

# Exploring Implicit Perceptions of Visual Media Discourse in Interventions on Everyday Heritage Using Virtual Reality

Research Plan | November 2024 | Anan Tian

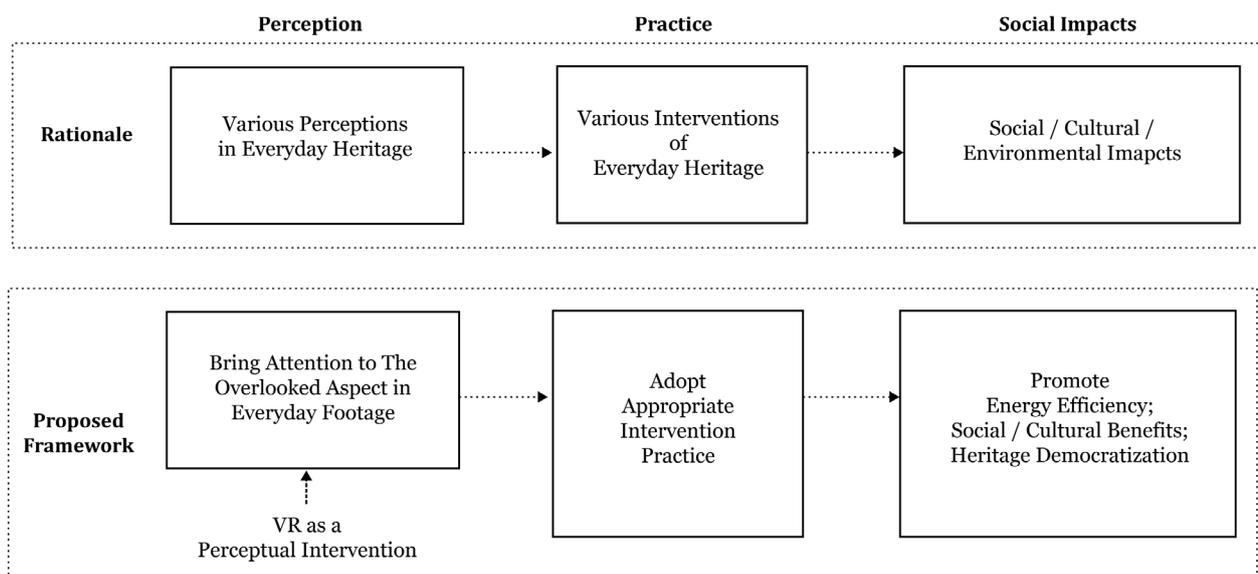


Cover Figure: Virtual Experience of Weightless Bricks Project (Strunden, 2019)

# Abstract

This research explores how implicit perceptions within visual media discourse, influence the interpretation and intervention of everyday heritage, using Amsterdam North’s civic centers as a case. Grounded in an understanding of everyday heritage that prioritizes daily interactions and socio-cultural dimensions, the research explores Virtual Reality (VR) as a perceptual tool for engaging with these spaces in new ways. By documenting images and narratives expressions of built heritage, VR experience can be worked as an immersive medium for users to perceive these spaces beyond their traditional representations. Through applying Havik’s (2012) Threefold Structure Narrative, the ways VR alternative diverse stakeholder’s perceptions to a space can be articulated. This research aims to promote an inclusive understanding of everyday heritages for socio-cultural values, energy efficiency and democratization in heritage practices.

**Keywords:** Everyday Heritage, Implicit Perception, Virtual Reality (VR), Visual Media Discourse, Heritage Intervention, Heritage Democratization, Civic Centers, Amsterdam North



Research Rationale and Proposed Framework (Drawn by Author)

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## 2 Research Plan Diagram

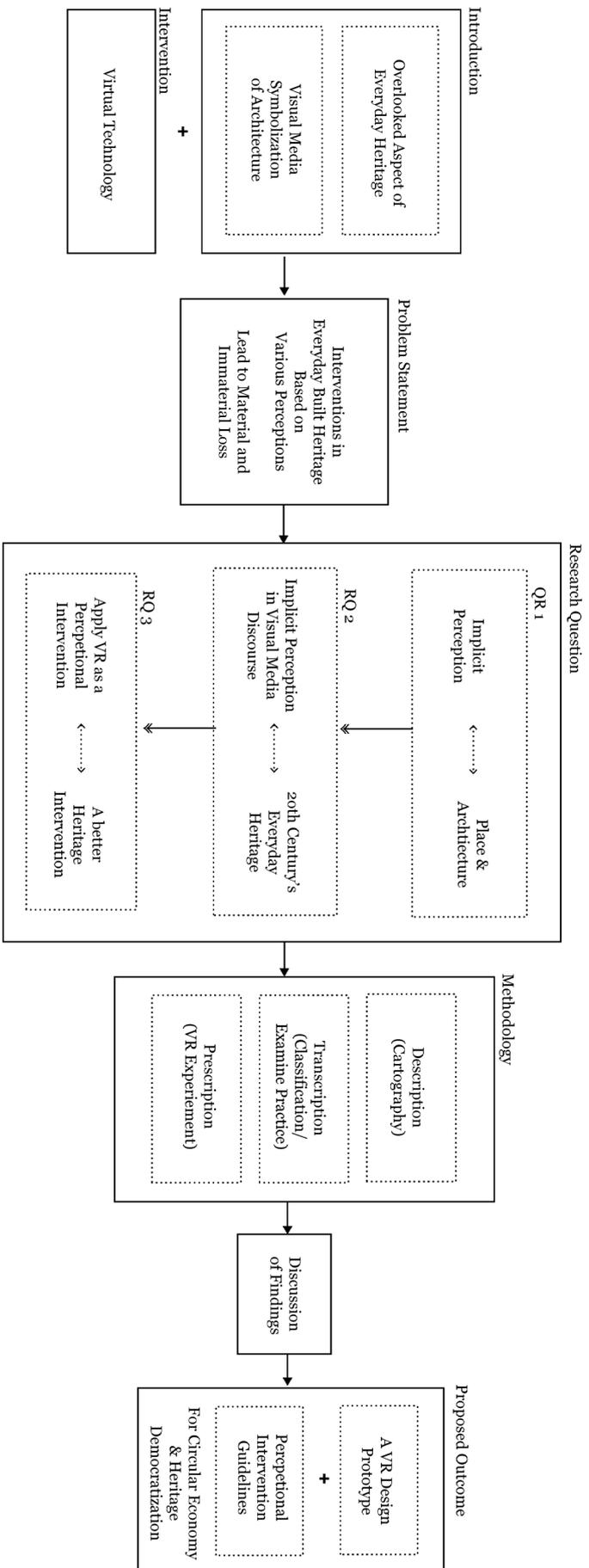


Figure 2: Research Plan Structure (Drawn by Author)

## 3 Introduction and Problem Statement

### 3.1 Everyday Heritage

Heritage management has remained central to city identity for decades (Brumann, 2009; Podder et al., 2018). Since the 1960s, a “heritage boom” has broadened the monumental gaze to encompass everyday culture (Walsh,1992; Smith, 2006). The concept of heritage has widened to include everyday landscapes and socio-cultural factors that reflect the vernacular and 'authentic' essence of a place (Podder et al., 2018; Mosler, 2019). According to Giombini (2020), the essence of everyday heritage lies in the set of practices surrounding its use by a wide range of people performing their daily routines.

Thus, everyday heritage is a ‘catalyst of everydayness’ for people that organizes ordinary spatiality for community life from a social and lived-in dimension. The functionality and uses of everyday heritages are evaluated by residents and visitors more than their historic or official values (Jhearmaneechotechai, 2022). Therefore, the ways people use and interact with them form a significant part of understanding everyday heritage (see Figure 3.1).



Figure3.1:  
Interactions  
of Everyday  
Heritages, Example  
of Zonnehuis  
Neighborhood Party  
( Stadsherstel, 2016 )

### 3.2 Implicit Perception of Visual Media Expression in Built Heritage

Polanyi (1966) interprets implicit perception that is embedded and embodied in social interaction and individual experiences, which can be difficult to describe. In the context of everyday heritage, implicit perception is conveyed through practices, rituals, and everyday interactions as a non, pre or more than representational expression. Visual media, serving as information repositories (Chang et al., 1997), has been increasingly used for a better understanding of how human interpret built heritage documentation by visualizing various architectural information (Albourae et al., 2017).

The subtlety of visual media discourse lies in people’s implicit perceptions, which interplay with one another. Through producing images, creators or communicators express their implicit perceptions of built heritage (see Figure 3.2). These images, in turn, convey narratives that shape reader’s implicit perceptions of architectural identity and value. Although tacit values are often considered difficult to convey (Nofal et al.,2018); understanding implicit perception from visual media expressions is necessary to fully obtain the richness of everyday heritage.

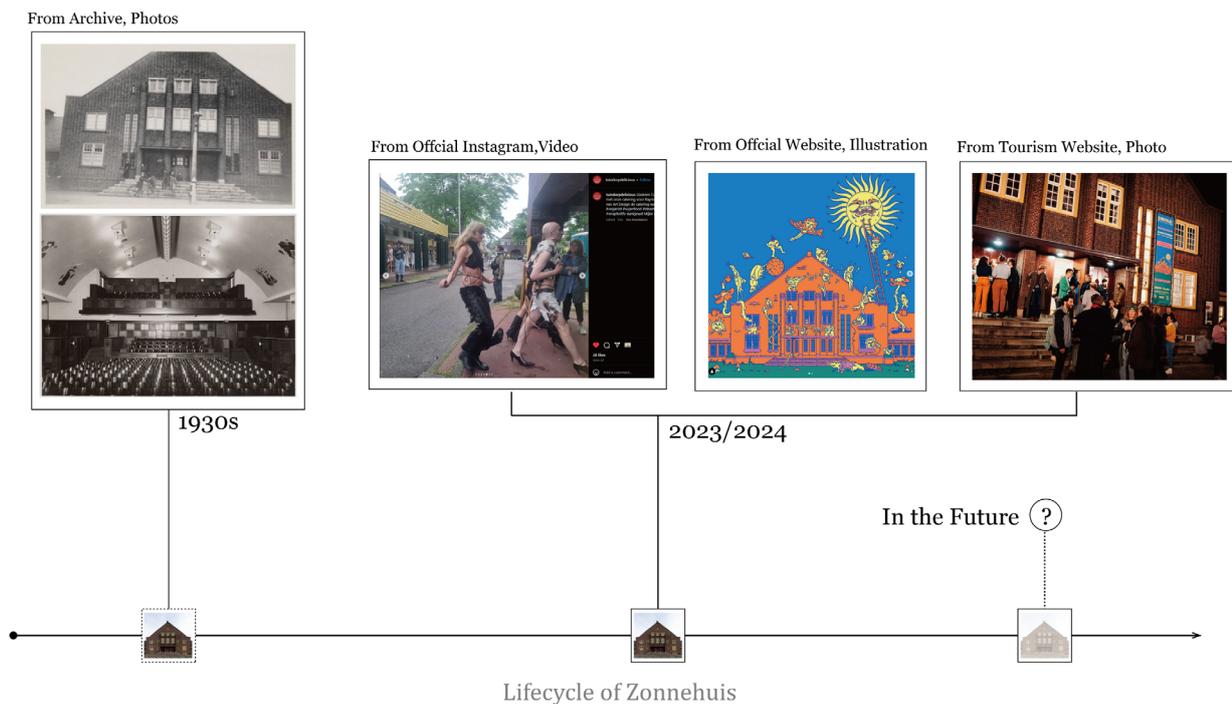
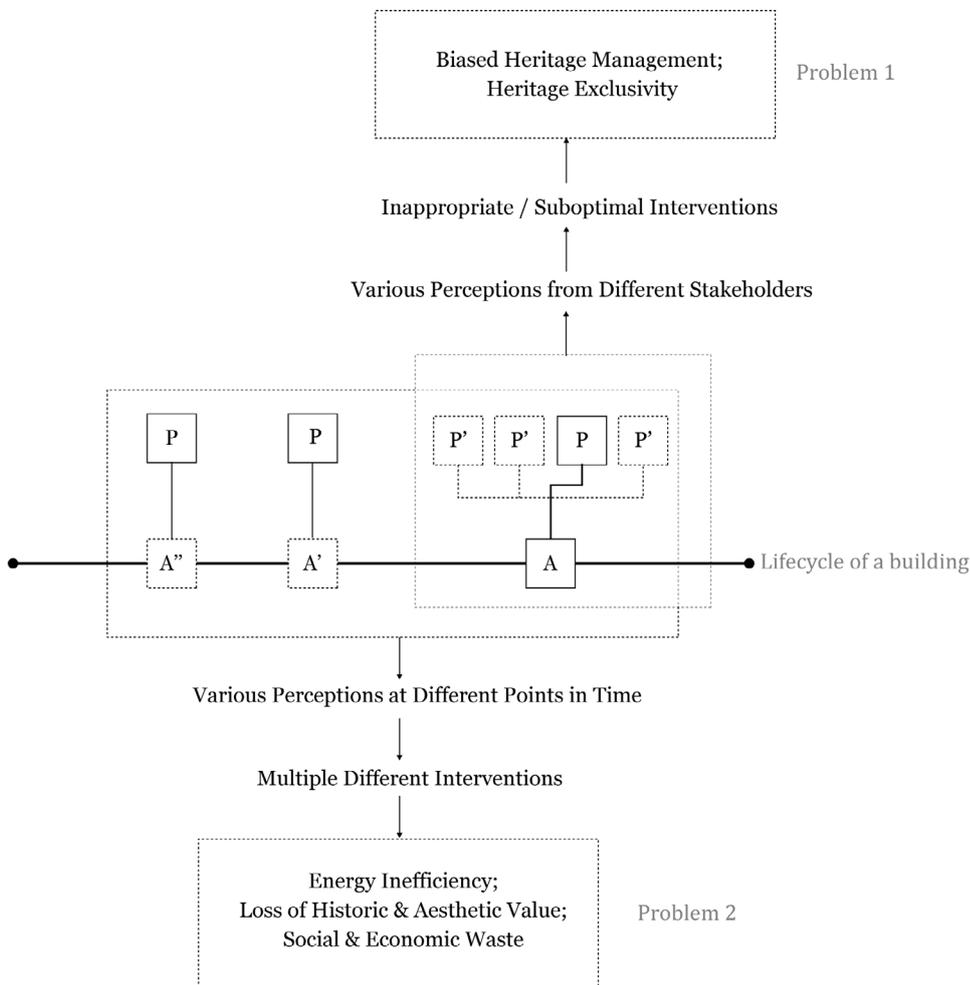


Figure3.2: Images of Zonnehuis as an Example of Visual Media Expressions (Drawn by Author )

### 3.3 Social Problems of Heritage Intervention Influenced by Perceptions

Varying perceptions in a building's lifecycle can cause inconsistent intervention approaches. This might lead to problems in energy efficiency, social cultural considerations and decision-making processes (Foroughi, 2023). The following diagram illustrates the problems of a building's intervention based on various perceptions (see Figure 3.3).

Specifically, as a building (represented as A, 'A', A'') in its lifecycle may experience multiple interventions, risking the loss of value due to conflicting evaluations over time. These might involve energy-intensive modifications which overlook opportunities for minimal-impact interventions. Thus, they may contribute to environmental and economic inefficiencies. As Mosler (2019) suggests, everyday heritage often reflects people-led factors, yet without stakeholder alignment, interventions may prioritize selective values, marginalizing others (represented as P'). This imbalance risks narrowing the cultural relevance of the heritage and obstructs effective, inclusive decision-making in heritage management. Ultimately, the lack of consensus on intervention approaches can lead to a biased preservation process, risking the building's potential for broader cultural and civic engagement.



P (P') = Different perception from stakeholders in different points of time. Among them, P is dominated perception while P' is marginalized.

A (A', A'') = The same architecture with different interventions in its lifecycle.

Figure 3.3: Social Problems of Heritage Intervention Influenced by Perceptions (Drawn by author)

## 4 Research Focus, Research Gap and Research Question

### 4.1 Research Focus: Application of Virtual Reality in Exploring Space

Virtual Reality (VR) is defined as simulated or real environment that can be experienced as telepresence (Steuer, 1992). As an advanced vehicle of new media, VR can create immersive experiences for people, meeting various expectations and engaging a wider audience (Silva and Teixeira, 2021). The architectural theorist, Karen A Franck (1995), used a question to explore the body-centric spatial experience of VR environment:

‘When I enter Virtual Reality, What Body Will I Leave behind?’  
-- Karen A Franck, *Architects in Cyberspace special*, 1995

She explains that, rather than leaving her physical body behind, interacting with virtual environment is a fundamental physical activity. The perception of cyberspace functions as an embodied medium tied to the physical body closely. People’s sense of self extends beyond the physical form, blending with the spatial and virtual elements around them.

VR enables exploration of altered, immersive environments, reconfiguring everyday experiences. Thus, unanticipated interactions are able to be triggered in VR experience through acting ordinary acts, to question the taken-for-granted features of things, as well as the presupposed observer-observed boundary, leading to an feeling that the objects encountered have their own agency (Strunden, 2023; see Figure 4.1). According to Strunden (2023), by dissolving the boundaries between participants and making the actual/virtual dichotomy tangible, virtual technology can serve as an active and novel agent in the dissemination and co-creation of architectural knowledge.

In the field of heritage management, recent studies have shown the tendency that VR will be adopted by more cultural heritage agencies, as it not only attracts visitors but encourages revisits with its engaging and meaningful cultural heritage content (Banfi et al., 2019). VR technologies is also expected to contribute as a tool for documenting alternative narratives for better social inclusion, by allowing to keep multiple various interpretations of heritage side by side (Kalay, 2007; Bai, 2023). The digital interventions of sites, people, artifacts and their social activities illustrate the potential of VR in heritage preservation.



## **4.2 Research Gap: VR in Everyday Heritage as a Perceptual Intervention**

While VR technology has gained attention in architectural visualization and heritage conservation, its application in everyday heritage remains limited. Current studies on VR's role in heritage mainly focus on monumental heritages as a tool for virtual reconstruction or electronic documentation of historical elements (Albourae et al., 2017; Banfi et al., 2019; Kalay, 2007). These applications largely emphasize a visual experience that represent heritage's traditional narrative to preserve tangible historical accuracy and aesthetic detail.

However, few studies address how VR can be employed as an intervention method for everyday heritage by altering users' perception of familiar spaces. Instead of focusing only on accurate visualizations, VR could be applied to reconfigure user perception as a transformative and participatory means to interact with and reflect upon everyday heritage.

This research seeks to fill this gap by applying VR to challenge perceptions as an intervention strategy for people to reevaluate "ordinary" spaces. This study aims to bridge the conceptual gap between traditional heritage preservation and the everyday lived experience, and further emphasizes virtual technology's potential as an agent of democratized heritage interpretation and engagement.

## **4.3 Study Case: Civic Centers in Amsterdam North**

Over the course of the 20th century, Amsterdam North has experienced significant political and social transformations (Savini and Dembski, 2016). With increasing number of working-classing migrants, civic centers in neighborhood scale became central to daily life, bridging neighborhood as a strong bonding. These centers served as primary gathering areas, which contributes community bonds and daily engagement (De Regt, 1995; see Figure 3.4). However, as industry declined in the latter half of the century, Amsterdam North experienced demographic changes and gentrification, the role of these civic centers in place-making process facing new opportunities (van de Kamp, 2023).

However, while there are studies about grand narratives of Amsterdam North (Savini and Dembski, 2016), there is limited mention in discussions about the civic centers as everyday heritages. Thus, considering its rich history and substantial development potential, the historic civic centers in this area provide a focused context to investigate.



## 4.4 Research Questions

Concerning state of art and limitations of current studies mentioned above, my project research poses the main research question:

**How does implicit perception, reflected in visual media discourse, shape the cultural significance of everyday heritages, and how can Virtual Reality be employed for heritage democratization?**

and followed by three sub-questions:

**RQ1.** What role does implicit perception embedded in visual media discourse play in forming people's understanding of a place?

**RQ2.** How are 20th-century civic centers as everyday heritages intervened under the influence of visual media discourse, in the context of Amsterdam Noord?

**RQ3.** How can VR technology be applied to capture people's implicit perception and promote socio-cultural benefits and heritage democratization?

Among these three sub-questions, RQ1 investigates the relationship between people's implicit perceptions and places as a fundamental layer of this research, while RQ2 focuses on empirical interventions based on various perceptions and decisions. Considering potential social relevance and impacts, RQ3 seeks to apply virtual technology to encourage people to reevaluate their familiar world for a better understanding of everyday heritage. RQ3 will be addressed and presented through a research-led design project.

## 5 Research Contribution and Social Relevance

### **5.1 Energy Efficiency and Socio-Culture Benefits for Circular Economy**

The research aims to explore implicit perception and a series of its implications on intervention of everyday heritage. Altering perception has been regarded as the most fundamental strategy as a minimal intervention. (Petzet and Heilmeyer, 2012). With reduced energy and material requirements, this approach can directly support the circular economy. The historical and aesthetic values of architecture, as a symbol of community identity can also be preserved. Additionally, in the perspective circular economy, conserving the use-value of heritage can also promote economic productivity and produce social benefits (i.e., employment) (NoCCA, 2017).

### **5.2 Heritage Democratization and an Efficient Decision-Making Process**

The growth interest in studying heritage democratization both in industry and academia emphasized the importance of views from various ranges of stakeholders (Rodéhn, 2015; Foroughi, 2023; Larsen, 2018). Therefore, it is important to reach a consensus from different stakeholders on the cultural significance for heritage management (García, et.al., 2019; Foroughi, 2023). Nevertheless, Foroughi (2023) also argued that contradictory perspectives on elements consisting of cultural significant from different stakeholders are as vital as consensus in decision-making process to embrace new insights and solutions. The responsibility of embracing community's diversity and conflicts should be considered by relevant leaders and policymakers (Maginn, 2007). Additionally, interventions at a practical level are important as they depend on the tangible impact people can create from individual roles in how heritage is conceptualized, implemented, and preserved collaboratively with various stakeholders (Larsen, 2018).

# 6 Theoretical Framework and Methodology

## 6.1 Theoretical Framework: Threefold Structure Narrative

Here I borrow the concept of Havik (2012), who is arguing that architectural research can be seen as a spatial construction, a non-linear construction formed through mediating various compositions of architects. By integrating subjectivity and objectivity, literary creating can address these apparent binary oppositions to reveal the essence of architecture (Havik, 2012). In this way, applying literary approach to architectural research is conceivable and may even provide a more accurate description than scientific architectural writing (Havik, 2012).

Specifically, the method can be divided 3 aspects into (a)Description, the research concept and content are illustrated by literary connotations with subjective expressions. (b)Transcription, a critical discussion is presented to connect former content to specific architectural theoretical framework; and (c)Prescription, an analytical model is employed to facilitate critical discussion, working as an example for the research and indicating how the approach can be taught and further developed. According to Havik (2012), these three elements will be acted as an interrelated ‘scriptive’ concept embedded in spaces and spatial sequences (see Figure 6.1).

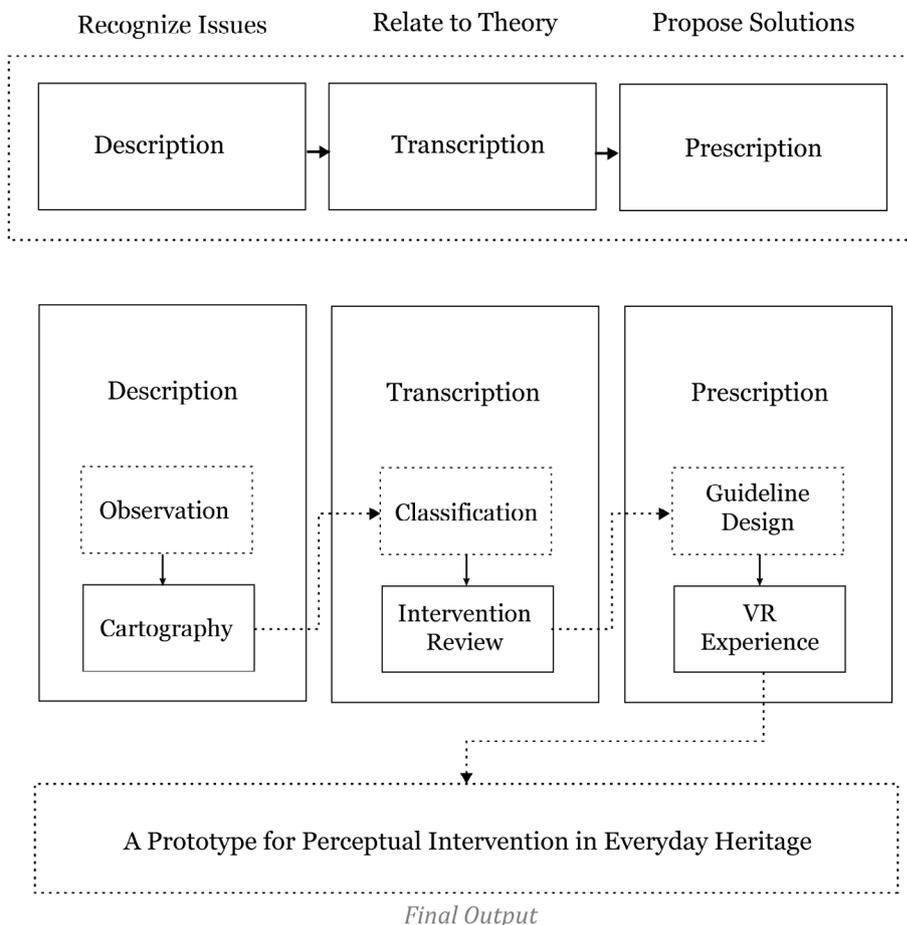


Figure 6.2: Contextualizing the Threefold Structure Narrative in My Research (Drawn by Author)

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## 6.2 Contextualizing the Threefold Structure Narrative in My Research

Following Havik's theory, three steps are respectively employed in my research (see Figure 6.2). The following descriptions outline my research methodology:

### a. Description

(Drawing expressions and interactions of everyday heritage with Subjective and Objective Interpretation to uncover implicit perception)

Description is carried out by two steps. The first step involves precise observation of civic centers from the visual data. They may include various expressions of spatial experience of the sites from different stakeholders. Then, I will apply cartography, which, like literary writing, integrates subjective and objective interpretations of architecture while conveying a story visually and directly. Through mapping the field of possible connections between observed or read content and their potential perceptions that can be reflected from it.

Specifically, I will illustrate or map the various expressions and interactions of selected civic centers within visual media discourse, uncovering and visualizing people's implicit perceptions through the cartographic process. I will reflect on these found connections by making Different forms of drawings. Referring the structure from Italo Calvino's novel *Invisible Cities* (1972), my drawings will also be presented as fragments, with the flow of associative writing and making detailed lists of the observed social and spatial phenomena. I will also immerse myself in the roles of different users in the selected civic centers across various points in time through a first-person perspective and storytelling method. Referring Kingma's drawings (see image 6.2.1) to produce a set of cartographies will be considered.

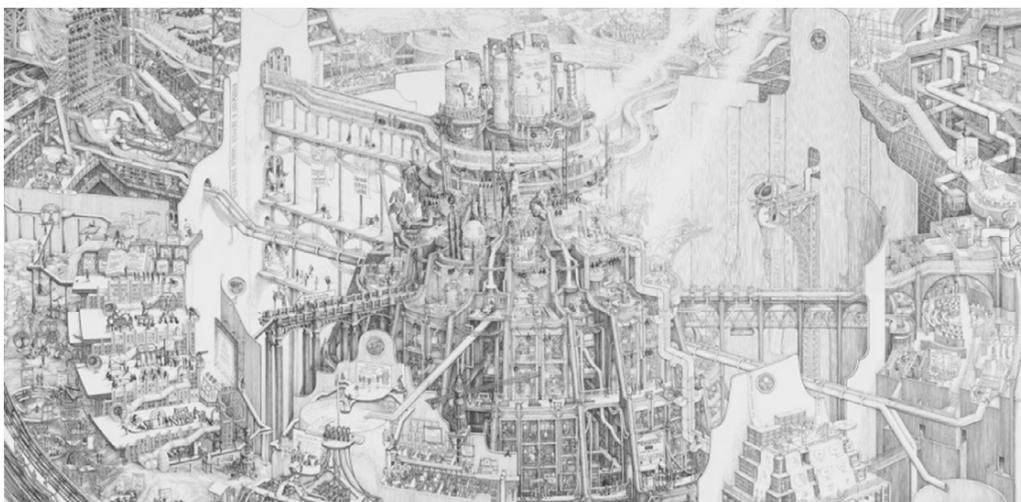


Figure 6.2.1: Example of Cartography: The Waterworks of Money (Kingma, 2022)

## b. Transcription

(Classifying expressions and perceptions through theoretical frameworks and linking to intervention practices of civic centers)

Here Transcription serves as an interpretive layer that critically examines how various expressions and visualized perceptions of spatial experience can be related to everyday heritage's intervention. Classification and literature/practice review will be two fundamental aspects.

Firstly, in terms of classifications, two theoretical frameworks are applied to clarify the cultural significance conveyed to heritage (see figure 6.2.2). These are a) the values framework, developed by Pereira Roders in 2007, and b) the attributes framework, developed by Veldpaus in 2015. In doing so, the data or findings from Description step can be classified according to each sector in these two frameworks. A matrix of categories of values associated with the most frequent categories of attributes may be further employed to conclude diverse expressions of everyday heritage (Foroughi, 2023; see figure 6.2.3. In this way, a contextualized and academic framework on people's perceptions / expressions to everyday heritage can be obtained.

Secondly, through literature review, I will link this contextualized classification framework to architectural practices, the interventions of 20th-century civic centers in Amsterdam North. Civic centers experienced different symbolization by visual media or significant reconstructions in their history will be examined. Specifically, interventions and symbolizations of selected civic centers in different times will be analyzed in detail, and I will use the various expressions and visualized perceptions obtained from Description to interpret the mechanism and rationale of them.

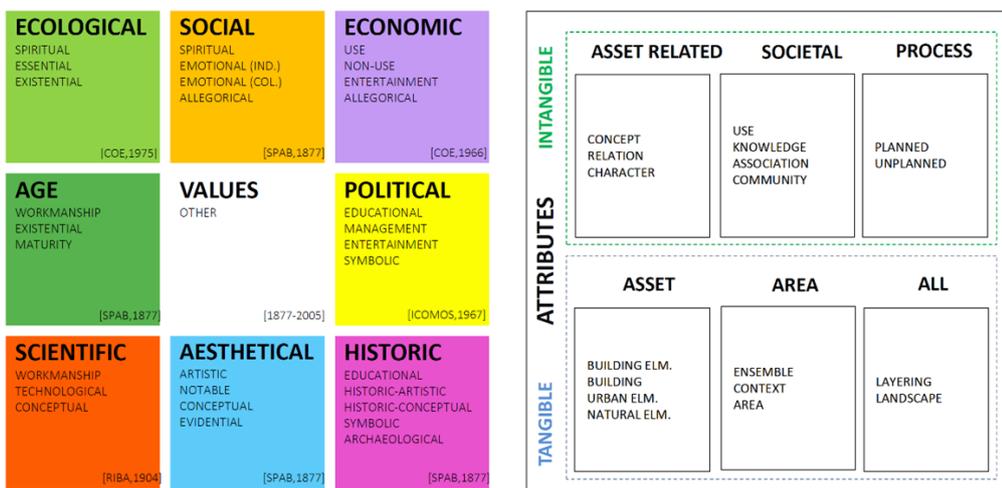


Figure 6.2.2:  
Two Theoretical  
Frameworks of Cultural  
Significance on Heritage:  
Attributes Framework  
(Veldpaus, 2015) and  
Values Framework  
(Pereira Roders, 2007)

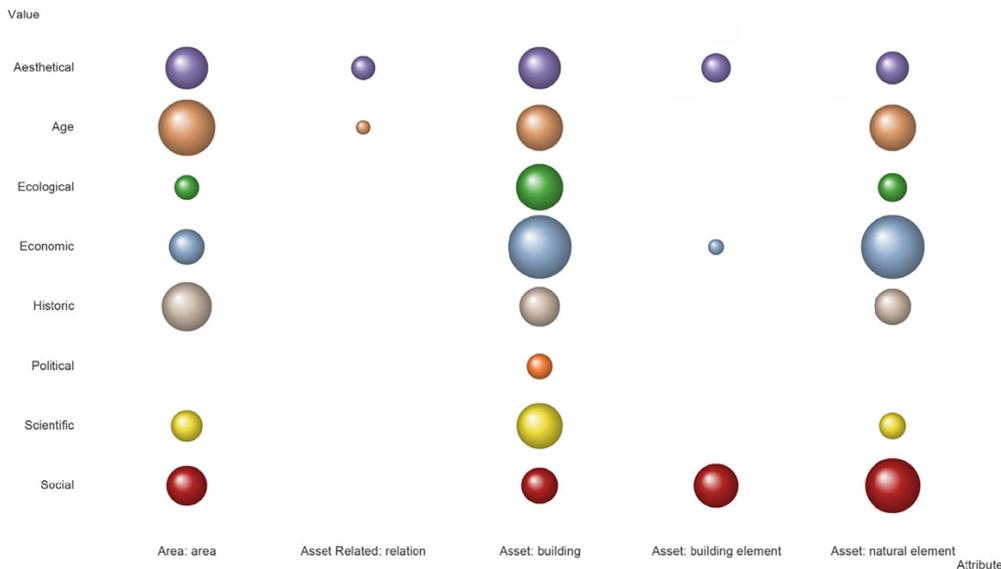


Figure 6.2.3:  
A Matrix Classifying  
Public Expression  
on Heritages as an  
Example of Using Two  
Frameworks. The Bigger  
the Circle, the Higher the  
Number of Occurrences.  
(Foroughi, 2023)

### c. Prescription

(Proposing a perception intervention guideline and a virtual experience based on the guideline)

Prescription involves a guideline and applying VR experience that is based on the guideline to reflect and alter implicit perception (see Figure 6.2.4). Firstly, a guideline of how to utilize perceptions to alter understanding of heritages will be developed as an assumption. Based on the identified relationship between people's perceptions and expressions and reconstruction practices from earlier stages, the way different perceptions among various stakeholders lead to diverse heritage interventions can be articulated. The guideline will be worked as design principles for the VR experience.

Furthermore, a VR experience based on Zonnehuis in Amsterdam North will be employed as an experiment to test the guidelines. All the design of the VR experience will be built based on previous findings and conclusions. In terms of VR content, it may involve changes in viewpoint, alterations in the scale of the virtual body or environment, fluid transitions through time and history, and additional elements beyond these. Borrowing the structure of *Invisible Cities* (Calvino, 1983), the structure of VR experience will be a non-linear interactive design to organize a series of scenarios as well, providing a space where immersion must enter, wander around, lose their ways in, and finally find their own exits as well as own understanding of that space.

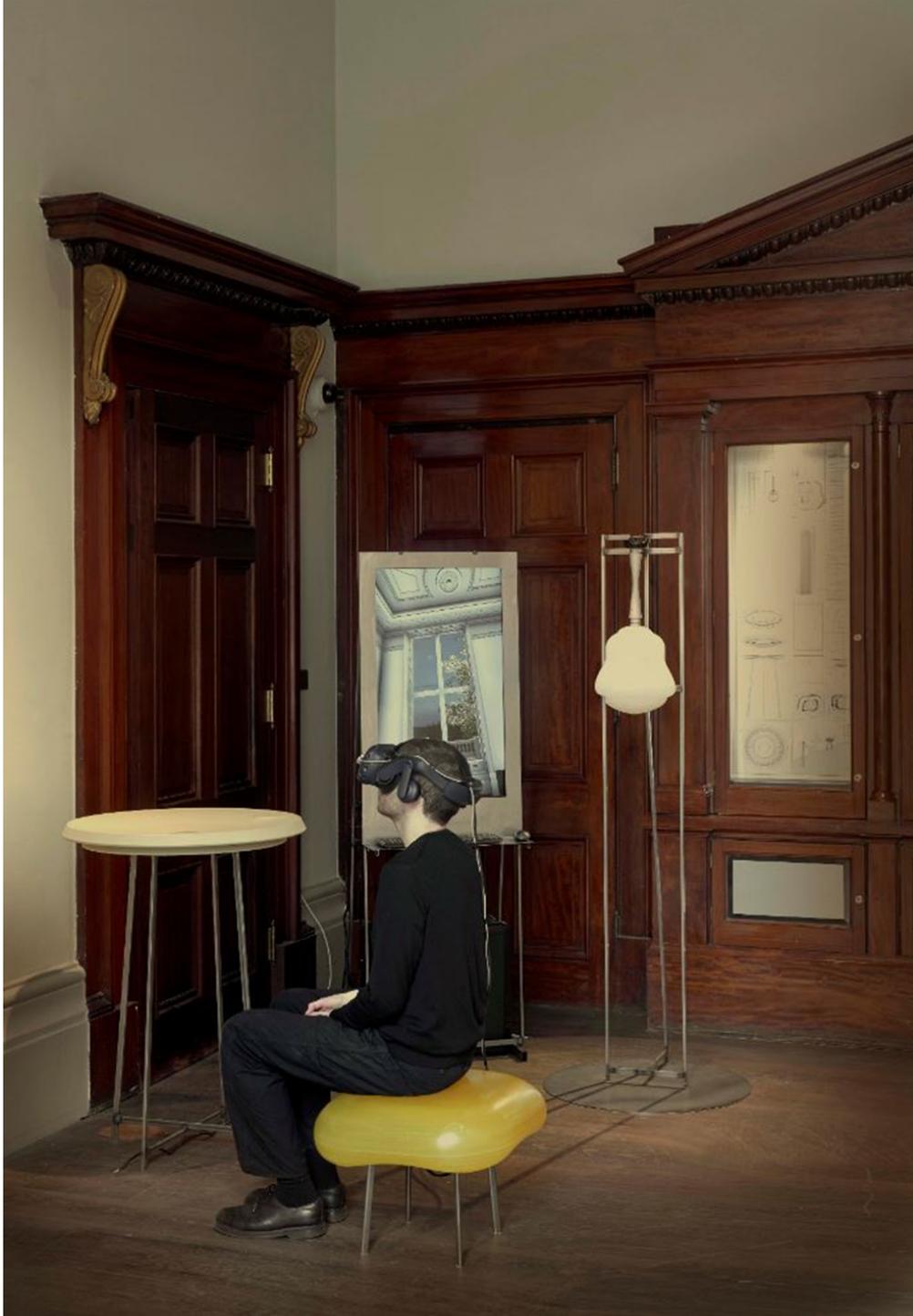


Figure 6.2.4: VR Experience Example: Weightless Bricks  
(Strunden, 2019)

## 7 Limitation and Ethical Considerations

This study is not without limitation. Firstly, exploring implicit perceptions introduces interpretive bias, which may cause subjectivity in interpretation. A VR environment might lead to varied responses, complicating generalizations. Secondly, limited demographic diversity may affect representativeness, restricting the study's applicability beyond Amsterdam North's civic centers.

Regarding ethical concerns, firstly, informed consent and VR Risks should be considered as VR can cause discomfort, which requires participants understand potential risks and allow them to withdraw at any point. Moreover, the VR content will be developed with community input to ensure respectful representation of heritage sites.

**(Words = 2571)**

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