

COLORING THE SPACE BETWEEN US

**Public Space Design
for Intergenerational Interaction
through Sensitive Research.**

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Executive summary

This report, Coloring the Space Between Us: Public Space Design for Intergenerational Interaction through Sensitive Research, explores how to encourage intergenerational interaction between children (6-8 years old) and older adults (65+ years old) in the public space of Hillesluis, Rotterdam Zuid.

As age-segregation increases, children and older adults live more separate lives, despite having shared values, experiences, and knowledge that could be exchanged. This project aims to bridge this gap through design interventions that encourage spontaneous and meaningful connections in public space.

The research questions are structured along four dimensions:

1. Practical – Understanding current interactions and public space dynamics.
2. Historical – Examining the development of public spaces and to what extent residents were involved.
3. Social – Exploring values, perceptions, and barriers shaping intergenerational interactions
4. Conceptual – Creating design interventions that could encourage intergenerational interaction.

A sensitive research approach was important for conducting ethical and meaningful research. The research combined action research (♥), open sessions (👥), a literature review (📖), fieldwork (📍) and interviews (🗣️) to generate insights.

Through these methods:

- The values of children and older adults were identified.
- Themes were clustered, highlighting opportunities for intergenerational design.
- Design requirements were formed based on observations and insights.

Based on these insights, a design goal was formulated: **to create a public space intervention that encourages connections between children (6-8 years old), older adults (65+), and their environment, enabling mutual exchange beyond language barriers.**

Ideation techniques were used to develop seven concept directions. Based on their alignment with context, values, and interaction type, three promising concepts were further explored: Kunstkrijt, Lichtkleur, and Kleur Beweegt. These concepts revealed valuable insights on expression, subtle connection, and movement, which were translated into additional design requirements.

The final design concept, BLOOM, was developed from these requirements. BLOOM consists of two connected parts:

The Flower Frame – a customizable kit delivered to older adults' homes, allowing them to arrange colorful flowers in their windows as a quiet signal of presence, personality, and openness.

The Colormoves Board – a movement-based game in public squares where children interact with large rotating blocks to create dances inspired by the color patterns they observe in nearby windows.

Together, these components facilitate indirect, non-verbal intergenerational interaction between generations on their own terms and at their own pace, making everyday public space more personal, playful, and inclusive.

Additionally, the project results in a Toolkit for Sensitive Research, offering lessons learned in the form of tools that support ethical, context-sensitive design research. This toolkit serves as an eye-opener for researchers and designers working in neighborhoods where trust, care, and local connection are essential.

“Zie, zie, wat mag erachter zijn?”
– J.H. Leopold

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Figure 1 | BLOOM flowerframe and colormoves board.

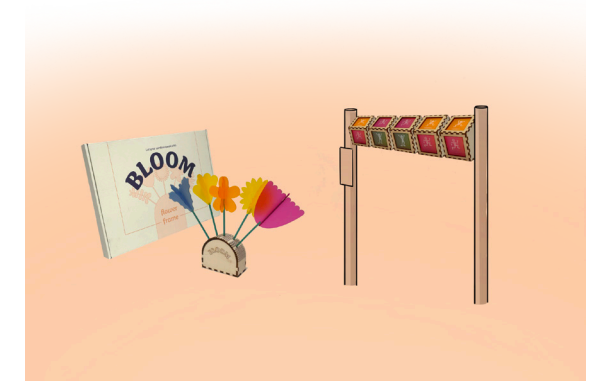


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INTRODUCTION

1.1 Segregation as motivation

The value of creating environments that accommodate different age groups is increasingly recognized in urban planning and public space design. Both the Age-Friendly Cities (AFC) movement, led by the World Health Organization, and the Child-Friendly Cities (CFC) movement, led by UNICEF, aim to ensure that planners, policy makers and developers create cities that take into account the needs of groups that are often overlooked in urban design. While these movements are valuable and necessary, these initiatives risk age segregation rather than encouraging intergenerational interaction. As Facer, Horner, and Manchester (2014) argue, such approaches fail to recognize that children and older adults often share public spaces, live in close proximity, and have overlapping needs and interests, yet urban design often overlooks the potential to create spaces that enable intergenerational interaction.

This segregation has social, economic, and political consequences. When generations live parallel and separate lives, it can contribute to higher health and social care costs, reduced social capital, and decreased trust between generations (Brown & Henkin, 2014; Edström, 2018; Laurence, 2016; Vitman et.al., 2013). Limited intergenerational contact also leads to a greater reliance on media to shape perceptions of others, which can reinforce stereotypes and deepen societal divisions (Edström, 2018; Vasil & Wass, 1993).

Furthermore, this lack of intergenerational interaction contributes to anxiety and loneliness, which are increasingly recognized as major global issues (Surkalim et. al., 2022). While loneliness is often associated with older adults, research shows that it is an intergenerational experience that also affects young people (Hong et. al., 2023). Public spaces can play a key role in reducing isolation and strengthening community ties by encouraging intergenerational interaction.

Recognizing these implications, there is a growing need for research that provides insights into the changing relationships between younger and older members of contemporary societies (Vanderbeck & Worth, 2015). Ongoing research conducted in Rotterdam Zuid assumes children and older adults share overlapping needs, particularly considering inclusivity and age-friendly spaces (Naghbi & Forgaci, n.d.). This creates an opportunity to research and design initiatives that encourage intergenerational interaction in public spaces.

Rotterdam's recognition as the Most Inclusive City in Europe 2024 highlights its success in ethnic, religious and LGBTQ+ inclusion (Cushman & Wakefield, 2024). However, inclusivity efforts often overlook older adults and children when designing public spaces. According to the Rotterdam Integral Vision on Sports, Exercise, and Meeting (Gemeente Rotterdam, 2016), "the elderly and children up to about 12 years of age in particular are dependent on their own living environment." This dependency highlights the need for accessible and inclusive spaces in neighborhoods that accommodate with the values of these two groups.

Finally, this project provides an additional opportunity for Industrial Design Engineering (IDE) students. With the introduction of the Environmental Planning Act ("Omgevingswet"), Dutch municipalities are now required to integrate participatory urban planning. However, these processes remain limited in scale and effectiveness, often requiring external design agencies to fill the gap. This creates a valuable role for designers in shaping inclusive, participatory frameworks that meaningfully engage residents.

By addressing these challenges and opportunities, this report explores how design can bridge the gap between children and older adults in Rotterdam Zuid. It tries to do so by encouraging intergenerational interaction through the overlapping values of the two groups. Doing so, this project aims to contribute to the development of resilient and inclusive neighborhoods.

1.2 Project scope

To define a clear project focus, this chapter outlines choices about the spaces and the people involved,

The outdoor public space

This project focuses on outdoor public space because of its potential to encourage social interaction and connection within the community. As Gehl (2010) points out, public spaces have historically been undervalued in urban planning, yet they are essential as meeting places for urban dwellers.

Gehl's distinction between necessary activities and optional activities further highlights the importance of quality public spaces. While necessary activities – such as going to school or shopping – take place regardless of environmental conditions, optional activities – such as playing, relaxing, or socializing – depend on the quality of the physical environment (Figure 2). As Gehl (2010) explains: “An increase in outdoor quality gives a boost to optional activities in particular. The increase in activity level then invites a substantial increase in social activities.”

Public streets and spaces offer an accessible alternative to costly recreational and leisure facilities, providing essential opportunities for play and interaction that may otherwise be unavailable (Matthews, 2001). For this reason, the multidimensional nature of the public space is even more important for children from less advantaged families.

Children: 6 to 8 years old

The decision to focus on children aged 6-8 years reflects developmental, practical, and social considerations that make this group particularly suitable for intergenerational interaction initiatives in Rotterdam Zuid.

- Developmental stage: Children aged 6-8 are at a key stage in their social-emotional development, with a growing awareness of social rules and an expansion of social circles (Gemeente Rotterdam, 2012). This openness makes them naturally receptive to intergenerational interaction.
- Limited digital distractions: with only 27% reporting reduced outdoor play due to screens, 6-8 year olds are less influenced by digital alternatives, compared to 47% of 9-12 year olds (Verian, 2024).
- Desire for more play: More than half (53%) of children aged 6-12 express a desire to play outdoors more often, despite outdoor play time declining from 9.9 hours per week in 2022 to just 7.2 hours in 2024 (Verian, 2024).

By focusing on children aged 6-8, the project uses their developmental readiness, openness to connection, and enthusiasm for outdoor play to create public spaces that encourage intergenerational interaction, strengthen community ties and enhance the well-being of all ages involved.

Older adults: 65+ years old

The decision to focus on older adults aged 65 and over reflects the presumed lifestyle changes, experienced after retirement. It is assumed that social, emotional, and practical values are (re) defined at this stage of life.

- Social connectedness: Older adults are at an increased risk of social isolation and loneliness due to transitions such as retirement, loss of loved ones, or reduced mobility. Intergenerational interaction has been shown to reduce these feelings by providing a sense of purpose and meaningful connections (World Health Organization, 2007).
- Health and well-being: Outdoor activity plays a key role in promoting the physical and mental health of older adults. Time spent outdoors is associated with reduced stress, improved mood, and increased physical fitness, particularly among senior adults (Kerr et al., 2012).

By focusing on this age group, the project aims to address these needs while encouraging intergenerational connections that increase community engagement and well-being for all participants.

Main stakeholders

Figure 3 shows the other stakeholders, included in this project.

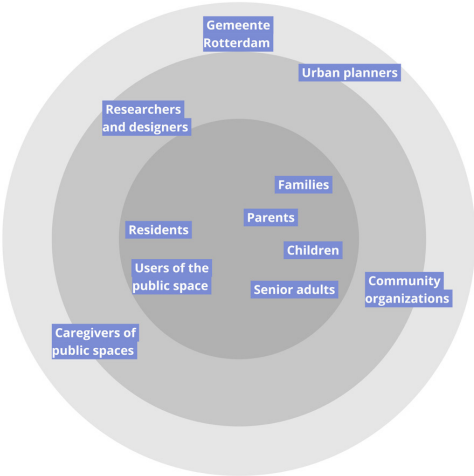


Figure 3 | Main stakeholders.

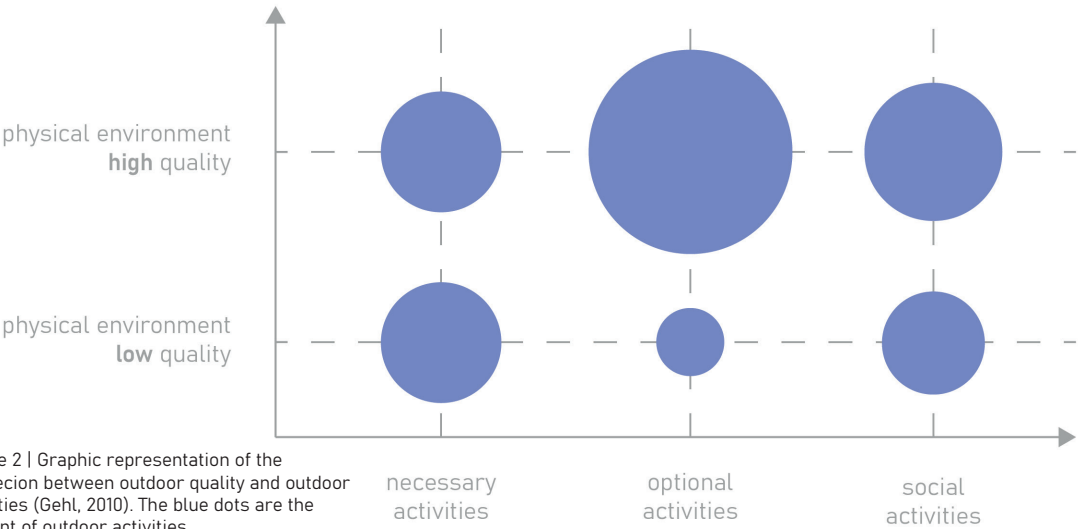
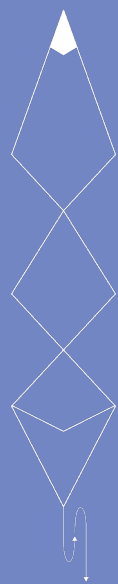


Figure 2 | Graphic representation of the connection between outdoor quality and outdoor activities (Gehl, 2010). The blue dots are the amount of outdoor activities.

This chapter defined the project scope, focusing on public space as the setting for intergenerational interaction and selecting children aged 6-8 and older adults aged 65+ as the target groups based on their developmental stage, social needs, and engagement with outdoor environments. Establishing a clear scope ensured that the project remains focused and actionable, allowing for deeper exploration of the needs, behaviors, and interactions within these groups. This enabled a design that is better suited to its users and setting, rather than a one-size-fits-all approach. The next chapter selects a neighborhood for this project and explores the broader context of Rotterdam Zuid.



CONTEXT

This design project takes place in the specific context of Rotterdam Zuid. As a designer not (yet) embedded in this community, it is essential to first understand its historical, social, and demographic landscape before determining an appropriate approach to research and design.

This chapter provides a contextual foundation by exploring Rotterdam Zuid and Hillesluis from three perspectives:

- Section 2.1 introduces Hillesluis, the chosen research neighborhood, and justifies its selection based on urban, social, and cultural factors.
- Section 2.2 zooms out to explore Rotterdam Zuid's long-standing spirit of experimentation and adaptation, highlighting key historical developments that have shaped its current dynamics.
- Section 2.3 addresses the challenge of research fatigue in the area and proposes a sensitive research approach to bridge the gap between institutional perspectives and the lived realities of residents.

By establishing this contextual understanding, this chapter forms the basis for a community-centered design process, ensuring that the project is not only responsive to the needs of Hillesluis but also conducted in an ethical and meaningful way.



Figure 4 | Crossing the Erasmusbridge, that connects Rotterdam North to Rotterdam Zuid. Total amount of crossings during this project: 116.

2.1 Hillesluis: a patchwork of potential

To narrow down the scope of the project even more, the decision to focus on the neighborhood of Hillesluis was based on urban, social and cultural factors that make it a relevant setting for intergenerational design research. The following five factors supported this decision:



High amount of public space
Urban renewal efforts in Hillesluis since 1981 have focused more on the creation of outdoor community spaces (such as the Varkenoordse Park) than on standardized housing improvements in surrounding neighborhoods. As a result, Hillesluis has a relatively high amount of outdoor public space compared to nearby areas. This abundance of public space provides an opportunity to explore how different environments can foster intergenerational interaction, offering insights that may be adaptable to other neighborhoods.



Representation of both target groups
Hillesluis is home to a relatively high population of children. There are fewer senior adults, but many initiatives exist to support them, which makes their involvement possible. This balance allows for a meaningful study of intergenerational dynamics.



Strong community involvement
Hillesluis is a target neighborhood of the Nationaal Programma Rotterdam Zuid (NPRZ), which makes significant investments into social projects. Local organizations such as Veldacademie, emphasize that building on existing initiatives is more effective than introducing entirely new interventions (personal communication, 2024). This existing infrastructure increases the likelihood of long-term impact and the feasibility of the design.



Figure 6 | Hillesluis: a patchwork of potential



Cultural diversity
Hillesluis is one of the most culturally diverse neighborhoods in Rotterdam Zuid (Figure 5), reflecting the city's history of migration and multiculturalism. Public spaces in the neighborhood naturally function as intersections for different communities, making it an ideal environment to explore how inclusive design can bridge cultural and generational differences.

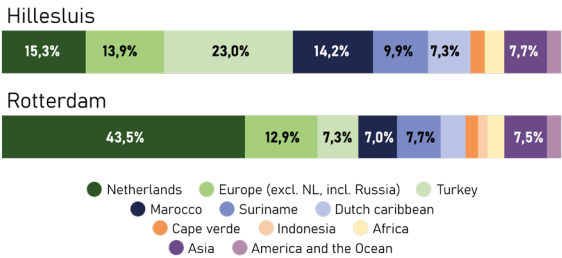


Figure 5 | Origin statistics in Hillesluis and Rotterdam (BRP, 2024)



Socio-economic challenges and the importance of public space
Hillesluis faces lower average incomes and higher unemployment than other areas in Rotterdam Zuid. Public spaces are essential as accessible, low-cost environments for recreation and social interaction. The project is in line with efforts to improve the quality and accessibility of public spaces in underserved communities.

To summarize, Hillesluis offers diverse public spaces and a strong community network. Its existing social infrastructure and cultural diversity support meaningful participation and potential long-term impact. These factors make it an ideal place to explore inclusive, adaptable, and community-driven design that encourages intergenerational interaction: it is a patchwork of potential (Figure 6). The next section (2.2) zooms out to Rotterdam Zuid's history of innovation, contextualizing Hillesluis within the broader urban transformation of the city.

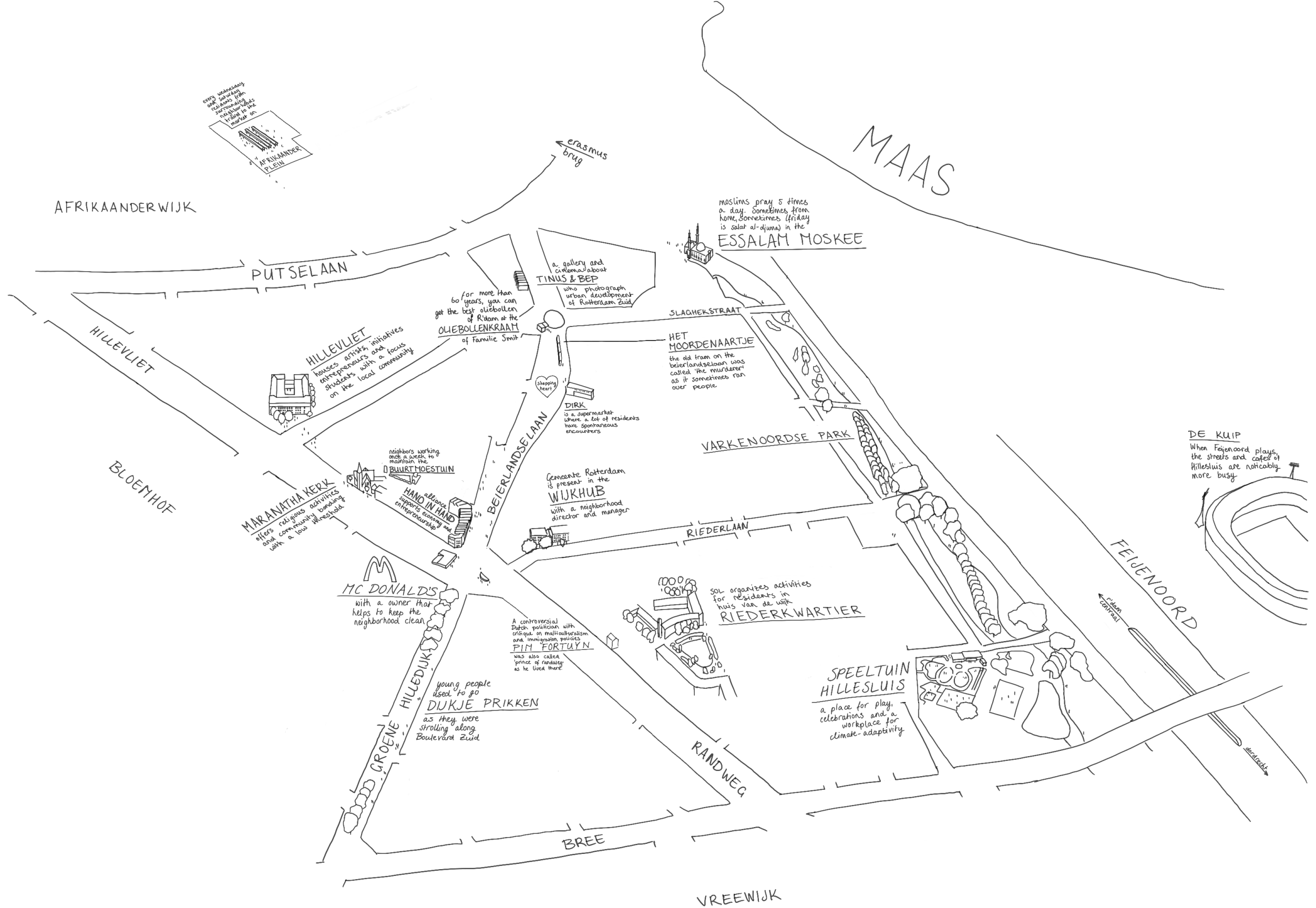


Figure 7 | Observational map of Hillesluis.

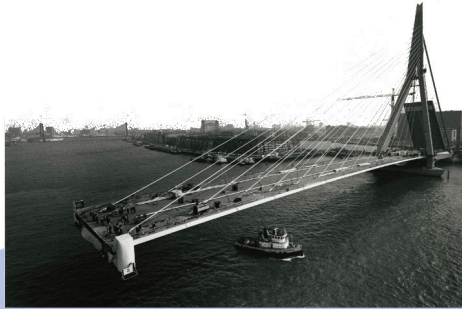
2.2 Rotterdam Zuid: 250 years of innovation and experimentation

Hillesluis is part of Rotterdam Zuid, which historically was a rural area dominated by agriculture until the late 19th century, earning the name Boerenzij (the rural side). It remained physically and socially separate from the bustling northern part of Rotterdam, shaping its identity as “the other side” with a distinct pace, mentality and use. Understanding its history of experimentation and innovation provides context for the role of research and design in the neighborhood today. The timeline on the next two pages (Figure 8) illustrates this evolution.

Northern Rotterdam housed civic pride, while Zuid became home to functions deemed undesirable in Noord, such as gallows and pest houses. The transformation to a flourishing port city began with the 1862 construction of the Nieuwe Waterweg, a significant engineering feat linking Rotterdam to the North Sea, which enables big ships to sail towards the port of Rotterdam.

Harbour builder and urban developer G.J. de Jongh strategically branched the ports, transforming Zuid into a hub for grain, coal, and ore. De Jongh oversaw the excavation of the Rijnhaven in 1895, the Maashaven in 1905, and the Waalhaven in 1935, introducing modern techniques such as grain elevators to optimize operations.

After World War II, the demand for housing in Zuid grew even more due to the devastation caused by the bombing and projections of population growth. Zuid embraced new residential planning ideals: the “wijkgedachte” (neighborhood concept), exemplified by Pendrecht. This concept organized large districts into smaller neighborhoods with daily amenities close by, that promoted a village-like social structure within the city.



2000



1900



In the 1970s, Rotterdam Zuid saw a wave of innovative “stadsvernieuwing” (urban renewal). This concept focused on improving housing comfort with gas connections and showers, expanding homes by adding extra floors (“optoppen”), and creating green spaces by replacing dense housing blocks with parks.

While the relocation of the port activities to the west has shifted the economic heart of the city, Zuid continues to bridge this gap: both physically and symbolically. Infrastructure like the Maastunnel (1942) and the metro system (1960s) have improved connectivity. The construction of the Erasmus Bridge in 1996 further reinforced this connection, serving as both a physical and symbolic link between Noord and Zuid, reducing perceived and actual distances. As a result, improved accessibility and increased attention to urban challenges have drawn more and more researchers to Zuid in recent years.

Responsibility of researchers

Rotterdam Zuid has a history of innovation and experimentation, shaping its identity as a place of transformation and resilience. Over time, it has also become a testing ground for researchers, often studied as a multicultural district, a disadvantaged area, or an innovation hub. This influx of research means that projects must be conducted with ethical responsibility and sensitivity to avoid research fatigue and ensure genuine community involvement. Designing in Zuid requires an approach that acknowledges its past while contributing meaningfully to its future. The following section will delve deeper into this sensitive research approach to engage with residents in an ethical and participatory way.

Industrial growth required big labor forces and due to the newcomers, woningnood and slum conditions. Hillesluis werd ook gebouwd. the municipality launched a program to construct public housing in 1913. Neighborhoods like Vreewijk became “testing hubs” for modern housing concepts such as “tuindorpen” (garden villages), designed to provide healthy living conditions for workers.



1800

Figure 8 | Innovationtimeline of Rotterdam Zuid (images from Stadsarchief Rotterdam).

2.3 Bridging worlds: towards a sensitive approach

The demographic complexity of neighborhoods like Hillesluis (2.1) and Rotterdam Zuid's history as a site for innovation and experimentation (2.2) have made it a perfect location for research on multi-culturalism, urban development, and social dynamics. However, repeated studies with little visible impact have led to research fatigue, distrust, and disengagement among residents. This frustration has real consequences: just prior to this project, a student conducting street interviews in Rotterdam Zuid was assaulted and robbed: a reflection of how residents feel about being continuously studied without tangible results. To address this, this project requires a research approach that is not only methodologically sound (explained in the next chapter) but also ethically responsible and sensitive to the community. This section explains why sensitivity is needed and outlines the principles of a sensitive research approach.

Why is sensitivity needed?
Rotterdam Zuid has been extensively studied, yet residents often see little impact from these efforts. This has created a growing disconnect between researchers and the people they study.

At the core of this issue is the imbalance between institutional research and everyday lived experiences (Figure 9). This aligns with Habermas' concept of the system world (Systemwelt) and the life world (Lebenswelt) in his *Theorie des kommunikativen Handelns* (1981). Institutions, policymakers, and academics focus on data and structured interventions (Systemwelt), while residents navigate their daily lives based on personal experiences and cultural norms (Lebenswelt). Similarly, Richard Sennett distinguishes between the physical city ('ville') and the lived city ('cité'), highlighting the gap between urban planning and actual community needs.



Figure 9 | Disbalance between the institutional world (left) and the lived world (right) (image by author).

An example of this tension in Hillesluis is the Kokerplein (Figure 10), a public square that underwent an institutionally driven redesign. Despite good intentions, the intervention failed sensitivity of the lived world to take into account important aspects of how the space was actively used by residents.

This distrust extends to the research itself. Many residents feel studied but not heard, which reinforces skepticism about outside interventions—a growing feeling by issues like the Dutch childcare benefit scandal ("Toeslagenaffaire"). The result is widespread research fatigue: residents feel more like research subjects than active participants.

"There always used to be people here: busy or celebrating. Now I hardly see anyone here."
(personal communication, EMI, 2024)



Original situation:
Kokerplein was an open square covered with paving stones, heavily used by the community for a variety of activities, such as learning to bike, informal soccer games, and hosting celebrations with party tents set up by residents.



Institutional world intervention:
The Municipality of Rotterdam and Stichting De Verre Bergen collaborated to "improve" Kokerplein by creating a greener, climate-adaptive space. Residents were invited to provide input, and the square's opening was celebrated.



Lived-world response:
Three years later, the square lies neglected. Residents have expressed a sense of disconnection from the newly designed space, as the design did not reflect their priorities to full extent. They miss features like play equipment for children of different ages. The square's new organic shapes, though aesthetically pleasing, no longer accommodate certain activities such as celebrations with party tents, informal soccer games, or cycling practice.

Figure 10 | Kokerplein institutional redesign.

A sensitive research approach

Conducting research in Rotterdam Zuid was essential for this project, but it required an ethical and responsible approach that acknowledged institutional research fatigue. Instead of extracting data, this research focused on understanding and mutual exchange. A question emerged: How can design research be more responsible and sensitive to the lived realities of communities?

To approach this responsibly, the research drew on Kouprie and Sleeswijk Visser's (2009) framework of empathy, which outlines four phases: discovery, immersion, connection, and detachment. Central to this model is the idea that designers must step into the user's world, temporarily set aside preconceptions, and develop emotional resonance before stepping back to design with deeper insight. The immersion phase, though often overlooked due to its non-solution-oriented nature, is essential in cultivating open-mindedness and genuine understanding.

This sensitivity to perspective also aligns with Bennett's (2004) Developmental Model of Intercultural Sensitivity (DMIS), which maps the shift from ethnocentrism to ethnorelativism. Key stages—such as acceptance, adaptation, and integration—highlight the ability to recognize multiple valid worldviews without abandoning one's own. Intercultural sensitivity, in this sense, involves perspective-shifting and bridge-building, not agreement or assimilation.

Together, these frameworks emphasize the importance of openness to diverse realities, immersive presence, and the ability to engage without imposing. This project builds on that foundation by positioning design research as a respectful, reciprocal practice, to eventually rebalance the institutional and the lived world (Figure 11).

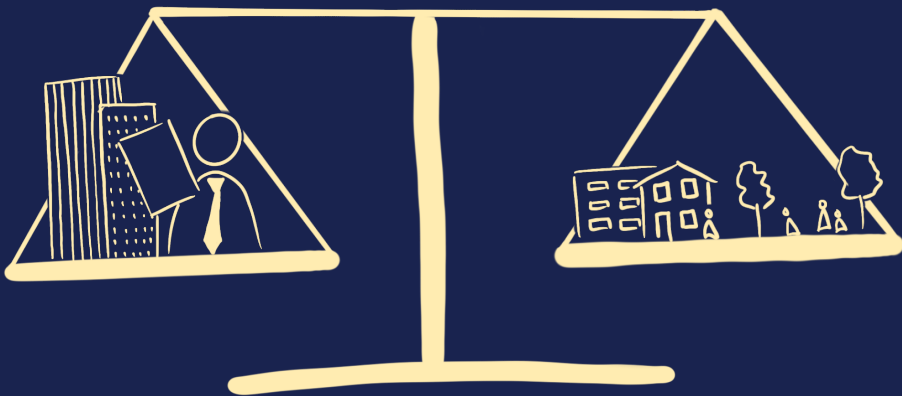


Figure 11 | Rebalancing the institutional world (left) and the lived world (right).

What conducting sensitive research practically meant in this project, is shown in Figure 12. It builds on four phases:

- Phase 1: introduction in the neighborhood and building relationships: how to explain your research and build relationships.
- Phase 2: research phase: understanding the neighborhood, the people and the dynamics between them.
- Phase 3: ideation and design: developing ideas and designs together.
- Phase 4: evaluation and celebration: looking back, reflecting and exploring future possibilities.

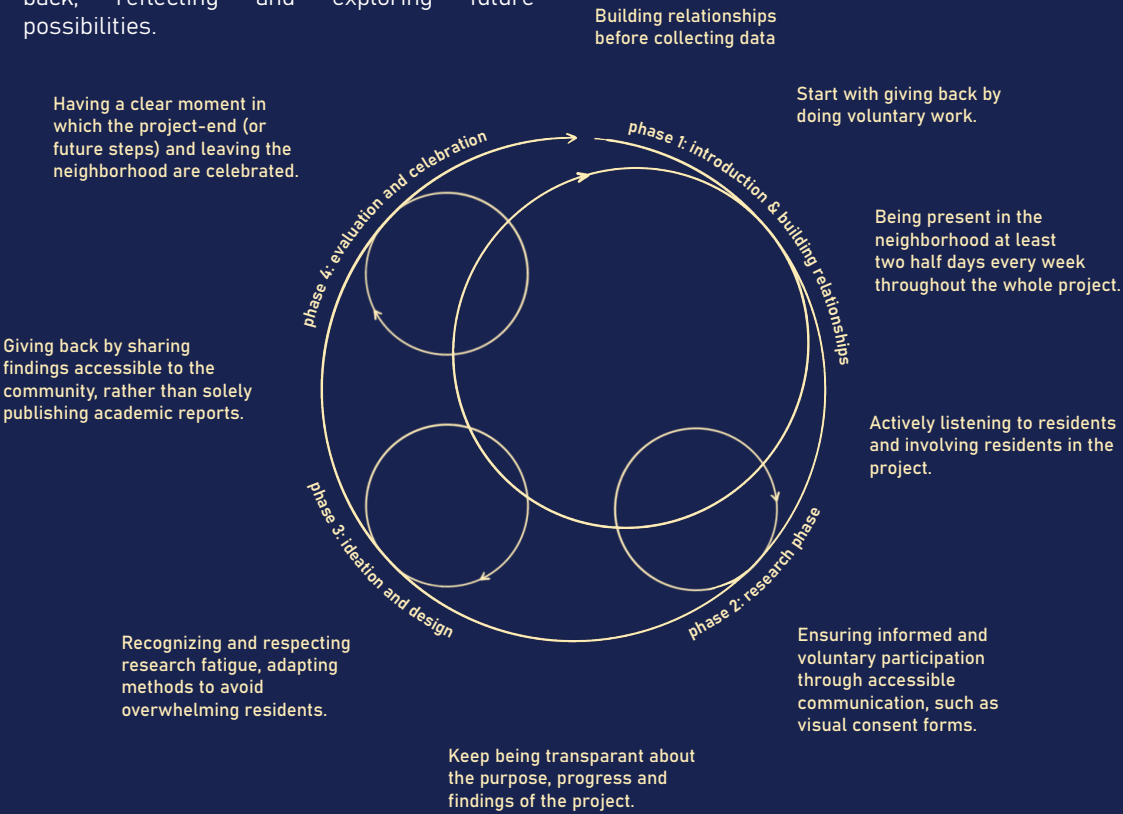


Figure 12 | Practical meaning (attitude and activities) of sensitive research during this project.

This chapter has shown that repeated top-down research in Rotterdam Zuid has led to fatigue and distrust, highlighting the disconnect between institutional world and lived world. To address this, a sensitive research approach is needed—one that prioritizes empathy, reciprocity, and awareness. This foundation prepares the way for the next chapter, which explores the specific context of Hillesluis and the lived realities shaping this project.

APPROACH

Building on the sensitive research approach proposed in the previous chapter, this chapter outlines the methodological strategy used to develop a context-sensitive and meaningful design.

This chapter describes the research strategy into three parts:

- Section 3.1 explores the divergent and convergent processes that shaped the project. It shows what the focus points were over time.
- Section 3.2 defines the main research question and sub-questions.
- Section 3.3 details the methods used to answer these questions, ensuring that the research remained participatory and aligned with the lived experiences of the community.

By structuring the research in this way, this chapter provides a framework for exploration. The result is a design process that remains closely connected to its context.

3

3.1 Balancing exploration and definition

The project is approached through the Double Diamond model (British Design Council, 2005). This model consists of two diamonds - a problem space and a solution space - in which diverging and converging processes suggests that the design process should have four phases (Figure 13):

- Discover: Understand the issue rather than merely assuming what it is. This phase involves speaking to and spending time with people who are affected by the issues.
- Define: With insight gathered from the discovery phase, define the challenge in a different way.
- Develop: Give different answers to the clearly defined problem, seeking inspiration from elsewhere and co-designing with a range of different people.
- Deliver: Test different solutions at a small scale. Reject those that will not work and improve the ones that will.

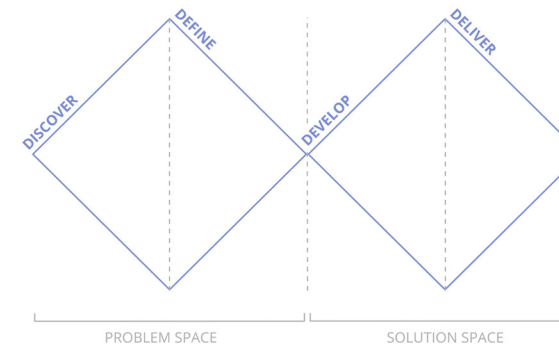


Figure 13 | Double Diamond model (British Design Council, 2005)

This project will work with an adaptation on this model, in which three diamonds represent the research-, ideation-, and conceptualisation phase (Figure 14). Activities, deliverables and chapters are also integrated in this approach.

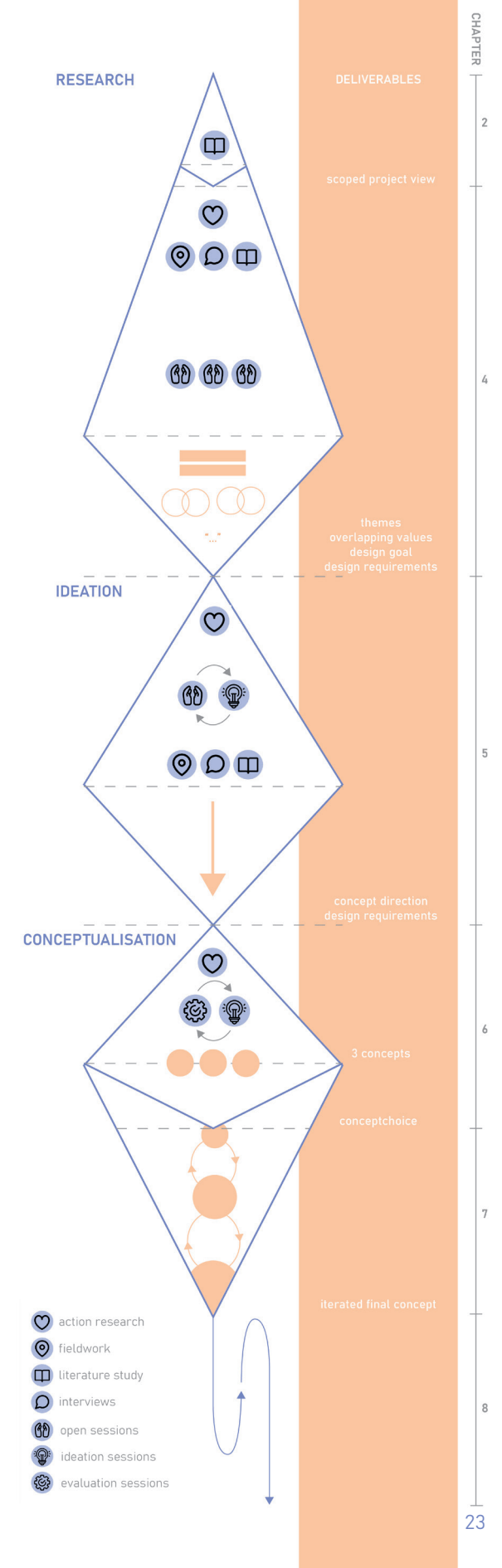


Figure 14 | Project approach including activities, deliverables and chapters. Adapted from the double diamond model (British Design Council, 2005)

3.2 Defining research questions

The research framework for this project is built around three main research questions in the problem space that address historical, practical, and social dimensions of intergenerational interaction in public spaces. In the solution space, a fourth research question is added that addresses a conceptual dimension (Figure 15).

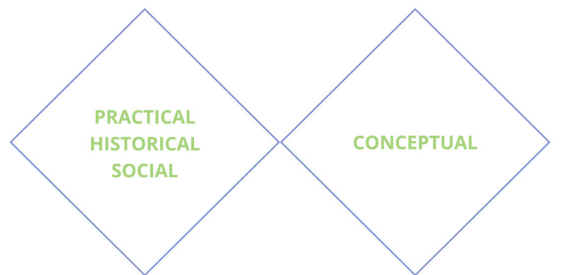


Figure 15 | Dimensions of research questions placed in the research phase and the solution phase.

To work towards a future, Sanders and Stappers (2012) have developed the Path of Expression (Figure 16). This principle suggests that in order to express a future worldview, one should:

- 1. Observe the present.
- 2. Recall the past.
- 3. Reflect on experiences and underlying values.
- 4. Generate questions and suggestions about the future.

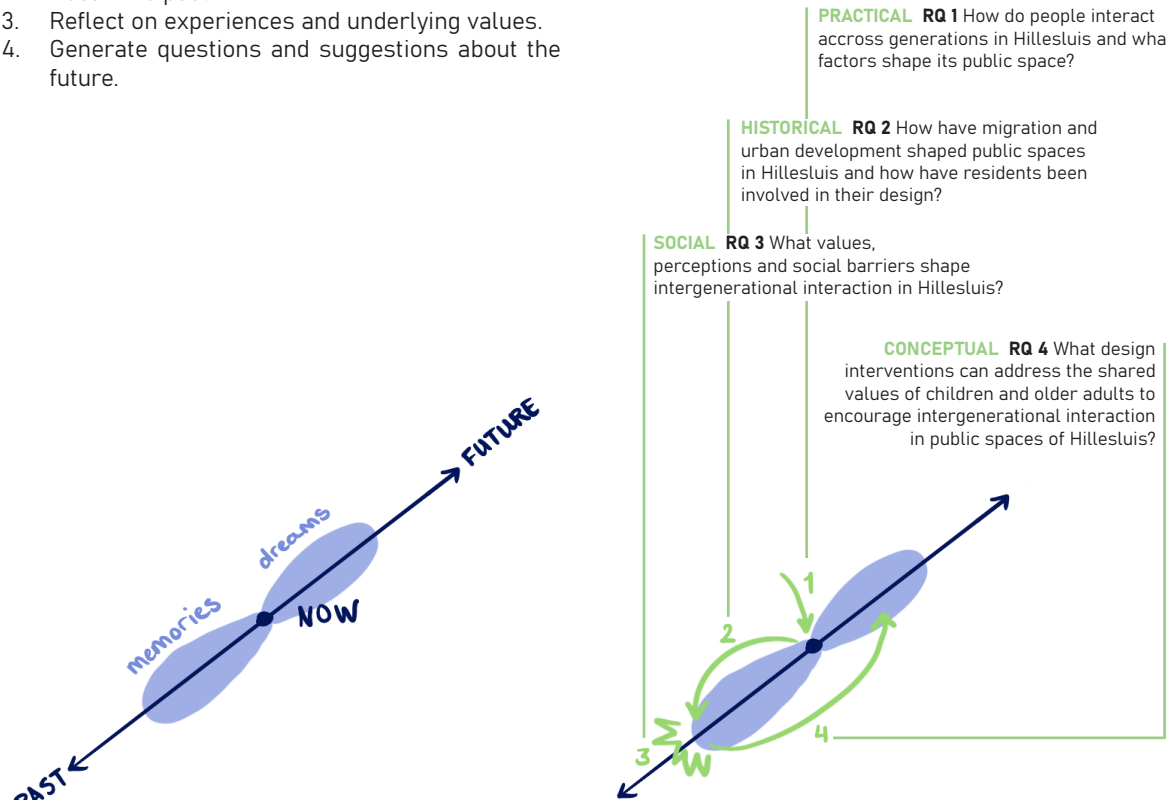


Figure 16 | Research questions placed along the axis of the Path of Expression (Sanders & Stappers, 2012)

This project adapts this path to shape a collective future, emphasizing the shared experiences of a community rather than individual pasts.

The research questions of this project align with this adapted framework (Figure 16). The process begins by observing present-day interactions and public space in Hillesluis, followed by an exploration of past how innovations and urban involvement interactions have shaped the neighborhood. By combining these insights, the project identifies overlapping values between children and older adults. This collective understanding then serves as the foundation for generating a future-oriented intervention that encourages intergenerational interaction in public space.

For each research question, corresponding sub-research questions were formulated. These will be addressed throughout the report, using different research methods. The figure below (Figure 17) provides an overview of how each question connects to specific chapters and the methods used to answer them.

The following chapter will explore these research methods in more detail.

♥ Action research

📍 Field work

📖 Literature study

🗣 Interviews

👥 Open sessions

(Sub-) Research questions	Outcomes	Chapter	Methods used
<div>PRACTICAL</div> <div>SRQ1. How do children, older adults, and parents currently interact in public spaces?</div>	<ul style="list-style-type: none">Visualization of common meeting spaces.Documentation of current interaction in public spaces.	4.1	♥📍🗣
<div>PRACTICAL</div> <div>SRQ2. What physical, social, and cultural factors define the public spaces in Hillesluis, and how do they influence intergenerational interaction?</div>	<ul style="list-style-type: none">Context factors affecting perceptions of public spaces and intergenerational interaction	4.2	♥📍
<div>HISTORICAL</div> <div>SRQ3. How have different migration waves and urban development influenced the public spaces of Hillesluis?</div>	<ul style="list-style-type: none">Timeline: innovations and developmental context that have influenced public spaces.	2.1	📖📍
<div>HISTORICAL</div> <div>SRQ4. What participatory mechanisms have shaped public space development, and how have children and older adults been involved in these processes?</div>	<ul style="list-style-type: none">Barriers and opportunities for community involvement: towards a sensitive approach.Case-study on a public space participatory process: Kokerplein.	2.3	♥📖🗣
<div>SOCIAL</div> <div>SRQ5. What do children and older adults value in public spaces, and how do these values align or differ?</div>	<ul style="list-style-type: none">Values of children, older adults and parents in Hillesluis.Opportunities for intergenerational interaction by overlapping values.	4.3	♥📍🗣👥
<div>SOCIAL</div> <div>SRQ6. What social and contextual elements act as facilitators for intergenerational interaction in Hillesluis?</div>	<ul style="list-style-type: none">Themes that hold opportunities for intergenerational interaction	5.1	♥📍🗣👥
<div>CONCEPTUAL</div> <div>RQ4. What design interventions can address the shared values of children and senior adults to encourage intergenerational interaction in Hillesluis' public spaces?</div>	<ul style="list-style-type: none">Concepts and design for intergenerational interaction.Lessons learned: a toolkit for sensitive research.	6 - 8	♥👥
		9.1	♥

Figure 17 | Overview of connections between (sub-)research questions, outcomes, chapters and methods used.

3.3 Methods for contextual understanding

To answer the research questions, the following five methods were used.

♥ Action research

As outlined in Chapter 2.3 Bridging Worlds: Towards a Sensitive Approach, building trust with the neighborhood was a highly valued step in this project. Action research was performed by stepping into the user's world to develop deep, experiential understanding rather than relying solely on verbalized insights (Kouprie & Sleeswijk Visser, 2009). This immersion was achieved through voluntary work, which provided direct engagement with residents and a deeper understanding of their values, stories, and challenges. The project meaning of sensitive research (such as giving back, mutual trust, and network building) were kept in mind. Collaboration with Speeltuin Hillesluis and local organizations provided a soft landing into the neighborhood, ensuring safe and context-sensitive participation.

Action research was conducted through direct participation in various community activities:

Walking club (10 sessions, Tuesdays 9:00–11:30). Weekly walks of 10–15 km through Rotterdam Zuid (Figure 18, 19) with three senior adults (65+), offering insights into the historical and cultural narratives of the neighborhood.

Craft club (10 sessions, Wednesdays 13:30–15:30). Creative activities with approximately eight children (4–9 years old), building trust, exploring their perspectives, values, and creativity (Figure 20).

Senior movement sessions (3 sessions, Thursdays 10:00–11:30). Light exercise sessions with an average of 14 senior adults (65+), providing insights into public space use, values, and community life (Figure 21).

Litter picking with Hand in Hand Alliance (2 sessions). Clean-up of the Beijerlandse laan with 20 local residents and waste collectors (Figure 22).

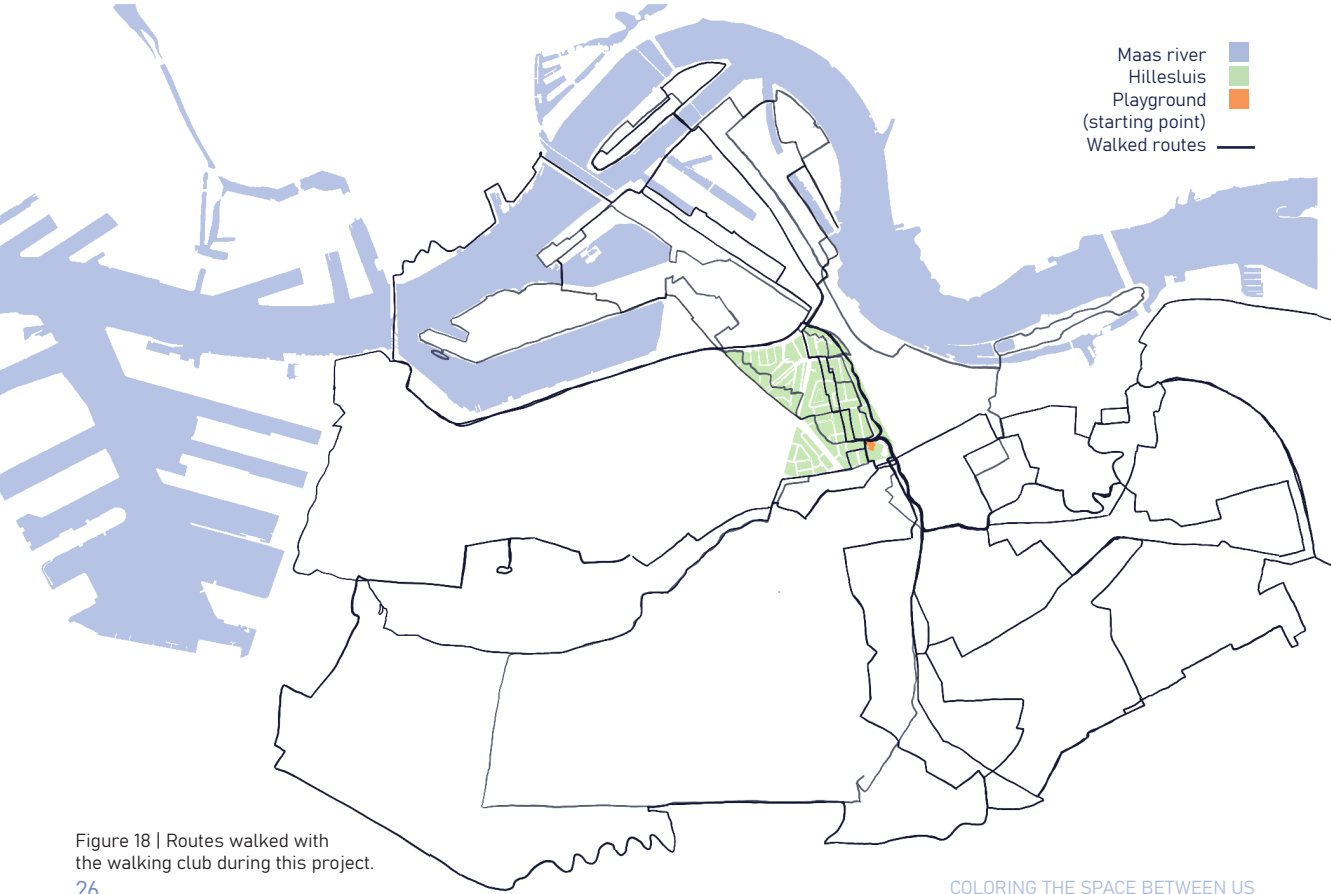


Figure 18 | Routes walked with the walking club during this project.



Figure 19 | Walking underneath the Maas during one of the walks with the walking club.



Figure 20 | Crafting witches hats for Halloween during one of the craft club afternoons.



Figure 21 | Making Christmas pieces after the last senior movement class of the year.



Figure 22 | Litter picking with Hand in Hand Alliance (Alliantie Hand in Hand, 2024)

These engagements ensured that the project was rooted in lived experience, building trust and community collaboration. By embedding myself in rhythms and activities of the neighborhood, I was able to connect with residents and gather personal insights that shaped the project's direction.

📖 Literature review

The literature review provided a theoretical foundation for the project, exploring key topics relevant to intergenerational interaction and public space design. Research focused on themes such as social connection between generations, neighborhood identity, and participatory urban design.

To gather relevant sources, academic databases (Google Scholar), municipal reports, and policy documents were consulted on the following keywords:

- Intergenerational interaction in public space
- Interactions in urban cities
- Urban design and social cohesion
- Intergenerational urban projects
- Age-inclusive public spaces
- Community-centered design
- Perceptions of public space across generations
- Loneliness in urban environments
- Cultural differences in public space use
- Public-private transitions

In addition, expert recommendations and a snowballing approach—tracing references from other sources—helped to refine the study.

📍 Fieldwork

The fieldwork combined observational study and street interviews to explore intergenerational interaction in Hillesluis.

Observational study

Observations were conducted at three scales:

- Neighborhood scale: Identifying where intergenerational interactions occur.
- Social dynamics scale: Observing interaction between children and senior adults.
- Public space scale: Examining how public spaces facilitate engagement.

Five structured one-hour observations took place in parks, shopping streets, and public spaces outside school hours. Additional insights emerged through voluntary work, offering a deeper, informal understanding.

Street interviews

To gain perspectives beyond those already involved in local initiatives, around 20 children and senior adults were interviewed during the wednesday market on the Afrikaanderplein. Initial direct questioning proved ineffective, leading to a revised approach: "Would you trade a story for this bag of (halal) sweets?" (Figure 23).



Figure 23 | Candy bags to exchange for a story in the four main languages of Hillesluis.

This method successfully encouraged a wider range of participants to share stories about Hillesluis, providing insights from voices that might otherwise remain unheard. Follow-up questions encouraged reflections on favorite public space memories and suggestions for neighborhood improvements.

🗨️ Structured interviews

In addition to street interviews, structured interviews were conducted with nine organizations and stakeholders in Hillesluis to gather targeted insights. These discussions explored municipal processes, social challenges, community engagement strategies, and sensitive research approaches. The interviews provided practical knowledge on intergenerational interaction, public space use, and social innovation in the neighborhood. The full list of participants and focus areas can be found in Appendix A.

🗣️ Open sessions

In order to gain insights into intergenerational perspectives on public space, perspectives on each other and to deepen the formed values, a series of open sessions were held with children and senior adults in Hillesluis. These sessions were designed to be approachable, creative, and inclusive using creative problem solving techniques (Heijne & Van Der Meer, 2019), allowing participants to share their thoughts in a way that was most comfortable for them.

Three types of sessions took place:

- Public space exploration sessions. Understanding motivations and aspirations regarding outdoor spaces through poster boards and clay figures (Figure 24).
- Intergenerational perception sessions (individual). Exploring how children view interaction with senior adults and vice versa by mapping the people in their lives. (Figure 25)
- Values exploration sessions (individual). Deepening the formed values by a step-by-step plan for making friends and letters from yesterday to tomorrow. (Figure 26)

Each session was conducted 3 times with children and 3 times with senior adults, using interactive formats to ensure accessibility across age groups and literacy levels (the full session plans can be found in Appendix B). To encourage natural and trusting participation, the sessions were integrated into existing community activities, such as bingo afternoons, which attracted many children, and movement classes for older adults, where coffee breaks provided informal opportunities for conversatio.

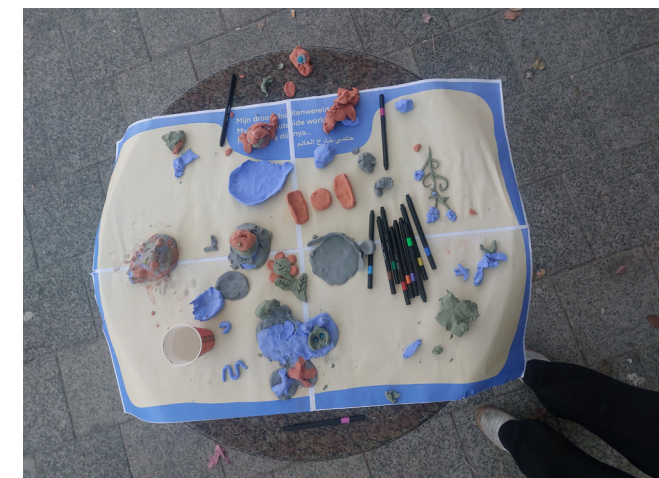


Figure 24 | Public space exploration session.

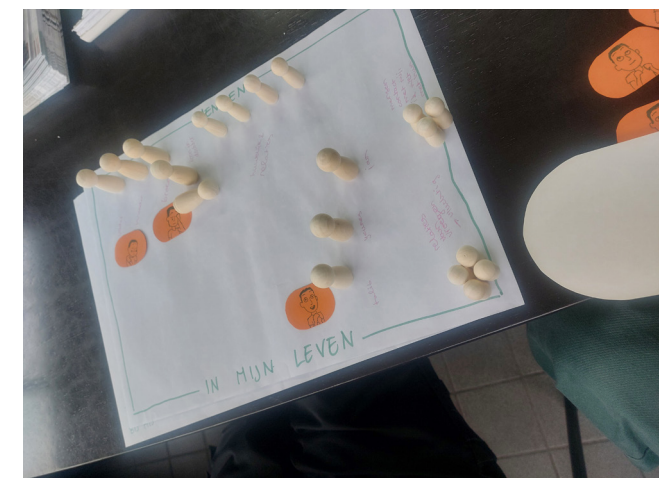


Figure 25 | Intergenerational perception session.

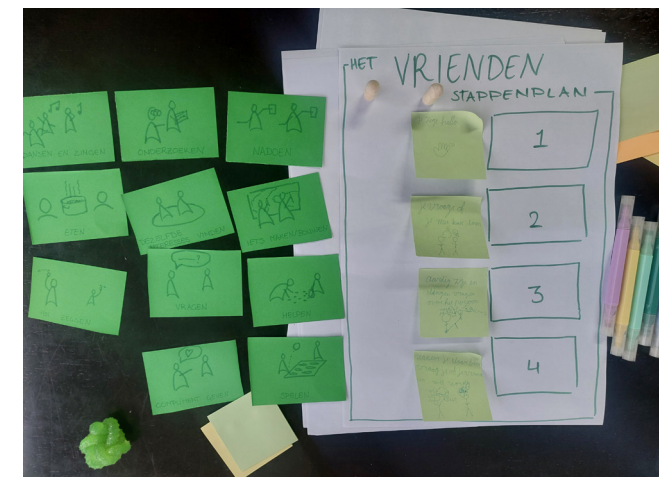
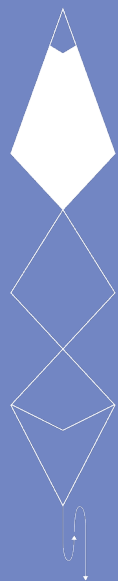


Figure 26 | Making friends session.



INSIDE HILLESLUIS: STORIES AND SPACES IN THE LIVED WORLD

This chapter addresses the analysis and results of the research questions, presented in the previous chapter. The first two sections dive into the research question on the practical dimension and the last two chapters dive into the research question on the social dimension.

- Section 4.1 explores the segregated lives of children and older adults, identifying different types of interactions and uses of the public space.
- Section 4.2 identifies the values of children, parents and older adults, explaining how data was collected, analyzed, and formed into values that shape their interactions with the world around them.
- Section 4.3 combines these findings by examining relations between the values and connecting them to the context. Through shared themes, potential design directions are formulated.
- Section 4.4 identifies overlapping value relationships and translates the themes into core values that the design should respond to.

By connecting social dynamics, spatial context, and intergenerational values, this chapter provides a current understanding of Hillesluis, its residents and the dynamics between them. This way, it forms a foundation for envisioning a more connected and inclusive future.

4

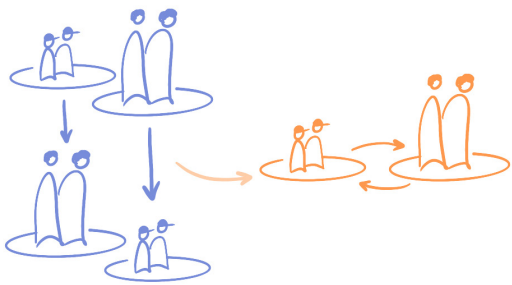


Figure 27 | Graffiti, murals, and decorations brighten up play areas in Hillesluis, creating a more inviting atmosphere that adds personality and warmth to otherwise gray spaces. Sometimes, even nature's own decorations can brighten up a playground.

4.1 From incidental to intentional: rethinking social activities

In order to answer the sub-research question “How do children, older adults, and parents currently interact in public spaces?”, this section examines the spaces they share and the nature of their interactions. It concludes with an overview of types of activities in Hillesluis.

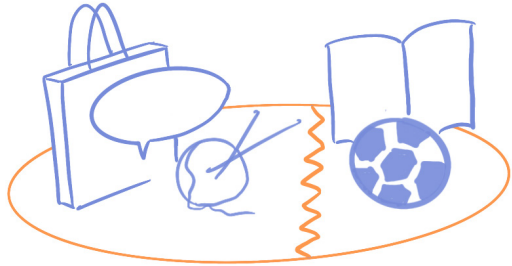
Through observations (📍) at public spaces and interviews with residents that are involved in community initiatives (🗨️), activities in Hillesluis could be placed into a framework described by Jan Gehl (2010). He describes three kinds of social activities: planned (organized) activities, active (spontaneous) interactions, and passive (see and hear) activities. This framework was used to observe intergenerational interactions in Hillesluis,



Segregated planned activities

Planned activities in Hillesluis are found to be age-segregated. The welfare-provider for example organizes activities that reinforce traditional age-based roles, such as gaming sessions for children and knitting or crocheting for older adults. While these activities are beneficial for connecting with their own age-groups, they fail to encourage intergenerational interaction.

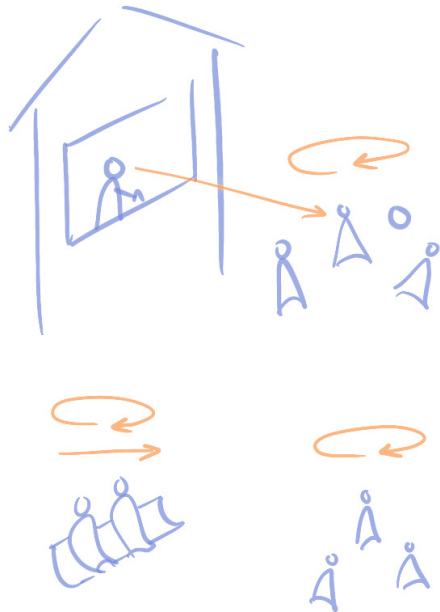
In other contexts where intergenerational programs have been implemented, interactions tend to remain hierarchical. A review of existing practices (📖) shows that these activities often position older adults as knowledge-givers and children as learners (Bristol University Press, 2022). Programs typically frame seniors as mentors in literacy, life lessons, and cultural heritage, offering one-directional knowledge transfer (LSE, 2015). However, findings in Hillesluis suggest that children do not prioritize these structured learning interactions in public space, highlighting the need for a more reciprocal approach that offers mutual exchanges between generations.



No place for active activities with shared goals

Spontaneous outdoor interactions between children and older adults (outside of family) are rare in Hillesluis, occurring only briefly in markets, playgrounds, or passing encounters on the street. While they share public spaces, their purposes and goals often differ.

Unlike international examples - such as multigenerational park designs in Denmark, Brisbane and Tokyo where outdoor environments are intentionally designed to encourage intergenerational encounters (Hauderowicz & Serena, 2020) - Hillesluis relies more on indoor initiatives like care centers, schools, and community hubs for spontaneous intergenerational interaction. Although social norms around respectful interaction exist there is no corresponding physical space where these values are actively applied or encouraged in daily life.



Passive activities that lack engagement

Passive activities are the most common form of social contact in cities and the easiest to influence through urban planning. They create opportunities for encounters that can evolve into deeper interactions.

In Hillesluis, passive engagement—such as older adults watching children play from benches or behind their windows—is frequently observed in playgrounds, parks, and streets. While this creates a sense of presence and community, it rarely leads to active engagement, making it insufficient for building meaningful intergenerational relationships. Designing public spaces that encourage passive activities to evolve into interaction could help bridge this gap.

Conclusion

Currently, intergenerational interaction in Hillesluis occurs incidentally rather than intentionally, as the three types of social activities manifest in ways that limit intergenerational exchange. Planned activities reinforce age segregation, active activities lack a shared goal-setting space, and passive activities offer no natural progression toward engagement.

Understanding these dynamics is important, as they define how a design can integrate into the existing activity landscape without disrupting current social behaviors. The intervention should align with established interaction patterns while subtly encouraging more meaningful exchanges.

Building on this field research, the next section explores how residents of Hillesluis themselves perceive and experience public space.

4.2 What matters to the young and old: public space through the eyes of residents

Now that public space activities have been mapped, it is important to explore how children and older adults perceive and value these spaces. This section addresses the research question: "What do children and older adults value in public spaces, and how do these values align or differ?". The findings will conclude with identified values for children, their parents, and older adults. In Chapter 4.4, overlapping values will be analyzed to shape the design direction.

As described in Chapter 3.3: Methods for Contextual Understanding, public space exploration sessions (🧑🏫) were conducted to uncover motivations and aspirations related to outdoor environments. Participants responded to four key prompts in the main languages spoken in Hillesluis:

- I go outside to...
- Places I go...
- I would like to ... more outside.
- My dream outside world...

Children and older adults shared their thoughts through storytelling, drawings, or clay figures, as seen on the Figures on this page (more findings can be read in Appendix B). Quotes from these sessions and from action research (🧡) were gathered and clustered in two sessions with fellow IDE students. These clusters revealed values for children, parents, and older adults, forming the basis for further discussion in this chapter.

"My idea is that we can create a little book corner here outside. Then people can sit here, and there are cushions. If you want to use it often, you'll need to get a card and use a combination lock because otherwise people will set the books on fire. And there will be two poles here with four cameras."

(resident, 8 years)

Figure 28 | Clay work with explanation during an open session. A creation as response to: "My dream outside world..."

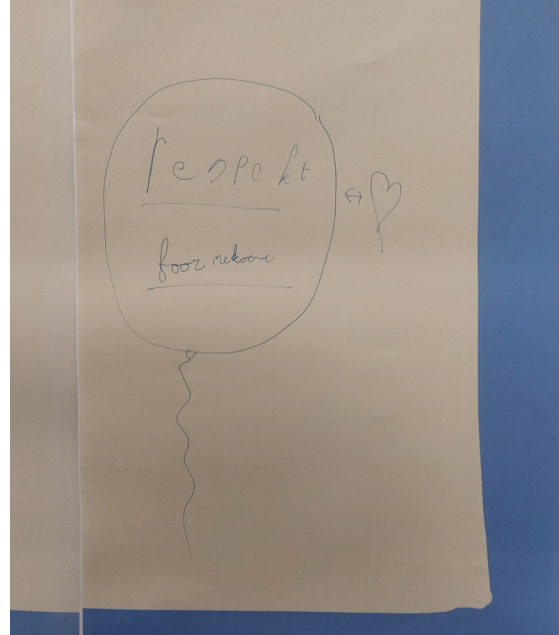


Figure 29 | Outcome during an open session. A drawing (balloon and heart with "respect for each other") as response to: "What would you like to see more outside?" (resident, 7 years)

"Looking out for each other a little more, that would be nice. Offering each other a cup of coffee or a listening ear."

(resident, 67 years)



Children: childlike wonder and mature awareness
Children in Hillesluis balance childlike wonder with a mature awareness of their environment. Their values reflect a desire for independence, social connection, and recognition, while also demonstrating a good understanding of their surroundings. They seek freedom, control over their space, and opportunities to express their imagination in everyday play. The next quotes illustrate how these values manifest in their perspectives on public space, play, and identity.



FREEDOM

I want to feel free

[About the cable car] "It's a kind of place where you can feel free because then all the wind goes through your hair."

(resident, 8 years)



RECOGNITION

I am a big kid

"The slide in the playground is for little kids now, but I am big. I want a long one for the older kids."

(resident, 8 years)



IMAGINATION

I can be who I want to be

"Here's a little bridge. You can jump on it [...]. [If I had a magic wand] I would do everything, take everything you can do. If you jump, you jump so high into the air you could almost make a fairy. Then you end up in another world, that's what I would want!"

(resident, 6 years)



COMPETENCE

I can do it myself

"I drew bubble tea because I really want to go to the zoo and buy bubble tea myself. With my own money! Because they are on sale now."

(resident, 8 years)



ENVIRONMENTAL BELONGING

I am the boss of my own place

"Look, this is a little path. Where only kids are allowed to play, where no cars are allowed to drive. And if a car comes, then you take a brick and throw it at the car." "Throw it at the car?" "Yes, because they are not allowed to drive there."

(resident, 8 years)



SOCIAL CONNECTION


I want to share joy with friends

"I would like to have lots of swings attached to each other. Then all my friends can be on them, and we can chat together."

(resident, 8 years)

Older adults: connecting by independence
The values of older adults in Hillesluis show a balance between connection, independence, and adapting to change. While many seek engagement and personal growth, language barriers and hesitation to take the first step often make meaningful interaction difficult.


Maintaining health and vitality is a key priority, as is feeling socially significant—the desire to care for others, be cared for, and remain an active part of the community. At the same time, adaptability is valued differently among older adults: while some actively seek to adjust to an ever-changing world and stay engaged, others prefer to maintain familiar routines and resist new changes.



GROWTH

Being outdoors is a learning opportunity


“Outside, you can see different people. I can learn from them, and they can learn from me—for example, the Dutch language, where someone might say, ‘no, you should say it like this,’ and I can teach others respect for other people.”
(resident, 64 years)



ADAPTABILITY

Digital terror


“There are many activities for seniors, but it’s all on the internet. I never look at that. I call it digital terror. We used to have flyers that were dropped in the mailbox or put on a board at the supermarket.”
(resident, 82 years)



ENGAGEMENT

I seek alternatives to boredom

Why do you go outside? “Because I don’t feel like staying home, and I think: I’ll go out for a walk.”
(resident, 68 years)



SIGNIFICANCE

I want to matter


“I believe there is a sense of care for the younger group. [...] Then you can also mean something to them. You still want to be something, represent something, be able to pass on your knowledge.”
(resident, 82 years)



VITALITY

I’m not old


“I’m not going to sit with those old ones [a group of 60 year olds]”
(resident, 85 years)



COMMUNICATION

Do you speak ...?

“If you want to join something, you need to know all the languages.”
(resident, 74 years)



HEALTH

I want to be healthy

“Going outside is healthy. If you stay indoors, it won’t go well for you.”
(resident, 85 years)




SOCIAL CONNECTION

A game of first moves

“But when I have new neighbors, they should take the first step. After all, they’re the ones moving here.”
(resident, 71 years)

Parents: devotion tempered by resilience
Parents in Hillesluis prioritize their children’s well-being, valuing protection, stability, and support networks. Safety is a key concern, while moments of tranquility are rare but cherished. In single-parent households, mutual aid in childcare and daily life strengthens community ties.


The next quotes illustrate how these values shape their priorities, struggles, and interactions with public space.



PROTECTION

Keep my eyes on the kids


“I miss places with more shade in the summer. Then it would be more manageable because if I’m sitting here having coffee, I can’t see over there [behind the climbing frame]. The only spot in the middle is always taken.”
(resident and parent)



STABILITY

A growing feeling of unsafety


“I think I miss safety. I live across from here, and although there’s a fence around the playground, in the evenings they’re throwing bombs on the square. I don’t feel unsafe or anything, but it is getting worse.”
(resident and parent)



PRACTICAL ENGAGEMENT

No worries, I’ll help you

“My two neighbors are also single mothers. I know where they go, so if I need to watch their kids or cook something, you just do that for each other.” (resident and parent)



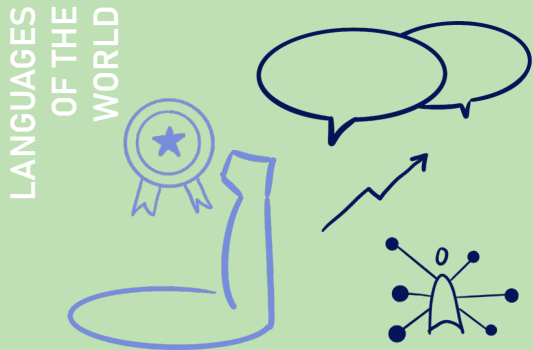
TRANQUILITY

Silence, please

“You don’t have any silence here, then you have to go to the Oude Maas. Or put in earplugs. I hardly have any silence with the children anyway, only when they are both at school there is no ‘mom, mom, mom!’. I don’t even hear the cars anymore, that is already peace for me.”
(resident and parent)

4.3 Themes that matter: opportunities for design

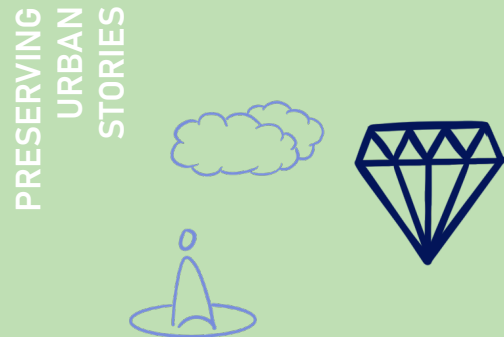
This section combines the connections between values of the previous section with the insights from action research (📍), fieldwork (👁️) and interviews (🗣️) through seven themes that reflect bridges and barriers in sparking intergenerational interaction in Hillesluis. Doing so, it answers the research question “What physical, social, and cultural factors define the public spaces in Hillesluis, and how do they influence intergenerational interaction?”.



[About people sitting in the courtyard]
“Then they say, come sit with us, its fun. But for me it’s not fun, because I don’t speak that language.” (resident, 74 years)

Language serves as both a bridge and a barrier in intergenerational interaction, especially in multicultural Hillesluis where different generations have varying fluency levels or use different primary languages. Children learn Dutch as common language at school while they speak their native language at home. When language barriers arise, they use non-verbal methods such as gestures and imagination. Older adults tend to choose social groups based on the language they speak. They may feel excluded, hesitant or frustrated to interact if language becomes a barrier.

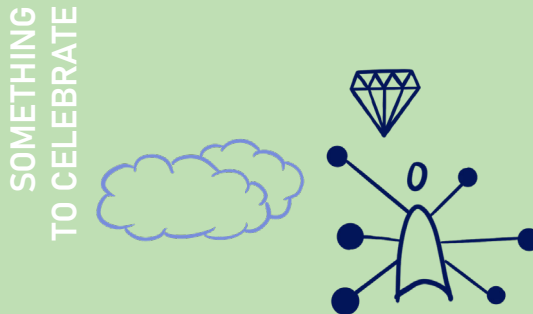
Possible design direction:
To design something that supports non-verbal intergenerational communication by using gestures, symbols, and shared physical activities.



“Our houses with our stories should just give way to the yuppies” (De toekomst is failliet, 2024)

A lot of buildings in Hillesluis are demolished and with that, spaces that hold shared memories and histories are also erased. By creating opportunities to hold together and reimagine these memories, it is possible to transform the demolition into something that creates connection. Some older adults feel a deep sense of loss and nostalgia for spaces that relate to their personal identity. Sharing memories may help them feel valued and included. Children may feel disconnected from the emotional significance of demolished places and might be curious about the history and changes.

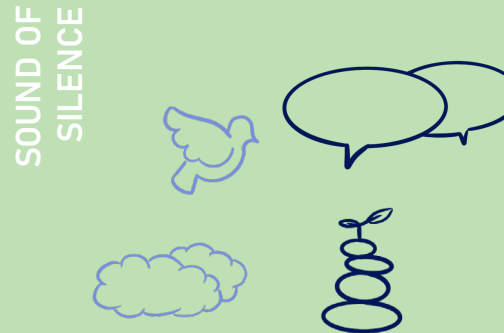
Possible design direction:
To design something that creates opportunities for rebuilding emotional connections by using temporary installations to celebrate the past and future of the area.



On a sunny day, the picnic tables at the Varkenoordse Park are full of people celebrating their birthday party or baby shower. (field work observations)

Celebrations create opportunities for intergenerational interaction by bringing people together through shared rituals, music and acts. These events enable connection, because they allow both children and seniors to express themselves in ways that feel meaningful and joyful. Celebrations help children learn about cultural traditions and values of other people. They may view them as moments of freedom and creativity where they can express their identities. Older adults see celebrations as an opportunity to share stories. It can offer them a sense of belonging and purpose.

Possible design direction:
To design something that enables children and seniors to express their cultural identities together by providing inclusive and flexible celebration kits or activities.



[Sirens sound during a walk with the walking club] “That is the anthem of Rotterdam Zuid” (resident, 82 years)

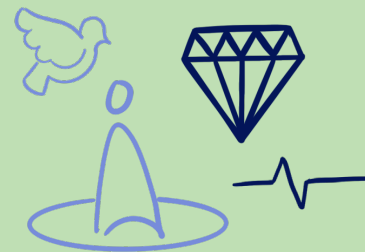
Noise can either attract or repel different age groups. In Hillesluis, it is never quiet: car honking, music or screaming children. Designing spaces that balance active soundscapes with areas of calm ensures inclusivity, might enable connection. Some children like the quieter play areas. For older adults, much noise can be overwhelming, especially in busy public spaces. Mostly parents expressed their need for a more silent environment. Quiet spaces could enable deep conversations or moments of reflection.

Possible design direction:
To design something that enhances intergenerational interaction through sound by creating playful soundscapes or tools for collaborative sound-making.



Figure 30 | A part of the youth in Hillesluis feels compelled to leave their mark in the public space by destroying it, a form of release that could stem from frustration, boredom, or a search for a sense of control and selfexpression (interview with social worker).

POSITIVE
SPATIAL
EXPLORATION

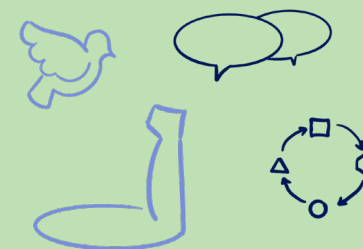


“In response to being told all the time that they live in a deprived neighborhood, children become rebellious later in life and show: this is my neighborhood. Look, I’ll put my name here in grafitti or I’ll set this tree on fire”
(interview social worker)

Both children and seniors in Hillesluis often stay within the boundaries of their neighborhoods. While this can foster local connections, it also restricts their horizons and opportunities for exploration. Children get told they live in a deprived neighborhood (or power neighborhood) all the time. By not being made aware of the wonderful things in the neighborhood, pride of the neighborhood is left behind, causing problems later in life (see quote). The opportunity lies in showing children and older adults the beauty of the neighborhood so that they carry a sense of belonging with them.

Possible design direction:
To design something that inspires curiosity and discovery within neighborhoods so that in later stages of life, children leave their mark in less vandalism ways.

DIGITAL
COMMUNICATION



[about promotion of events] “We used to have leaflets at the supermarket on one of those boards. The development is going so fast that the older group can’t keep up because everyone assumes that we have a smartphone in our pocket.”
(resident, 82 years)

Digital communication has the potential to connect generations, but it often introduces barriers because of the differing levels of digital literacy. Children quickly adapt to new technology. They see digital tools as extensions of their social lives and might teach older adults how to use them. Older adults may feel intimidated by digital platforms. They may struggle with its complexity or feel excluded from digital interactions. Bridging this gap can enable meaningful intergenerational connections.

Possible design direction:
To design something that bridges the digital literacy gap between generations by facilitating collaborative learning experiences around technology.



[about the switch from working life to pension life] “It was like that after COVID too: you have to build things up again and start actively looking for what you want to do and what is possible”
(resident, 69 years)

Building and rebuilding social connections is important for both children and seniors, because it addresses feelings of isolation and provides a sense of belonging. For children, learning how to make friends and engage with people outside their immediate family lays the foundation for social skills. Friend-making is something most children constantly do, while older adults might feel hesitant to initiate first contact. Relearning to build contacts after life transitions (e.g., retiring, losing a partner or COVID) can help combat loneliness and restore confidence in social situations.

Possible design direction:
To design something that helps children and seniors practice social skills by introducing interactive tools that promote dialogue and cooperation.

Using a set of choice criteria, it was found that the seven themes could be combined into two overarching design themes:

- (RE)LEARNING TO BUILD CONTACTS BEYOND LANGUAGE
- (RE)BUILDING EMOTIONAL CONNECTIONS TO THE NEIGHBORHOOD

Conclusion

This section identified two overarching themes that address barriers and opportunities for intergenerational interaction, related to language, making friends, and feeling connected to the neighborhood. These themes are important as they reflect both the values of children and older adults while remaining relevant to the context of Hillesluis. Based on these themes, a design goal will be formulated in the next chapter.

4.4 Shared values: the foundation for design

To make the last step in answering the sub-research question “What do children and older adults value in public spaces, and how do these values align or differ?”, this section explores the relationships between values.

Looking at the relationships between the values, two interesting relationships between overlapping values were found that could be bridged in these chosen directions (Figure 31).

To ensure these values were relevant, a value-test was done by conducting an open session (30). Quotes that symbolized the values were placed along a line: This suits me - This does not suit me. The responses confirmed that the identified values aligned with the residents’ perspectives.

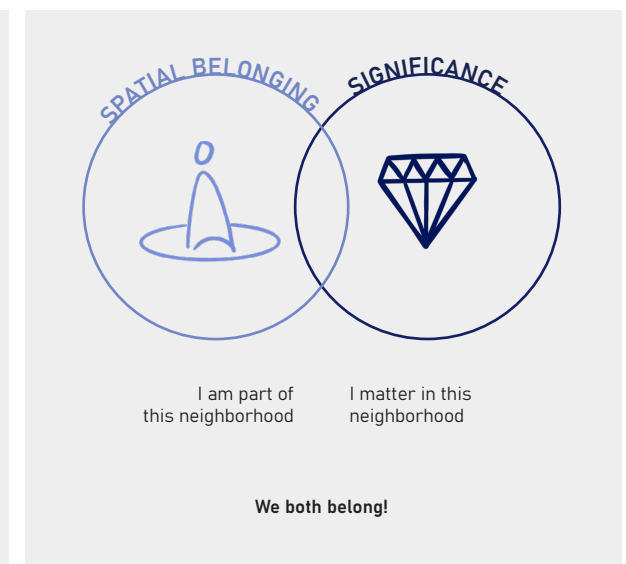
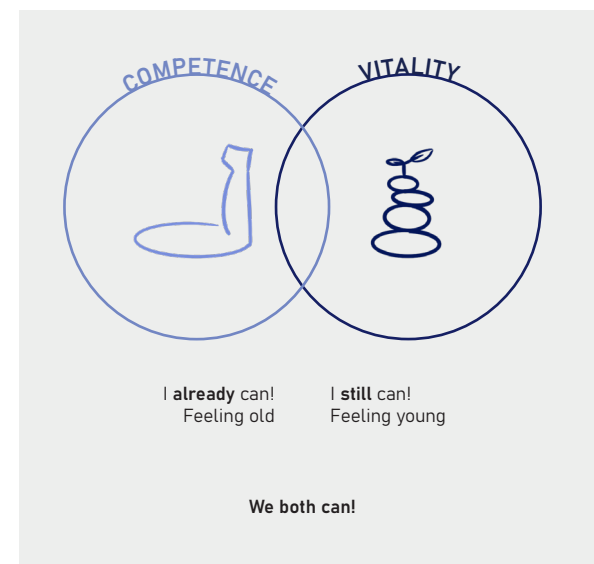


Figure 31 | Overlapping values

This section identified two key overlaps between the values of children and older adults: “We both can!” and “We both belong!”. These shared values form the foundation for intergenerational interaction. Addressing overlapping values ensures the design is not one-sided, but fosters a mutual exchange where both children and older adults feel empowered. With these shared values established, the next chapter will focus on translating them into a clear design goal.



FINDING FOCUS: SHAPING THE SOLUTION SPACE

Building on the themes and overlapping values identified in Chapter 4, this chapter marks the transition from problem analysis to design exploration. It establishes a vision for the project and defines a concrete starting point for ideation.

- Section 5.1 formulates the design goal, translating research insights into a focused design direction.
- Section 5.2 explores initial ideas, refines concept directions, and selects the window game as the most promising approach.
- Section 5.3 explores this windowgame direction by researching the role of windows as a medium for interaction.

By shaping a design vision, this chapter serves as a bridge between research and ideation, providing a strong foundation for concept development in the following chapters.

5

5.1 Defining the design goal

Now that the overlapping values have been identified and key themes have shaped design directions, the landscape for envisioning a solution has become clearer.

I envision a situation in which intergenerational interaction is based on **mutual exchange**. This means creating an environment where the shared values of children and older adults are central: **competence & vitality** (we both can) and **belonging & significance** (we both belong)—are central.

This envisioned space accommodates both **active activities** with a shared goal and **passive activities** that rely on reaction-based interactions. Given the specific dynamics of Hillesluis, **non-verbal communication** plays a crucial role in **(re)building connections**: not only between individuals but also between people and their neighborhood (Figure 32).

VISION ON INTERGENERATIONAL INTERACTION IN HILLESLUIS

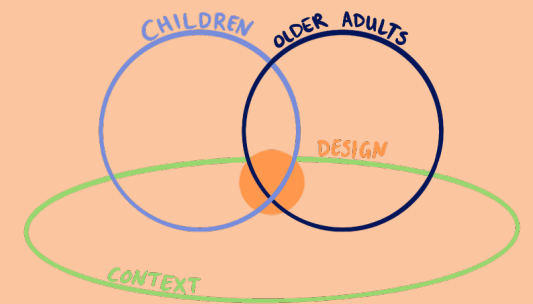


Figure 32 | Placement of the design in the vision on intergenerational interaction.

To align with this vision, the design must meet requirements in the following categories. The primary requirements within these groups are shown below, with the full list in Appendix C.



Personal engagement: How do individuals connect with the design on a personal level?

- The design must instill a sense of confidence and capability, ensuring that both generations feel they can engage meaningfully.
- The design must allow children and older adults to experience a sense of belonging within Hillesluis.



Interpersonal connection: How does the design facilitate interactions between people?

- The design must facilitate mutual interaction, where both generations can actively give and receive.
- The design must encourage interaction in a non-verbal way.



Public space and community: How does the design integrate with public space and support community dynamics?

- The design must facilitate active and passive activities.
- The design must welcome residents to the public space of Hillesluis.



Physical durability and practicalities: How does the design ensure usability and safety?

- The design must be vandalism-resistant
- The design must be low-maintenance.

Following this vision, my design goal is to create a public space intervention that encourages connections between children (6–8 years old), older adults (65+), and their environment, enabling mutual exchange beyond language barriers.

5.2 From ideas to a direction

With a clear direction in mind, this chapter explores potential forms the design could take. Through user sessions and ideation techniques, new insights emerged that shaped the final concept direction and introduced additional design requirements.

Exploring the solution space

Three user sessions were conducted to further explore the design goal. The sessions generated new design requirements (detailed below, with full session plans and findings in Appendix B). These open sessions (88) focused on:

EMOTIONAL DYNAMICS OF CONNECTION

Examining how older adults perceive children entering their lives and the emotions this might evoke. Older adults mapped the people currently present in their lives, the emotions tied to those people (Desmet, 2019) and the possible entering of new people (Figure 33).

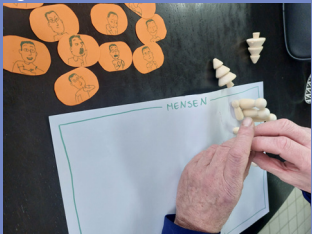


Figure 33 | Emotional dynamics session.

Key insights

While seniors in Hillesluis are open to interacting with children, they prefer encounters in small groups or at a comfortable distance, as larger groups can feel overwhelming. A sense of curiosity emerged, with residents eager to learn about each other's perspectives and experiences.



This led to design requirements:

- The design must allow for collective and individual use.
- The design must accomodate interactions in small groups or at a comfortable distance.

SHARING STORIES THROUGH LETTERS

Exploring the meaningful stories older adults want to pass on to children and how these stories could inspire connections. Through a created method called "Letters from Yesterday to Tomorrow", residents visualized stories they wanted to share in the form of letters (Figure 34).

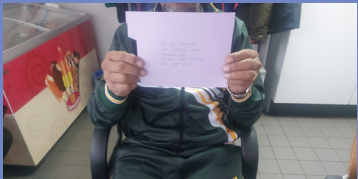
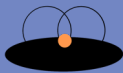


Figure 34 | Sharing stories session.

Key insights

The stories focused on experiences, showing that connection is built through shared moments rather than place-based narratives. Participants also viewed storytelling as a way to shape children's perceptions of Hillesluis, hoping for a more positive association.



This led to the design requirement:

- The design must encourage a positive perception of Hillesluis.

EXPLORING FRIENDSHIP-MAKING

Exploring children's concept of friendship and how this might adapt when interacting with older adults. Through a friend-making scheme, children showed what behaviors and activities encourages friendship (Figure 35).

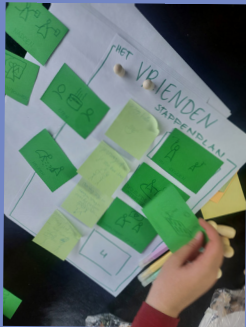
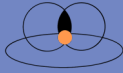


Figure 35 | Exploring friendship session.

Key insights

Children tend to seek explicit confirmation in friendships (e.g., "Will you be my friend?"), while older adults prefer implicit connections (e.g., "When shall we meet again?")



This led to the design requirement:

- The design must support both explicit and implicit forms of connection.

Forming ideas and concept directions

To kick off ideation, several techniques from the Delft Design Guide (van Boeijen et al., 2013) were used, including How-Tos, collage, brainstorming and prototyping. Additionally, several ideation sessions were conducted with peers.

This concluded in a pool of ideas. To determine which ideas had the most potential for further development, clustering was used. Through this process, seven possible concept directions were formulated (more visual concept directions can be found in Appendix D), each addressing different ways to encourage intergenerational interaction in the public space:

- Interactive road signs that stimulate interaction.
- Non-verbal bottle mail points where people can leave traces in the neighborhood.
- Friend tiles that connect the playground to the bench through an interaction route.
- Activity that connects the playground to the bench.
- Dream and memory library where people leave traces.
- Gateway where people interact through shadow trails they leave behind.
- A windowgame that stimulates interaction between people on the square and behind the surrounding windows.

An exhibition (Figure 36) was organized to showcase and evaluate these concept directions.

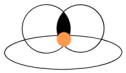


Figure 36 | Impression of the exhibition.

From directions to selection: the window game

Based on the overlapping values of children and older adults (Chapter 4.4), the requirements on interpersonal connection discussed on the previous page and the requirements on physical durability and practicalities (Chapter 5.1), the selection for the concept direction of a window game has been made. This concept selection introduced a new layer of requirements. In particular, it emphasized the importance of two principles: indirect interaction and the ability to leave traces of presence.

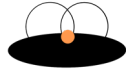
Older adults may appreciate interaction with younger generations but often prefer to avoid forced face-to-face engagement (Van Melik & Pijpers, 2017). Indirect interaction offers the flexibility to connect without pressure. It minimizes barriers, respects social dynamics, and allows for connections on the residents' own terms, making it a suitable approach for residents of Hillesluis. The design must enable indirect forms of interaction, allowing individuals to participate without needing to be present at the same time.



This led to the design requirement:

- The design must enable indirect forms of interaction, allowing individuals to participate without needing to be present at the same time.

A recurring theme in the context of belonging is the importance of leaving a mark—having something in the neighborhood that reflects your participation. When people can see or return to something they've created, it strengthens their emotional bond with the space.



This led to the design requirement:

- The design must allow residents to leave visible or symbolic traces of their interaction or contribution.

A window of opportunity

By combining user insights and creative ideation, seven concept directions were developed and tested. The window game was selected. This selection sharpened the design focus and added additional, context-specific requirements. In the next section, the role of windows in Hillesluis will be researched further, to better understand how they can facilitate these forms of connection.

5.3 Researching the role of windows

Now that the concept direction has been chosen, further research on windows was necessary: their functions, potential, and how they manifest in Hillesluis. This section explores why the window serves as the ideal site for the design intervention, the psychological and social benefits of looking through a window, and how residents in Hillesluis currently engage with their windows.

Windows as bridge between two worlds

In Hillesluis, windows serve as more than architectural features—they act as thresholds between private and public life, mediating the connection between residents' homes and the communal street (Figure 37).

Dutch urban culture traditionally embraces large, uncovered windows as symbols of openness and transparency (De Weert, 1976). However, in Hillesluis, window use reflects a range of cultural attitudes toward privacy and hospitality. Some residents keep them open to display carefully curated interiors, while others use curtains, foil, or blinds to prioritize anonymity and self-protection. A Turkish woman in Hillesluis explained:

“In Turkey, we usually have two living rooms. One is for visitors—it is always kept clean, just in case. I do the same here: a smaller room for daily life and a formal one with handmade decorations (Figure 38) and special tableware.”



Figure 38 | Handmade decorations in the visitor living room.

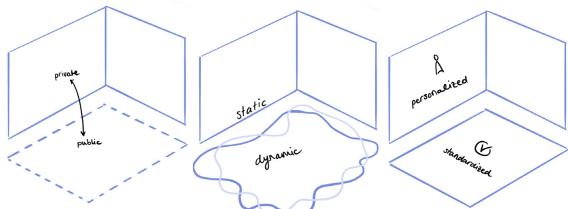


Figure 37 | Contrasting worlds that the window separates.

This diversity highlights how windows are not just functional elements but expressions of identity and extensions of personal spaces (Figure 38).

Beyond cultural differences, windows also separate two distinct social environments: the lively, dynamic street and the more secluded, controlled space of home. Each world has its own pace, social norms, and forms of interaction. While windows act as necessary boundaries, a design could encourage subtle moments of connection between these two spheres, allowing for interaction on residents' own terms.



Figure 38. The window as an extension of the personal space.

Windows in Hillesluis: contrasting uses and functions

Observations in Hillesluis reveal two distinct ways in which residents use their windows: either to conceal or to display. This variation is influenced by factors such as building density and street-level exposure. On the ground floor and in more tightly built areas, windows are often covered with curtains, foil, or blinds, creating a sense of separation from the street.

In other cases, windows serve as a way to display elements of personal identity. Some residents decorate them with lace curtains, ornaments, or houseplants, while others use them as spaces for quiet reflection. Windows also function as small indoor gardens, particularly in homes without outdoor spaces.

As illustrated in Figure 39, the function of windows has evolved over time, adapting to changing social and spatial dynamics. While their role has shifted, they remain a key interface between private and public life. Subtle design interventions could encourage residents to open their curtains more frequently, making the neighborhood feel less anonymous and encouraging a greater sense of connection. This highlights the window's potential as a point of subtle interaction: whether by inviting more openness or offering a platform for personal expression, that both can encourage connections between residents and their surroundings.

"I always sit by the window. Sometimes when the playground is closed, boys will climb over the fence and then I open the door and say "What are you doing, that's not allowed, it's closed". I see everything that happens here" (resident, 64 years)



Figure 40. A window to conceal or display (or both)

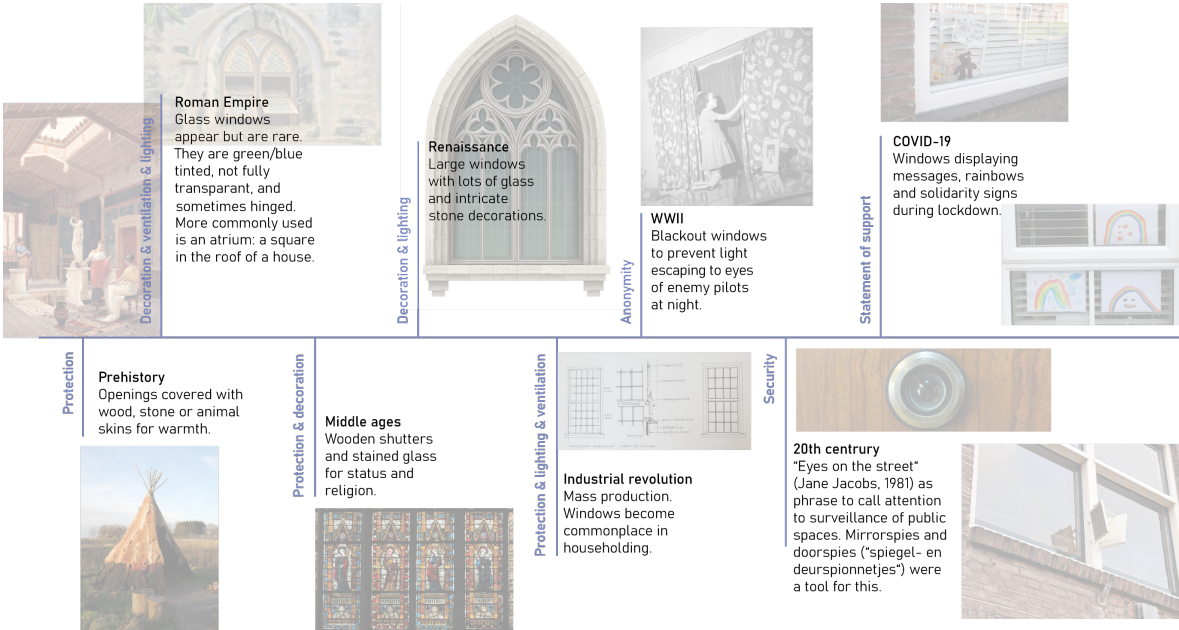


Figure 39 | A historical and functional overview of windows over time in the Netherlands.

The benefits of looking through a window

The window divides two perspectives: the observer, who controls their gaze and engagement, and the observed, who is framed by the window's boundaries, often unaware that they are being observed. Windows curate perception by determining what is included and excluded, shaping how people experience the outside world. Sometimes, a window acts as a stage, displaying the world outside. At other times, it becomes a mirror, reminding the observer that their view is shaped by their own identity and perspective.

For older adults, this act of windowgazing has a deeper meaning. Windows offer a way to observe the rhythms of the neighborhood and maintain a sense of connection without physical presence (Van Melik & Pijpers, 2017). This passive engagement provides restorative benefits, reducing fatigue and reaffirming a sense of self (Kaplan, 2001). It also prevents sensory overstimulation and stimulates imagination, offering a balanced way of engaging with the world. Movement outside (passing pedestrians, shifting light and changing seasons)

becomes part of their daily routine, subtly shaping their indoor lives (Roovers, 2019).

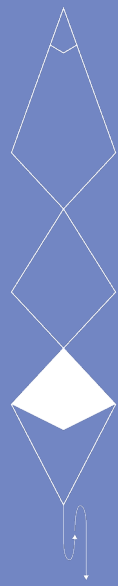
These insights highlight the window's role as both a connection to the outside world and a means of shaping perception, making it a valuable space for subtle engagement and interaction in the design.

Conclusion

Windows in Hillesluis act as bridges between different worlds, offering both separation and subtle connection. They serve diverse functions: some residents use them to engage with the outside world, while others prioritize privacy. Additionally, windows provide psychological benefits, particularly for older adults, allowing them to observe neighborhood life and maintain a sense of connection.

This is important for this project, as residents should be able to express their identity, observe discreetly and create small moments of connection on their own terms.

The next chapter introduces three design concepts, each exploring a way for residents to interact with their windows.



BRINGING CONCEPTS TO LIFE

With the concept direction formed and explored, the next step was to bring it into reality through testing and validation. A test day was organized to present and evaluate the three concepts, gathering insights that ultimately shaped the final design. This chapter follows the refinement process:

- Section 6.1 details the development of the three concepts, their main features, and the insights gained from testing.
- Section 6.2 explores the selection process, showing how the final concept evolved by integrating test results and refining design requirements.
- Section 6.3 shows the iterations made on the final concept to refine its interaction, usability and integration within the neighborhood.

Through testing and iteration, this phase bridges conceptual ideas and practical implementation, resulting in a validated design.

6

6.1 Concept development and test day

With the chosen direction—a window game that connects children playing in the square with older adults observing from surrounding windows—in mind, research was conducted into various physical and digital games. This exploration included conversations with older adults and children in Hillesluis, a visit to a toy store, and an analysis of popular interactive trends on Snapchat and TikTok. Following this exploration, ideation and brainstorming sessions were held to translate ideas into potential game concepts. This process led to the development of three promising concepts (Figure 41):

- Lichtkleur
- Kleur Beweegt
- Kunstkrijt

Each of these concepts explores a different approach to encouraging interaction between children playing in public squares and older adults observing from their windows. To further refine these ideas, a morphological chart (Appendix E) was used to expand and structure the differences of the concepts into fully developed designs.

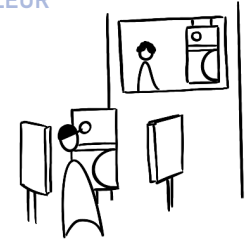
The following pages present these concepts through a user scenario, a brief explanation of the concept, photographs of the prototype and key findings from the test day .

In order to evaluate the effectiveness of the developed concepts, a test day was organized at Speeltuinenvereniging Hillesluis. The aim of the test was to observe how older adults and children interacted with the interventions. The testing process focused on three key dimensions:

- Understanding – How intuitively residents grasp the concept.
- Engagement – The level and duration of active interaction and excitement.
- Repeated Participation – The likelihood of participants returning to engage with the concept multiple times.

The collected insights provided valuable feedback on how to further refine the concepts to better facilitate intergenerational interaction.

LICHTKLEUR



KLEUR BEWEEGT



KUNSTKRIJT

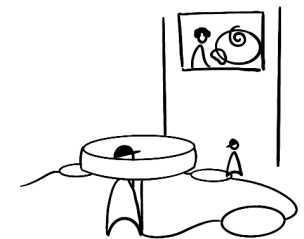



Figure 41 | Three concepts

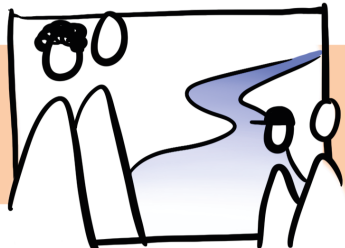
LICHTKLEUR CONCEPT

WORKSHOP



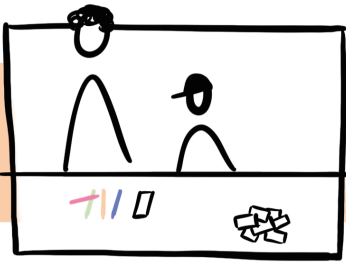
The yearly Color Your Neighborhood Workshop is promoted.

WORKSHOP



At easter, children and older adults are invited to the workshopspace. Noor is also going.

WORKSHOP



Noor is paired with Mr. Ahmed. Both choose colors that represent them. Noor picks bright oranje and Mr. Ahmed deep blue. They start to experiment on domino pieces.

WORKSHOP



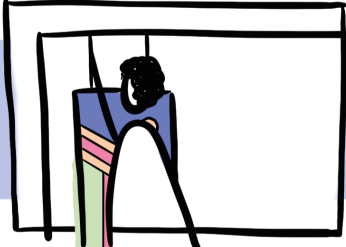
They pick their favorite design and scale it up into a larger stained-glass frame.

WORKSHOP



Noor takes home the set of domino tiles that feature all their designs.

AT HOME



Mr. Ahmed takes the stained glass home and hangs it in his window.

ON SQUARE



A week later, Noor and her friend visit the square where favorite designs are painted onto blocks. She notices a blue-orange block and recognizes it from the workshop.

ON SQUARE



"Look, the blocks can turn around!"

ON SQUARE



"Shall we try to turn it towards the home of Mr. Ahmed?"

ON SQUARE



Noor rotates the block till it matches Mr. Ahmed's window.

ON SQUARE



A light turns on, which makes the colors reflect on the ground. The light at Mr. Ahmed's stained glass also turns on signaling a connection has been made

ON SQUARE



Excitedly, she calls some friends and moves over to the next block. As more lights get turned on, more older adults appear in front of their windows. They smile and wave.

LICHTKLEUR CONCEPT

With Lichtkleur, children and older adults around the square work together in a workshop to create colorful stained glass designs. The final stained glass is taken home to be placed in the window, while the designs are painted by local artists on rotating large blocks in the square (Figure 42). Children in the square try to find a visual match between the block and the window artwork (Figure 43). When a correct match is made, both pieces of art light up. This concept explores how light and color can create playful connections between private and public spaces.

Test setup
Older adults and children worked together to create stained glass designs by placing shapes. (Figure 44) Pre-made blocks and matching (fake) windows were placed on the playground. When children rotated the blocks toward the matching window, a light went on. (Figure 45)



Figure 42 | Child trying to find a matching window.



Figure 43 | A match between the block and the window artwork.

"Hey the light is on!
Shall we dance?"



Figure 45 | Light turns on when a match is made.

- Testing insights**
- Understanding this concept is doable with a prompt: "Do you see a window that matches the colours here?"
 - The engagement time is mainly in the workshop (30 minutes) and less in the block-turning activity (5 minutes).
 - The light has to be really bright in order to show a correct match.
 - Parents of the children also really like this concept as it colours the neighborhood.
 - The concept could be made more fun if the makers could leave their signatures on the blocks.

KLEUR BEWEEGT CONCEPT

AT HOME

Mrs. Lopez receives a package in her letterbox and opens it.

"What do you see when you look outside?". Colorful sticks stand for different themes: green = nature, pink = people, blue = birds and orange = a smile.

She forms a code that reflects her day: she has seen her neighbor, flowers and a smile, etc. When the sun shines, the colours fill up her room.

ON SQUARE

Amina and Youri are playing on the square when they notice a colourful board.

"Look Amina! You can connect a certain color for movement by turning them around."

"The same colours can be found in colorcodes on the windows, now we can try to crack the code."

ON SQUARE

The first color of the code is blue: we just connected that to putting our hands up!

While Amina and Youri follow the code by moving around, more children join their dance.

At the end of the day, a performance is being held. Mrs. Lopez also watches the dancing children from behind her colorful window.

KLEUR BEWEEGT CONCEPT

With Kleur Beweegt, older adults communicate with children through a color-coded system (Figure 46). Based on the meaning of the colors, they arrange the colored sticks in their windows to form a pattern. In the square, children respond to these color codes by performing specific dance moves on an interactive dance board (Figure 47). This concept explores how nonverbal communication and movement can foster playful intergenerational interaction.



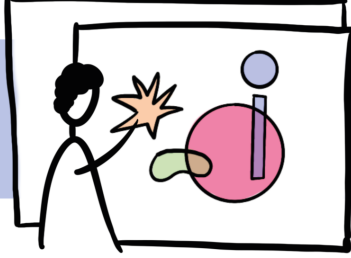

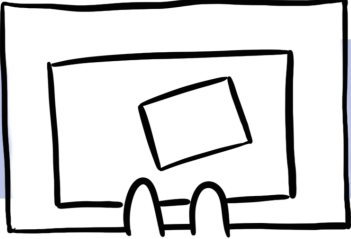
Test setup
Older adults created color codes with colored sticks based on the question: What have you seen out of the window today? (Figure 48) Children respond to color codes by performing movements based on the color code (Figure 49).



"Then it starts with blue: sliide. Bam. Oh, that's nice. And green? Foot up with a clap."

- Testing insights**
- Understanding this concept was hard for children. They had to be talked through the steps. Instructions were missing.
 - The dancing element captured mainly girls their attention.
 - One older adult found the colourcode too boring to put in her window.
 - Visual interaction worked well without language barriers.
 - The danceboard could be made more fun by more movements, more colours and a rhythm.

AT HOME

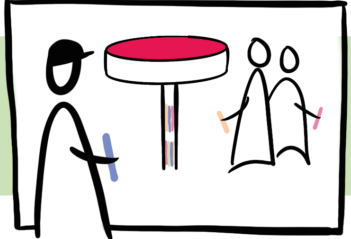
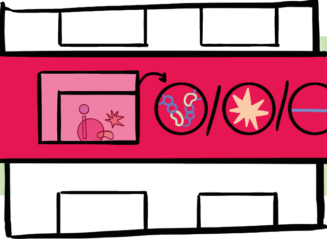
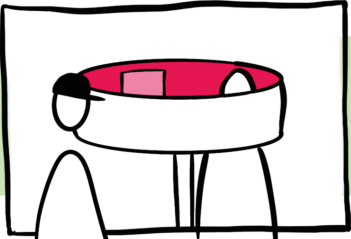


Mrs. Maria receives a package on her doormat and opens it.

She sees colorful translucent stickers in diverse shapes. She reads "What is your favorite memory?"

Mrs. Maria thinks back to her favorite holiday in the mountains and sticks the green hills, the fields with pink flowers, the sun and herself on her window.

ON SQUARE

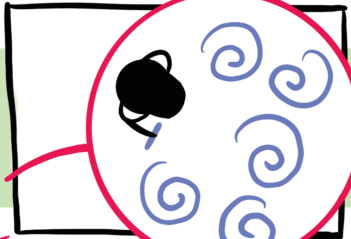
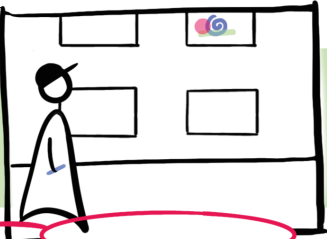
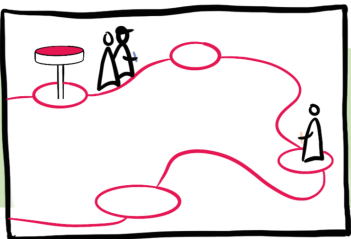


Outside, Amir enters the playground and notices a strange cylinder with a bright color.

Curious, he steps inside and spots Maria's artwork through a peekhole. Next, he sees an explanation of what you could make out of that artwork.

Excited, he picks out a color of sidewalk chalk: blue!

ON SQUARE

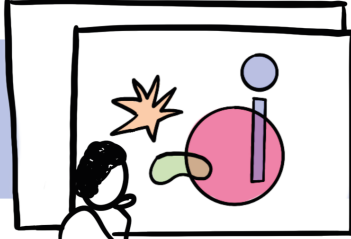
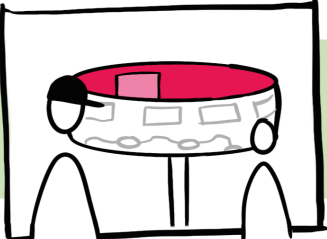
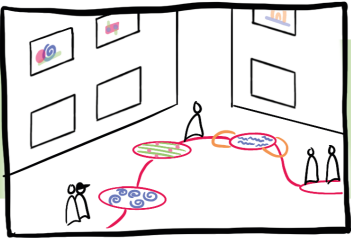


Amir follows the path that is painted on the ground.

When he encounters a circle, he looks for artworks on the windows. And spots a beautiful one! What does this remind me of?

Amir draws a raging sea with his sidewalk chalk. He writes: "Cross this sea without being taken by one of the waves!"

ON SQUARE



When Amir looks up, he sees the stories that other children have made. He follows the path, conquering the other challenges.

At the end of the path, he arrives back at the cylinder. He spots the rounded mirror on the outside: while he sees himself, he also sees the chalk artworks of the other children and the artworks in surrounding windows. He smiles.

In the meantime, Mrs. Maria has watched the children play with the memories of herself and her neighbors. Maybe tomorrow, I will hang up another memory, she thinks.

With Kunstkrijt, older adults create window art based on personal memories (Figure 50). Children follow a guided path through the neighborhood, interpreting the window art and responding with their own sidewalk chalk drawings (Figure 51, 52, 53). This concept focuses on the power of visual storytelling and how shared creativity can bridge generational gaps.



Figure 50 | Instruction box (left) and favorite memory creation (right): The pink clouds of her marriage and birth of first son.

Test setup
Older adults used abstract shapes to create window decorations representing memories. Children followed a guided path in the playground, interpreting designs beyond windows and responding with chalk drawings on the ground.



Figure 51 | Child making the direction of the path clear.



Figure 52 | Making a chalk game based on the art behind the window.

"I already know what it is! It's flowers! Or people! Or Bingo, I'm going to make a Bingo card!"



Figure 53 | Child mixing chalk to create a new color.

- Testing insights**
- Children found only sometimes inspiration of the window-artworks, but mostly they built upon previous drawings.
 - Sidewalk chalking was a very engaging activity. Children spent an hour on average.
 - Chalking makes the focus go to the ground, when the focus should be up towards the windows.
 - The prompt for some older adults (creating a favorite memory) is hard to visualize with provided shapes. It also gets
 - Three out of four older adults did not want to hang the artworks in their windows: too busy, starts flickering, supposed to be on the balcony.

6.2 Concept selection and exploration

After testing, the concepts were assessed based on key testing values: understanding, engagement, and repeated participation (Figure 54).

	Understanding	Engagement	Repeated interaction
Lichtkleur Children	Moderate	High	Low
Lichtkleur Older adults	High	Moderate	Moderate
Kleur beweegt Children	Moderate	High	Moderate
Kleur beweegt Older adults	Moderate	Low	Moderate
Kunstkrijt Children	Moderate	High	High
Kunstkrijt Older adults	Low	Moderate	Moderate

Figure 54 | Results testing day.

Based on these findings, Kleur Beweegt was chosen for further development, incorporating successful elements from the other concepts into refined design requirements, detailed on the next page.

Windowstyle test

One key insight from testing was the diverse preferences of older adults—some were eager to display elements in their windows, while others were hesitant. I realized that I had designed something based on what I found visually appealing, rather than considering the aesthetic preferences of the residents themselves. To address this, a windowstyle test was conducted. Six older adults chose between various window display elements by ordering them in two categories:

“I would put this in my window”
“I would not put this in my window”

The results (Figure 55) - in which “I would put this in my window” is outlined green - showed a lot of variation in for example color preferences and tidiness, but one consistent pattern emerged: all participants liked having natural elements, such as plants or flowers. These insights helped to shape design requirements, detailed on the next page.



“We always have flowers. In vases you know? Other than that we don’t have that much, because I have a granddaughter and she’s going to play with those things every time and then it’s going to fall on the floor”
(resident, 66 years)



“Sticking I don’t do. Then my wife gets mad, she always mops the windows. [...] This is too busy. I like tidy and neat.” (resident, 64 years)

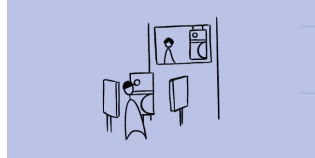


“Not that one, it’s boring. I like lots and wild and color! Color is always good. It makes it cozier, I think.”
(resident, 69 years)

Figure 55 | Results of the windowstyle test. “I would put this in my window” is outlined green.

Based on the concepttesting, additional design requirements were formed (Figure 56)

LICHTKLEUR CONCEPT



- The design must enable residents to leave visible or symbolic traces of themselves in the public space.
- The design must be introduced to the neighborhood through a sensitizing element.

KLEUR BEWEEGT CONCEPT



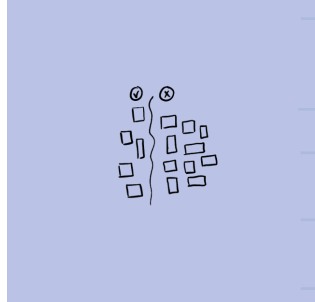
- The design must provide an option (not an obligation) for sharing stories, where residents themselves can determine how personal it gets.

KUNSTKRIJT CONCEPT



- The design must draw children’s attention to the windows above them,

WINDOWSTYLE TEST



- The design must allow for personalization to suit the different living environments of older adults (subdued-exuberant / boring-lively / messy-tidy).
- The design must contribute to a nature-inspired aesthetic.
- The design must be easily changeable in composition, to invite creativity and re-engagement over time.
- The design must easily be replaced or removable from the windows.
- The design must have a hanging (on the window) and a standing (on the windowsill) option, to accommodate different window types and preferences.

Figure 56 | Additional design requirements

To conclude, the Kleur Beweegt concept has been selected for further development. Insights from the test day and other findings from the window style test, have been summarized into design requirements below. To refine the concept, these insights were incorporated through new iterations, ensuring a stronger fit with residents’ needs and preferences. The following section presents these iterations and their impact on the design.

6.3 Requirement integration

As conclusion of this chapter, the design requirements formed in chapter 6.2 were integrated into new designs (to see the full list of requirements, see Appendix C). Through this iterative process (Figure 57), the concept is developed further into a final design, which will be detailed in the next chapter.

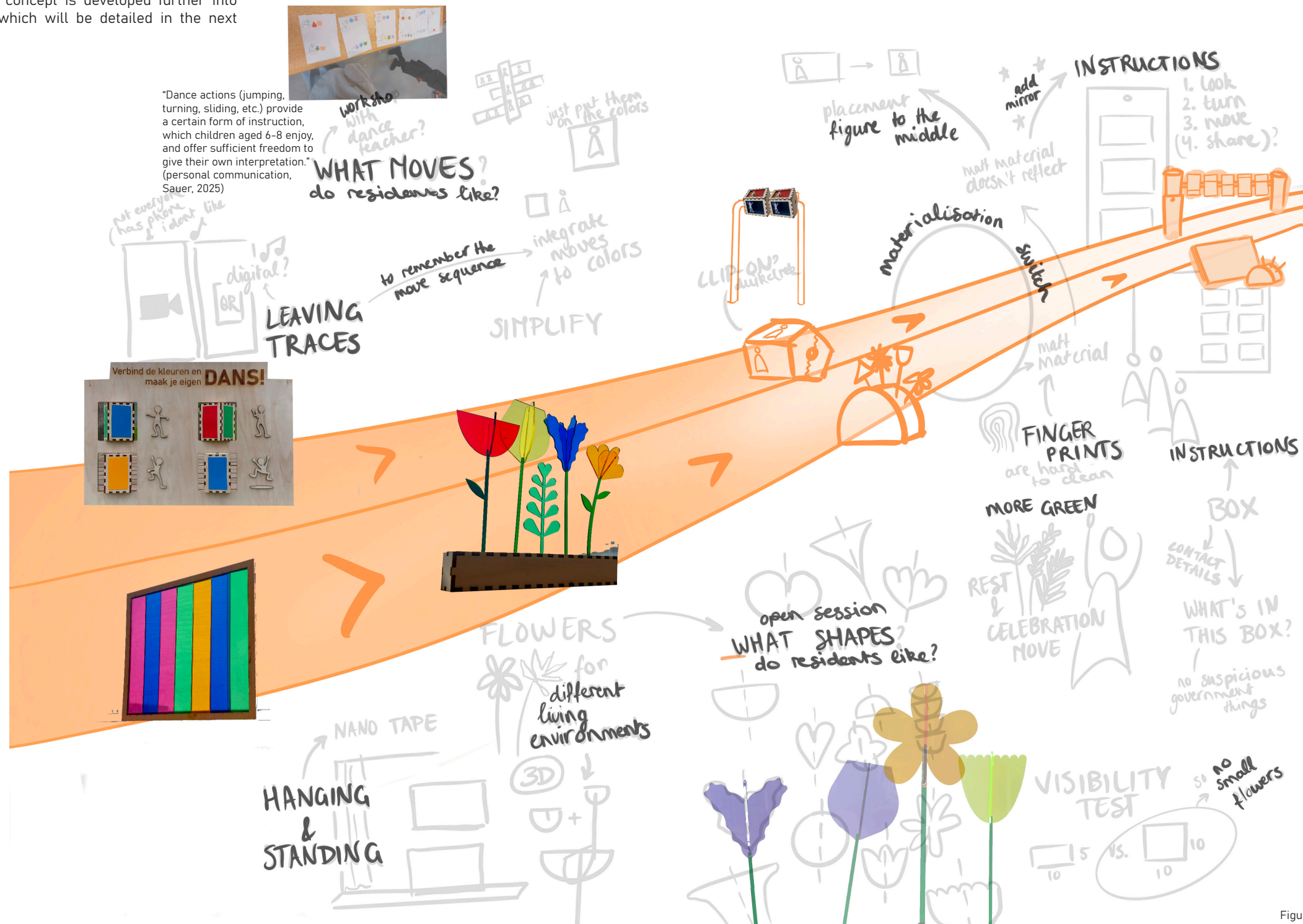
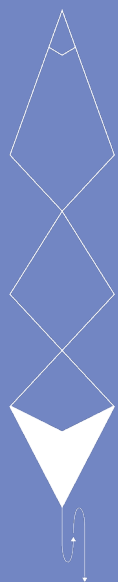


Figure 57 | Iteration process



FINAL DESIGN

With the concept defined and tested, this chapter presents the final design: how it works, how it integrates into Hillesluis, and its expected impact. The design is shaped by shared values, contextual insights, and iterative ideation, making sure it encourages intergenerational interaction in public space. This chapter explains the final design as follows:

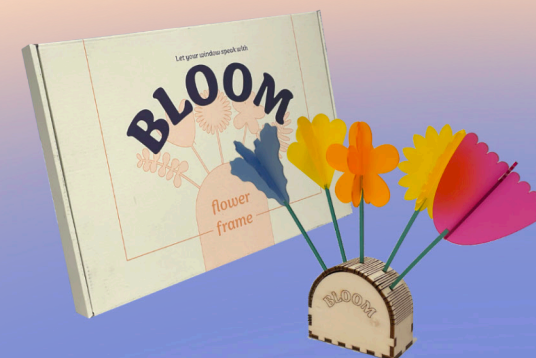
- Section 7.1 introduces the design concept and shows the user experience and its key features.
- Section 7.2 explains the design rationale, connecting it to shared values, contextual factors, and lessons learned from previous iterations.
- Section 7.3 brings the design to life: implenting the deisgn into Hillesluis and evaluating the impact and its future potential.

By grounding the design in both research and real-world application, this chapter ensures it is not just an idea, but a feasible, meaningful intervention for Hillesluis and possibly beyond.

7.1 BLOOM: the design and its interaction

This chapter presents an overview of the design, its key features, and a user scenario to illustrate how it functions in daily life.

BLOOM is an interactive installation designed to subtly bridge the gap between older adults and children through color, movement, and indirect interaction. The design consists of two interconnected elements (Figure 58):



Flower Frames for Windows – Older adults receive a package containing colorful, customizable flowers that can be placed on their windowsill or attached to their window. The colors they choose serve as a visual message, subtly interacting with the square outside.



Colormoves Board on the Square – A rotating movement board where children interpret and translate window colors into movement. The board contains spinning blocks with icons representing movement suggestions, allowing children to combine colors and actions into their own dance sequence.

By placing flowers in their windows, older adults contribute to the game outside, while children engage in movement play based on the colors they see in their surroundings. This allows for a shared experience without direct interaction, making it accessible and comfortable for all.

Figure 58 | Two elements of BLOOM



Figure 58. Child playing with the ColorMoves board during the test day.

User scenario

To understand how BLOOM facilitates intergenerational interaction in everyday life, the following scenario illustrates how children, older adults, and the broader neighborhood each engage with the design (Figure 59).

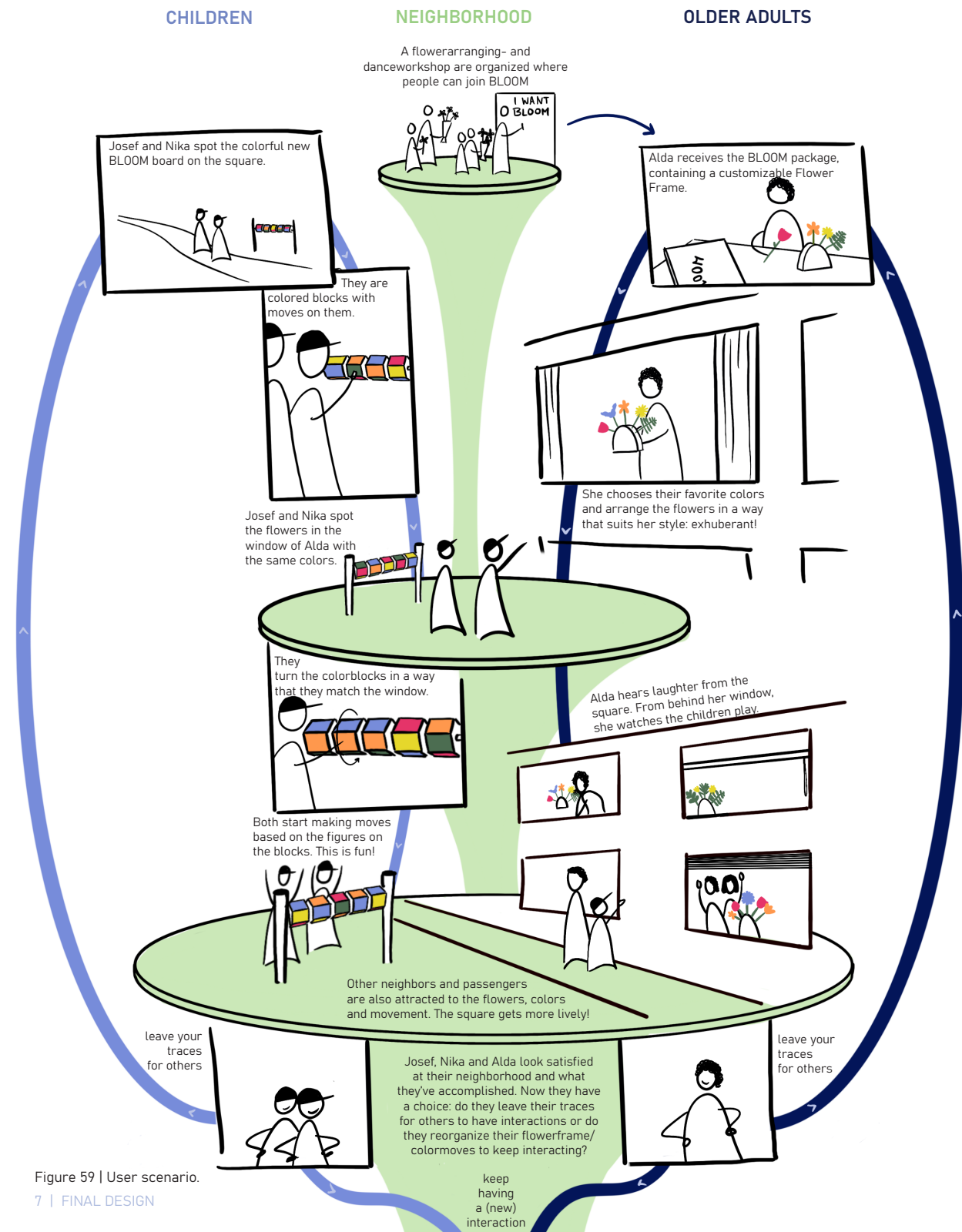


Figure 59 | User scenario.

Key features
 Now that the use of BLOOM is clear, this section highlights what the design brings to its users and surroundings. It outlines the key features for children, older adults, and the neighborhood—showing how BLOOM not only enables interaction, but also creates value for the wider community.

CHILDREN



Movement-based play
 Explore dance, rhythm and self-expression.

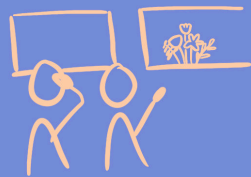


Freedom to create
 Make moves your own.



Neighborhood exploration
 Move safe through the neighborhood.

COLORMOVES



NEIGHBORHOOD

Eyes on the street
 More open windows reduce anonymity.



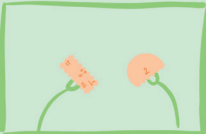
Lively neighborhood
 People are connecting more.



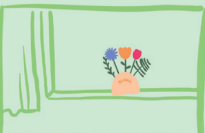
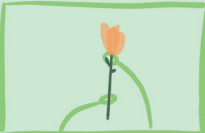
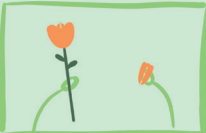
Event potential
 Launch or celebration events can build community ties.



How does it work?



1. Build the flower frame.



3. Make a bouquet and attach the flower frame to your window.



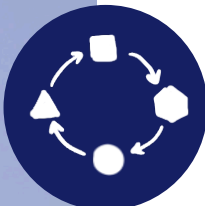
OLDER ADULTS



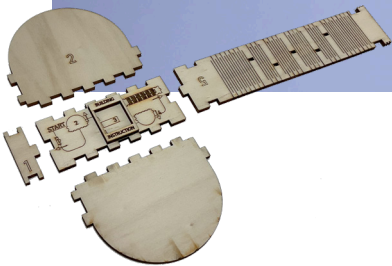
Personalization
 Choose flowershapes that reflect you!



Low-pressure participation
 Non-verbal way to signal openness without initiating direct contact.



Non-obligatory
 Can easily be changed or removed at any time.



This chapter has provided an overview of how BLOOM works and how different users engage with it. The next section will explore the underlying values, contextual factors, and design learnings that shaped BLOOM into its final form.

7.2 Evaluating the impact of BLOOM

To assess whether BLOOM meets the project's design goal, its functionality and social impact were evaluated through prototype testing in real-world settings, including playgrounds, residential streets, and the homes of older adults. These tests involved informal discussions and observations with 16 residents (8 children and 8 older adults).

To measure impact, BLOOM was assessed on appropriateness (which was divided into usability and desirability) and effectiveness—guided by the Social Implication Design (SID) framework (Tromp & Hekkert, 2016). In these categories, the presence of design requirements established earlier in the project was evaluated (Figure 61). The full list of requirements and their presence in BLOOM can be found in Appendix C. While this section focuses on BLOOM's social impact, the following section (7.3) will discuss its feasibility and long-term viability.



Figure 60 | The Flower Frame placed made during the evaluation in the playground.

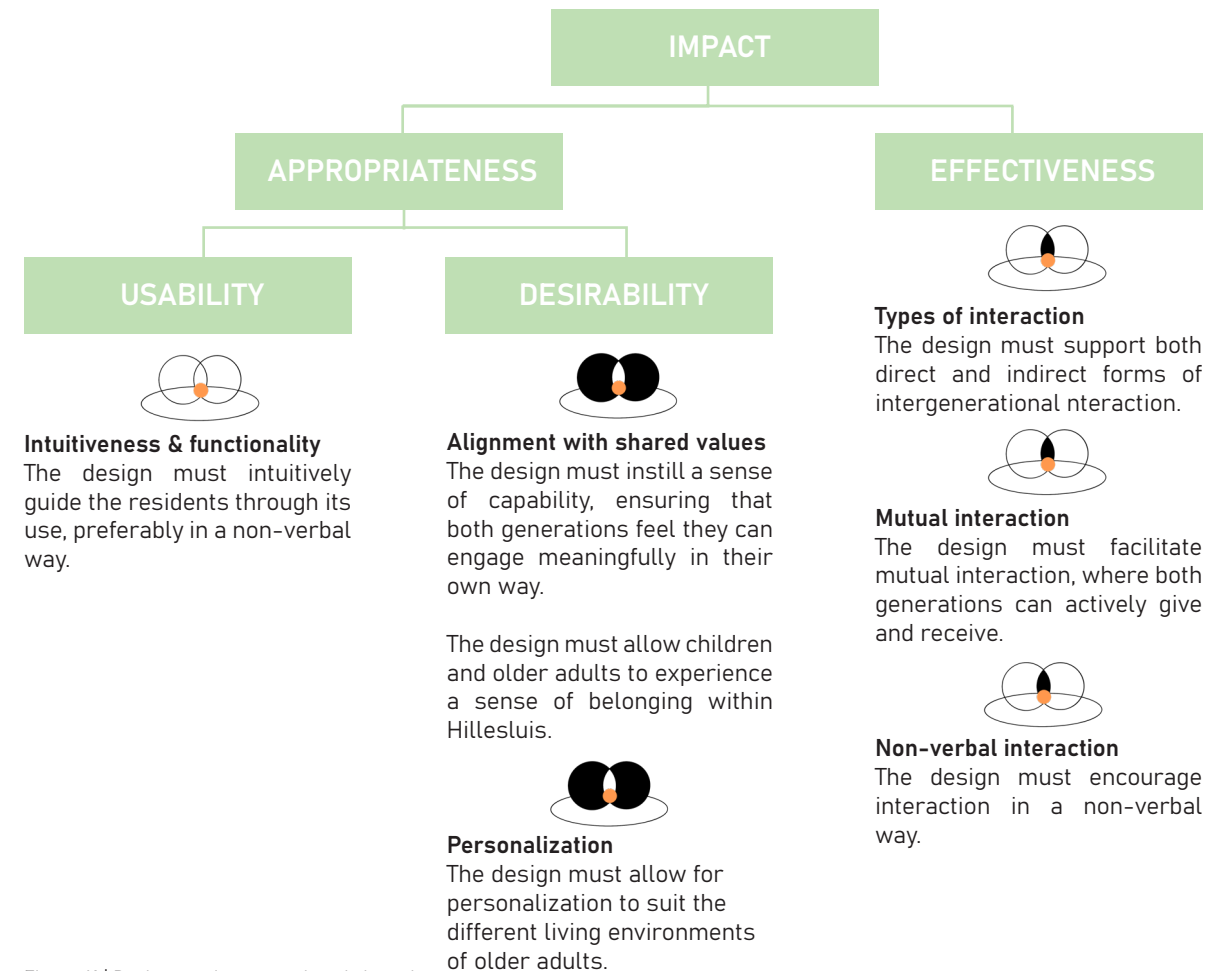


Figure 61 | Design requirements placed along the focus areas of the evaluation.

Usability

To assess how well BLOOM functions in practice, usability was evaluated. The focus was on intuitiveness (Do they understand how to use it?), and functionality (Can they complete the intended interactions?).



Figure 63 | Building flowers.

Building the flower frame took much longer than expected or residents did not succeed in it. It was found challenging due to trembling hands, sight defects and insufficient instructions, suggesting putting a pre-made frame in the postpackage.

Older adults engaged with the flower frame in their own unique ways. While the intended interaction suggested arranging colors in specific combinations, many residents instinctively created their own personal logic for assembling the flowers.

“My fingers are too thick for this.”

“I just grabbed some colors, and now it looks great.”

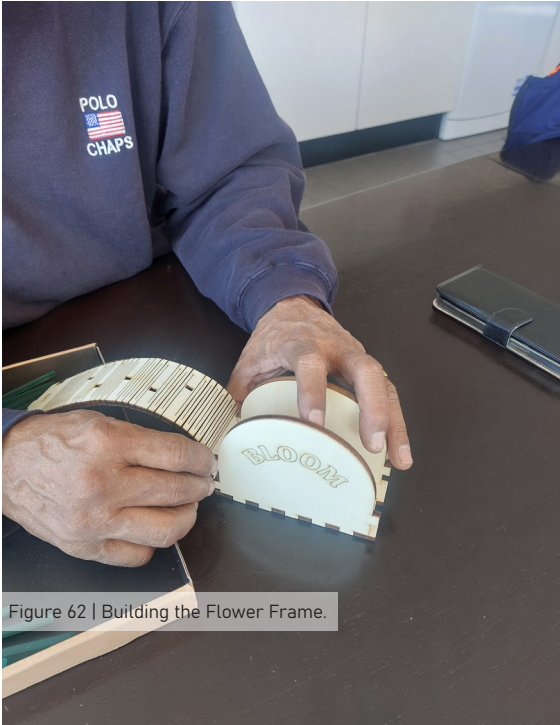


Figure 62 | Building the Flower Frame.



Figure 64 | Placing flowers in the flower frame.



Figure 65 | Turning Colormoves blocks.

Children were initially hesitant—nearly half moved cautiously when observed—but became more expressive once they felt unobserved. More confident children adapted the movements to their own style.



Figure 66 | Child reading the Colormoves instructions.



Figure 67 | Child jumping with the Colormoves board.

Connection to windows was not immediate. Only after reading the instructions did children begin to actively search for window colors. Visibility proved to be an important factor: recognition of the flowers worked better on the square than at the playground due to close proximity of houses. Placing the installation closer to surrounding windows improved its effectiveness significantly.

“Oh look, I see a flower there!”



Figure 68 | Older adult playing with the Colormoves board

Desirability

Desirability was evaluated by looking at alignment with shared values, levels of engagement, and the cultural fit of BLOOM within Hillesluis.

COMPETENCE

I **already** can!
Feeling old

I **still** can!
Feeling young

We both can!

The value of competence was clearly reflected in the children's use of the movement board. It empowers children to make their own creative choices, forming sequences and interpreting colors in a way that allows them to take ownership of the interaction. During the evaluation, children memorized movement-color codes and applied them beyond the board, integrating it into their surroundings.

"Hey, a green tree! That means hands up!"

Placing and arranging flowers provides a way for older adults to actively shape their surroundings, contributing to the neighborhood without physical strain. During the evaluation, older adults felt a sense of control over their designs, regardless of external validation.

"I made it, so I like it."

SPATIAL BELONGING

I am part of
this neighborhood

I matter in this
neighborhood

We both belong!

By looking up at surrounding windows and recognizing local participation, children feel part of something bigger. The flowers in the windows signal a silent welcome from the older adults in the neighborhood. During the evaluation, children formed groups based on shared colors, creating an instant sense of connection.

"We all like pink, so now we're a team!"

Through their visible presence in the public space, older adults leave a trace in the neighborhood, showing that they are still part of the community. While some older adults saw their participation as contributing to something larger, others viewed it as a personal activity rather than a community-driven one.

"Does this mean something? I don't know, I'm doing this for myself."

Engagement was highest when the activity was shared. Both children and older adults showed increased involvement when interacting alongside others. A table with materials attracted nearly every passerby—older adults stopped to craft flowers, and even those initially disinterested became engaged.

"You know I don't like crafting by now, but luckily this isn't crafting: it's just beautiful."
"I love that sunflower. I'm the sunshine of the house."

The requirement for personalization was strongly met. Older adults engaged in playful discussions about whether the way they arranged flowers reflected their personalities, which also led to new social interactions among neighbors. This directly links to the requirement of story-sharing through design.



Figure 69 | A Frolwen Frame placed in the window



Figure 70 | Putting flowers together that I like

"Men are always organizing everything by type."
"No, no, we're just taking it seriously, not like your preschool work."
"Well, I just want people to see that I'm creative!"

Observations showed that children engaged with BLOOM for about five minutes when alone, but when joined by others, engagement extended to up to 15 minutes.

"Miss, when can we play again?"

Finally, residents responded positively to BLOOM's presence in the neighborhood, seeing it as a welcome addition rather than something out of place.

"Everything fits in this neighborhood."
"At least something fun is happening here now."

Effectiveness

To evaluate BLOOM's effectiveness, the focus was on types of contact, social awareness, and potential for sustained interaction. These elements determine whether the design simply encourages passive observation or evolves into active, ongoing engagement.

BLOOM enabled a range of both direct and indirect interactions between children and older adults, many of which were non-verbal. The direct interactions are shown in Figure 71.

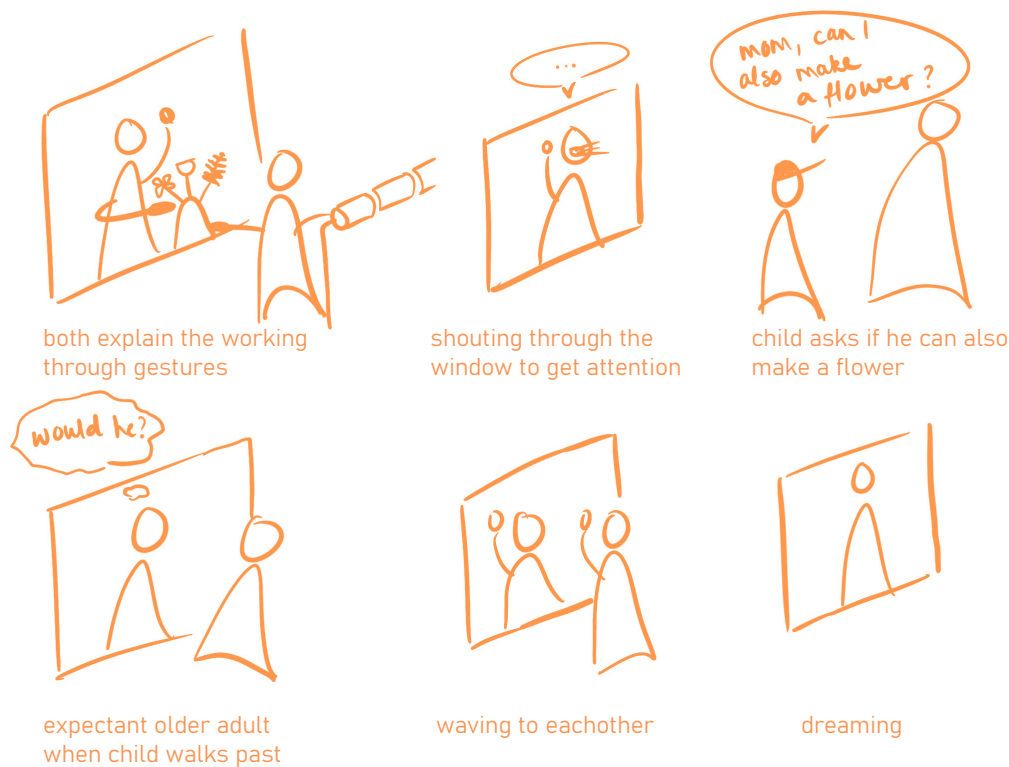


Figure 71 | Type of direct interactions during the evaluation.

These interactions highlight both the potential and challenges of non-verbal connection in public spaces. While BLOOM successfully encourages subtle exchanges and increased awareness, sustaining engagement over time may require additional incentives or design adaptations.

Indirect interactions (noticing each other and establishment of greater awareness) were also noteworthy. Older adults became more observant of activity in the public space, while children became curious about windows as social indicators. This mutual awareness fostered subtle but significant shifts in perception.

Children demonstrated awareness that someone might be watching.

"Let's perform and see who is watching. Maybe we get some money!"

Children actively searched for familiar participants:

"Let's see if Nora's grandma also has flowers in her window."

Parents observed a potential advantage to have more eyes on the street for their children.

"If [...] keeps looking, I don't have to watch out that much anymore" (mother)

After returning a week after the evaluation, older adults at the playground commented, "Luus, those kids keep spinning those things, don't they?" showing they had been watching from their windows.

"Luus, those kids keep spinning those things, don't they?" (older adult after a week of placing BLOOM)

Although the design could stay at the playground, it is challenging to estimate the potential for long-term interaction. To try so, the children and older adults were asked hypothetical "What if" questions about their continued engagement with BLOOM. The results suggest that there is potential for long-term effectiveness.



Figure 72 | The Colormoves Board in the playground.

What if you moved to another neighborhood—would you want something similar there?

Yes	No
-----	----

What if someone new moved into the neighborhood—would you explain BLOOM to them?

Yes	No
-----	----

What if you saw children or elderly on the streets after you've noticed them on the square or behind the window—would you say hi to them?

Yes	No
-----	----

Conclusion

The evaluation of BLOOM showed that the design enables intuitive, non-verbal interactions between children and older adults, encourages emotional ownership, and stimulates social awareness. Users creatively engaged with the installation on their own terms, and the playful, visible presence of BLOOM sparked curiosity and connection in both private and public spaces. These findings indicate that BLOOM effectively responds to the design goal by translating abstract values—such as competence, belonging, and mutual exchange—into tangible interactions. It creates opportunities for intergenerational connection without requiring verbal communication or structured facilitation, making it well-suited for the social and cultural dynamics of Hillesluis. Based on this evaluation, the following section explores what recommendations BLOOM could use. After that, a section the potential for sustainable integration into the neighborhood will be explored.

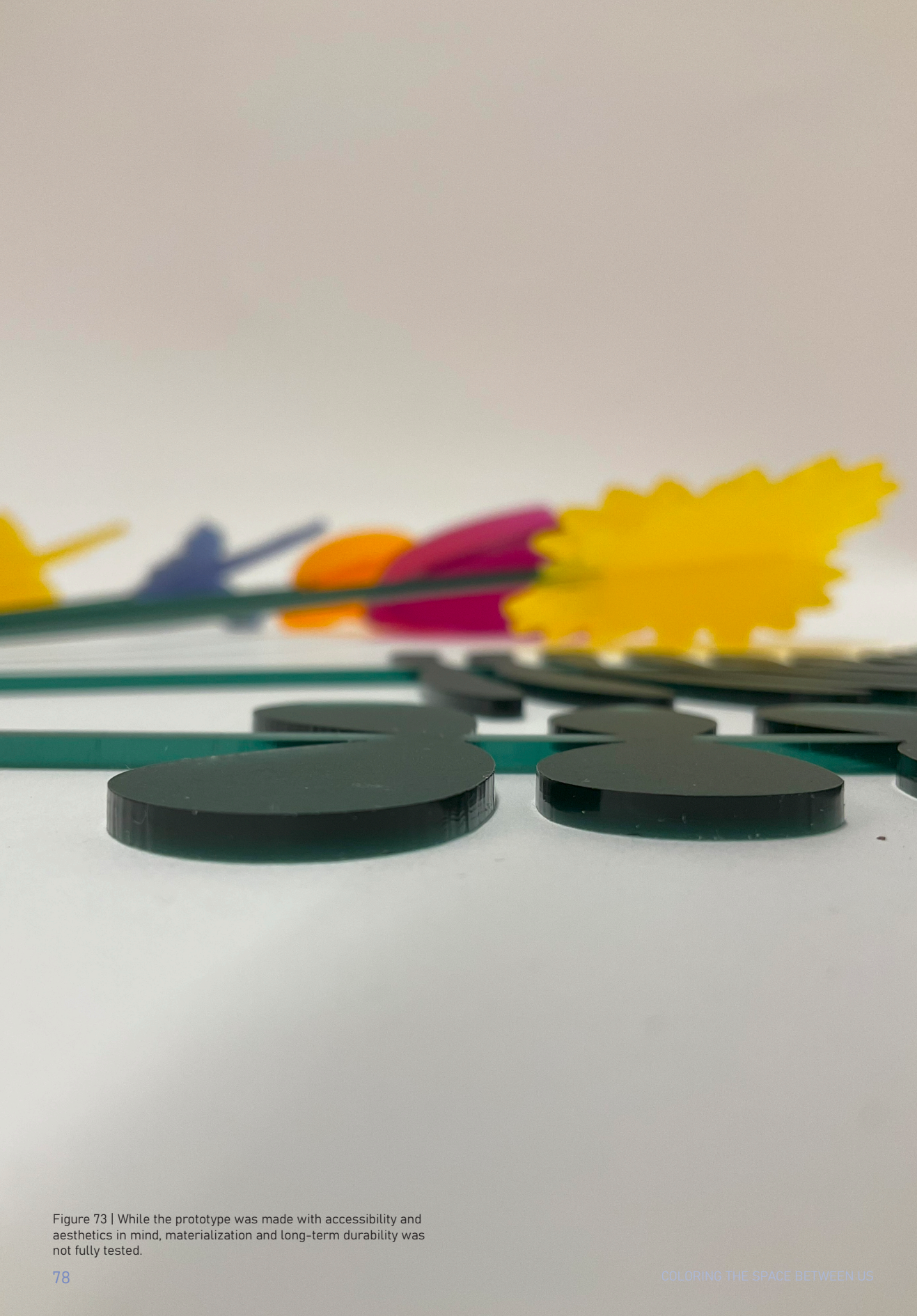


Figure 73 | While the prototype was made with accessibility and aesthetics in mind, materialization and long-term durability was not fully tested.

Recommendations for BLOOM

In addition to testing whether BLOOM meets the design requirements, the evaluation also aimed to identify areas for future improvement. Residents were invited to contribute through “designing together” stickers (Figure 74), where they could suggest ways to make BLOOM more fun, meaningful, or easier to use.

By combining these insights with findings from the test period, several recommendations were formulated to improve the concept in future iterations. Broader project limitations and future research directions are discussed in Chapter 8.2.

Flower Frame improvements

One of the key findings was that assembling the Flower Frame was more difficult and time-consuming than expected. Some residents struggled with fitting the parts together or attaching the flowers to the frame.

- Recommendation: Deliver the Flower Frame as a pre-assembled unit within the mailbox package. This would make participation easier, especially for older adults who may have limited dexterity or time.

“I miss the color white”

Additionally, participants noted that white was missing from the color selection. While the color was excluded during earlier visibility tests, it was associated with the neat, calm interior styles of some households.

- Recommendation: Consider introducing a light-colored flower—potentially one that reflects light or has a subtle glow—to enhance visibility while aligning with home aesthetics.

“I would add more colors and movements”

Colormoves Board improvements

Children responded positively to the movement-based play, but many suggested adding more variety in the movements. Currently, each color corresponds to a fixed action, but this could be expanded.

- Recommendation: Add slight variations per block—for example, “green = jump” with one block prompting hands up, and another hands wide.
- Alternatively: let children vote on new movements seasonally to keep it fresh and allow continued co-ownership.



Figure 74. “Designing together” sticker.

[about the flower frame box] “Why does it have to be in english again?”

Accessibility and language

During testing, it became clear that some residents preferred communication in Dutch, while others felt more comfortable in English.

- Recommendation: Allow participants to indicate their preferred language when signing up for the Flower Frame, and adjust printed materials accordingly.

“I would make it so sturdy, that we could hang on it!”

Materialization and durability

After four weeks of outdoor placement, only one wooden block broke, but BLOOM (mostly the Colormoves Board) needs further material exploration.

- Recommendation: Future versions should include material testing, exploring sustainable, weather-resistant, and vandal-proof alternatives. There is also potential to repurpose waste materials from the neighborhood, combining design with local environmental impact.

These recommendations provide a clear roadmap for improving BLOOM. In the next chapter, implementation strategies are discussed, outlining how BLOOM could be introduced in other neighborhoods and scaled within Hillesluis.

7.3 Bringing BLOOM to life: implementation

After evaluating BLOOM's social impact, this chapter examines its viability strategies. It outlines its placement strategy and accessibility considerations, resulting in a long-term implementation plan.

Placement in the neighborhood

During the evaluation in Chapter 7.2, it was already found that the placement of the Colormoves board is important to its effectiveness in encouraging intergenerational interaction. Based on urban observations, two primary types of locations within Hillesluis have been identified:

- Pocket squares and parcs, as a result of urban renewal efforts in the 1970s. Houses are usually close by.
- Wide sidewalks with small playgrounds are also common in Hillesluis. (see Figure 75).

Placing BLOOM in these areas integrates it into everyday routines rather than requiring a special visit.

A placement map of Hillesluis (Figure 76) highlights potential installation sites, considering these two locationtypes, the proximity of surrounding windows and absence of streets with a lot of traffic.



Figure 75. A wide sidewalk with mini playground.



Figure 76. Possible placement options (orange) for the Clormoves board in Hillesluis.

Integration roadmap: bringing BLOOM into a neighborhood

The implementation of BLOOM follows a phased approach that ensures community involvement, contextual relevance, and practical feasibility. Each phase gradually builds toward integration into the social and spatial fabric of a neighborhood.



1. PREPARATION & FUNDING

To secure practical and financial foundations for implementation.

Actions:

- Apply for funding via local initiatives such as Opzoomer Mee, Gemeente Rotterdam subsidies, or partnerships with cultural or wellbeing organizations.
- Create a neighborhood-specific action team to help organize and promote events.



2. SENSITIZING & CO-CREATION

To involve residents early and gather local input for customization.

Actions:

- Organize community workshops to co-design: flowerarrangement (for older adults) and danceworkshop (for children). Collect favorite shapes, movements and colors.
- Explain BLOOM and collect sign-ups.



4. DELIVERY & INSTALLATION

To make BLOOM visible and accessible in the neighborhood.

Actions:

- Deliver Flower Frames to the homes of older adults who signed up.
- Install the Colormoves board in a visible, central, or playful location. Ensure placement is safe, accessible, and near participating windows.



3. FINAL DESIGN & PRODUCTION

To finalize the BLOOM elements based on input from Phase 2.

Actions:

- Translate resident preferences into color palettes, flower shapes, and movement icons.
- Start small-scale or local production (consider social workplaces or schools as partners).



5. CELEBRATION & ACTIVATION

To launch BLOOM in a way that celebrates participants and introduces the design to the wider community.

Actions:

- Organize an opening event on the square (e.g., neighborhood "BLOOMfeest"), where residents can see BLOOM in action.
- Provide flyers or posters to explain how people can still join.
- Share small thank-you gifts as tokens of appreciation.



6. SUSTAINING & SCALING

To keep BLOOM alive and explore its broader potential.

Actions:

- Offer periodic "bloom updates" with new flower shapes or seasonal dances.
- Link BLOOM to local events (King's Day, neighborhood dinners, Ramadan, etc.).
- Explore bringing BLOOM to other neighborhoods—customized to their culture, colors, and movements.

LOOKING FORWARD BY LOOKING BACK

With the final design established in Chapter 7, this chapter reflects on the broader impact of the project: what was learned, what challenges emerged, and how these insights contribute to design practice and future research.

This chapter is structured as follows:

- Chapter 8.1 presents the lessons learned and introduces the toolkit, explaining its relevance and positioning it as a contribution to design practice.
- Chapter 8.2 reflects on the limitations and challenges of the project, discussing constraints and recommendations for future research.
- And to conclude, chapter 8.3 provides a 'thank you' note.

By looking back at what was accomplished and what remains open for future work, this chapter makes sure that the project's findings extend beyond this document. It shares guidance options for both academic and practical applications in community-driven design.

8

8.1 Personal reflection and lessons learned: a toolkit

I don't think you ever fully know what you're signing up for when starting a project like this. At least I didn't. From the very beginning, I was excited about the potential of this project—its purpose, the people, the place. And while it sometimes felt like I was carrying it on my own and there was no one who shared the full weight of it (the intenseness of some stories, the highs and lows and the quiet observations), I slowly came to realize that I was never really alone. Bit by bit, a group of residents, children, and community members formed around me, each adding something unique to the journey.

The research approach shaped me just as much as it shaped the outcome. I learned that slowing down leads to deeper connection—especially in a neighborhood like Hillesluis, where trust isn't given instantly, but built with care over time. Indirect interaction became a guiding principle, not only in the design outcome, but in the way I chose to listen, engage, and give space to others. (More about that in the next section, where I present the Toolkit.)

I also confronted and let go of many assumptions. Growing up, I was told not to bike through Rotterdam Zuid. Media and upbringing painted it as a place to avoid. But being here taught me otherwise. I got to see the richness, the humor, the creativity, the care. I also began to see aging differently: I no longer view older adults simply as care receivers, but as storytellers, neighbors, and co-designers.

There were reflective moments too. Like the time someone in the neighborhood told me I was being too careful. He was right. I was trying so hard to be sensitive that I was holding back. That moment reminded me: being sensitive doesn't mean being small or afraid—it means being honest, and showing up as yourself, even if it feels vulnerable.

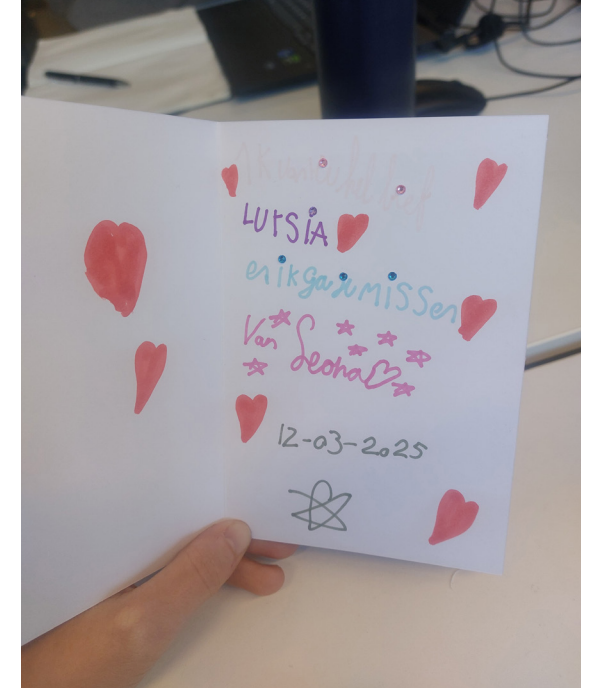


Figure 78 | A thank you card of one of the children. "I think you are kind Lutsia and I will miss you"

That vulnerability also showed up in the design process. Letting go of control has been one of the hardest parts. I've always found it difficult to share ideas that weren't fully finished, worried they weren't good enough. The moment you share something, you open the door for others to respond. Maybe at the start, I didn't want that: I preferred to work alone and show the final result later, like a production machine, as proof that I was doing enough. But halfway through, I realized it doesn't work like that. I always say I want to keep learning for life, but that also means I have to keep sharing for life. This project became a mirror for my perfectionism: the not-daring-to-speak, not-daring-to-show, not-daring-to-fail.

And then, at the thank-you event I organized for the neighborhood, everything fell into place. Where at the beginning the context was new and alone, I now managed in half a year to stand surrounded by people I had laughed with, shared stories with, and learned from. I had planned to thank them—but instead, I was the one receiving gratitude. One of the children I had worked with handed me a hand-written card (Figure 78). In that moment, all the pressure melted away. This was what it was really about: the people, the small gestures, the quiet connections. Being there for each other.

As I was cleaning up, she gave me a hug. I don't want to grow old looking out at a world that says, "When shall we meet again?" So I asked her,

"Zullen wij vrienden zijn?"

Lessons learned during sensitive research: **a Toolkit.**

This toolkit (Figure 79) is a collection of lessons learned from conducting research in this specific context, aimed at helping fellow designers reflect on their own approach to community-driven design. It provides practical tools and insights to navigate sensitive research processes, ensuring that engagement with local communities is ethical, reciprocal, and meaningful.



Figure 79 | Toolkit.

The toolkit is based on four key phases of sensitive research, developed specifically for this project. Each phase includes tools and materials (Figure 80) that were either used or that, in hindsight, would have been valuable additions for this project.

- Phase 1: introduction in the neighborhood and building relationships: how to explain your research and build relationships?
- Phase 2: research phase: understanding the neighborhood, the people and the dynamics between them.
- Phase 3: ideation and design: developing ideas and designs together.
- Phase 4: evaluation and celebration: looking back, reflecting and exploring future possibilities.

The following pages detail the tools included in the toolkit, explaining how each supports sensitive, ethical, and community-centered research.



Figure 80 | Toolkit opened up.

Phase 1: Introduction in the neighborhood and building relationships

Sensitive language dictionary

From the very beginning, it became clear that language plays a very important role in connecting with people in Hillesluis. This dictionary (Figure 81, 82) is the result of my reflection on the terms I used and encountered throughout the research process. It serves as an eye-opener, revealing how institutional language can unintentionally create distance, reinforce power dynamics, or reduce lived experiences to abstract concepts. By being more aware of the words we choose, we can bridge communication gaps, use language that resonates with the lived world of residents, and create mutual understanding rather than detachment. The full dictionary can be found in Appendix F.



Figure 81 | Sensitive language dictionary

Welcome cards

To build trust and transparency, I would have liked to have welcome cards that introduced me and my project to the community (Figure 84). These cards would allow residents to remember me, ask questions, or share information, ensuring an open line of communication.

Handing them out personally helps maintaining direct contact, avoiding the detachment often associated with institutions like the gemeente or overheid. The cards also clarify my connection to an institution, reinforcing honesty and openness about my role. Additionally, I could place them in community spaces such as buurthuizen and playgrounds, making it easier for residents to recommend me to others and expand engagement within the neighborhood.



Figure 83 | Welcome cards



Figure 82 | Sensitive language dictionary opened up

Neighborhood connectors identification sheet

At the start of my research, I met so many people neighborhood connectors (key figures) that I began drawing out connections—noting who they were, what they did, what they looked like, and key details from our conversations. I also kept track of contact information to ensure I could follow up.

In conversations about community connections (personal communication, de Nijs, 2024), it was found that it was helpful to ask each person if they could refer me to others or if I could mention them as an introduction (“I got your number from...”). This led to the development of the Neighborhood Connectors Identification Sheet (Figure 84, 85), a tool that helps researchers map social networks, track conversations, and build relationships in a structured and respectful way.

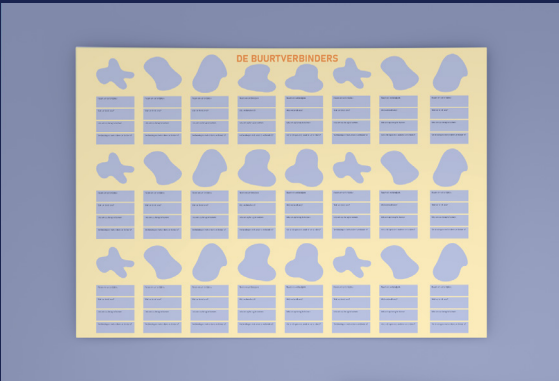


Figure 84 | Neighborhood connectors sheet unfolded

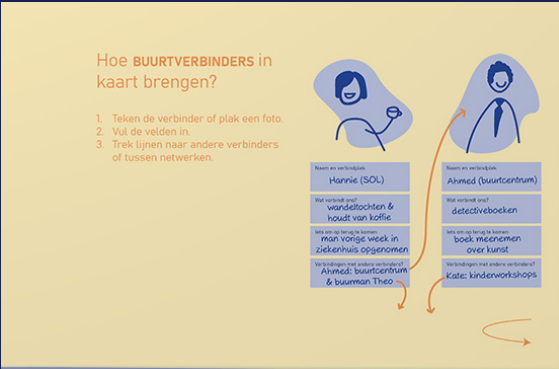


Figure 85 | Neighborhood connectors sheet instructions

Phase 2: Research phase

Visual consent form format

In a multilingual neighborhood like Hillesluis, the standard TU Delft consent form—a long document requiring residents to read and check 20 statements—was not practical because of illiteracy and institutional distrust. Instead, I developed a visual-oriented consent form (Figure 86), designed to be clear, accessible, and conversation-based.

Using icons and simple visuals, I could walk residents through the form like a story, making it easier for them to understand what they were consenting to. Instead of extensive reading, they only needed to mark five pictograms, indicating their preferences for photos, recordings, and data usage. The full visual consent form can be found in Appendix G.

Important Note: This visual consent form is not universally applicable. The appropriateness of such a tool depends entirely on the type of data collected, the research context, and the sensitivity of the topic. Always tailor consent methods to the ethics and needs of the specific community and study.

Shared stories cards

I noticed how much easier it was to connect with residents once I found shared experiences—small but meaningful similarities in our backgrounds, hobbies, or aspirations. In my case, this included:

- My own upbringing in Barendrecht, cycling through Hillesluis to school.
- Shared interests in dancing, poetry, and nature.
- Mutual dreams of living in the mountains someday.

These commonalities built trust and strengthened conversations, making interactions feel less like research and more like natural exchanges.

This conversation starter game (Figure 87, 88) helps identifying shared ground between researchers and residents more quickly. While some connections develop organically over time, these prompts offer a way to actively explore similarities, whether in upbringing, interests, values, or future aspirations. The instructions are as follows:

1. Lay the cards on a table with pictures up.
 2. Choose a card that speaks to you.
 3. Turn the card around and answer the question.
- Now switch turns and discover your shared stories!

The full card deck can be found in Appendix H.



Figure 86 | Informed consent form



Figure 87 | Shared stories card deck



Figure 88 | Card of the deck turned around

Phase 3: Ideation and design

Tactile creation materials

As I built stronger relationships with residents, they began sharing personal stories, and the boundary between researcher-me and friend-me started to blur. While this deepened our connection, it also made it harder to signal when we were ideating versus just chatting. To guide these moments, I used physical materials to help structure our conversations (Figure 89).

Having tactile elements served two key purposes:

- It gave residents a clear “task”—a tangible cue that we were in an ideation session, not just a casual conversation.
- It helped keep the discussion focused. Instead of me constantly steering the conversation back to the topic—especially with older adults who naturally wandered between stories—the physical object itself acted as an anchor, subtly reminding everyone of the goal.

By incorporating something to look at, hold, or interact with, ideation became more engaging and structured, while still feeling natural and comfortable for the residents.

“Designing together” stickers

When asking residents for critical feedback on my concepts, I noticed a challenge: many of them had become friends and were hesitant to criticize my work directly because they saw how much effort I had put into it. Instead of focusing on what didn't work, I needed a way to co-create solutions with them—shifting the dynamic from critique to collaboration.

This led to a role-playing element, allowing residents to step into a different perspective: the designer sticker (Figure 90) gave children and older adults a physical reminder that their opinions were valued and that they had an impact on their neighborhood. Together, we answered questions such as:

“How could we make this design even better?”



Figure 89 | Tactile creation materials



Figure 90 | Designing together stickers

Phase 4: Evaluation and celebration

“Thank you” materials

As the project progressed, it became increasingly clear how much the residents contributed—not just by sharing their stories, but by actively investing their time and effort alongside me. Their involvement was essential, and it was important to show appreciation and make the project feel like something we built together, rather than just research being conducted on them.

An event to celebrate the project was organized and “thank you” keychains in the style of the project (Figure 91) were a personal way to express gratitude for their time, insights, and involvement, ensuring that residents felt recognized and valued. Important was to also show possible next steps during this event.



Figure 91 | A ‘thank you’ of this project.

Reflection cards for the designer

Sensitive research is about how you engaged with the community, not just the final outcome. The meaning of sensitive research in this project (described in Chapter 2.3) helped me assess whether I worked ethically, encouraged participation, and remained truly sensitive to residents’ experiences.

This card set invites reflection on questions such as:

- Was the exchange mutual? Could something tangible or meaningful be identified in each phase of the research?
- Was I transparent about the purpose, progress, and outcomes of my project?
- Did I spend enough time in the neighborhood—especially in the specific physical spaces I was designing for?
- Did I acknowledge and respect research fatigue, adapting methods to avoid adding to it?
- Did I share my findings in a way that was accessible and relevant to the community?
- Have I built meaningful relationships rather than only collecting data?



Figure 92 | Reflection cards for the designer

These cards (Figure 92) helped ground the research in care, clarity, and community connection.

Through this project, I experienced the value of conducting design research in a sensitive and community-centered way. This approach is not yet fully developed—but it opened new paths for more balanced engagement between the institutional world and the lived world (Figure 93).

I hope to have contributed—if only slightly—to a more ethical, caring, and inclusive way of designing in and with neighborhoods like Hillesluis.

This toolkit is just a starting point, but I hope it inspires others to slow down, tune in, and make space for real connection.



Figure 93 | Rebalancing the institutional world (left) and the lived world (right).

8.2 Beyond this project: limitations, future research and design potential

This project explored how intergenerational interaction can be encouraged through indirect, non-verbal engagement in public spaces. The BLOOM design was developed to enable children and older adults to interact at their own pace, using the subtle cues of flowers, colors and movements. The project demonstrated that small interventions can create opportunities for shared experiences, reinforcing a senses of competence and belonging among both groups.

The sensitive research approach proved valuable in building trust, allowing residents to shape the design process while emphasizing mutual exchange over data extraction. The toolkit for sensitive research emerged as a secondary outcome, offering future researchers and designers a framework to engage ethically with communities.

While the project provides insights into intergenerational public space design, several challenges and limitations must be acknowledged:

Scope and context specific focus

This project was designed specifically for Hillesluis, shaped by its unique social, cultural, and spatial characteristics. While this provided a rich testing ground, it also limits the generalizability and scalability of both the BLOOM design and the sensitive research toolkit.

Additionally, scalability within Hillesluis was not fully explored. While initial responses from local schools and community organizations were positive, expanding BLOOM to different public spaces, institutions, or initiatives was beyond the project's scope. Future research could explore:

- Testing the adaptability of BLOOM in other neighborhoods to see if intergenerational values and context factors align similarly.
- Co-designing BLOOM variations with other communities to ensure cultural relevance (e.g., different flowers, movements, or color meanings).
- Exploring BLOOM's potential in more structured settings (e.g., schools, community programs).

The role of the playground as “soft entry point”

The research was conducted primarily from the playground, a safe and trusted public space where residents were already accustomed to community interaction. While this helped build trust, it also introduced a selection bias: participants were those who were already willing and able to engage in public life.

To address this, future research could:

- Investigate whether BLOOM can still function in places with less existing social activity, such as more isolated residential streets.

Additionally, in neighborhoods like Hillesluis, some residents actively avoid public engagement due to personal challenges, financial struggles, or social tensions. Experts noted that forcing participation is neither realistic nor desirable. Instead, BLOOM and similar initiatives should remain an open invitation rather than an obligation, ensuring that those who wish to engage can do so on their own terms.

Trust and the perception of institutional-linked activities

In Hillesluis, some people have negative associations with institutional interventions, which can lead to hesitation or skepticism when approached for participation.

Since BLOOM's Flower Frame is delivered directly to people's homes, it may be perceived as an institutional initiative rather than a community-driven project. This could influence willingness to participate, especially among residents who distrust government-related programs.

To address this, future research could:

- Research how to design participation materials that feel inviting rather than institutional, ensuring that residents feel ownership over the project.
- Test different distribution methods for the Flower Frame, such as handing them out at community events rather than delivering them directly.

Sensitivity vs. over-cautiousness

A major learning from this project is the balance between sensitivity and authenticity. While sensitive research methods helped build trust and engage participants respectfully, there is a risk of being overly cautious, which can create distance rather than connection. Luckily early on in the project, I was made aware that many Hillesluis residents appreciate directness and do not shy away from difficult topics.

Future research could investigate:

- Balancing sensitivity with authenticity, ensuring that engagement feels respectful yet natural.
- Exploring how different cultural communication styles impact participatory design approaches, ensuring adaptability across different communities.

Material, durability and sustainability

While the prototype of BLOOM was designed with functionality, accessibility, and form in mind, material durability and embodiment design were definately not fully explored. In real-world applications, factors such as weather resistance, vandalism, and long-term maintenance need to be considered.

Potential directions for future research:

- Material testing to ensure BLOOM's durability in urban environments, including exposure to weather and frequent use.
- Exploring sustainable material choices, such as repurposing waste materials from the neighborhood.
- Investigating modular or replaceable components, allowing elements of BLOOM to be easily updated or repaired over time.

An interesting research avenue could explore using local waste materials for the Flower Frame, engaging the community in circular design initiatives. Collaborations with waste collectors or local artists could offer creative solutions for sustainable, community-driven production.

Evaluating long-term impact

One major limitation is the short-term nature of the evaluation. While the design was tested and refined through multiple user interactions and “What if”-questions, its long-term impact on intergenerational connection, engagement, and public space perception remains unknown.

Future research directions:

- Conduct longitudinal studies to assess whether BLOOM sustains interaction over time or if engagement declines after initial novelty fades.
- Investigating if indirect interaction fosters deeper social connections over time, or if additional elements (e.g., seasonal events, community facilitators) are needed to sustain engagement.

The role of qualitative vs. quantitative evaluation

Due to illiteracy, language barriers and suspicion towards institutional research, this project relied heavily on qualitative methods such as observations and informal interviews. While this ensured inclusivity, it also meant that data was subject to interpretation rather than measurable statistical validation.

Future research directions:

- Explore how to combine qualitative and quantitative approaches in a way that remains accessible to diverse participants while capturing broader, measurable trends.
- Develop alternative evaluation methods that provide structured insights without relying on formalized, written surveys.

8.3 A 'thank you' note

dankjulliewel,
thank you,
teşekkür ederim,
dziękuję,
дякую
Спасибо
धन्यवाद

كل أركش
هیرکش

to the residents of Hillesluis,

A flowerarranging workshop was organized to thank the neighborhood—a gathering where children, parents, and older adults arranged flowers together, enjoying drinks and snacks (Figure 98). I presented the outcomes of this project, but more importantly, I had the chance to express my gratitude in person: in words and by offering a small token of appreciation (Figure 97).

Through this report, I want to extend my heartfelt thanks. From the very beginning, I have never felt unwelcome at the playground. I am deeply grateful for the conversations we've shared, for the moments of trust and openness about topics that were not always easy, for being greeted and seen every time I entered the playground, for the amount of jokes during the walking club and for the generosity of those who invited me into their homes, to the iftar dinners and to family celebrations. Your warmth and hospitality made this project possible.

Then there are some people outside Hillesluis I also want to thank.

Thank you Mathieu and Annemiek for your patience and your support throughout this project. Thank you for your guidance and for your questions. Thank you Maryam for your enourmous positive presence and kind words. Thank you for involving me in your world. Thank you Gilbert for our (sometimes very long!) meetings, for your listening ear, your enthusiasm and your good advice. Thanks to Resilient Delta Initiative for making this project possible, both financially and through connections. Thanks to EMI for showing me around the neighborhood and introducing me to Hillesluis in ways I would have never discovered alone. And lastly, thanks to the people that surrounded me last half year for letting me be me.

This project was never just about research—it was about the people. Thank you for being part of it.



Figure 94 | A resident happy with her 'thank you' keychain.



Figure 97 | A range of flowers to choose from during the workshop.



Figure 97 | A token of appreciation: little pots with seeds to grow your own flowers and a 'thank you' keychain made of the same material as BLOOM.

Figure 95 | Arranging flowers during the thank you event.



Figure 98 | One of the tables during the 'thank you' event.

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APPENDICES

List of appendices

- A. Structured interviews – participants & focus areas
- B. Open session plans and findings
- C. List of design requirements
- D. Concept directions during the Expo
- E. Morphological chart for concept iteration
- F. Toolkit: dictionary
- G. Toolkit: visual consent form
- H. Toolkit: shared stories game
- I. Project brief

Appendix A. Structured interviews: participants and focus areas

To gain deeper insights into the social, urban, and intergenerational dynamics of Hillesluis, structured interviews were held with local organizations and stakeholders.

Interview participants & focus areas
Alliantie Hand in Hand – Municipal processes and opportunities for social change along the Beijerlandseleen.

Expertisecentrum Maatschappelijke Innovatie – Sensitive research approaches and social innovation projects in Hillesluis.

Gilbert de Nijs (knowledge broker TU Delft) – Introducing yourself to and connecting with a neighborhood.

Johanna Sauer (dance teacher) – Different types of movements and movementdevelopment of 6-8 year olds.

Hup (play containers for children in Rotterdam Zuid) – Strategies for engaging children in neighborhood initiatives.

Pakistan Islamic Centre Rotterdam (Mosque) – Community-building and how religion brings unity across different groups.

SOL Welfareprovider – Social challenges in Hillesluis and potential interventions.

Speeltuinen Hillesluis – Values of children and older adults and the role of public space in their daily lives.

Veldacademie – Best practices for conducting sensitive research and community engagement.

Wijkhub – Municipal initiatives aimed at improving community interaction.

Appendix B. Open session plans and findings

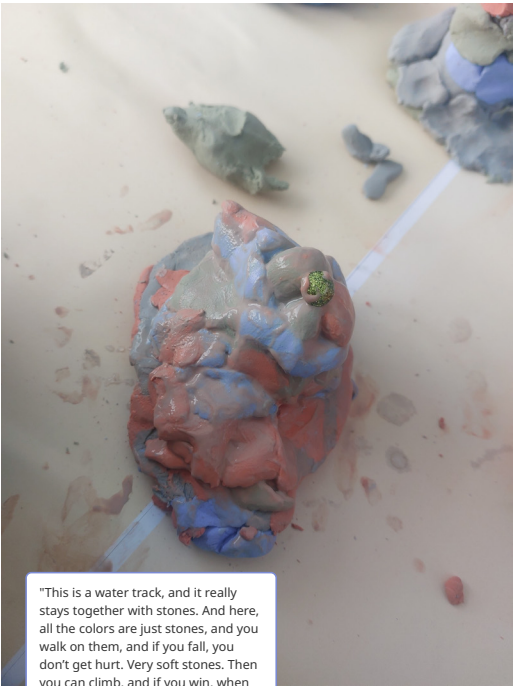
- A text about having done four open sessions:
- 1. Public space exploration session
 - 2. Intergenerational perception session
 - 3. Step-by-step friendmaking
 - 4. Letters from yesterday to tomorrow

They will be explained in this Appendix.

Public space exploration session
This session is already explained in the report, but some of the findings will be shown in this appendix.



"Look, this is a little path. Where only kids are allowed to play, where no cars are allowed to drive. And if a car comes, then you take a brick and throw it at the car." "Throw it at the car?" "Yes, because they are not allowed to drive there." (participant, 8 years)

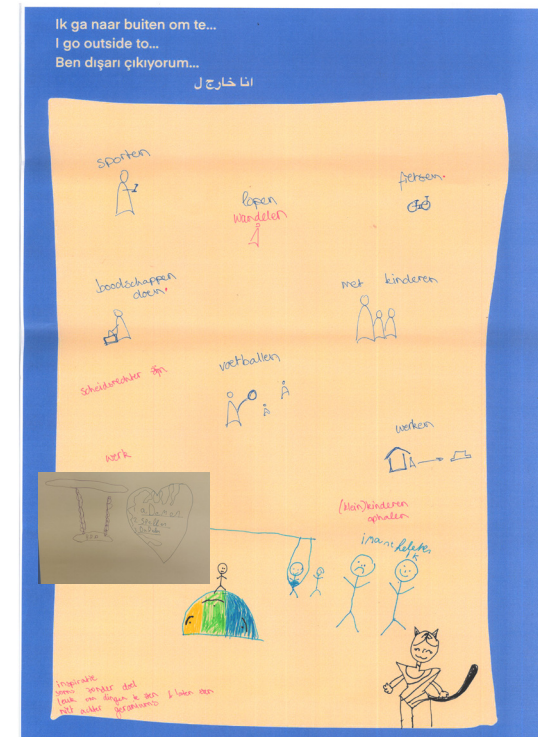
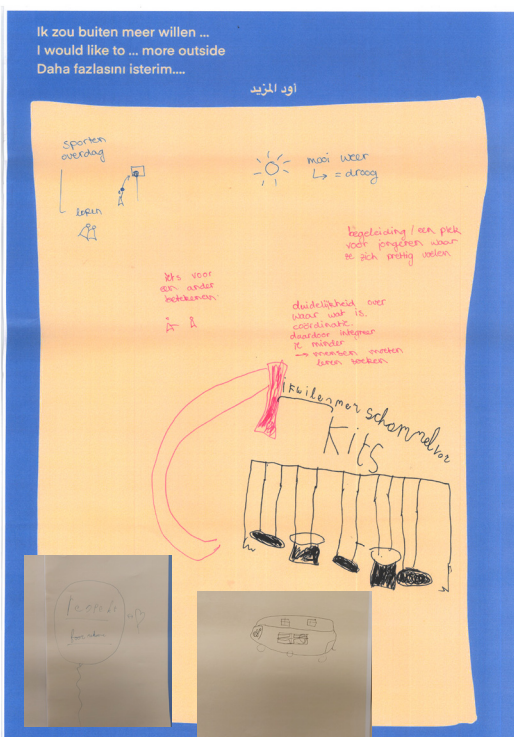
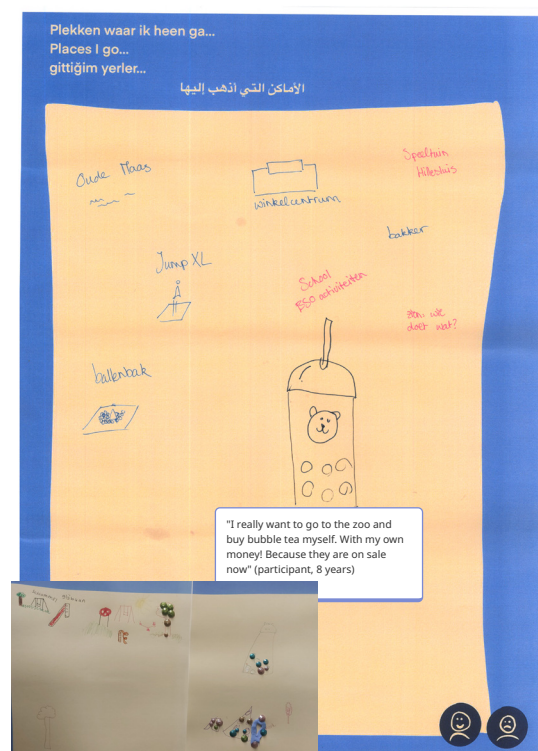


"This is a water track, and it really stays together with stones. And here, all the colors are just stones, and you walk on them, and if you fall, you don't get hurt. Very soft stones. Then you can climb, and if you win, when you've completed everything, you get something." (participant, 6 years)



"My idea is that we can create a little book corner here outside. Then people can sit here, and there are cushions. If you want to use it often, you'll need to get a card and use a combination lock because otherwise people will set the books on fire. And there will be two poles here with four cameras." (participant, 8 years)





Emotional dynamics of connection

Participants: 3 senior adults.

Location: Speeltoern Hillesluis.

Objective: To examine how seniors perceive children entering their lives and the emotions this might evoke.

Participants mapped the people currently present in their lives using wooden figures placed on a sheet (Figure 99).

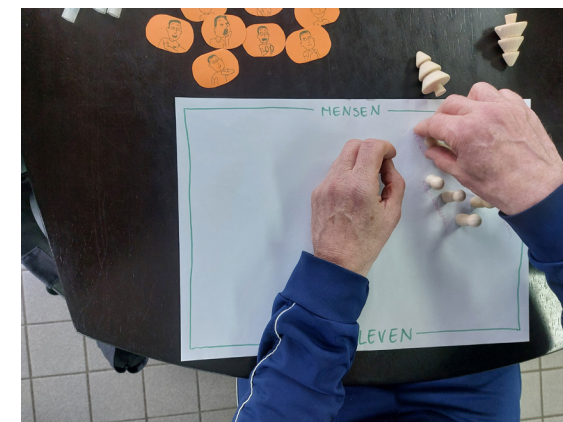


Figure 99. Placing wooden figures on the 'people in my life' sheet.

They then used PrEmo emotion cards (Desmet, XX) to reflect on their feelings toward these groups.



Figure 100. Placing PrEmo cards to represent feelings towards people in your life.

Lastly, little wooden figures, representing children, were presented. Participants could give them a place on or next to the sheet and assign an emotional card to the children. This was followed by a discussion on how they might feel about the interaction.

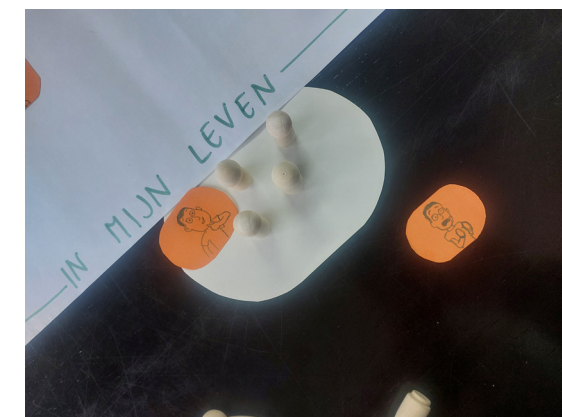


Figure 101. Children next to the 'people in my life' sheet.

"I've had 20 screaming kids on my bus for years. One on one they are sweethearts but in a group they become little devils." (resident, 82 years old)

Key insights

While seniors in Hillesluis are open to interacting with children, they prefer these encounters to be in small groups or at a comfortable distance, as larger groups can feel overwhelming. For both groups, a sense of curiosity emerged, with residents eager to learn about each others perspectives and experiences.

Design implication

- Ensure interactions occur in small groups (maximum of two children) or allow for comfortable, low-pressure engagement.

Exploring friendship

Participants: 3 children.
Location: Speeltuin Hillesluis.
Objective: To explore children's concept of friendship and how this might adapt when interacting with seniors.

As sensitizing exercise, they first drew or wrote on post-its how they make friends themselves (Figure 102).

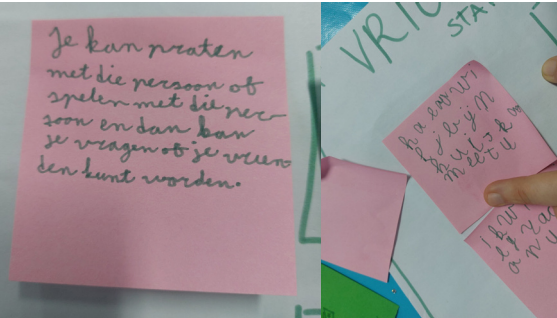


Figure 102. Outcomes of how children make friends. Left: "You can talk to that person or play with that person and then you can ask to become friends." Right: "Hello do you want to come to my house for dinner?"

Then a connection was made to the provided connection cards (Figure 103).

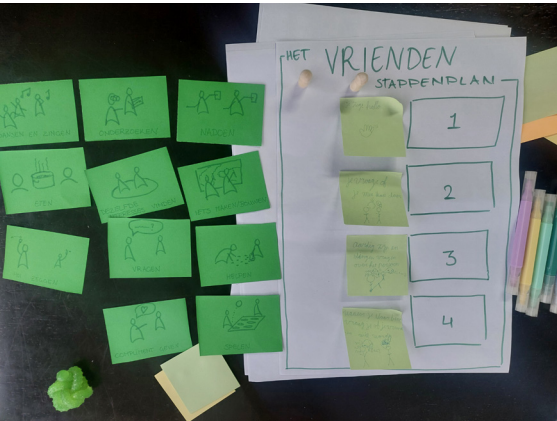


Figure 103. Step by step friendmaking plan including connection cards.

Through a scenario involving wooden figures Julia and Matteo, children brainstormed the steps involved in making friends. With these cards and their own post-its, they created a friendship plan for Julia to make friends with Matteo (figure 104).

When Julia wants to become friends with Josef, she doesn't ask "Will you be my friend?", she asks "Shall we meet again?". (resident, 8 years old)

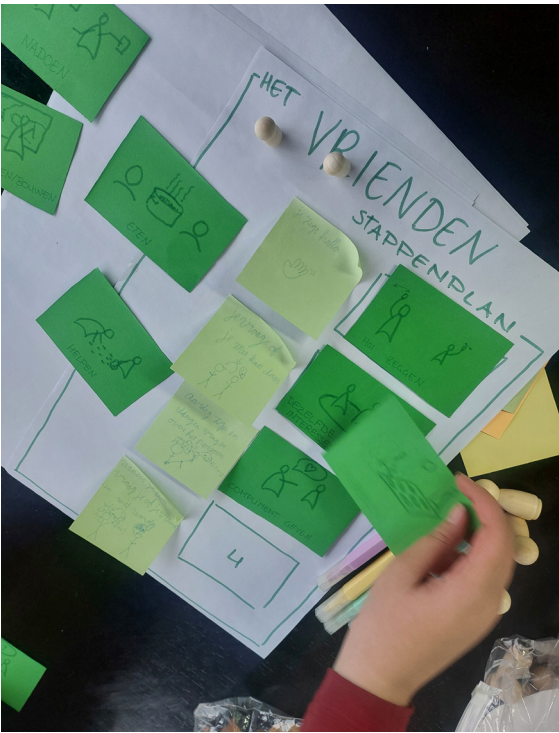


Figure 104. Making a step by step friendship plan.

Later, the participants were asked to adapt this plan for Julia to make friends with Josef: an older adult. Would something change?

Key insights

Children tend to seek explicit confirmation in friendships (e.g., "Will you be my friend?"), while older adults prefer implicit connections (e.g., "When shall we meet again?"). Older adults are often seen as helpers, while children approach them with politeness and formality, reinforcing hierarchical dynamics. Lastly, not all children feel confident initiating friendships, highlighting the importance of approachable and inclusive ways to connect.

Design implication

- Facilitate low-key, non-obligatory friendship-building that accommodates both explicit and implicit approaches.

Sharing Stories through Letters

Participants: 3 senior adults.
Location: Speeltuin Hillesluis.
Objective: To explore the meaningful stories seniors want to pass on to children and how these stories could inspire connections.

Using a concept called "Letters from Yesterday to Tomorrow", participants visualized stories of their lives in the form of letters (Figure 105). The materials provided a physical focus point during the session, helping to keep conversations structured.



Figure 105. Letters from yesterday to tomorrow.

Participants answered three questions (Figure 106):

- "If you could share one story about Hillesluis with children, what would it be?"
- "What lesson or tradition from your life would you like to share with children?"
- "What do you think senior adults and children can teach or offer each other?"

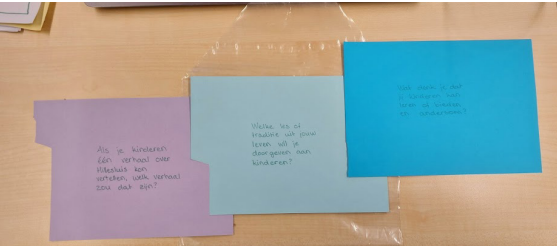


Figure 106. Questions on the letters.

By imagining they were directly addressing children, the participants reflected deeply on their experiences and values.



Figure 107. Opening Letters from yesterday to tomorrow.

"This is a cozy neighborhood with cozy people. Everywhere, people make mistakes and there are criminals. Hillesluis is not a bad neighborhood" (resident, 73 years old)

"I don't want to learn them too much. Learn your own lessons, learn your own life and make your own mistakes. Experience your own wise counsel." (resident, 82 years old)

Key insights

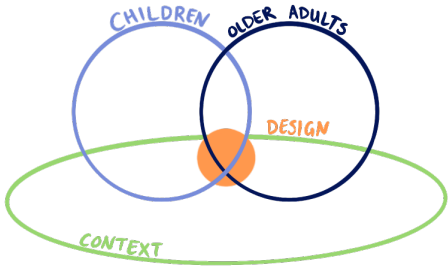
Stories focused more on experiences than specific locations (which was previously thought) which shows that connection is built through shared moments rather than place-based narratives. Participants also saw storytelling as a way to shape children's perceptions of Hillesluis, creating a more positive association. The interaction was seen as a mutual exchange, which supports the previously found finding.

Design implication

- Focus on human moments and experiences rather than historical events or fixed locations.
- Encourage positive and interactive storytelling to encourage meaningful connections.

Appendix C.
List of design requirements

The design requirements throughout the report are placed in the categories: personal engagement, interpersonal connection, public space and community and physical durability and practicalities.



No.	Requirement	Present in final design?	Formed in chapter...
1	The design must instill a sense of capability, ensuring that both generations feel they can engage meaningfully in their own way.	Yes	4.4
2	The design must allow children and older adults to experience a sense of belonging within Hillesluis.	Yes	4.4
3	The design must allow for collective and individual use.	Yes	
4	The design must provide an option (not an obligation) for sharing stories, where residents themselves can determine how personal it gets.	Yes	6.2
5	The design must allow for personalization to suit the different living environments of older adults (subdues-exuberant / boring-lively / messy-tidy).	Yes	6.2
6	The design must be easily changeable in composition, to invite creativity and re-engagement over time.	Yes	6.2
7	The design must easily be replaced or removable from the windows.	Yes	6.2
8	The design must have a hanging (on the window) and a standing (on the windowsill) option, to accommodate different window types and preferences.	Yes	6.2
9	The design must support both explicit and implicit forms of connection, accommodating the different ways children and older adults initiate and express social connections.	Yes	5.2
10	The design must accommodate interactions in small groups or at a comfortable distance.	Yes	5.2
11	The design must facilitate mutual interaction, where both generations can actively give and receive.	Yes	4.1
12	The design must encourage interaction in a non-verbal way.	Yes	4.3
13	The design must promote awareness of others, even when participants are not engaging simultaneously.	Yes	5.1
14	The design must encourage sharing a positive perception of Hillesluis.	Yes	4.3
15	The design must facilitate active and passive activities, allowing engagement at different energy levels and comfort zones.	Yes	4.1
16	The design must welcome residents to the public space of Hillesluis, making it feel inviting, familiar, and safe.	Yes	4.3
17	The design must enable residents to leave visible or symbolic traces of themselves in the public space.	Yes	6.2
18	The design must respect privacy and anonymity, allowing residents to engage without feeling overexposed.	Yes	5.3
19	The design must be introduced to the neighborhood through a sensitizing element, to ease residents into the concept and encourage curiosity.	Yes	6.2
20	The design must contribute to a nature-inspired aesthetic.	Yes	6.2
21	The design must be vandalism-resistant.	To some extend	4.3
22	The design must be low-maintenance.	Yes	4.3
23	The design must draw children's attention to the windows around them.	Yes	5.3
24	The design must be safe for all age groups and consider accessibility (e.g., finger dexterity for older adults, height for children), to ensure inclusive participation.	Yes	4.3
25	The design must work without requiring digital technology, making it universally accessible.	Yes	4.3

Appendix D.
Concept directions during the Expo

The Expo provided a tangible way to explore and refine concept directions, with posters and mock-up prototypes making abstract concepts more concrete ideas. About 20 peers visited the Expo. They shared insights, feedback and ideas that popped up, which helped to guide the process of selecting a concept direction in the following chapter. A selection of impressions is shown on the next pages,

INTERACTIVE ROAD SIGNS THAT STIMULATE INTERACTION

NON-VERBAL BOTTLE MAIL POINTS WHERE PEOPLE CAN LEAVE TRACES IN THE NEIGHBORHOOD

FRIENDS TILES THAT CONNECT THE BENCH NEXT TO THE PLAYGROUND ITSELF THROUGH AN INTERACTION ROUTE

ACTIVITY THAT CONNECTS THE PLAYGROUND WITH THE BENCH NEXT TO THE PLAYGROUND

DREAM AND MEMORY LIBRARY WHERE PEOPLE LEAVE TRACES

GATEWAY WHERE PEOPLE INTERACT THROUGH SHADOW TRAILS THEY LEAVE BEHIND

A WINDOW GAME THAT STIMULATES INTERACTION BETWEEN PEOPLE ON THE SQUARE AND PEOPLE BEHIND THE SURROUNDING WINDOWS

In Hillesluis, the streets are full of activity, yet many residents remain anonymous to each other. Elderly residents often spend their time gazing out of windows, having passive interaction with the lively square below. Meanwhile, children focus on sidewalk games, rarely looking up to engage with the world around them. This Window Game invites interaction between the square and the windows that overlook it. The game transforms the square into a shared space where creativity and movement flows between generations.

CURIOUS
SERENOPTIOUS
WELCOMING
CALMING
POETIC

THE HISTORY: (It found a colorful package on her doorstep.)

AS THE HISTORY: (It found a colorful stained glass combination on her window. She is surprised how easily it clicks.)

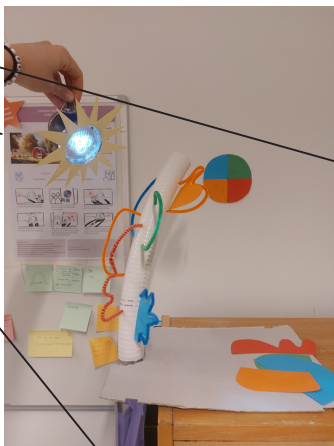
AFTER SCHOOL TIME: (The and Hanna play on their small playground. They spot a new colorful play structure.)

THE NEXT DAY: (The and Hanna are playing when (It) walks by. Did you make that? "Someone (It) have a new one". Both smile and wave.

FUTURE OBSTACLES

Appendix E. Morphological chart for concept iteration

Concepts were
Lichtkleur
Kunstkrijt
Kleur beweegt



Initiation	Interaction element	Leave traces (window)	Leave traces (square)	Moment of interaction	Dependence	End: ways of making friends	Emotional impact	Feedback mechanism	Progression system
Senior adult starts	Competition	No traces	No traces	At multiple moments	Child dependent on elderly	Laughing	Sense of joy	In an hour	More elements can be added
Visual: element of window or square stands out	Collaboration	Opening/closing curtains	Drawings or art (sidewalk chalk)	At the start	Elderly dependent on child	The same movement at the same moment	Nostalgia	Half a day	An element can be changed
Auditory trigger: music or voices as invitation	Imitating	Green and nature	Showing and combining colours	At the end	Equally dependent	Child puts a briefcase in the door	Surprise and wonder	In a week	New colors
Physical invitation board	Memory-based	Candles and lights	Modular blocks	At one moment	Sequential actions: one completes the work of the other	Ring the bell	Curiosity	More than a week	More people (behind the window or on the square) make a different interaction
Light-based trigger	Fantasy story building	Hanging elements	Natural elements (sticks, leaves, sand)	Scheduled	Simultaneous	Building structure	Satisfaction		
Gesture-based: waving, pointing, signaling	Movement	Sticky foil	Weather elements (water, sun and shadow)	Progressive build-up (more and more)		Wapping small personal items			
Game board or spinner	Creation	Stickers	Interactive tiles with light			Revealing a joint achievement			
Shared symbols	Exchange	Showing and combining colours	Point of placement on the square			Friendboard (as score-board)			
Shared opening ritual (pressing a button)	Conveying	Pencils	Waste			Planting a flower together			
		Projections				Symbolic connection			
		Magnetic sliders							
		Revealed layers							

Appendix F. Toolkit: dictionary for sensitive research

This appendix shows the different pages of the dictionary for lived world language.



Tijdens mijn afstudeerproject heb ik veel geleerd over hoe de taal die ik gebruikte invloed had op de bewoners en mijn onderzoek. Dit woordenboek is het resultaat van een reflectie op de termen die ik zelf heb gebruikt en ervaren. Het is geen richtlijn, maar een eye-opener over hoe institutionele termen onbewust afstand kunnen creëren, machtsverhoudingen kunnen versterken of ervaringen kunnen reduceren tot abstracte concepten.

Door bewuster na te denken over de woorden die we gebruiken, kunnen we een taal gebruiken die beter aansluit bij de leefwereld van de bewoners en die begrip bevordert.

INTRODUCTIE IN DE
BUURT & RELATIES
OPBOUWEN

Hoe bouw je relaties op met een
buurt en leg je je onderzoek uit?

Achterstandswijk focust op tekortkomingen. Wijk met kansen, (gewoon een) wijk.

Allochtoon versterkt 'wij-zij' denken en uitsluiting. Buurtbewoner, persoon met migratieachtergrond.

Buurtanalyse klinkt als een externe beoordeling, terwijl het om beleving gaat. Luisteren naar de buurt, lokale gesprekken.

Buurtcultuur klinkt formeel, terwijl het spontaan is. Lokale gewoonten, sociale sfeer.

Buurtprofiel klinkt als een statistische analyse, terwijl een buurt een verhaal is. Gemeenschapsverhaal, lokale ervaringen.

Communicatieplan klinkt als een top-down strategie, terwijl het om een dynamisch proces gaat. Informatie delen met elkaar, updates geven.

Doelgroep klinkt afstandelijk en marketinggericht. Buurtbewoners, experts.

De woorden worden als volgt gepresenteerd:

Institutionele term Reden voor alternatief Alternatief meer passend in de leefwereld

En worden gepresenteerd in de volgende projectfasen:

- Introductie in de buurt & relaties opbouwen
- Onderzoeksfase
- Ideevorming en ontwerp
- Evaluatie en opvolging

Mijn eigen verhalen

Empirisch onderzoek klinkt academisch en afstandelijk, terwijl participatie belangrijk is. Buurt leren kennen, ontdekken door mee te doen.

Etnische diversiteit kan klinken als een beleidsdoel, terwijl het om mensen gaat. Verschillende achtergronden.

Gebiedsontwikkeling klinkt alsof een wijk 'ontwikkeld' moet worden door externe partijen. Buurtverbetering met bewoners, samen de wijk versterken.

Inclusiviteit kan als een beleidsdoel klinken, terwijl het gaat om een gevoel van welkom zijn. Iedereen is welkom, gedeelde betrokkenheid.

Interactie klinkt als een functioneel proces, terwijl het om menselijk contact gaat. Verbinding, gedeelde momenten.

Kansarme buurt impliceert tekortkomingen in plaats van mogelijkheden. Buurt met kansen, wijk in ontwikkeling.

Kwetsbare groepen labelt mensen als hulpbehoevend in plaats van als actieve individuen. Bewoners met specifieke behoeften.

Netwerk opbouwen klinkt als een strategisch doel, terwijl het organisch gebeurt. Verbindingen maken, relaties laten groeien.

Onderzoek kan afstandelijk en formeel klinken, terwijl het project samen kan worden ontwikkeld. Project, gezamenlijke verkenning.

Oudere kan als stigmatiserend of afstandelijk voelen. Ervaren buurtbewoner, ervaren deelnemer.

Participatieve methode klinkt als een academische methode, terwijl het om dagelijkse interactie gaat. Aanwezig zijn, onderdeel worden van het buurtleven.

Samenwerking klinkt als een taak, terwijl het om relaties gaat. Samen werken, gedeelde inspanning.

Sleutelfiguren klinkt als een hiërarchische term, terwijl iedereen waardevolle kennis heeft. Verbinders, actieve buurtbewoners.

Sociale cohesie verbeteren impliceert dat er een probleem is, terwijl gemeenschappen hun eigen ritme hebben. Verbinden van mensen, versterken van relaties.

Sociale dynamiek klinkt technisch, terwijl het om menselijke interacties gaat. Hoe mensen samenleven, buurtverbanden.

Toegang krijgen tot een buurt impliceert dat iemand van buitenaf komt en 'erbij' moet, wat afstand creëert. Deel uitmaken van de buurt, kennismaken met mensen.

Transparant onderzoek klinkt als een formeel proces, terwijl het om openheid en toegankelijkheid gaat. Delen van inzichten, open samenwerking.

Vertrouwensopbouw klinkt als een eenzijdig proces, terwijl vertrouwen wederzijds is. Gedeeld vertrouwen, samen werken aan relaties.

Wijkbehoeften klinkt alsof er een 'tekort' is, terwijl een buurt ook krachten heeft. Wat speelt er in de buurt, wat leeft er?

Veldwerk kan impliceren dat onderzoekers 'van buiten' komen en slechts tijdelijk aanwezig zijn. Lokaal aanwezig zijn, buurtverkenning.

Vrijwilligerswerk kan klinken alsof je een extraatje doet en 'geeft aan hulpbehoevenden', terwijl het vaak om gelijkwaardige samenwerking gaat. Helpen, inzetten.

Geïnformeerde toestemming klinkt juridisch en formeel, terwijl het gaat om vertrouwen. Wederzijds begrip, gedeelde afspraken.

Gelijkwaardigheid vaak formeel gebruikt zonder actiegerichtheid. Iedereen mag mee doen.

Generatieverschillen kan als kloof gezien worden in plaats van als kans. Leren van elkaar, wederzijdse inspiratie.

Historische context klinkt formeel en afstandelijk, terwijl geschiedenis levend is. Verhalen van vroeger, buurtgeschiedenis.

Identiteit kan beperkend werken, terwijl het om meerdere aspecten gaat. Verzameling verhalen, gebruiken en waarden: persoonlijk en van groepen.

Interview kan eenrichtingsverkeer impliceren, terwijl het een dialoog is. Gesprek.

Literatuuronderzoek klinkt afstandelijk en theoretisch. Het begrijpen van eerdere kennis.

Observatie suggereert eenrichtingsverkeer, terwijl interactie en participatie mogelijk zijn. Patronen opmerken, het dagelijks leven zien.

Onderzoek klinkt afstandelijk en objectief, terwijl gemeenschappen betrokken zijn. Ontdekking, project.

Participatieve methoden klinkt academisch en ingewikkeld. Samen ontdekken.

Resultaten klinkt statisch en definitief, terwijl inzichten continu evolueren. Inzichten, gedeelde uitkomsten.

Sociale netwerken impliceert een analytische benadering, terwijl het om relaties gaat. Buurtverbindingen, relaties.

Stakeholder mapping klinkt zakelijk en strategisch, terwijl relaties organisch ontstaan. Verkennen van relaties, verbinden van mensen.

Veerkracht klinkt als een beleidsdoel, terwijl het gaat om de kracht van mensen zelf. Buurtkracht, zelfredzaamheid.

ONDERZOEKSFASE

Het begrijpen van de buurt,
de mensen en de dynamieken
die spelen.

Analyseren klinkt als een technische en rationele beoordeling, zonder subjectieve beleving. Begrijpen, luisteren.

Belanghebbende formele term die machtsverhoudingen kan impliceren. Samenwerking, buurtnetwerk.

Beleidsmaatregel klinkt als een top-down beslissing, zonder betrokkenheid van de gemeenschap. Gemeenschappelijke afspraken, gezamenlijke richting.

Context mapping klinkt als een technische analyse, terwijl het om beleving gaat. Kaart van de buurt maken, omgeving in kaart brengen.

Data verzamelen reduceert ervaringen tot cijfers en gegevens. Verhalen verzamelen, inzichten delen.

Deelnemer impliceert een passieve rol, terwijl mensen actieve kennisdragers zijn. Buurtbewoner, lokale expert.

Digitale inclusie technische term zonder nadruk op toegankelijkheid. Begrijpen van technologie, online verbinding.

Etnografisch onderzoek wetenschappelijke term die academische afstand suggereert. Buurtbeleving, betrokkenheid in de buurt.

IDEEVORMING & ONTWERP

Het samen ontwikkelen van ideeën
en een ontwerp.

Affordances technische term zonder duidelijke betekenis voor gebruikers. Kwaliteiten van het ontwerp, hoe moet het ontwerp zijn zodat wij het kunnen gebruiken?

Deliverables klinkt als een zakelijk eindproduct, terwijl resultaten flexibel zijn. Doel van de sessie, vervolgstappen.

Emotionele verbondenheid klinkt als een abstract psychologisch concept, terwijl het om dagelijks leven gaat. Gevoel van thuis, persoonlijke band.

Faciliteren kan afstandelijk klinken, alsof de facilitator boven de groep staat. Gesprekken begeleiden, stemmen hoorbaar maken.

Gebruiker reduceert mensen tot een rol binnen een systeem, terwijl ze actieve deelnemers en mede-makers zijn. Buurtbewoner, mede-maker.

Gebruikerstests klinkt afstandelijk, alsof mensen testobjecten zijn. Proefperiode, ervaringen.

Groepsdynamiek klinkt technisch, terwijl het om menselijke relaties gaat. Rollen in de groep, samenwerken.

Ideevorming klinkt als een rationeel proces, terwijl verbeelding en intuïtie ook belangrijk zijn. Verbeelden, maken van oplossingen.

Appendix G. Toolkit: visual consent form

This appendix shows the visual consent form used during this project.



Ontwerpelementen klinkt formeel en fragmentarisch, terwijl het om een geheel gaat. **Onderdelen van het ontwerp.**

Ontwerpiteratie klinkt technisch, terwijl het gaat om een natuurlijk leerproces. **Ideeën die op elkaar voortbouwen, verfijnen.**

Presentatie kan klinken als een eenrichtingsproces, terwijl interactie en dialoog waardevol zijn. **Delen van inzichten, gezamenlijk gesprek.**

Prototype klinkt technisch en afstandelijk, terwijl het een creatief proces is. **Eerste ideeën, uitprobeerversie.**

Regels klinkt controlerend en kan wantrouwen oproepen. **Gedeelde afspraken, samen werken aan een goed verloop.**

Ontwerpscenario kan klinken als een theoretisch model, terwijl het gaat om mogelijke ervaringen en interacties van mensen in een bepaalde situatie. **Toekomstbeeld, mogelijke situatie, ervaringsverhaal.**

EVALUATIE & OPVOLGING

Terugkijken, reflecteren en toekomstmogelijkheden verkennen.

Actiepunten klinkt top-down, terwijl co-creatie belangrijk is. **Volgende stappen, samen bepalen.**

Afsluiting van het project klinkt als een eindpunt, terwijl projecten vaak een doorwerking hebben. **Overdracht van inzichten, doorontwikkeling.**

Doelbereiking klinkt statisch, terwijl doelen flexibel kunnen zijn. **Bereikte mijlpalen, gezamenlijke vooruitgang.**

Evaluatie klinkt als een formele beoordeling, terwijl leren centraal staat. **Reflectie, samen leren.**

Feedback klinkt eenzijdig, terwijl reflectie een gedeeld proces is. **Reflecties, inzichten.**

Gebruikerstevredenheid klinkt als een klantonderzoek, terwijl het om betrokkenheid gaat. **Ervaringen en beleving van bewoners.**

Impactmeting klinkt als een technische evaluatie, terwijl impact persoonlijk is. **Gedeelde voordelen, waargenomen veranderingen.**

Kwalitatieve en kwantitatieve data klinkt technisch. **Verhalen en cijfers, gedeelde betekenis.**

Maatstaven (metrics) klinkt abstract en afstandelijk, terwijl resultaten vaak concreet zijn. **Signalen van succes, voortgangsmarkeringen.**

Onderzoeksresultaten klinkt academisch, terwijl inzichten vaak gedeeld worden in gesprekken. **Inzichten uit de gemeenschap.**

Prestatierapport klinkt zakelijk en formeel, terwijl het om maatschappelijke impact gaat. **Buurtreflectie, samenvatting van inzichten.**

Reflectieproces klinkt als een formele stap, terwijl het om een gedeeld leerproces gaat. **Terugkijken, gedeelde leerpunten.**

Schaalbaarheid klinkt als een bedrijfsstrategie, terwijl het om continuïteit en draagvlak gaat. **Uitbreidingsmogelijkheden, toekomst vooruitzicht.**

Succesindicatoren klinkt kwantitatief, terwijl succes ook kwalitatief is. **Ervaren resultaat, gedeelde successen.**

Uitdagingen klinkt negatief. **Groeikansen, volgende stappen.**



Appendix H. Toolkit: shared stories game

This appendix shows the shared stories game. The instructions are as follows:

1. Lay the cards on a table with pictures up.
2. Choose a card that speaks to you.
3. Turn the card around and answer the question.

Now switch turns and discover your shared stories!

The questions are based on my (dutch) connection experiences during this project and are as follows:

- Waar dromen wij beiden van?
- Wat is iets waar wij allebei goed in zijn?
- Wat vinden wij allebei leuk om buiten te doen?
- Van welke muziek worden wij allebei blij?
- Welk boek hebben wij allebei gelezen?
- Waar voelen wij ons allebei thuis?
- Wat is een kleur die we allebei mooi vinden?
- Waar zijn wij allebei vaak te vinden?
- Wat is een spel dat wij allebei hebben gespeeld?
- Wat is iets dat we allebei doen als we thuis komen?
- Waar willen wij allebei nog een keer naar toe?
- Wat is een tijdstip waarop we allebei nog wakker zijn?
- Welk drankje drinken wij allebei graag?
- Welke hobby of activiteit vinden wij allebei leuk?
- Welke snack vinden wij allebei lekker?
- Wat is een woord dat wij allebei vaak gebruiken?
- Van welk weer genieten wij allebei?
- Wat is een eigenschap die we allebei waarderen?



Appendix I.
Project brief

This appendix shows the project brief, written at the start of this project.



Problem Definition

What problem do you want to solve in the context described in the introduction, and within the available time frame of 100 working days? (= Master Graduation Project of 30 EC). What opportunities do you see to create added value for the described stakeholders? Substantiate your choice. (max 200 words)

I assume both senior adults (65+ years old) and children (6-8 years old) share overlapping needs such as the need for recognition, connection, activity, relaxation, guidance, and engagement and I believe public spaces that can adapt to these needs over time will be more resilient and sustainable.

The opportunity is twofold:

1. A deeper understanding is needed on exactly how the needs of children and senior adults overlap. What are the values and beliefs of children and senior adults regarding interaction and play in Rotterdam Zuid?

2. An ideation phase is required to explore. How can we design public space that encourages intergenerational interaction between children and senior adults in Rotterdam Zuid?

Some opportunities I can see the design project could connect to are: a reduction in loneliness, addressing health issues such as obesity and nearsightedness, encouraging people to spend more time outdoors, enhancing community cohesion, improving street safety, developing social and emotional skills and pursuing the Resilient Rotterdam Strategy plan (Gemeente Rotterdam, 2022), that includes measures to improve social cohesion, safety, and public health.

Gemeente Rotterdam. (2022). Resilient Rotterdam Strategy. <https://www.resilientrotterdam.nl/en/download>

Assignment

This is the most important part of the project brief because it will give a clear direction of what you are heading for. Formulate an assignment to yourself regarding what you expect to deliver as result at the end of your project. (1 sentence) As you graduate as an industrial design engineer, your assignment will start with a verb (Design/Investigate/Validate/Create), and you may use the green text format:

Design elements in the open space to encourage intergenerational interaction between children (6-8 years old) and senior adults (65+ years old) and address their various needs in Rotterdam Zuid.

Then explain your project approach to carrying out your graduation project and what research and design methods you plan to use to generate your design solution (max 150 words)

See figure 2 (page 4) for an overview of the approach, based on the Double Diamond Model (Design Council, 2005).

In the diverging phase, I will do a literature review, multiple observations, conduct interviews and hold a co-design session in which we map the context and form onion models.

In the defining phase, I will cluster the insights, create a problem definition by restating the problem, form a list of requirements and have built a vision framework that will lead to a design goal.

In the developing phase, I will find a suiting analogy, brainstorm, hold a co-design session in which we generate ideas and make prototypes, test prototypes/ideas by street-interviews, observations and safety-checks.

In the delivering phase, I will make a final prototype to test, collect reactions/feedback, finish the deliverables and prepare an interactive presentation.

Project planning and key moments

To make visible how you plan to spend your time, you must make a planning for the full project. You are advised to use a Gantt chart format to show the different phases of your project, deliverables you have in mind, meetings and in-between deadlines. Keep in mind that all activities should fit within the given run time of 100 working days. Your planning should include a **kick-off meeting, mid-term evaluation meeting, green light meeting and graduation ceremony**. Please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any (for instance because of holidays or parallel course activities).

Make sure to attach the full plan to this project brief. The four key moment dates must be filled in below

Kick off meeting 2 okt 2024

Mid-term evaluation 27 nov 2024

Green light meeting 7 feb 2025

Graduation ceremony 7 mrt 2025

In exceptional cases (part of) the Graduation Project may need to be scheduled part-time. Indicate here if such applies to your project

Part of project scheduled part-time	<input type="checkbox"/>
For how many project weeks	
Number of project days per week	

Comments:

Motivation and personal ambitions

Explain why you wish to start this project, what competencies you want to prove or develop (e.g. competencies acquired in your MSc programme, electives, extra-curricular activities or other).

Optionally, describe whether you have some personal learning ambitions which you explicitly want to address in this project, on top of the learning objectives of the Graduation Project itself. You might think of e.g. acquiring in depth knowledge on a specific subject, broadening your competencies or experimenting with a specific tool or methodology. Personal learning ambitions are limited to a maximum number of five. (200 words max)

During this project:

- I want real-world experience in co-design sessions, not just in university/association-related contexts, but with users whose perspectives are more difficult for me to naturally empathize with.
- I tend to get lost in the divergence phase of projects, so with this one, I am looking to find a better balance between diverging, reverging and converging.
- During my boardyear, I struggled with my perfectionism, seeing it as something negative. In this project, I hope to see it in a more healthy way, using it as a positive trait while still being comfortable with sharing and discussing work that is not fully polished or complete.
- I would love to explore more artistic methods of communication beyond just language, especially in meetings, co-design sessions and presentations.

- I would love to explore the concept of play further through philosophical research inspired by Homo Ludens.

- I am passionate about designing with and in nature so I hope to work in that field in the future.

- I feel like I have only tipped the iceberg of inclusivity in my BSc/MSc. I hope to learn more about the (non-)inclusive worlds in which we design our inclusive products.

