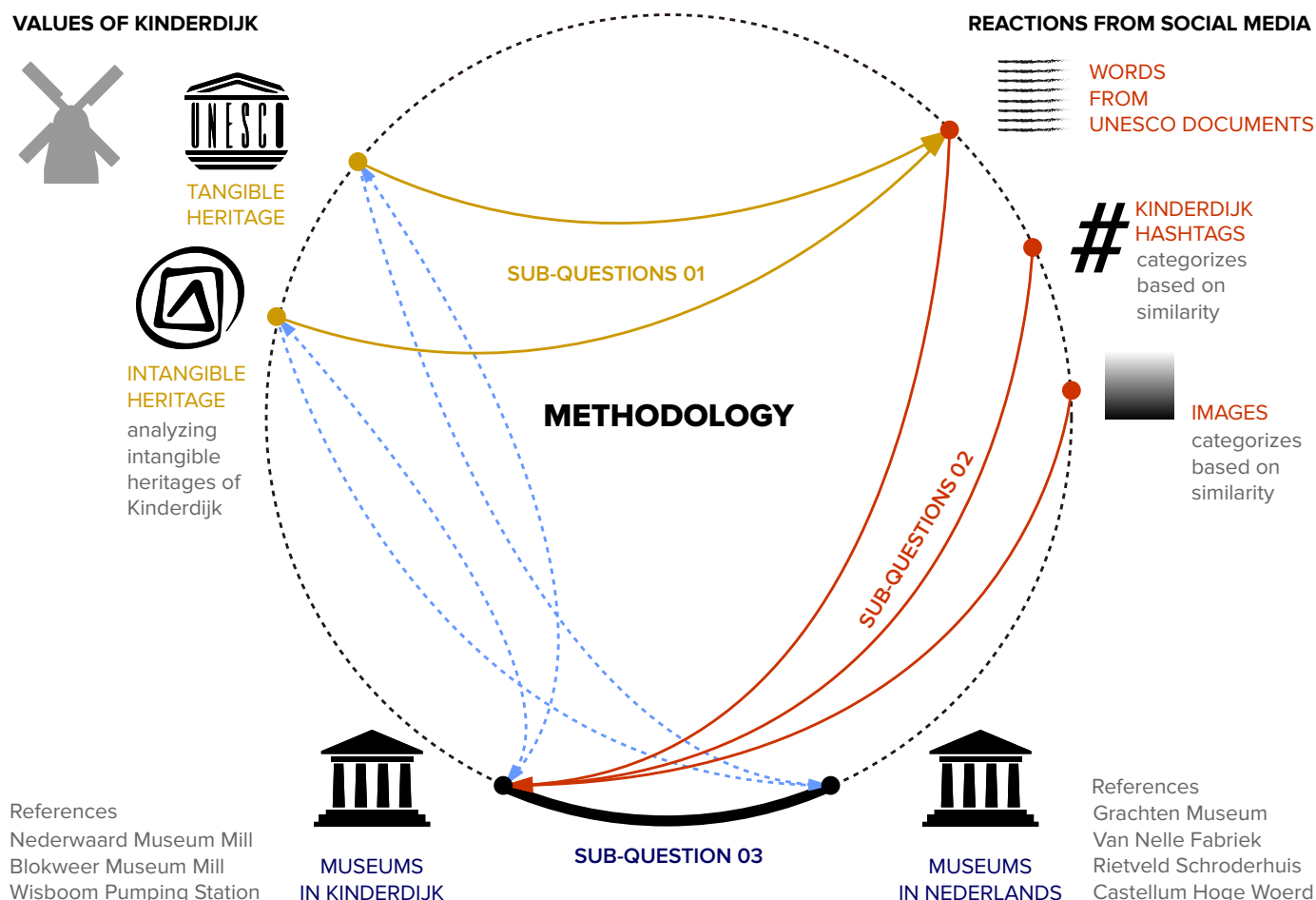
# 4. Results

## 4.1. What are Kinderdijk's current intangible heritage values?

### 4.1.1. The values from UNESCO

According to UNESCO documents, Kinderdijk has three Outstanding Universal Values (here in after referred to as OUV):

Criteria (i): ...the windmill network is an extraordinary man-made landscape...
Criteria (ii): ... a historic high and low polder area with natural drainage through waterways, mills, mill construction, pumping stations, drainage, and water management buildings...
Criteria (iv): ...The Kinderdijk-Elshout windmill network constitutes an extremely ingenious hydraulic system that functions to this day... (UNESCO, 2022).

The mills, water management system and network, and the lives of the millers of Kinderdijk represent its distinctive OUV. Particularly, the collections exhibited in museums within Kinderdijk, accumulated over a long period, support this type of tangible heritage. In this context, collections are deeply associated with intangible heritage as well (Alivizatou, 2006, p. 47). Such collections are acknowledged in UNESCO documentation under component 8: Intangible World Heritage, which declares Kinderdijk as a living heritage. This includes friendly local communities, events, ceremonies, traditions, statements, special knowledge, and skills recognized by municipalities and groups (and sometimes individuals) as a form of cultural world heritage (UNESCO, 2022). Furthermore, with the Dutch Miller's trade, an intangible cultural heritage in the Netherlands, Kinderdijk's miller's lives are also part of the intangible cultural heritage of this site.
From this perspective, the current UNESCO evaluation process emphasizes tangible and material heritage with clear and distinct forms. This focus suggests the possibility of overlooking intangible heritage. This response has been expanded through the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage (Pocock, Collett, & Baulch, 2015). Along with this expansion, there has been a redefinition of the identity of intangible cultural heritage (UNESCO, 2003).

### 4.1.2. The Intangible Values of Kinderdijk

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.

**Table 1.**
Analysis of Intangible values in Kinderdijk. This table based on Taxonomy of attributes (Appendix 1. Veldpaus, L. 2015)

| | | | | |
|---|---|---|---|---|
| Intangible Attributes | Product | 1 | Concept<br>Artistic Trend | This area features a convergence of diverse historical designs, with buildings combining modern and traditional technologies. |
| | | 2 | Relations to Context (Location) | Connected to a river, it is characterized by the presence of significant objects, particularly ships, linked to the entire region. |
| | | 3 | Character | It possesses a unique identity blending urban, rural, and industrial atmospheres. |
| | Practice (Societal) | 4 | Use<br>Function | The region has played a crucial role not only in water management but also as the location of essential factories for shipbuilding. |
| | | 5 | Knowledge<br>Tradition<br>Customs | erving as an important harbor, the area not only played a pivotal role in water management but also serves as a tangible representation of the technology and knowledge associated with it. These technologies and the lives of the residents are interconnected, with various tools and installations linked to both. |
| | | 6 | Relation to Meaning | Communities of both the church and factory workers coexist in this area. |
| | | 7 | Community<br>People | It has become a settlement for both factory workers and immigrants who have migrated here. The community of millers, who have operated Kinderdijk, is significant, as is the community of local residents. |
| | Process | 8 | Planned Process<br>Development | Kinderdijk is a planned space but has also evolved over time. It was transformed into a space for water management, with cultivated land and spaces for water storage. However, the factories and houses surrounding it have naturally developed, leading to continuous changes in the dikes in response to the evolving surroundings |
| | | 9 | Unplanned Process<br>/Evolution | |

## 4.2. How do visitors react to Kinderdijk on social media? 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?

### 4.2.1. The Words from Unesco Documents of Kinderdijk

The first step in gathering data and discovering similarities through it is selecting the dataset. For this purpose, three datasets have been chosen. The first dataset consists of UNESCO documents related to Kinderdijk. The second dataset includes the content of posts related to #KINDERDIJK, along with relevant hashtags. Finally, the third dataset is the image posted on Instagram.

The number of words in the UNESCO documents can be seen in Figure 3. Presenting the 50 most frequently words can reveal the significance of this document to Kinderdijk with **Table 3.** Upon reviewing these words, it becomes apparent that the most important elements for Kinderdijk at present are associated with "management" and the values it holds in terms of its Outstanding Universal Value (OUV).

**Table 2.** Word Counts in UNESCO DOCUMENTS about Kinderdijk

| Counts | Word | Counts | Word | Counts | Word | Counts | Word | Counts | Word | Counts | Word | Counts | Word |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 160 | kinderdijk | 56 | mills | 25 | system | 21 | vision | 16 | value | 14 | basis |
| 156 | managemen | 56 | swek | 25 | pumping | 20 | one | 16 | ensure | 14 | plans |
| 152 | heritage | 53 | new | 24 | made | 20 | spatial | 16 | planning | 13 | group |
| 137 | world | 43 | developmen | 24 | project | 19 | elshout | 16 | municipality | 13 | property |
| 127 | area | 34 | visitor | 24 | future | 19 | part | 15 | long | 13 | areas |
| 126 | plan | 33 | developmen | 23 | nature | 19 | natura | 15 | hydraulic | 13 | station |
| 89 | site | 31 | landscape | 23 | surrounding | 19 | public | 15 | drainage | 13 | better |
| 72 | water | 30 | mill | 22 | municipalitie | 18 | many | 15 | still | 12 | network |
| 70 | also | 27 | completed | 21 | cultural | 18 | holder | 15 | conservation | 12 | protected |
| 60 | visitors | 27 | tourism | 21 | alblasserdar | 17 | high | 14 | able | 12 | permit |



**Figure 4**. *Word Clouds from Unesco Document about Kinderdijk  (Author,2024)*

## 4.2.2. The Words from Instagram Posts with #Kinderdijk

Instagram, being a social media platform that primarily focuses on images, provides valuable insights into word similarities and the intentions of the authors through hashtags. (Yang et al., 2016) Therefore, I collected texts from posts with the hashtag #kinderdijk, analyzing a total of 1000 hashtags. Through this analysis, I divided the texts into six categories:

1. Descriptions of photographs capturing the landscape of Kinderdijk.
- It consists of #moon_rising, #winter_scenes, #illuminatioweek and also #night_scenery.

2. Information about the main functions of Kinderdijk, such as pumping water for lowlands.
3. Descriptions of weather conditions in Kinderdijk, including scenes of ice skating.
- It depends on the weather of the current season. Such as #cold, #winter_week, #ice_skating

4. Travel and exploration posts with recommendations for visiting Kinderdijk.
- It is connected with commercial purposes.

5. Cultural and historical information about Kinderdijk.

6. Sharing personal experiences in Kinderdijk, such as marathons. ice skating, and running in the morning.
- This contains events in Kinderdijk and activities such as running, marathons, and boarding the boat.

These hashtags reveal that visitors to Kinderdijk reacted to the ensemble of surroundings and mills valued by UNESCO, the water management system that shapes Kinderdijk, and personal reflections on experiences from Kinderdijk.



**Figure 5**. *Word Clouds of Instagram Hashtags  (Author,2024)*

### 4.2.3. Image Analysis from Instagram Posts with #Kinderdijk

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.

### 4.2.4. Analysis in Documents and Posts

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.

**Figure 6**. *Image Clustering of Instagram posts about Kinderdijk (Author,2024)*
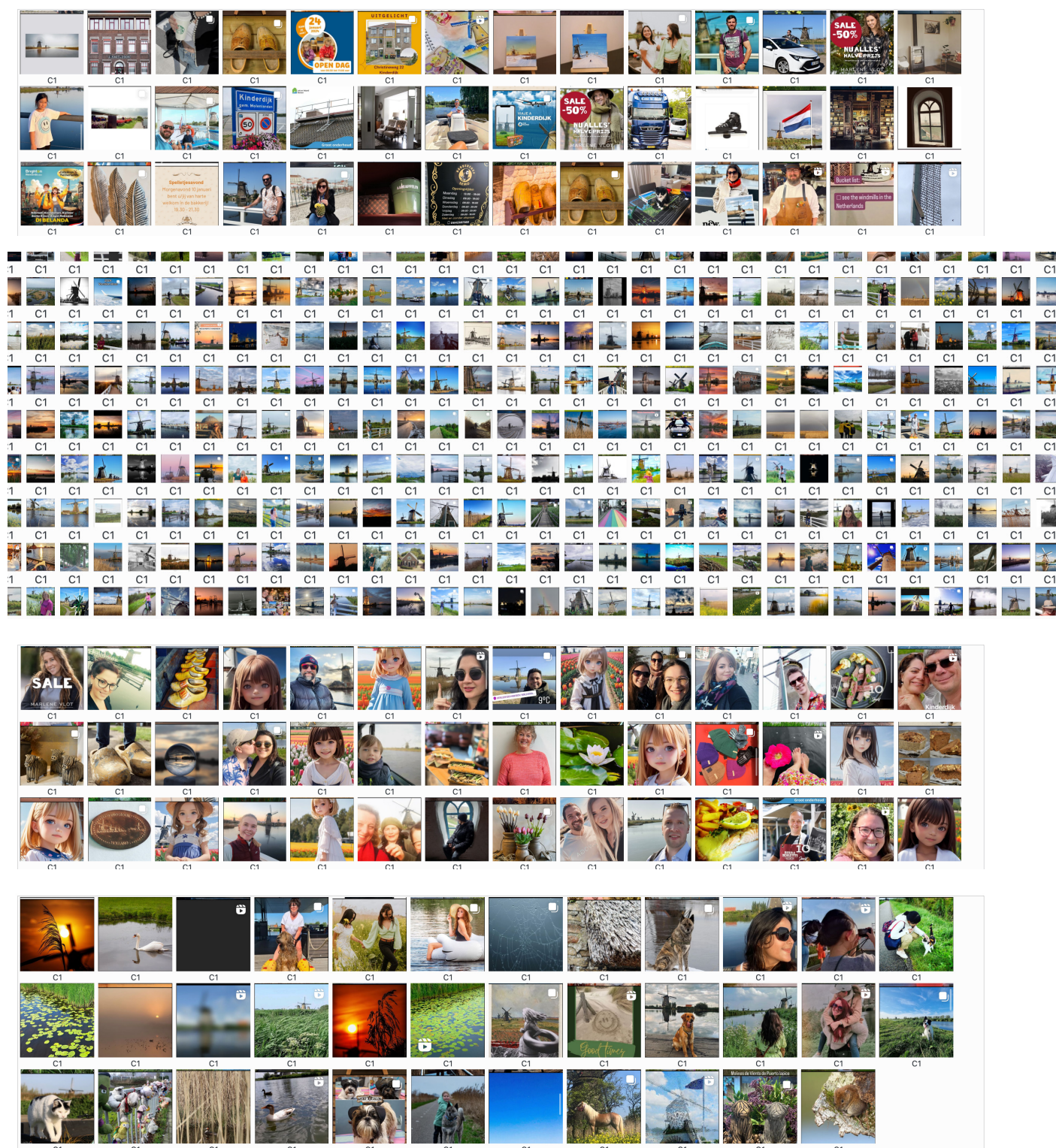
**4.3. How relevant are the current museums in Kinderdijk to the reactions of visitors and the intangible heritage of Kinderdijk as defined by UNESCO? And how do museums relate to other World Heritage represent intangible and the tangible?**

In Kinderdijk, there are three buildings that function as museums. All of which are repurposed from re-using structures of heritage buildings. This reuse follows the conventional approach of displaying the heritage. By repurposing structures, it becomes easier to convey the atmosphere and conserve cultural heritage. Furthermore, by reassembling their collections in these repurposed museums, they can easily recreate and represent aspects of intangible heritage. As a response, the museums in Kinderdijk are spread out across the Heritage area, as seen on the map below. Since Kinderdijk is valued for its wide landscapes mentioned in the Outstanding Universal Value (OUV), the museums are placed to help conserve this scenery.

In the Netherlands, there are a total of 12 UNESCO World Heritage sites. Among them, four UNESCO cultural heritage sites are selected for analysis with museums. Each of these museums combines its own unique intangible and tangible heritages, shown in different ways. By comparing and analyzing the museums in Kinderdijk with the UNESCO museums, it can be explored how they handle intangible cultures and how they are integrated with tangible ones. It can also examine how they reveal intangible heritages to visitors through the museum and its space for community.

**Figure 7**. *Museums in Kinderdijk with Google map (Author,2024)*
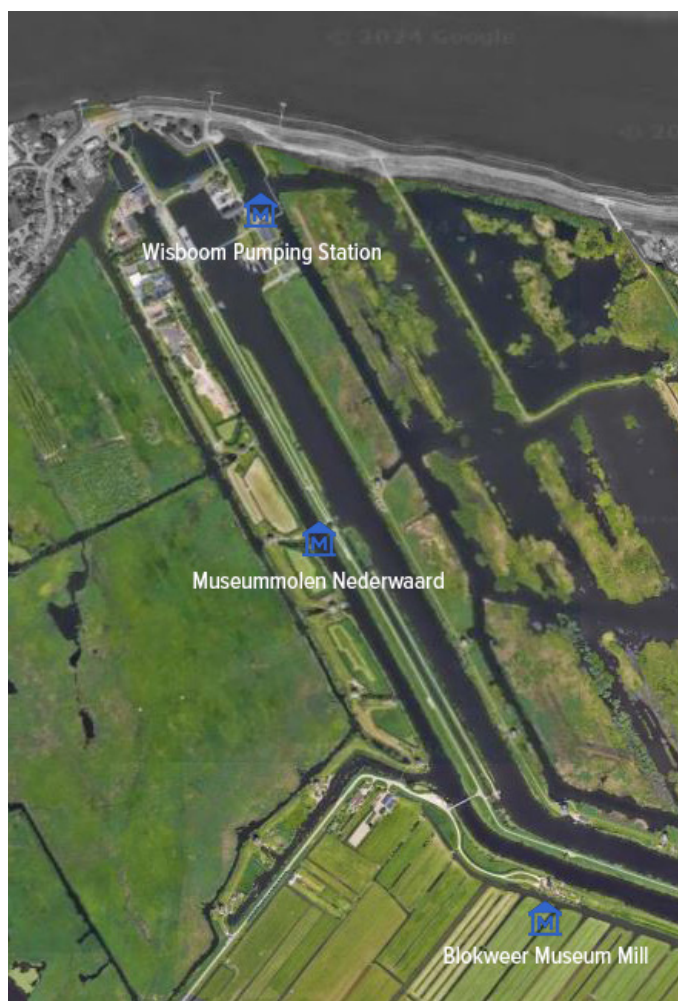


**Figure 8**. *Unesco museums in Nederlands (Author,2024)*

### 4.3.1. Museums in Kinderdijk

**Nederwaard Museum Mill**

 Located in the center of Kinderdijk and easily accessible, the Nederwaard Museum Mill provides a portrayal of the millers' collections and lives. The mill is preserved in its operational state, allowing a clear understanding of its functional principles. Moreover, visitors can directly view the Kinderdijk landscape through windows in the mill. This old mill is surrounded by nature, providing a glimpse of how it harmonizes with the natural scenery of Kinderdijk. Through an ensemble of water management systems, millers' lives, and integration with nature, both tangible and intangible aspects are well-displayed to visitors. Additionally, programs are organized for visitors to enjoy Kinderdijk alongside local volunteers, offering the opportunity to hear their stories.

**Figure 9**. *A window in the museum for watching lanscape of Kinderdijk (Author, 2023)*

**Blokweer Museum Mill**

 The Blokweer Museum Mill is a space where you can experience the real life of millers. Through specially guided tours by individuals dressed in the attire of that era, visitors can immerse themselves in the experience of livestock and agriculture, understanding how millers sustained their livelihoods. This hands-on experience provides visitors with a tangible connection to the intangible values of the millers' lives, integrating the experiential aspect with the historical context. Moreover, the café serves as a meeting point where people have the opportunity to feel a sense of community in the surrounding area, creating a space for social interaction and a deeper connection with the local community.

**Figure 10.** *A photo of cafe outside of museum (Kinderdijk, 2023)*

**Wisboom Pumping Station**

 The Wisboom Pumping Station is a space that has transformed a water management system previously operated by steam into one powered by electricity. This site is also registered as a UNESCO World Heritage Site (UNESCO, 2003). Visitors can physically experience the engines that were once powered by electricity and acquire insights into the functioning of water management through small models and its demonstrations. Additionally, the stories from engineers further connect the intangible heritages with the tangible, creating a comprehensive experience. At this museum, water management systems can be shown with interactive models presenting the history of Kinderdijk.

**Figure 11.** *A photo of models in Wisboom Pumping Station (Kinderdijk, 2023)*

**Table 3**. Analysing museums in Kinderdijk

| | CONTENTS | VALUES |
|---|---|---|
|  **Figure 12**. *Museum Mill Nederwaard (The Museum Times, 2024)* | **Location :**<br>Kinderdijk<br><br>**Experiences:**<br>Looking  life of Hoek family<br>Looking the outside scenery of Kinderdijk from inside of the mill<br>Looking at the mechanism of the mill | **Tangible values**<br>A mill itself<br>Collections and furnitures of millers<br>Nature around mills<br><br>**Intangible values**<br>The story of millers and family<br>Water management system<br>Mechanism of the mill |
|  **Figure 13**. *Blokweer Museum Mill (Kinderdijk, 2024)* | **Location :**<br>Kinderdijk<br><br>**Experiences:**<br>Getting a view of how the scoop wheel moves the water<br>In the miller's yard, experience life of fifties of last century | **VALUES**<br><br>**Tangible values**<br>A mill itself<br>Nature around mills<br><br>**Intangible values**<br>Life of millers<br>How they live in mills |
|  **Figure 14**. *Wisboom Pumping Station (Kinderdijk, 2024)* | **Location :**<br>Kinderdijk<br><br>**Experiences:**<br>Getting stories about Kinderdijk in detail<br>Seeing how polders work with miniature<br>Interaction with installations<br>Engine room | **VALUES**<br><br>**Tangible values**<br>Pumping Station itself<br>Pumping facilities<br><br>**Intangible values**<br><br>Mechanism of the pumping station<br>The story behind the Kinderdijk<br>Water management system |

## 4.3.2. Unesco Museums in Nederlands

### Grachten Museum

The Grachten Museum, located in Amsterdam, is recognized as a cultural heritage site to represents a masterpiece of human creative genius (UNESCO, 2010). This boundary was planned with the cooperation of councils and urban experts. In this museum, the exhibition focuses on storytelling in various ways. The creation process of the canals and the background stories are presented to visitors through a combination of models and videos, offering an integrated experience. Moreover, the exhibition space is centrally located in Amsterdam and provides representative examples of the evolution of Amsterdam's housing typology.
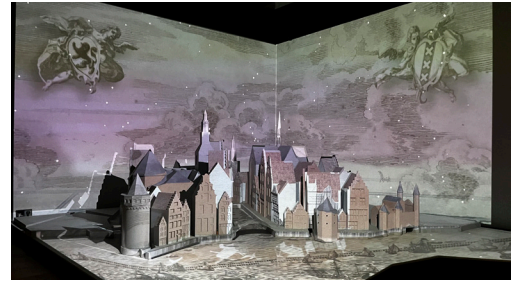


**Figure 15.** *A photo of Stroytelling of the canals in Amsterdam by Video with the model (Author, 2023)*

### Van Nelle Fabriek

The Van Nelle Factory is notable heritage site which have represented the paradigm shift from modern efficiency to human-based design. It was designed not only for its work-efficiency as a factory but also for providing sufficient light and working conditions for its laborers(UNESCO,2010). While the building now serves as offices and studios, the tour with the guide help visitors understand how these elements, such as products, labors, and culture, are integrated into the building. Additionally, the restaurant and the cafe outside of the factoryare open to the local residents, using gatherings and activity.



**Figure 16.** *A photo of pillars, light, and windows in Van Nelle Fabriek (Author, 2024)*

### Rietveld Schroderhuis

The Rietveld Schröder House stands as the best example of representation of the design paradigm of its era with the iconic form and layouts that characterize the De Stijl movement (UNESCO, 2000).
In this museum, the visitors can enjoy the interior through an audio-guided tour of background and history. Collaborating with the Utrecht Central Museum, it is regarded as an intangible heritage associated not only with the building itself but also with the family's story and the life of Mrs. Schröder. During the exhibition, the visitors can see the rearrangement of the interior layout with a detailed explanation of the house's spirit and implementation, highlighting how the space is reconfigured.



**Figure 17.** *A photo of demonstrations of arrangements of walls in Rietveld Schroderhuis (Author, 2024)*

### Castellum Hoge Woerd

Castellum Hoge Woerd is a cultural heritage site representing the border of the Roman Empire that once crossed the Netherlands. Given its nationwide presence, museums are located along this boundary. Among them, Castellum Hoge Woerd, in Utrecht, stands out as a newly constructed building, not so much embodying the heritage itself but rather configured as a museum centered around collections and community. The ground floor features a cafe, restaurant, and garden that are easily accessible to everyone, while resident participation spaces and exhibition areas arranged along the fort-shaped structure create a dynamic communal environment. Through educational videos and a flexible interior layout, the museum enhances its educational function.



**Figure 18**. *A photo of Installations representing Roman Empire in Castellum Hoge Woerd (Author, 2024)*

| CONTENTS | VALUES in UNESCO |
|---|---|
| **Location :** Herengracht 386, 1016 CJ Amsterdam<br><br>**Experiences:** Visualization of Stroy in Amsterdam<br>Models and miniature of House and canal<br>Interactive installations<br><br>**Figure 19**. *A photo of the entrance of Grachten Museum (Author, 2023)* | Criterion (i): to represent a masterpiece of human creative genius<br>Criterion (ii): to exhibit an important interchange of human values<br>Criterion (iv): to be an outstanding example of technological ensemble or landscape which illustrates<br><br>**Intangible values**<br>How to city and people make canals and process for configuring space of the city of Amsterdam |
| **Location :** Van Nelleweg 1, 3044 BC Rotterdam<br><br>**Experiences:** Walking inside the building<br>Tour guide with description of buildings<br>Connecting with community in a pub<br><br>**Figure 20.** *A photo of Van Nellefabriek (Author, 2024)* | Criterion (ii): The extant remains of Frontiers of the Roman Empire<br>Criterion (iii): As part of the Roman Empire's system of defence<br>Criterion (iv): Frontiers of the Roman Empire<br><br>**Intangible values**<br>Values behind factories<br>Considerdation to labors<br>Ensemble with architecture and light |
| **Location :** Prins Hendriklaan 50, 3583 EP Utrecht<br><br>**Experiences:** Description of interior space with a audio tour guide<br>Presenting re-configure inner space with moving partition<br>Story in the Utrecht Central Museum<br><br>**Figure 21.** *A photo of Rietveld Schroderhuis (Author, 2024)* | Criterion (i):an icon of the Modern Movement in architecture<br>Criterion (ii): radical approach to design and the use of space<br><br>**Intangible values**<br>Iconic design of De Stijl<br>The story of Schroder's family<br>Lifestyle in Schroderhuis |
| **Location :** Hoge Woerdplein 1, 3454 PB Utrecht<br><br>**Experiences:** Walking inside the garden<br>Watching the movie about archaeology<br>Joining the processs of archaeological methods<br>Experience from archaeological figures<br><br>**Figure 22.** *A photo of Castellum Hoge Woerd (Author, 2024)* | Criterion (ii): The extant remains of Frontiers of the Roman Empire<br>Criterion (iii): As part of the Roman Empire's system of defence<br>Criterion (iv): Frontiers of the Roman Empire<br><br>**Intangible values**<br>Story of German Lime<br>Process of Archaelogical Research<br>Education for children about archaeology |

## 4.4. Assessments of Museums

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 assesements.

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?

## 4.4.1. Assessments of Museums in Kinderdijk

The museums in Kinderdijk are constructed by reusing existing heritage buildings (the pumping station and mills). The layout of these museums shows various collections while harmonizing with the external landscapes and natural environment, aligning with the Outstanding values of Kinderdijk. Guided tours led by volunteers are planned around these museums, such as the Nederwaard Museum Mill and Wisboom Pumping Station, and various events integrated with the surrounding environment are held annually.

Furthermore, the museums offer user-experienced exhibitions. Visitors can learn about the lives of millers who operated the windmills in Kinderdijk or see the water management systems in the Netherlands. Although events and guided tours are well integrated with museums, spatial constraints due to the conservation of Kinderdijk's natural environment have limitations. Consequently, while visitors can richly experience the windmills and natural surroundings, it becomes challenging to know the background stories and intangible heritages of Kinderdijk mentioned in earlier research.

Especially, the industrial and community backgrounds that are as important as Kinderdijk's water management system are difficult to find in current museums. Moreover, nature which should be conserved and infrastructure contribute to the absence of the community spaces pursued by present museums. Due to these reasons, museums are disconnected and isolated from the surrounding environment, exacerbating inconvenience for locals. The important elements comprising the current Kinderdijk, such as villages and industries, are not well represented in current museums, and the lack of community spaces is evident. The recently constructed visitors center does address some of these issues, serving as a space to alleviate them. However, it lacks connectivity with the unique community of Kinderdijk.

## SPACE ORGANIZATION

## MUSEUM as Community

### Nederwaard Museum Mill

Community

Tangible — NATURE — Intangible — STORY of MILLERS

MILL ITSELF

COLLECTION — WATER SYSTEM

Visitors
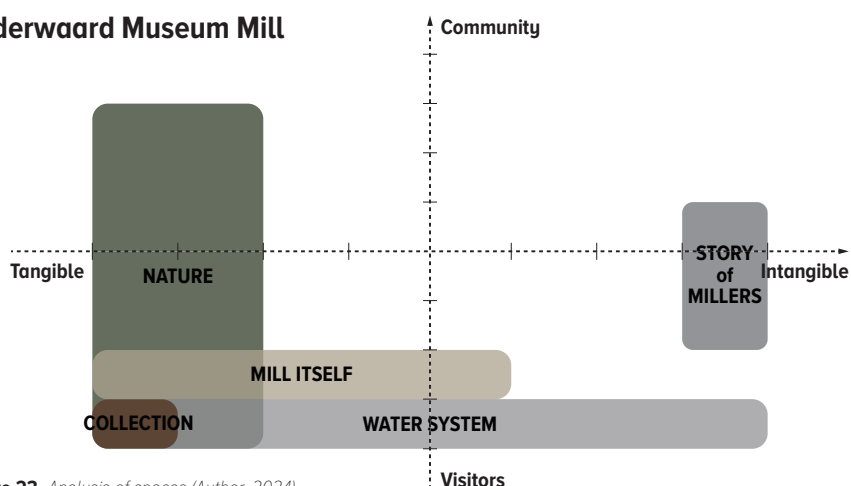
**Figure 23.** *Analysis of spaces (Author, 2024)*



**Figure 26.** *Story from millers (Kinderdijk, 2024)*

### Events & Space
Guide tour with millers
Volunteers from locals can join and help

### Blokweer Museum Mill

Community

Tangible — NATURE — Intangible — STORY of MILLERS

MILL ITSELF

EVENTS

Visitors
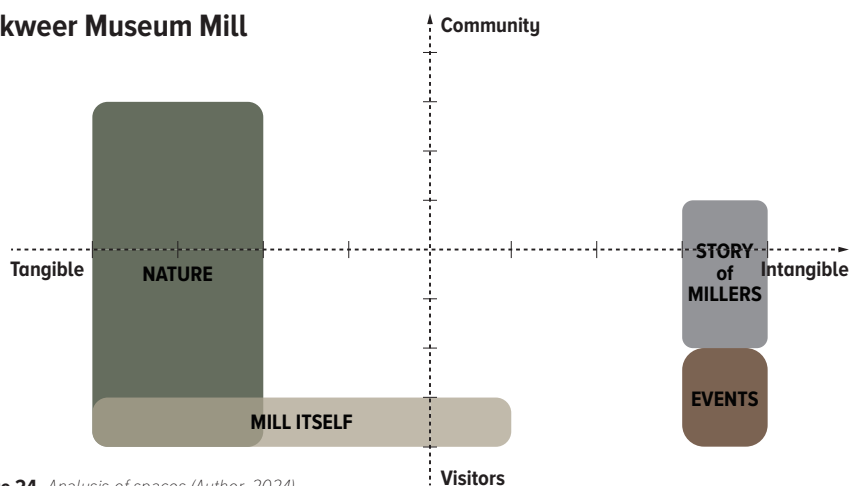
**Figure 24.** *Analysis of spaces (Author, 2024)*



**Figure 27.** *Miller's life experience (Kinderdijk, 2024)*

### Events & Space
the guide tour from millers
Connected with cafe along with the local community

### Wisboom Pumping Station

Community

Tangible — NATURE — Intangible

PUMP — PUMPING STATION — WATER SYSTEM — EVENTS

Visitors
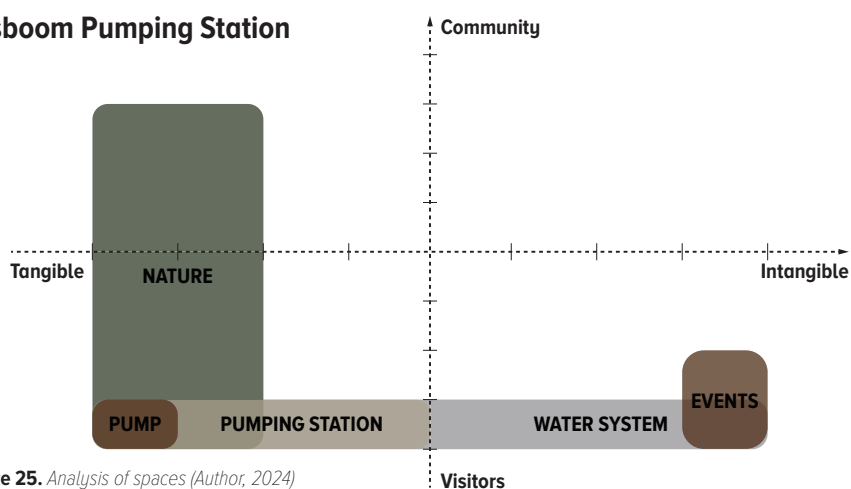
**Figure 25.** *Analysis of spaces (Author, 2024)*



**Figure 28.** *Model Photos of Wisboom Pumpung Station (Kinderdijk, 2024)*

### Events & Space
Interact with models which show the history of the water management system
Engineers of pumping station

### 4.4.2. Assessments of Unesco Museums in Netherlands

 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.

## Grachten Museum

GARDEN

Community

Tangible

MUSEUM ITSELF

STORY

STORY of CANAL in AMSTERDAM

Intangible

Visitors
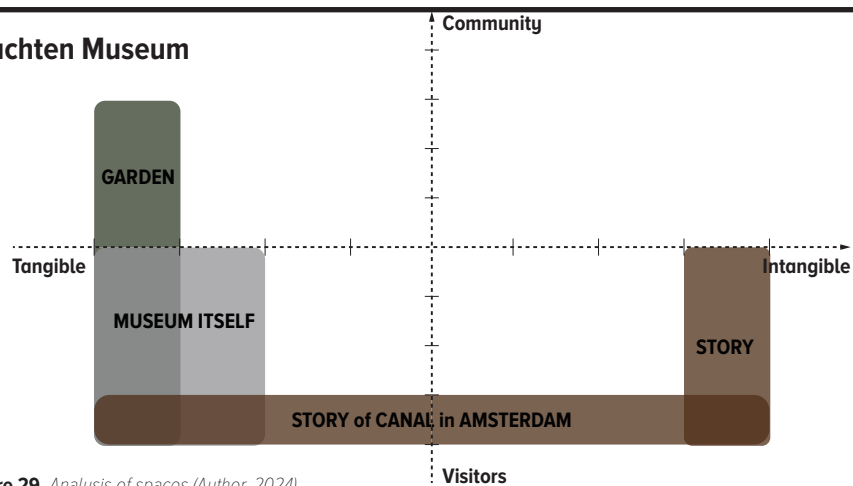
**Figure 29.** *Analysis of spaces (Author, 2024)*


**Figure 29.** *A photo of the garden of Grachten Museum (Author, 2024)*

**Events & Space**
Ground floor exhibition from locals and garden
Lack of space for community

## Van Nelle Fabriek

OFFICE

CAFE

Community

Tangible

VAN NELLE

STORY    Intangible

STORY of VAN NELLE FABRIEK
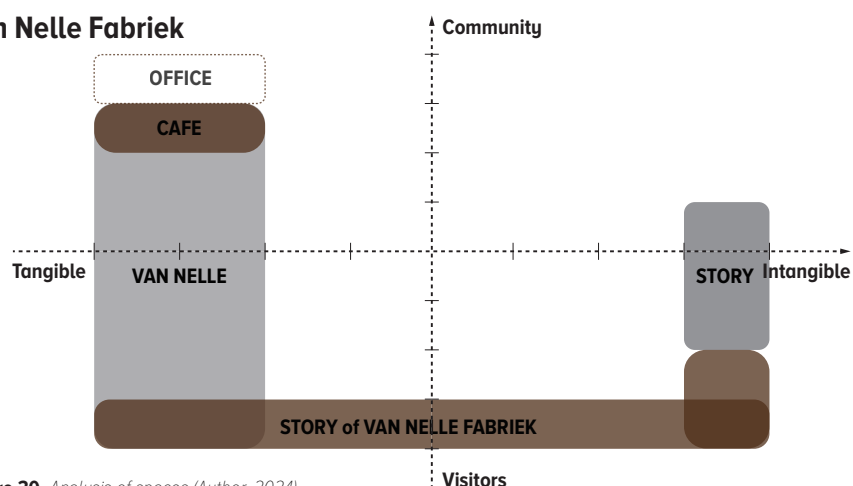
Visitors

**Figure 30.** *Analysis of spaces (Author, 2024)*
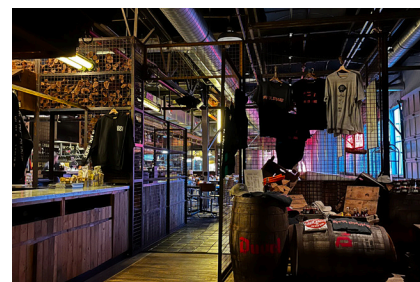

**Figure 33.** *A photo of pub in Van Nellefabriek (Author, 2024)*

**Events & Space**
Cafe & Pub for local community, visitors, and workers around Van Nellefabriek

## Rietveld Schroderhuis

OFFICE

CAFE

Community

Tangible

Intangible

STORY with Ms. Schuroder
in Utrecht Central Museum

STORY of Schroderhuis

Visitors
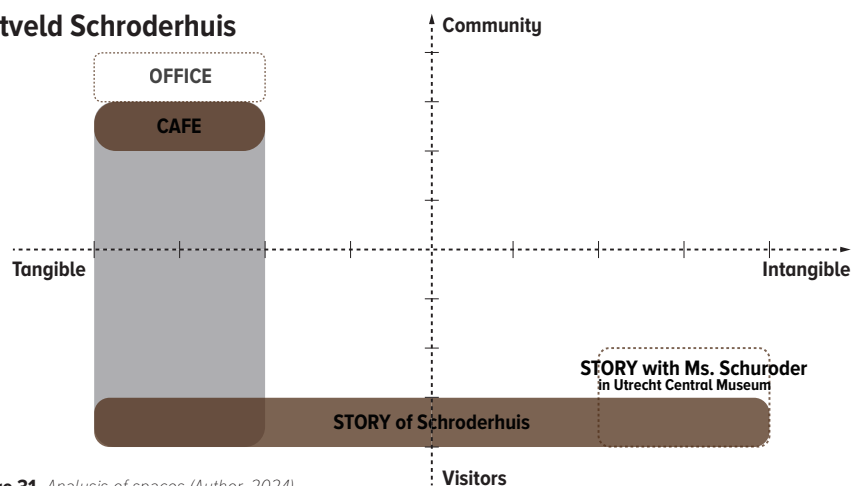
**Figure 31.** *Analysis of spaces (Author, 2024)*


**Figure 34.** *A photo of Meeting space in Schroderhuis (Author, 2024)*

**Events & Space**
Meeting room for locals
Showing composition of space in 1st Floor
Lack of space for community

## Castellum Hoge Woerd

RESTAURANT

Community

EVENTS

INNER GARDEN

Tangible

Intangible

MOVIES

STORY

COLLECTIONS

Visitors
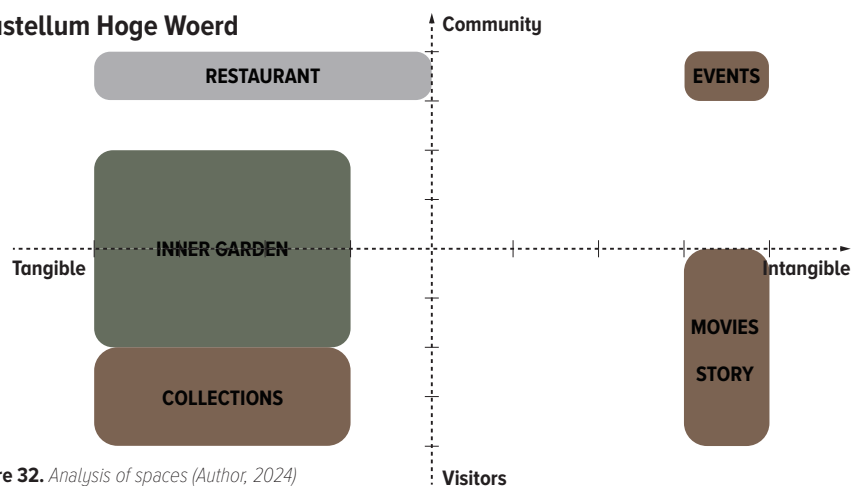
**Figure 32.** *Analysis of spaces (Author, 2024)*
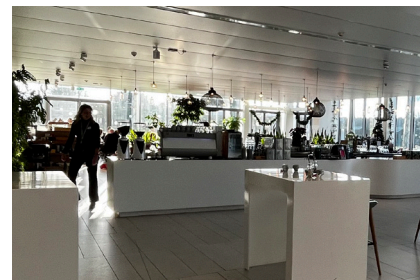

**Figure 35.** *A cafe in Castellum Hoge Woerd (Autor,2024)*

**Events & Space**
Movie theater for education
Open Museum for locals and community
Cafe and restaurants in the ground floor
Archaeological research with locals

# 5. 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.

## 6. 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.

## List of Figures

## List of Tables

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# APPENDIX 1

| Type | Category | no. | Taxonomy definition | Definition as used in policy analyses tool |
|---|---|---|---|---|
| tangible attributes | asset | 1 | Building Element | Parts of buildings e.g. Detail, parcel, facade, roof, material, or colours. |
| | | 2 | Building | Entire buildings |
| | | 3 | Urban Element | Man made elements in the urban landscape e.g. A square, bridge, street furniture, quay side, or public art. |
| | | 4 | Natural Element | Natural (or designed) green elements, flora or fauna, water elements, etc. |
| | area | 5 | Ensemble | A group of buildings or specific urban ensemble or configuration. |
| | | 6 | Context, Setting | The buildings or elements surrounding, supporting, contextualising the actual heritage. |
| | | 7 | Area | A district in a wider (urban) landscape, a specific combination of cultural and or natural elements, e.g. a neighbourhood, urban fragment, urban structure, townscape, route or park. |
| | all (landscape) | 8 | Layering | Illustrative of the evolution or development of human society and settlement over time, a diversity of manifestations of the interaction between humankind and its natural environment. |
| | | 9 | Landscape | Every part of the landscape is considered to be of value, and all attributes get a level of significance. |
| intangible attributes | product (asset related) | 10 | Concept, Artistic Trend | The ideas behind the design or place, e.g. Period, style, design ideology (often related to, or represented by, a tangible heritage asset) |
| | | 11 | Relation(s) to Context (Location) | The relation with another connected element, location, place, or environment (relation object – object). |
| | | 12 | Character | The character or image, as supported by specific design, e.g. Typology, morphology, layout, composition and proportion, as well as, atmosphere e.g. Tranquil, lively, urban, rural. |
| | practice (societal) | 13 | Use, Function | The specific (typical, common, special) use or function of a place or environment. |
| | | 14 | Knowledge, Traditions, Customs | The (local) practices, traditions, knowledge, customs of a community or groups (often related to a location or tangible results, tools / instruments). |
| | | 15 | Relation(s) to Meaning (Association) | Human associations with a place, element, location, or environment (relation men – object), |
| | | 16 | Community, People(s) | A community or society itself (its members, or specific individuals / groups) and/ or their cultural identity or diversity. |
| | process | 17 | Planned Processes / Development | The process of managing, the type of strategy or approach (instead of the result) is what is valuable. |
| | | 18 | Unplanned Processes / Evolution | The process of layering, development, or evolution (instead of the result). |

| Common Definition - academics (N=12) | additional characteristics - academics (N=12) | Other / Additional defintion (s) - academics (N=12) | None |
|---|---|---|---|
| Part, component, material, feature, section of a building. | Physical, specific, constructive, decorative part; adds value / functionality, is mostly tangible, constituting a separate unit. | | 1 |
| Structure, construction, edifice, remains. | Host human activities, storage, and other purposes; is solid, fixed, physical, sheltering; is an assembly of materials, needs attention, above ground, from any period; also has immaterial features. | Art of building (verb). | 1 |
| Component, part, aspect of / in urban context (urban landscape, urban space, urban environment, city, townscape, urban agglomeration). | Adds value / functionality, gives a certain characteristic, is a construction, structure, space, or action, can be tangible and intangible, is constitutive, and created by buildings or human activities. | The uses, practices, actions in the urban space. | 1 |
| Component, part, aspect produced by nature. | Gives a certain characteristic, is untouched by humans, is existing in or produced by nature, can be tangible and intangible; independent of location; aspects existing in nature context. | The constitutive nature of the city. | 0 |
| Group, set, unit, compilation of urban / cultural elements. | Generates / represents specific history, show harmony / coherence / correlation in significance, location, values, and /or practices; can be tangible and intangible; with recognizable internal (inter)relations. | | 1 |
| Surrounding environment (or landscape), physical, societal, temporal. | Situating, adds understanding, specific, an assemblage of fluctuating relations. | | 0 |
| A conditionally defined place or space. | Creates a context, measurable, broader, bounded, no strict borders, defined by its geographical and cultural features. | | 1 |
| Accumulating phases (periods) of activity and/or value, and evidence that exists for indicating the phases. | Historic, chronological, subsequent, alterations and/or additions. | Stratigraphy / strata. <br><br> Multiple ways of perceiving landscape. | 2 |
| Territory delimitated subjectively and conditionally - as perceived, experienced by observer including human/cultural/natural factors. | Holistic, provoking an aesthetic judgment, result of the action and interaction of natural and/or human factors, cultural and natural attributes. | Natural environment of certain qualities, associated with the visual capabilities of the observer. | |
| (Sets of) norms, values, expression, style in arts/architecture – and the development (phase, evolution) thereof, the intended idea. | Long-term / over a given period, iterated, defined by style or aesthetic decisions, culturally specific, mainstream. | | 1 |
| Attachment to / interaction between object/place and its geospatial context. | Geographical proximity, developed or conceived and executed in relation to location. | Interrelation of time, place and society. | 2 |
| (Set of) attributes of specific nature or quality, defining features. | Aesthetics or historic significance, as manifested /receiver by people, reviving memories and stimulating senses, intangible, defines an entity, combination of customs. | | 2 |
| Practical / instrumental value, purpose, of object / landscape; function= regardless human interaction; use refers to human interaction. | | | 2 |
| Transmitted/repeated, evolving, phenomena associated with a place or culture; understanding of the world by a group of people. | Collective, experienced/practiced, linked to certain features, tangible & intangible. | Intangible heritage. | 2 |
| Connotations, feelings, meaning, cognitive links. | In relation to context, remembered or imagined, socially constructed. | | 4 |
| Group of people that shares characteristics, has common denominators. | Shared characteristics only geographically defined; e.g.inhabiting, interacting with, connected to, interested in, or visiting. | Shared characteristics wider defined: e.g. Identity, ethnicity, culture, customs, beliefs, roots, traditions, actions, territorial, interests, practices etc. | |
| Actions (alteration, construction, design) that are intentional, planned, controlled, and/or determined by strategies and policies (bureaucracy). | Systematic and organized, initiated with common purpose and vision. | The process of introducing new and modern, not necessarily well planned. | 2 |
| Unplanned, piecemeal, spontaneous change. | Adapts naturally; without a common initial vision; without intervention of policies or strategies; unorganized; improvised | Biological change. | 3 |