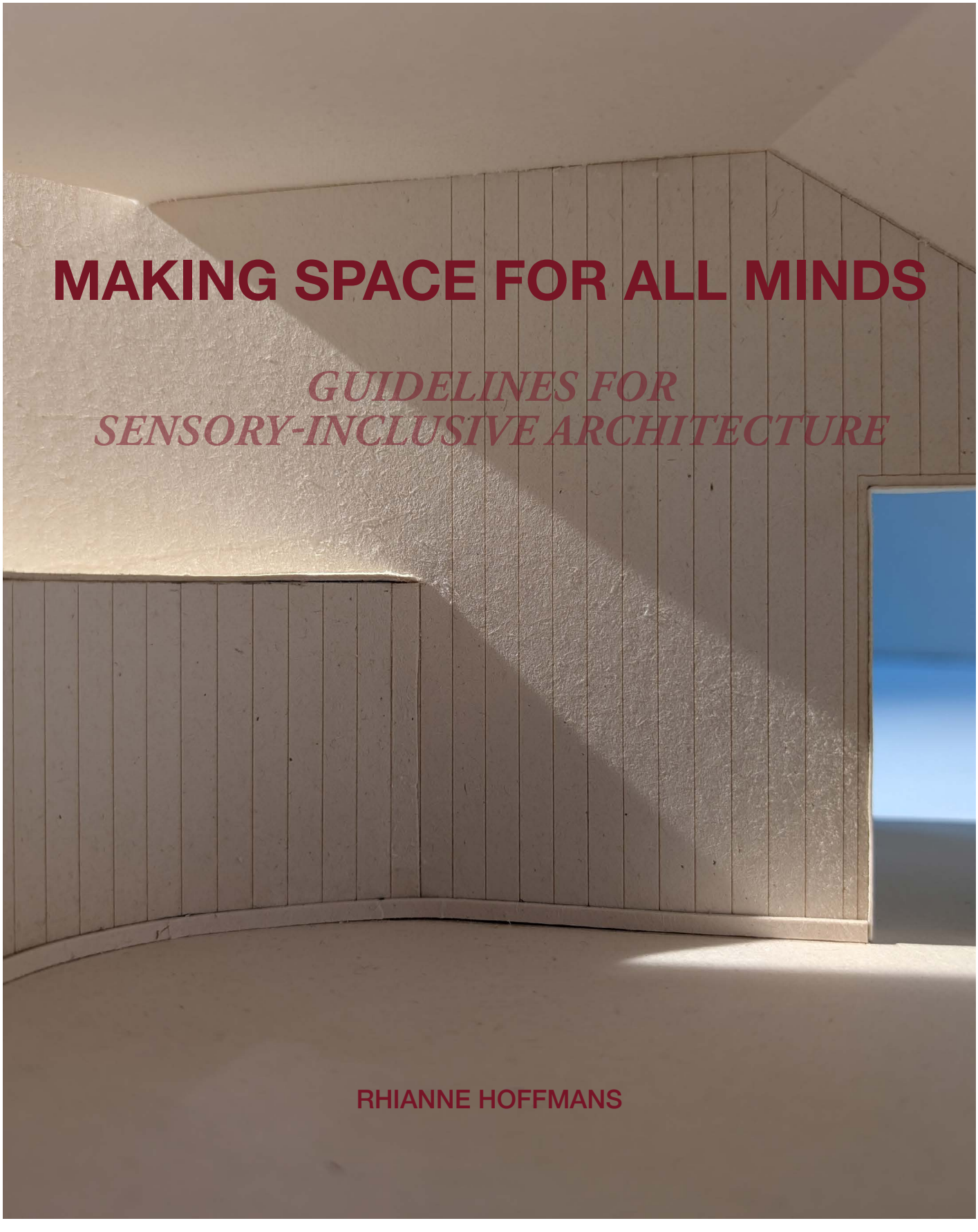


MAKING SPACE FOR ALL MINDS

GUIDELINES FOR SENSORY-INCLUSIVE ARCHITECTURE

RHIANNE HOFFMANS

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to everyone who supported me throughout this thesis process. Especially my tutors, for the thoughtful guidance, patience and honest motivation throughout the process. Your input helped me sharpen both my research and design decisions. I am also very grateful to my friends for their constant encouragement, understanding, and support during the many ups and downs of this journey.

GRADUATION REPORT

An architectural approach for the diverse sensory needs of neurodiverse individuals

Graduation Report
Delft Faculty of Architecture and the Built Environment
Department of Architecture
Graduation Studio Explore Lab

Tutors
Veerle de Vries
Matthijs Klooster

2026

ABSTRACT

This thesis addresses the lack of evidence-based architectural guidelines for accommodating diverse sensory needs in everyday public buildings. Rather than relying on a singular "low-stimulus" room as the primary response to neurodivergent users, the research argues for a more integrated and inclusive spatial approach that recognises neurocognitive diversity as part of human diversity. The study asks how architectural strategies can support a range of sensory profiles without positioning neurodivergence as a deviation from the norm.

Through the analysis of case studies, the research identifies recurring spatial conditions that shape sensory experience in the built environment. These conditions are interpreted through Winnie Dunn's four sensory processing patterns: sensation seeking, sensation avoiding, sensory sensitivity, and low registration. The outcome of this research is a set of design guidelines intended to support designers in developing more inclusive architectural solutions.

CONTENT

PART A

RESEARCH

DEFINING NEURODIVERSITY

Neurodiversity refers to the natural diversity in neurocognitive functioning. A broad term that encompasses neurocognitive differences (neurodivergent) such as autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), dyslexia, Tourette's syndrome, anxiety, highly intellectual (gifted), and obsessive-compulsive disorder, as well as 'normal' neurocognitive functioning, or neurotypical (Hughes, 2016). It was Judy Singer who first used the term neurodiversity (Singer, 1999) to propose reframing diagnostic classifications as minority identities to cultivate disability rights and movements.

Neurodivergence is the term for when someone's brain processes, learns, and/or behaves differently from what is considered neurologically typical, or neurotypical (Hughes, 2016).

Sensory processing refers to how information is organised, processed and perceived when received through the senses (seeing, hearing, smell, touch, taste and movement) (British Standards Institution, 2022). Individuals with sensory processing differences have difficulty processing information from multiple senses simultaneously (Gaines, Kristi et al., 2025).

"ARCHITECTURE IS THE ART OF RECONCILIATION BETWEEN OURSELVES AND THE WORLD, AND THIS MEDIATION TAKES PLACE THROUGH THE SENSES"

- JUHANI PALLASMAA

01 INTRODUCTION

We not only use our eyes but also all the other senses in experiencing our environment. But as Pallasmaa warns, the built environment is focused on the visual fix, which disconnects us from the embodied experience and ignores the multisensory reality of individuals (1996).

As awareness of sensory processing and neurodiversity increases, it becomes evident that spaces designed for "all" do not adequately support the sensory and cognitive needs of neurodivergent users. In practice, it is often assumed that reducing stimuli, for example by creating a low-stimulus 'meditation' room, automatically leads to improved functioning in neurodivergent users.

However, studies on sensory processing show that the needs of neurodivergent users vary greatly and that universal stimulus reduction does not always lead to better outcomes (Dunn, 2007). As someone who is sensory sensitive, I have often noticed that these universal stimulus reductions are tailored primarily to sensory-avoidant and sensitive patterns, while sensation-seeking and low-registration users remain underserved. As a result, there is a lack of evidence-based design guidelines for diverse sensory needs. Design practice often resorts to a single generic "low-stimulus" space, which risks reinforcing the stigma that neurodivergent users deviate from the norm and must withdraw to a separate, pleasant room to feel at ease.

There is a need to shift the narrative away from framing neurodivergence as an undesirable minority and instead acknowledge neurocognitive diversity as a constitutive part of human diversity, prompting environments that genuinely make space for "all". This raises the question of what kinds of spatial strategies can support diverse sensory profiles in everyday public buildings.

Dunn's four response patterns (2007)

"EVERYONE HAS ACCESS NEEDS; IT'S JUST THAT NON-DISABLED PEOPLE DON'T RECOGNISE THAT 'NORMAL' BUILT SURROUNDINGS ALREADY MEET THEIR NEEDS."

– JOS BOYS, 2024

PROBLEM STATEMENT

SENSORY PROCESSING VARIES

This question is particularly urgent because individuals who struggle with sensory processing have a hard time navigating the world. To understand why this problem is urgent, it is important to consider how sensory processing affects everyday functioning. In fact, effective sensory processing is essential for emotional regulation (White et al., 2014) and for managing stress and properly assessing dangerous situations (Lübke and Pause, 2015). In addition, sensory processing can vary significantly from one individual to another. Dunn's model of sensory processing (2007) identifies four distinct response patterns: sensation seeking, sensory avoiding, sensory sensitivity and low registration.

Accommodating bio- and neurodiversity therefore challenges societal norms around "normal" functioning. Judy Singer first introduced the term neurodiversity (Singer, 1999) to reframe diagnostic classifications as minority identities, cultivating disability rights and movements. Similarly, Jos Boys of the DisOrdinary Architecture Project advocates using the lived experiences of disabled and neurodivergent people as a creative starting point for design, rather than a technical problem to solve (Boys, 2014). This approach resonates strongly with the conviction that sensory-inclusive architecture should emerge from lived diversity.

However, these diverse sensory profiles are not adequately reflected in the built environment, and current design guidance is limited. The British Standards Institution has therefore developed guidelines for addressing the diverse sensory needs in the built environment. They distinguish between atypically high response to sensory stimulus (hyper-sensitive) and atypically low response (hypo-sensitive), to emphasise that one design intervention may not benefit all. "In some cases, a design intervention to improve the environment for one type of sensory difference might be to the detriment of another" (The British Standards Institution, 2022).
Yet from an architectural perspective, current guidelines in the Netherlands leave a particular gap. They primarily focus on accessibility for mobility and visual impairment, while sensory and cognitive accessibility remain underdeveloped in architectural standards and practice. The result of this underdevelopment is a reliance on solutions like the generic low-stimulus space, rather than integrated, sensory-inclusive architecture. Therefore, my aim is to develop design guidelines for diverse sensory profiles that contribute both to the quality of everyday life for neurodivergent users and to architectural practice.

DESIGN GUIDELINES

In response to these gaps, this graduation project aims to develop and test sensory-inclusive design guidelines to accommodate the needs of all users. The development of these guidelines stems from analysing case studies, drawing on insights from sensory processing and neurodiversity literature. These design guidelines will then be implemented in an integrated design.

This focus on sensory-inclusive architecture also has a particular personal relevance. As someone who is sensory sensitive myself, sensory conditions in public and learning environments have always been noticed, making the limitations of current architectural practices acutely felt. As an architect, I therefore seek to develop architectural design guidelines for sensory-inclusive architecture.

RESEARCH AND DESIGN QUESTIONS

To address the gap in evidence-based architectural design guidelines for diverse sensory profiles, this project is guided by the following main question:

What design guidelines for physical environments support the diverse sensory needs of neurodivergent users through integrated architecture?

This main question is subdivided into four sub-questions. One sub-question is answered through the methodology of literature research. The remaining sub-questions are explored by a research by design method.

LITERATURE RESEARCH

The first question focuses on understanding how neurodivergent users experience sensory stimuli in the built environment and on identifying spatial solutions for these sensory stimuli.

1. How do neurodivergent users experience sensory stimuli in the built environment, and what spatial design strategies can address these experiences?

RESEARCH BY DESIGN METHOD

The second question is answered by analysing and modelling selected case studies to see how these needs are translated into spatial aspects. Based on the literature, three overarching themes are used to structure the analysis: sensory balance, visual clarity and wayfinding, and orientation and spatial recognition. Sensory balance concerns the regulated intensity and quality of mainly sound, colour, material and proportion, so that spaces are neither overwhelming nor understimulating. Visual clarity and wayfinding address how layout, sightlines and visual consistency support legibility to fulfil the desire of sameness and eliminate uncertainty. Orientation and spatial recognition refer to anchors, thresholds, and zoning that help users understand where they are and what to expect in different areas.

2. How are the three sensory themes (sensory balance, visual clarity and wayfinding, and orientation and spatial recognition) currently addressed in selected case studies?

The recurring spatial aspects from the analysis are then subdivided into four types of sensory processing, according to Winnie Dunn's model (2007). The generic "low-stimulus" spaces are primarily applicable to the response patterns of sensory sensitivities, and it is essential to understand how the other three response patterns occur to develop architectural design guidelines for integrated, sensory-inclusive architecture.

3. How can the recurring aspects from the case study analysis be mapped onto Dunn's model of sensory processing (sensation seeking, sensory avoiding, sensory sensitivity and low registration)?

4. How can these aspects be incorporated into architectural design guidelines that cater to diverse sensory profiles?

The architectural design guidelines are then implemented and evaluated within the architectural design for the library typology.

5. How can these guidelines be integrated into one coherent library typology in The Hague?

METHODOLOGY

The research will be done through the methodology of literature research and a research by design method.

LITERATURE RESEARCH

Academic articles on sensory processing and neurodiversity (Dunn, 2007), and sensory inclusive architecture, books such as Gaines (2016, 2025) and standards (BSI, Dutch guidelines).

RESEARCH BY DESIGN

This will consist of the analysis of two selected case studies by modelling fragments.
1. IKC Prins Constatijn Leeuwarden by De Zwarte Hond
2. Museum Singer Laren by Bedaux de Brouwer

And the mapping of spatial aspects into four types of sensory processing, with the outcome of architectural design guidelines.

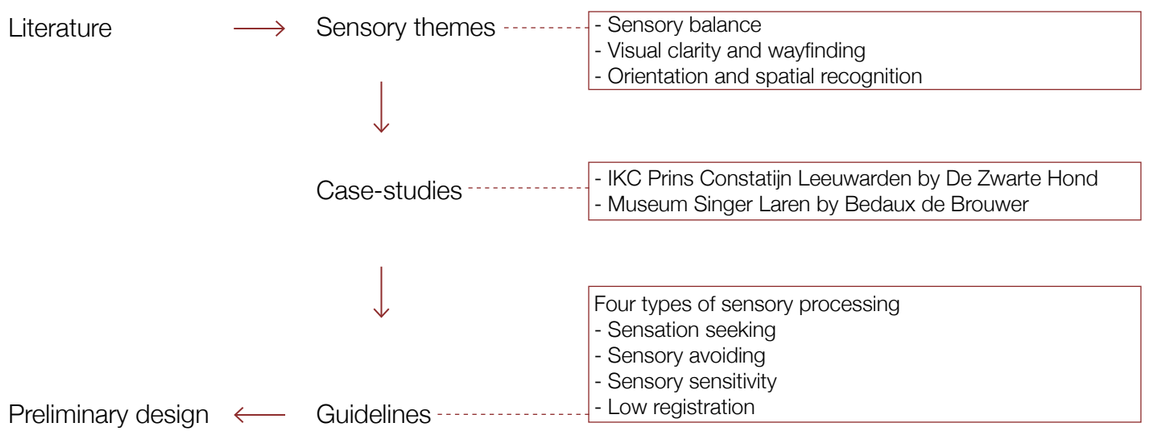
The research will consist of five stages and the process is iterative:
1. Combine needs from literature on neurodivergent individuals, sensory processing and sensory-inclusive design into a preliminary framework.

2. Analyse and model selected case studies to see how the three sensory themes (sensory balance, visual clarity and wayfinding, and orientation and spatial recognition) are translated into spatial aspects. (fragment models, diagrams)

3. Subdivide the recurring spatial aspects from the analysis into four types of sensory processing, according to Winnie Dunn's model (sensation seeking, sensory avoiding, sensory sensitivity and low registration).

4. Translate recurring patterns into design guidelines.

5. Apply these guidelines in an integrated design for a 500 m2 library-typology with co-working spaces in the centre of The Hague.



02 THEORETICAL FRAMEWORK

SENSORY PROCESSING AND NEURODIVERSITY

To understand from the user's perspective why environments need differentiated sensory conditions, this thesis draws on three strands of literature: Dunn's sensory processing model (2007), which distinguishes between seeking, avoiding, sensitivity, and low registration; research on the relationship between sensory input, stress, and emotion regulation (White et al., 2014) (Lübke and Pause, 2015); and recent work that frames neurodivergence as part of the natural variation of human minds (Chapman and Botha, 2023).

SENSORY-INCLUSIVE ARCHITECTURE

From these sources, the three main themes of sensory balance, visual clarity and wayfinding, and orientation and spatial recognition will be derived. Gaines' work on translating sensory profiles into design recommendations (2016, 2025), together with Channon's examples of how these recommendations can be enacted in architectural form (2018), provides the main basis for this thematic structure, while Pallasmaa's multisensory approach (1996) is used as a critical counterpoint. In addition, BSI's Design for the Mind (2022) guidance and the gap identified in relation to Dutch standards inform the second layer of the framework, ensuring that the themes are not only theoretically grounded but also translated into relevant design criteria.

EXPECTED OUTPUT

The research will result in a written framework of sensory themes and analytical drawings and fragment models of the case studies, which together form the basis for the design guidelines. These guidelines will then be translated into an architectural design that implements them on a site in The Hague.

THESIS STRUCTURE

This thesis is structured in two main parts. Part A develops the theoretical framework, analyses the case studies, and formulates the sensory-inclusive design guidelines. Part B applies these guidelines to the site in The Hague and develops the final design proposal.

03 RESULTS

.1 SPATIAL THEMES

This section addresses the first sub-question:

How do neurodivergent users experience sensory stimuli in the built environment, and what spatial design strategies can address these experiences?

To answer this, the results are organised according to the three themes of sensory balance, visual clarity and wayfinding, and orientation and spatial recognition

FOR WHOM?

The focus of this project is to provide architectural design guidelines that reduce negative sensory experiences for users with diverse sensory processing profiles. People with sensory processing differences can find it difficult to process information from several senses simultaneously (Gaines, Kristi et al., 2025). The natural variation in how people speak, think, move and communicate means that each individual has a unique pattern of neural connections and, consequently, a unique way of experiencing their environment. (British Standards Institution, 2022). This variation is not limited to those who identify as neurodivergent, poorly tuned environments can also affect people who are not diagnosed but who fall outside the assumed "average".

NEUROLOGICAL THRESHOLDS

These profiles can be described in terms of different neurological thresholds. A threshold refers to the point at which there is enough input to activate the nervous system. Dunn, a professor of Occupational Therapy Education and an expert on sensory processing in everyday life, conceptualises thresholds as a continuum: people with low thresholds (hyper-sensitive) notice and respond to stimuli quickly, whereas people with high thresholds (hypo-sensitive) require stronger input before they respond (Dunn, 2007). Thresholds also differ per sensory modality; for instance, someone may be very sensitive to bright light yet slow to notice when their name is called.

ENVIRONMENTAL IMPACTS

These varying thresholds shape how individuals experience the built environment. Elements in their environment can contribute to either sensory overload or sensory under-stimulation. PAS 6463, a government document containing guidelines for neurodiversity and the built environment from the UK, groups these elements into four categories: sounds, visual "noise", spatial and layout considerations, and unwanted or extreme sensory feedback. Sounds include intermittent or continuous noises, from loud to very quiet, especially when unexpected. Visual "noise" may be caused by light, glare, shadows, colours, patterns or movement, while unwanted feedback refers to extreme smells, tactile sensations, tastes or temperatures. (British Standards Institution, 2022).

Current guidelines derived from these elements largely focus on creating calming spaces, which mainly support hyper-sensitive users and risk hypo-sensitive individuals and their need for stronger stimuli. To accommodate both ends of the neurological continuum, environments should offer users choice and control, enabling them to move between spaces with different sensory intensities.

Although not all stimuli can be controlled, and unexpected sounds or movements will always occur, architecture can shape the spatial layout and its degree of **predictability, choice, and legibility**. These are the most tangible levers for supporting different sensory profiles through design.

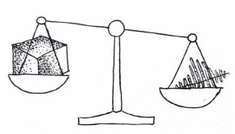
ARCHITECTURAL DESIGN STRATEGIES

These tangible aspects have therefore been translated into three overarching themes that structure the guidelines (and the subsequent case-study analysis).

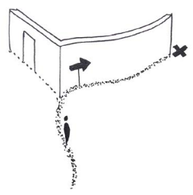
The three themes were derived from preliminary research on special education schools, where architectural strategies were examined in relation to children with different sensory processing needs, and the full research is included in appendix a.

1. Sensory balance – regulating the intensity of sensory input, particularly sound, colour, material and proportion, so that spaces are neither overwhelming nor under-stimulating.
2. Visual clarity and wayfinding – organising layout, sightlines and visual consistency to support legibility, fulfill the desire for sameness where needed and reduce uncertainty in navigation.
3. Orientation and spatial recognition – providing anchors, thresholds and zoning so that users know where they are, how spaces relate, and what kinds of sensory and social behaviour to expect in each area.

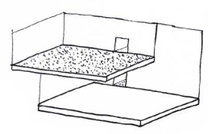
In the following section, each theme is further differentiated into subthemes (such as auditory comfort, visual consistency, escape spaces and graded movement opportunites) and applied to the analysis of the selected case studies.



1. Sensory balance



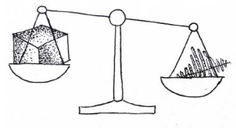
2. Visual clarity and wayfinding



3. Orientation and spatial recognition

1. SENSORY BALANCE

Sensory balance refers to the calibrated intensity and quality of sensory input so that spaces are neither overwhelming nor under-stimulating for users with different thresholds. Drawing on works from Gaines et al.'s and the PAS 6463 on sensory-inclusive environments, several architectural aspects can be distilled that directly influence this balance. These are grouped here into four subthemes.



A. AUDITORY COMFORT

Auditory comfort concerns the control of noise levels, reverberation and sound transmission between spaces. Strategies include the use of sound-absorbing materials, acoustic zoning between quiet and active areas, and modulation of ceiling height and room proportion to prevent echo and sound build-up. In a study towards inclusive principles for sensory processing disorder, over 600 subjects participated to review difficulties in their environments. The data was then gathered into six sensory categories: sight, touch, hearing, taste, smell, and motion. From this, the researchers concluded that auditory sensitivities are the most dominant in sensory processing challenges. (Gaines et al., 2025)

B. MATERIAL AND TACTILE CALM

Material and tactile calm addresses how surface textures, temperature and material transitions affect sensory load. Gaines et al. emphasise consistent, non-irritating textures and natural materials that support a sense of grounding without visual or tactile clutter.

C. MUTED COLOURS AND VISUAL PROPORTION

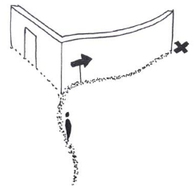
This subtheme focuses on colour palettes and spatial proportions that support regulation. Muted, low-contrast colour schemes and balanced proportions or rhythms of openings and elements can reduce visual overstimulation while still allowing focal accents where needed (Channon, 2018).

D. ACCESS TO NATURE

Access to nature refers to direct or indirect connections with natural elements, such as views, planting, daylight and biophilic patterns. These can help restore sensory balance by offering familiar, low-demand visual and auditory input, and by supporting self-selected withdrawal or engagement.

2. VISUAL CLARITY AND WAYFINDING

Visual clarity and wayfinding describe how layout, sightlines and visual consistency help users understand and navigate a building with minimal cognitive load, reducing uncertainty and anxiety. Gaines emphasises that many autistic users prefer predictable, often symmetrical floorplans that satisfy a desire for sameness and clear order (Gaines et al., 2025). Drawing from this work and *'Happy by Design'* (Channon, 2018), four subthemes are distinguished.



A. SPATIAL SEQUENCING AND PREDICTABILITY

Spatial sequencing and predictability concern the order and hierarchy of spaces: clear transitions, a legible progression from quiet to busy areas, the presence of escape spaces, distinct sensory zones and explicit wayfinding cues. Variations in ceiling height can reinforce this hierarchy, with higher spaces signalling public or active areas and lower spaces indicating more intimate or quiet zones. Channon stresses that adding a range of environments give individuals direct control over the type of space they want to use.

B. VISUAL CONSISTENCY

Visual consistency refers to the repeated use of coherent design elements, such as layout logic, material palette, colour scheme and detailing, to create environments that are easy to read. Gaines argues that consistent cues across the building support quick orientation and reduce the effort required to interpret each new space.

C. REDUCTION OF VISUAL NOISE

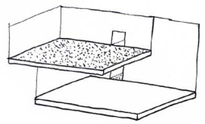
Reduction of visual noise focuses on limiting unnecessary or confusing stimuli arising from light, glare, shadows, strong colour contrasts, busy patterns, constant movement or clutter. Strategies include shaded outdoor spaces, avoiding desks directly adjacent to busy circulation or façades, and careful control of signage and decoration.

D. PREVIEWING

Gaines conceptualises previewing as having transparency through a space. It involves providing views that allow users to anticipate what lies ahead before entering a space. Glimpses into adjacent rooms, having a multilevel layout that allows a person to view from above and aligned sightlines can help users prepare for upcoming sensory and social conditions.

3. ORIENTATION AND SPATIAL RECOGNTION

Orientation and spatial recognition refer to how a building helps users understand where they are, how spaces relate, and what to expect in each area. Clear anchors, thresholds and zoning support this sense of "knowing one's place" through central points of recognition and distinct yet coherent zones.



A. GRADED MOVEMENT OPPORTUNITIES

Graded movement opportunities concern the availability of different routes and speeds through a building, from calm to more active paths. By varying route width, enclosure and ceiling height, circulation can signal the intensity of the spaces it connects. Narrow, lower routes leading to quiet or focused areas, and broader, higher routes indicating social or active zones. This allows users to choose a path that matches their current sensory and social capacity.

B. LEGIBILITY

Legibility describes how easily a space can be understood and remembered. According to Kaplan, legible environments have clear structure and distinctive elements that help people find destinations and return to their starting point (Kaplan, 1989). Central points of recognition, such as a recognisable atrium or courtyard, act as anchors within this structure, enabling users to re-orient themselves and reducing anxiety about getting lost.

C. INTUITIVE LAYOUT

An intuitive layout builds on legibility by aligning spatial organisation with users' expectations and everyday decision-making. Channon describes in their book *'Happy by Design'* that more active facades featuring movement and patterns help in legibility (Channon, 2018). People constantly evaluate situations as more or less safe, pleasant or demanding; layouts that group related functions, clarify public–private transitions and avoid unnecessary dead ends support faster, low-effort evaluation. For neurodivergent users, such intuitive layouts reduce cognitive load and support a greater sense of control over movement and social exposure.

03 RESULTS

.2 CASE STUDY FINDINGS

This section adresses the sub-question

How are the three sensory themes (sensory balance, visual clarity and wayfinding, and orientation and spatial recognition) currently addressed in selected case studies?

and examines how the three sensory themes are implemented in the selected case studies, to refine the preliminary design guidelines. To answer this, both case studies are introduced and will have a plan showcasing the found spatial implementations.

Across the two case studies, thirty-three spatial implementations of the three themes were identified. A subset of these recurred in both projects, suggesting robust strategies, while others appeared as context-specific but still instructive examples.

WHY THESE CASE STUDIES

To understand how sensory processing is incorporated into contemporary architecture, reference projects that dealt with this issue were researched (see appendix a). This search immediately reinforced the problem, because the few projects that do deal with this issue are often primary schools or nurseries. The emerging awareness of the importance of the environment in which children grow up is very positive, but why do we assume that once we reach adulthood, we no longer need this environment?

SYNTHESISED

The difficulty in finding these projects contributes to the problem. As a result, the typologies of the case studies are varying and different aspects are taken from each project. The synthesised approach, combining these aspects into a new typology, is what makes this project unique.

CASE STUDIES

INTRODUCTION

The two case studies that are being analysed are a school and a museum. IKC Prins Constantijn in Leeuwarden was chosen for its interesting spatial layout, both in terms of floor plan and vertical organisation. Museum Singer in Laren was chosen for its interesting use of materials, the proportions of the space and its clear wayfinding.

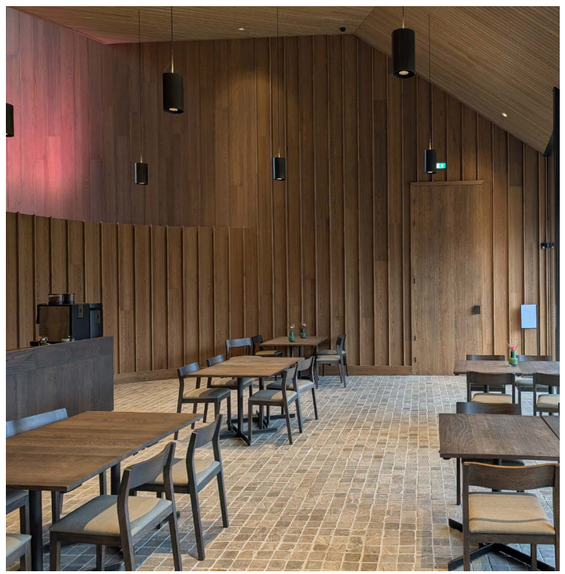
The focus of the school is on exploring the central common space, around which all the classrooms are arranged. The aim is to understand how they have ensured that children can always recognise where they are, whether through a distinctive staircase or varying ceiling heights.

At the museum, the focus is more on the use of materials, the transition from the museum area to the garden café, and the proportions of this space. A cross-section model will also be made of this section, so the proportions of the concealed window and the tall door can be analysed and see how it affects the experience of the space.

ANALYSIS

The spatial themes will be analysed by examining floor plans and cross-sections and by creating scale models. These spatial themes manifest themselves in various ways and can be seen on the floor plans, indicated by numbers and letters. The numbers refer to the three spatial themes from which they originate. A few of these guidelines are then highlighted using axonometric drawings or photographs of the scale models.

IKC Prins Constatijn, Leeuwarden

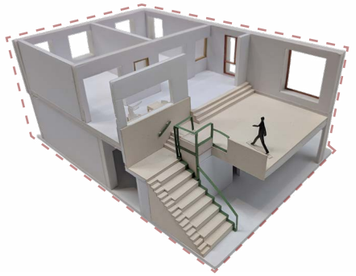


Museum Singer, Laren

CASE STUDY 1:
IKC PRINS CONSTANTIJN

DE ZWARTE HOND & STUDIO NAUTA, LEEUWARDEN, NL

This monumental school building from the 1920s has been transformed into an integrated childcare centre, combining a primary school and a nursery. The building is organised around a number of learning clusters, with programmes ranging from collaboration and play to concentration and rest. The interior has a natural and tranquil feel thanks to the use of wood and brickwork. The striking green staircase forms the heart of the new school, where all ages come together under a large skylight.

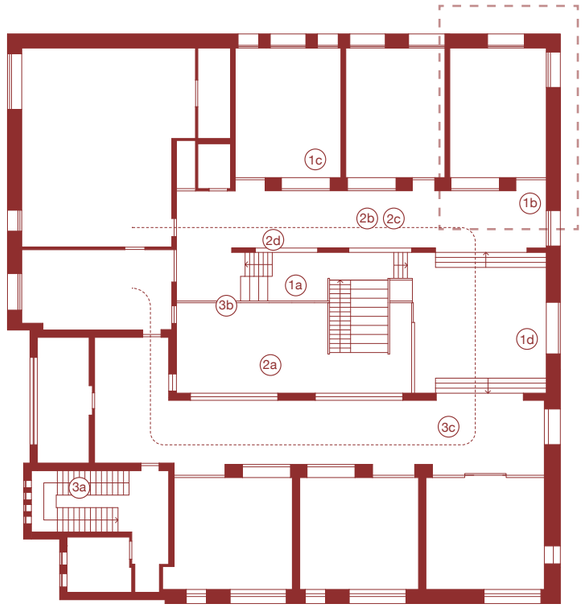


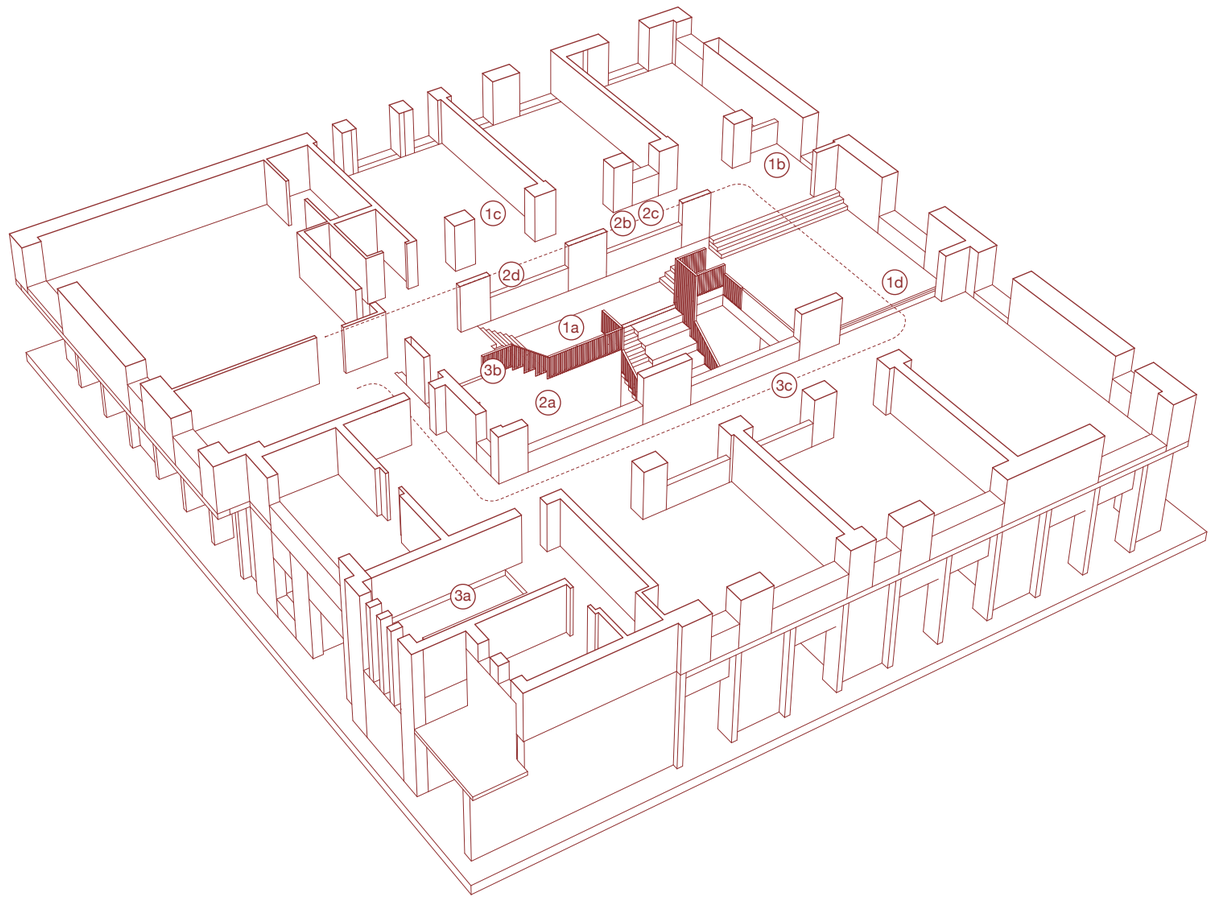
LEGEND

1a: Staggered volumes
1b: Tactile and natural materials
1c: Rhythms of elements
Filtered light and shadow (skylight)
Low contrast colour scheme
1d: Views to nature

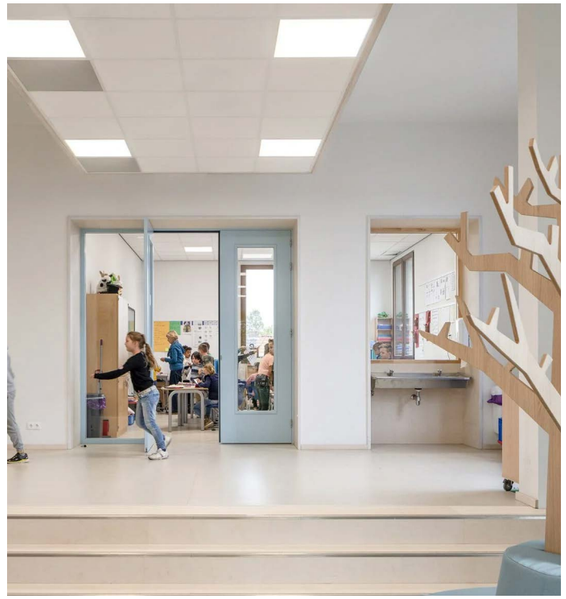
2a: Hierarchy of spaces
Wayfinding cues
Ceiling height variety
2b: Symmetrical floorplans
2c: Workspaces not near circulation area (1st floor)
Workspaces on higher ground
2d: View from above
Glimpses into adjacent rooms

3a: Calm vs. active routes
3b: Distinctive features (bright coloured railing or doorframe)
3b: Central points of recognition
3c: Flow-oriented circulation

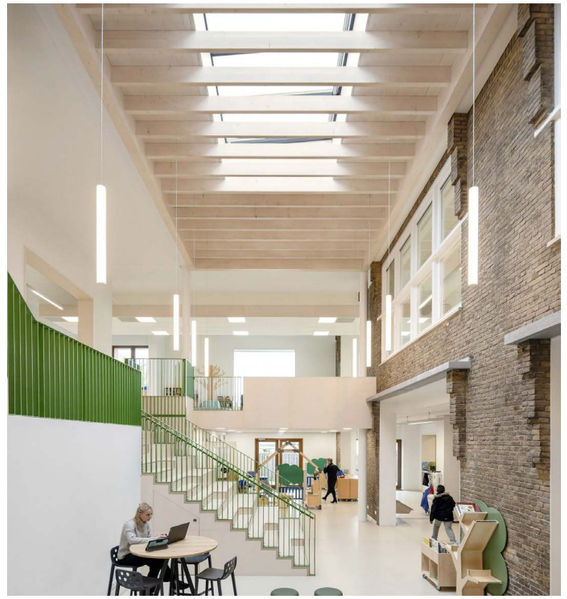




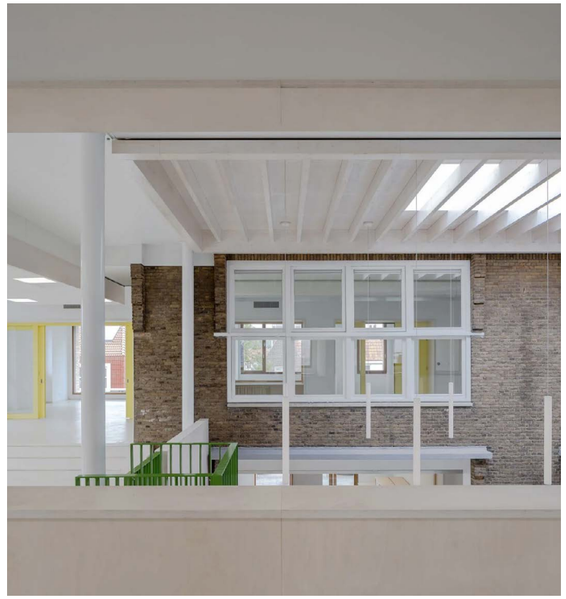
CASE STUDY 1:
IKC PRINS CONSTANTIJN



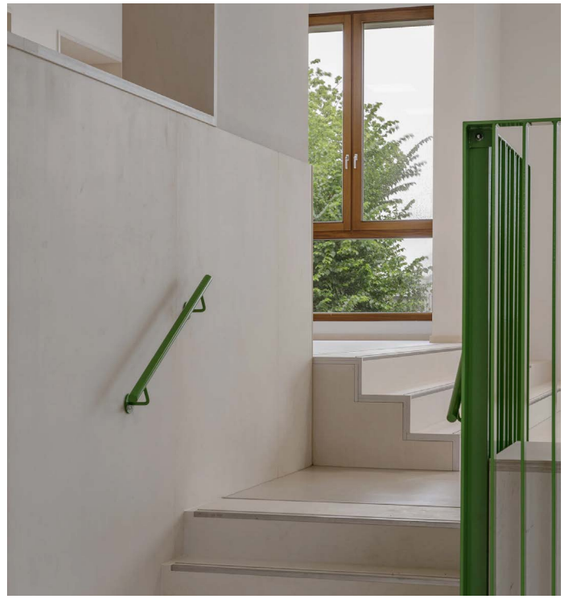
1b. Low-contrast colour schemes:
Minimize visual noise by using soft, low-contrast palettes.



2a. Ceiling height variety:
Distinguish between public and private zones by adding spatial thresholds.



2d. View from above:
Create opportunities to view spaces from a higher level, to maximize control of contact.

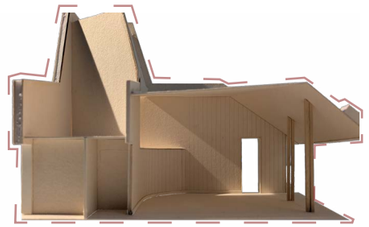


3b. Distinctive features:
Use small, high-contrast highlights (e.g., bright coloured railing or doorframe) to mark key navigation points without cluttering the whole space.

CASE STUDY 2:
MUSEUM SINGER

BEDAUX DE BROUWER ARCHITECTEN, LAREN, NL

A seamless transition between the existing building and its extension. Bedaux de Brouwer Architects have designed two new museum rooms and a garden room in a modest but atmospheric style. The new wing embraces the garden completed by Piet Oudolf. Its roof matches the original architecture and, thanks to its sloping design, creates the same gentle transition to the garden. The garden room is characterised by a chimney with a high window frame that provides soft light from above. A second framed window, on the gallery, once again provides a striking focus on the garden. The interior of the garden room has a warm appearance thanks to the oak panelling, which continues in the frames and skirting boards. The extension and renovation have brought tranquillity and unity to the museum complex.

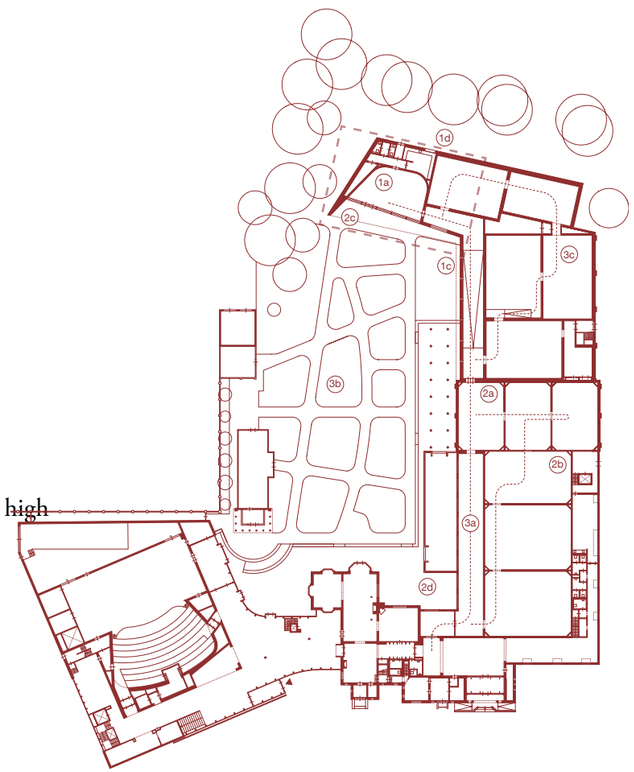


LEGEND

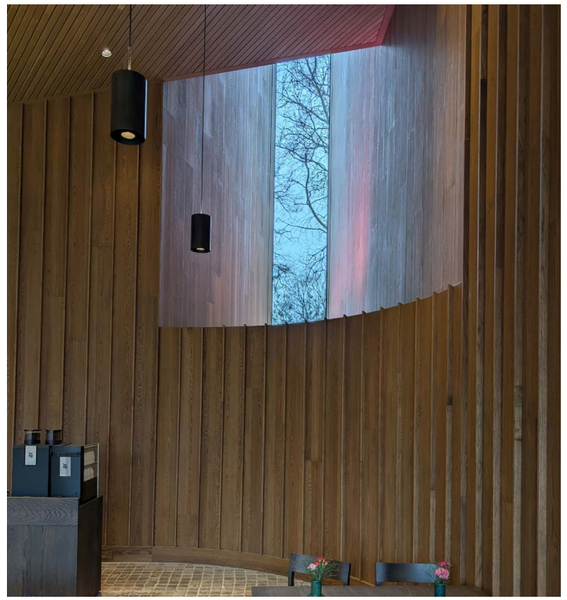
1a: Staggered volumes
Sound-absorbing materials
Rounded surfaces
1b: Tactile and natural materials
Material transition
1c: Rhythms of elements (openings)
Low contrast colour scheme
Filtered light and shadow
1d: Views to nature

2a: Clear transitions (large door)
Ceiling height variety (layered thresholds)
Transition from a quiet to a busy area
2b: Repeated use of the same dimension
2c: Shaded outdoor space
Clear signage as decoration
Filtered light & shadow (indirect contact with high window)
2d: Glimpses into adjacent rooms and garden
Aligned sightlines

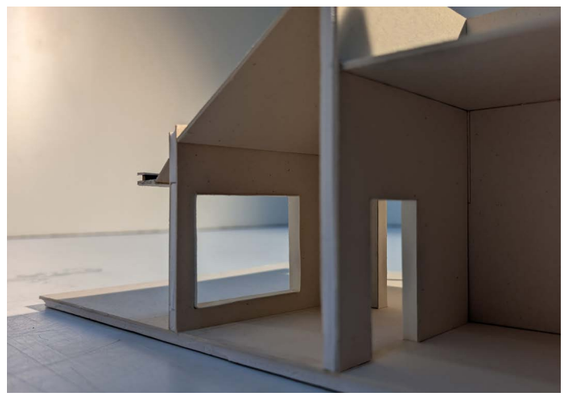
3a: Varying route width
3b: Central points of recognition
3c: Flow-oriented circulation
Layouts with grouped related functions



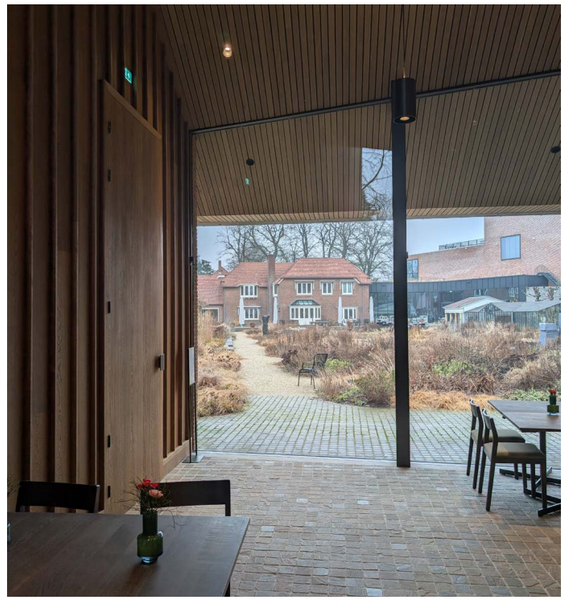
CASE STUDY 2:
MUSEUM SINGER



1c. Filtered light and shadow:
Use skylights, baffles, or indirect light to soften glare and provide gentle variation.



1d. Views to nature:
Integrate visual connections to green spaces to provide a low-demand, restorative focal point.



2d. Glimpses into adjacent rooms and garden:
Strategically placed openings (e.g., glimpses into the garden or adjacent rooms) allow for previewing spaces.

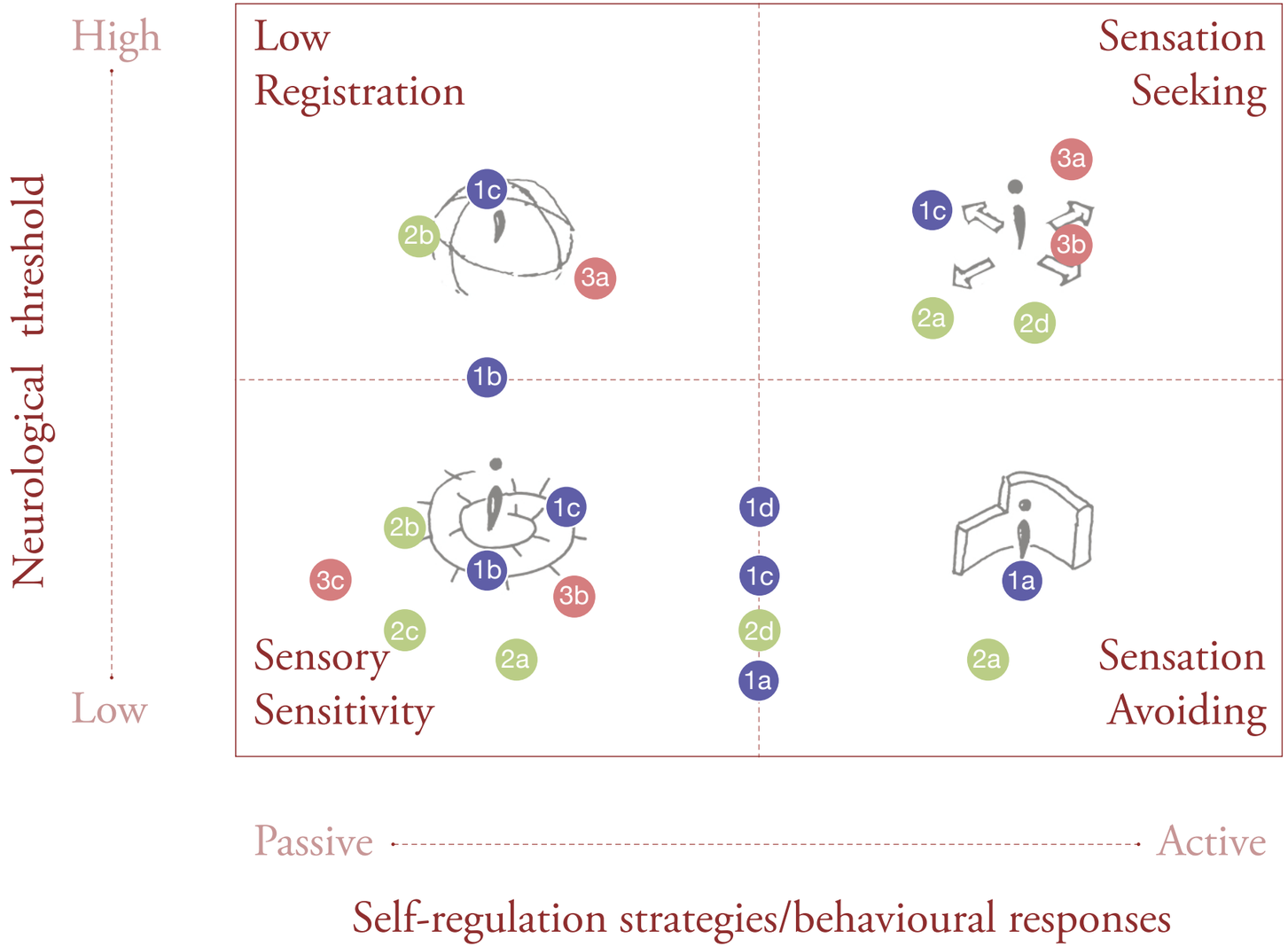
2d. Aligned sightlines:
Creating aligned sightlines helps reduce cognitive load by introducing repetition and supporting spatial recognition.

DUNN'S MODEL OF SENSORY PROCESSING

How can the recurring aspects from the case study analysis be mapped onto Dunn's model of sensory processing (sensation seeking, sensory avoiding, sensory sensitivity and low registration)?

The adjacent table shows where the identified themes are positioned on Dunn's sensory processing scale. Most themes cluster around sensory sensitivity. To ensure that all four types feel comfortable in the built environment, it is necessary to provide choice. A building that offers quiet spaces must also include open, lively areas.

The complete list of guidelines can be found in Appendix B. Mapping the themes onto Dunn's model confirms the assumption that, in practice, most spatial strategies primarily respond to the sensory sensitive type.



- 1. Sensory balance
- 2. Visual clarity and wayfinding
- 3. Orientation and spatial recognition

CONCLUSION

1. Sensory balance
Both case studies confirm that a consistently low-contrast colour scheme, the use of natural materials and rhythm in elements are common strategies to regulate sensory load. IKC Prins Constantijn uses the same materials more consistently, whereas Museum Singer, due to its function as a museum, has only used natural materials in the garden café. These strategies align closely with recommendations in Gaines et al. and PAS 6463, reinforcing the relevance of graded sensory conditions rather than uniform calmness.

2. Visual clarity and wayfinding
Both projects rely on wayfinding cues, repeated use of the same dimensions, opportunities for previewing adjacent rooms and ceiling height variety to reduce cognitive effort in wayfinding and legibility. Additional measures, such as a shaded outdoor space present in the Museum Singer, eliminate high-level contrast for a low-stimulus retreat. Again, this corresponds with the literature's emphasis on predictability, sameness and visual consistency as key to lowering uncertainty.

3. Orientation and spatial recognition
Central points of recognition, such as an atrium or inner courtyard, combined with zoning of calm and active areas, were evident in both precedents, while graded movement routes appeared more strongly in IKC Prins Constantijn. These elements make it easier for users to form a mental map and to choose routes that match their sensory needs.

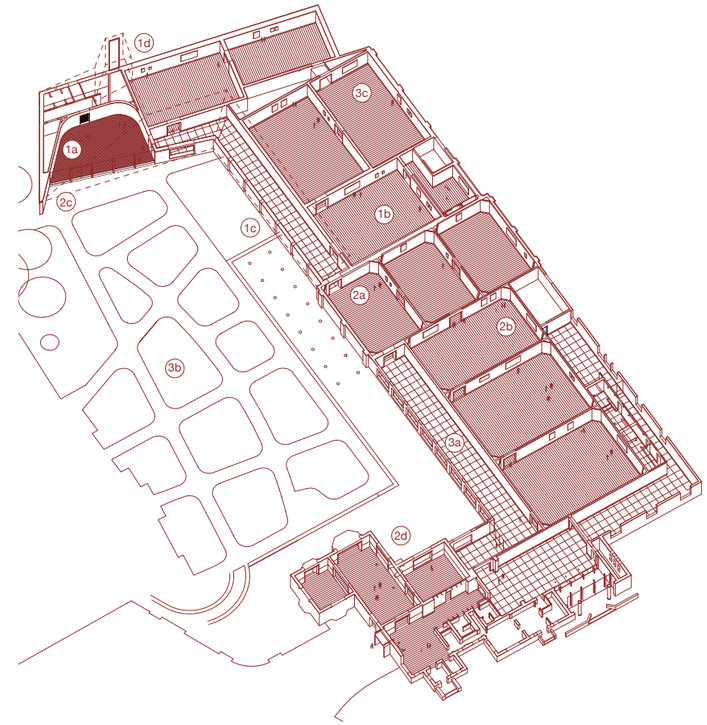
LIMITATIONS

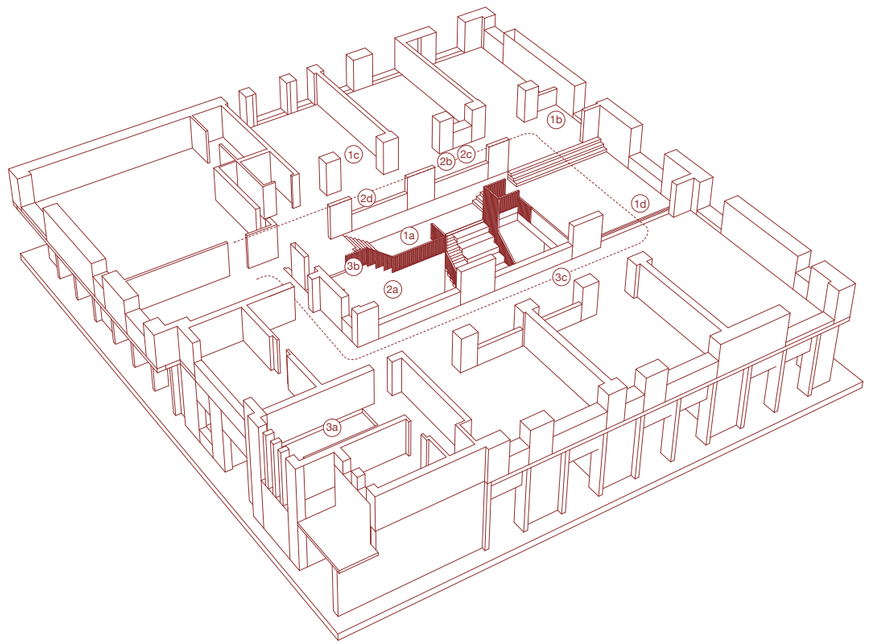
This study is based on the analysis of only two case studies, which limits the breadth of the findings and means that the outcome is inevitably influenced by my own perspective as a designer. Analysing more case studies would likely have produced different results by broadening the range of spatial strategies and reducing individual interpretation.

Because the research focused on a school and a museum, the identified spatial themes are also shaped by the specific characteristics of these building types. For example, the role of privacy in a public building differs significantly from that in a domestic setting, which means that an analysis of a group housing project, such as supported living, could have have been a valuable addition to the study.

At the same time, increasing the number of case studies would also have reduced the influence of my own perspective. In this research, that perspective was essential, as my position as a neurodivergent designer helped me identify spatial themes that affect sensory processing. However, this also required me to remain aware of the possibility that my own sensory profile may have influenced the analysis, particularly as I may be more closely aligned with the sensory sensitive type than with the sensation seeking type. To mitigate this, the findings were continuously checked against the literature and the sensory processing model.

Future research could therefore benefit from including a wider range of building typologies, such as supported housing or other semi-private environments, to test whether the identified themes remain valid across different contexts.





03 RESULTS

.3 GUIDELINES

The complete list of guidelines is presented below, intended for designers seeking to develop more inclusive architectural solutions.

1. Sensory Balance
Focuses on managing sensory input intensity through architectural modulation.

Staggered volumes & rounded surfaces: Use building geometry to shield areas and soften harsh visual/physical edges.

Tactile & natural materials: Apply a consistent palette with natural textures to provide a calming, predictable sensory baseline.

Material transitions: Use changes in floor/wall finish to signal thresholds between functional zones.

Sound-absorbing materials: Incorporate acoustic panels or soft finishes to reduce reverberation and ambient noise.

Rhythms of elements: Create predictable visual repetition (e.g., column spacing) to structure the space.

Filtered light & shadow: Use skylights, baffles, or indirect light to soften glare and provide gentle variation.

Low-contrast colour schemes: Minimize visual noise by using soft, low-contrast palettes.

Views to nature: Integrate visual connections to green spaces to provide a low-demand, restorative focal point.

2. Visual Clarity & Wayfinding
Focuses on legibility and predictability to reduce cognitive load.

Hierarchy of spaces & clear transitions: Use large door openings, layered thresholds, and varied ceiling heights to distinguish between quiet and busy zones.

Wayfinding cues & signage: Integrate signage as architectural decoration or intuitive pathfinding elements.

Symmetrical floorplans: Use symmetry where possible to enhance spatial orientation.

Sightlines & glimpses: Use aligned sightlines and strategically placed openings (e.g., glimpses into the garden or adjacent rooms) to allow for previewing spaces.

S**patial separation:** Position work zones away from high-traffic circulation (e.g., on higher floors or buffered zones) to ensure focus.

View from above: Create opportunities to view spaces from a higher level, to maximize control of contact.

3. Orientation & Spatial Recognition
Focuses on navigation and user agency in choosing routes.

Central points of recognition: Establish a clear anchor (like a central garden or lobby) that acts as the primary reference point.

Flow-oriented circulation: Organize layouts with grouped related functions to create logical, intuitive routes.

Calm vs. active routes: Provide multiple, width-varying routes, allowing users to choose the path that matches their sensory capacity.

Distinctive features: Use small, high-contrast highlights (e.g., a specific coloured doorframe) to mark key navigation points without cluttering the whole space.

PART B

APPLICATION

DEFINING THE THIRD SPACE

A poet by Donald Hall, written for his wife of 23 years about the third thing:

"What we did: love. We did not spend our days gazing into each other's eyes. We did that gazing when we made love or when one of us was in trouble, but most of the time our gazes met and entwined as they looked at a third thing. Third things are essential to marriages, objects or practices or habits or arts or institutions or games or human beings that provide a site of joint rapture or contentment."

The essence of this 'third thing', to provide a togetherness, also applies to the built environment in the form of distinctive informal public gatherings.
'The Third Place', a term introduced by Ray Oldenburg in his book *"The Great Good Place"* (1989) is a social environment outside the home (first place) and work (second place).

The significance of this third place lies in the freedom it offers. People can come and go as they please, nobody is obliged to play host, and everyone feels at home, to reduce individuals to an equal ground.

"IN ORDER FOR THE CITY AND ITS NEIGHBORHOODS TO OFFER THE RICH AND VARIED ASSOCIATION THAT IS THEIR PROMISE AND THEIR POTENTIAL, THERE MUST BE *NEUTRAL GROUND* UPON WHICH PEOPLE MAY GATHER"

- RAY OLDENBURG

04 PROGRAMME AND BRIEF

PROGRAMME

A library is one of the few “third spaces” that is freely accessible. It is a place where people of all ages and backgrounds come together. Where all kinds of relationships are nourished and diversity in human contact is encouraged (Oldenburg, 2023). It is the most anti-capitalist form of public space. A place where you can sit without anything being expected of you, where you don’t have to order coffee to be allowed to study. You can walk in anonymously and stay as long as you like. No one looks at you and wonders why you’ve been sitting there for five hours.

It is the search for these unwritten rules and for the changing meaning of a library. The need for this physical accessibility, combined with psychological accessibility, makes it so important for the neurodivergent user. Current libraries have this anonymity and freedom, but are often large spaces with small corners where you can get lost as a neurodivergent user. This results in the challenge of how we can renew this typology to a new, equally meaningful accessibility, but on a smaller scale.

The combination of this accessible “third space” and the importance to all feel at home and comfortable, is why this library typology will be translated to a common house.

THE COMMON HOUSE

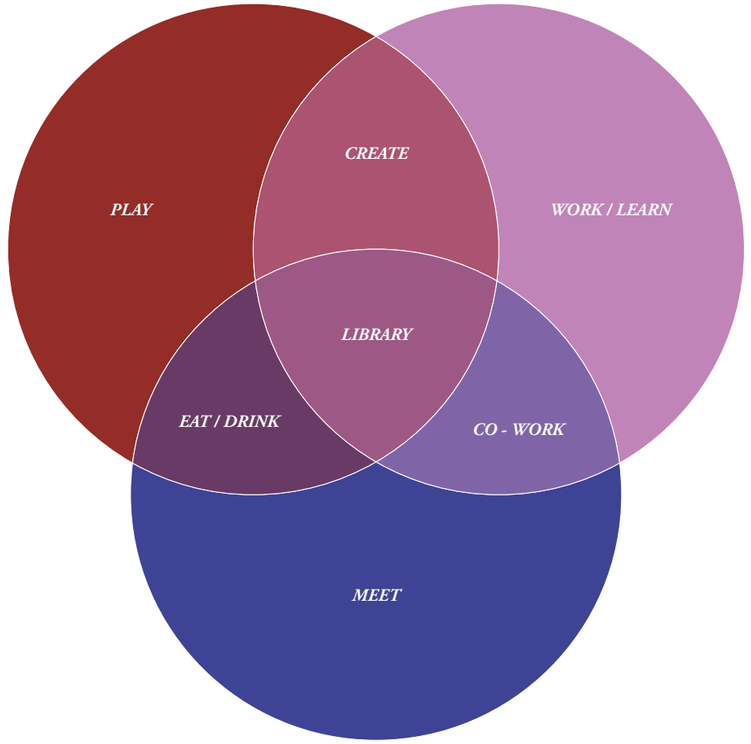
Here, ‘common’ has a double meaning: ordinary and communal. The first refers to the normalisation of neurodivergence as a constitutive part of human diversity and the latter refers to fostering these environments that genuinely accommodate ‘everyone’.

‘House’ refers to the importance of the building creating a homely atmosphere, to make people feel at home and thus become a *neutral ground* where people can gather and meet.

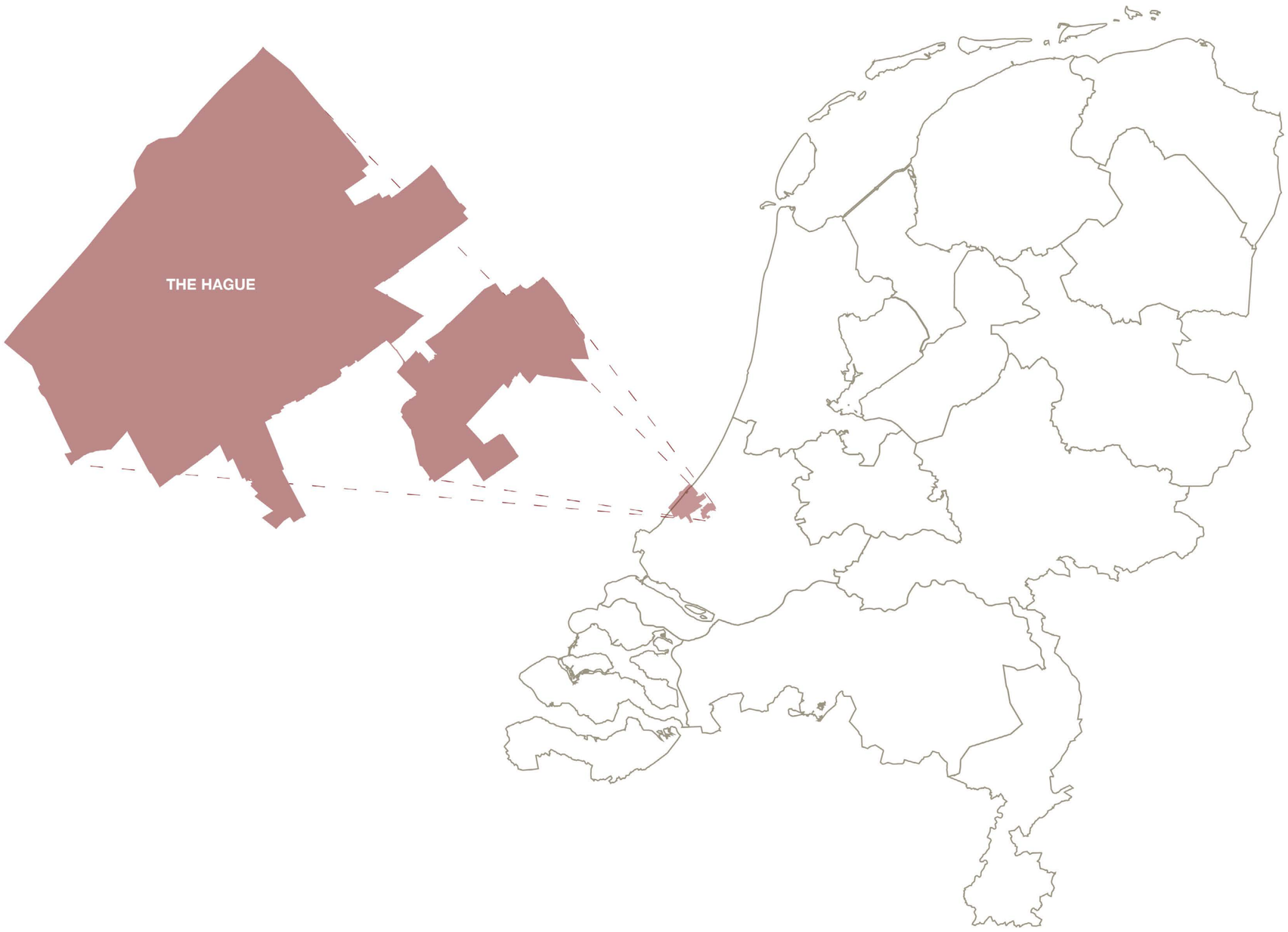
Meeting is one of the three functions of the common house. Playing and working are the other two. All three will be distributed equally throughout the site, so that visitors have various reasons and options for visiting it.

MAKING SPACE FOR ALL MINDS

The three leading themes from the research, sensory balance, visual clarity and wayfinding, and orientation and spatial recognition have informed the spatial guidelines. In the design, these themes are further refined into **predictability, choice, and legibility**: the architectural qualities that provide conditions for different sensory types to regulate their sensory experience.

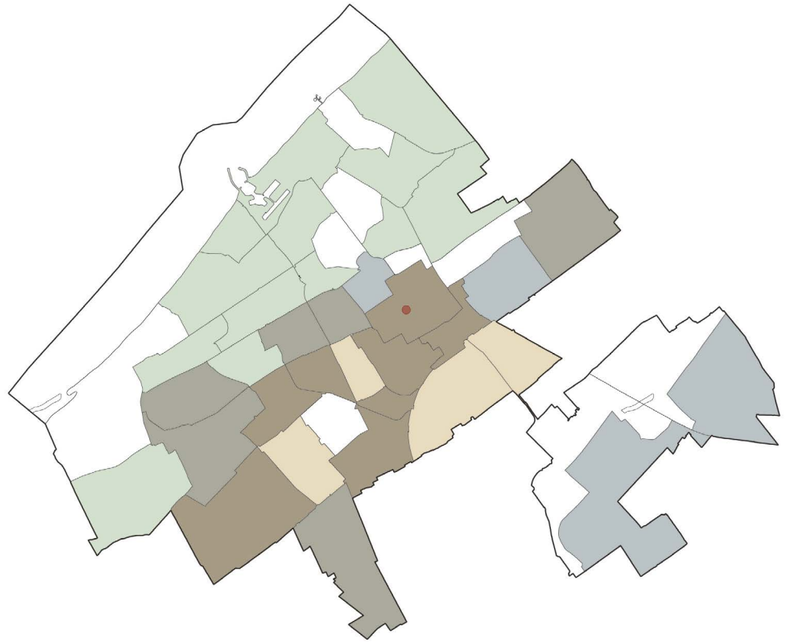


05 SITE: THE HAGUE

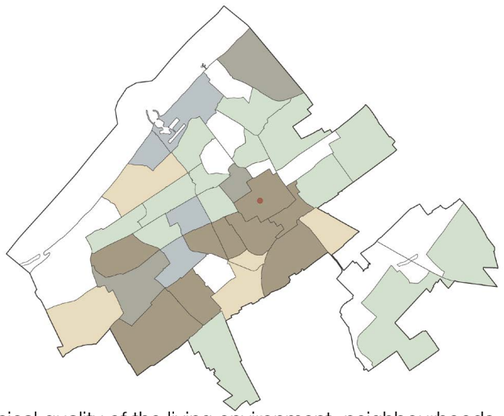


URBAN ENVIRONMENT

The project will be situated in The Hague, where the dense urban environment makes quiet spots scarce. The project is centrally located in the big city, making it easier to reach for neurodivergent users with diverse sensory profiles. It should therefore be along understandable streets, with clear access and reachable by public transport. The design is not exclusively for neurodivergent users, but creates inclusive environments where neurodiverse individuals can meet others or study in settings tailored to their sensory preferences.



Social Cohesion, neighbourhoods of the Hague (DHIC/Veiligheidsmonitor, 2023)

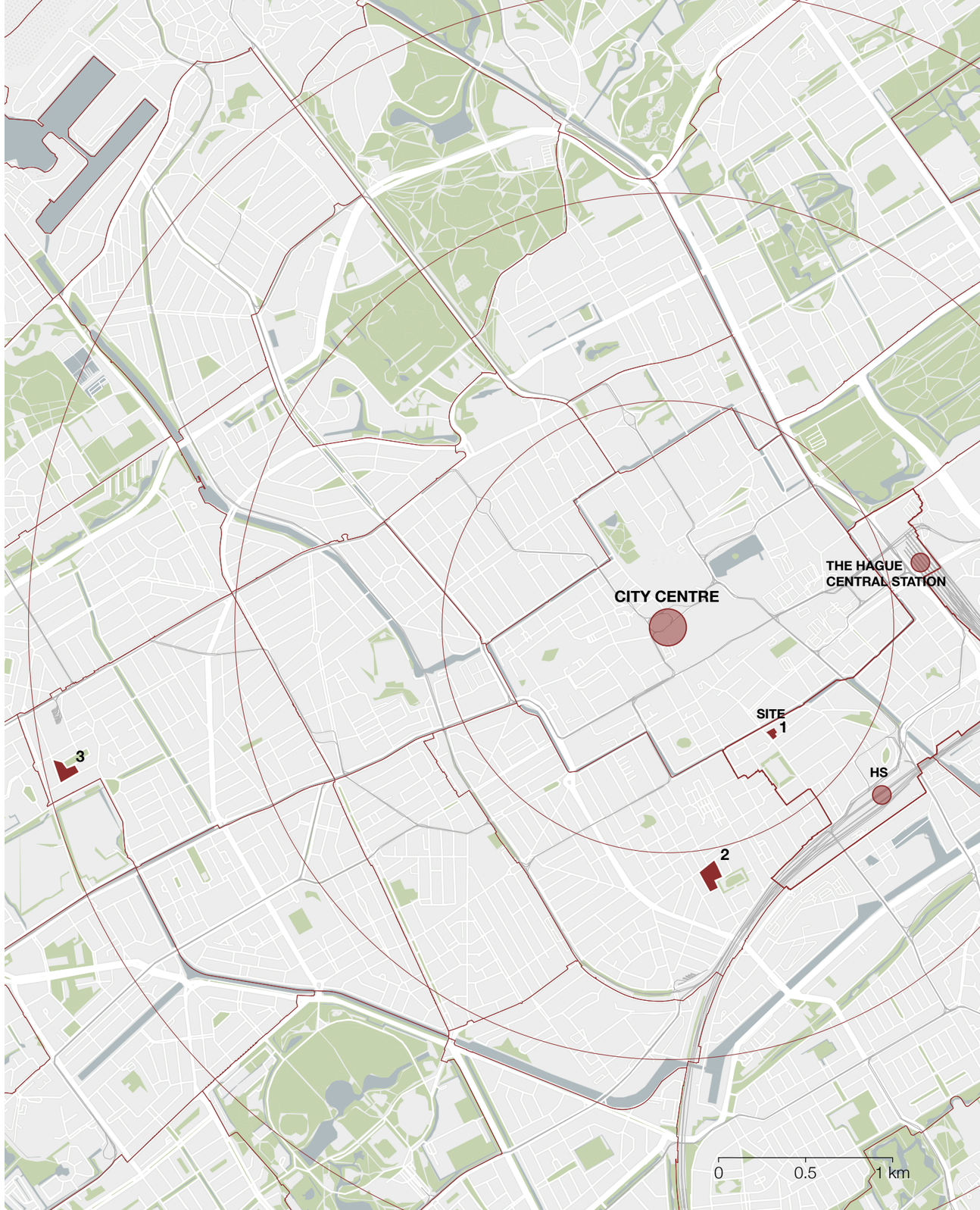


Physical quality of the living environment, neighbourhoods of the Hague (DHIC/Veiligheidsmonitor, 2023)

SOCIAL AND PHYSICAL QUALITY

According to the DHIC and Veiligheidsmonitor, the neighbourhoods close to the city centre have a poor score, based on a grade of 1 – 10, regarding the physical quality and the social cohesion. Therefore, it seemed challenging to find a plot located in the following neighbourhoods:

1. Stationsbuurt
2. Schildersbuurt
3. Valkenboskwartier



DESIGN LOCATION

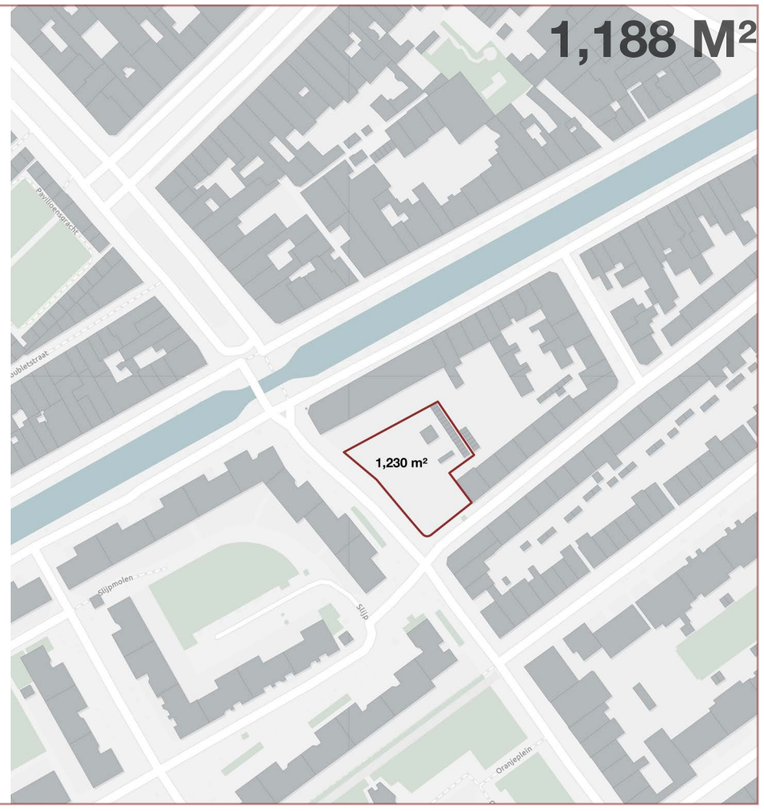
LOCATION

The Spinozahof neighbourhood scores poorly in terms of social cohesion. The Common House could improve this score by creating a neutral space where everyone can come together. The same applies to the other two locations, but because Spinozahof is so centrally located (between two stations) and is closest to the centre of The Hague, it has been chosen as the site for the design. The size of the plot also plays a role; to create a homely atmosphere, a small-scale approach is desirable.

01. SPINOZAHOF

~1 km from the City Centre
Neighbourhood: Stationsbuurt
Plot: empty

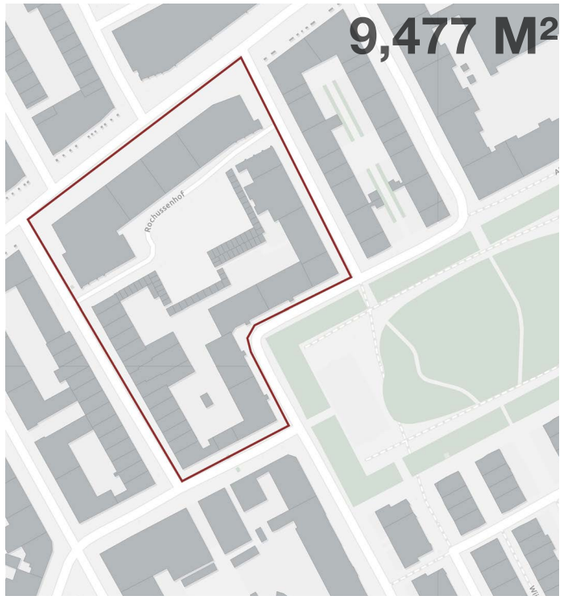
Physical quality of the living environment: 6,2 < 6,4
Social Cohesion: 5,2 < 5,6



02. ROCHUSSENHOF

~2 km from the City Centre
Neighbourhood: Schildersbuurt
Plot: parkinglot in between houses
design proposals are ongoing via platform STAD

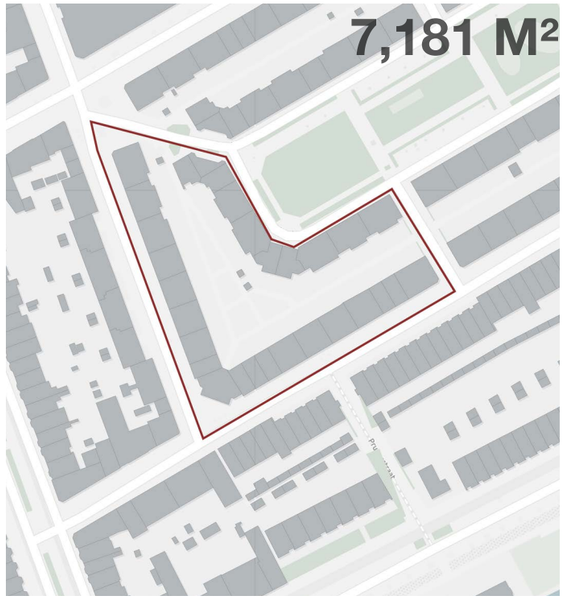
Physical quality of the living environment: 6,2 < 6,4
Social Cohesion: 5,2 < 5,6



03. WEIGELIAPLEIN

~3 km from the City Centre
Neighbourhood: Valkenboskwartier
Plot: To be demolished

Physical quality of the living environment: 6,6 < 6,8
Social Cohesion: 5,6 < 6,0

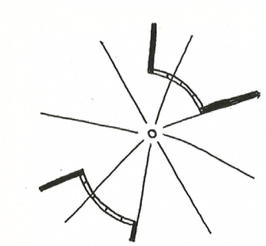


06 DESIGN TRANSLATION

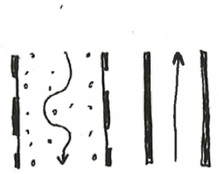
INCORPORATED GUIDELINES

INCORPORATED GUIDELINES

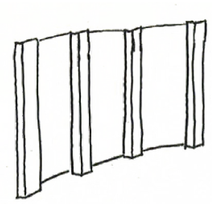
In the design for The Hague, the guidelines from Part A are not treated as abstract principles, but as spatial strategies that shape the organisation of the building. The case study findings are therefore translated into a specific architectural response tailored to the site and programme. These strategies were the base for the design of the Common House.



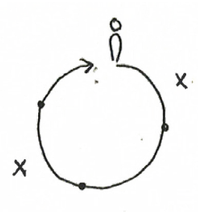
Courtyard as central point of recognition



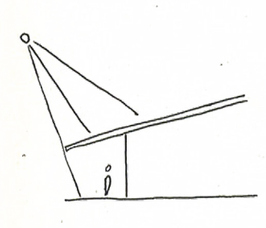
Graded movement opportunities



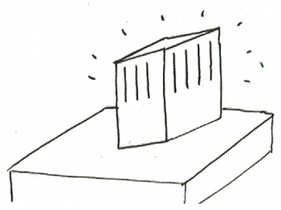
Rhythms of elements



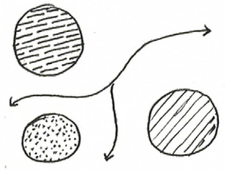
Flow oriented circulation



Shaded outdoor space

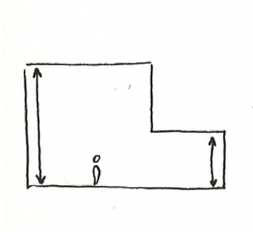


Beacon as recognition



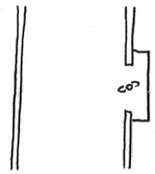
Grouped related functions

Views of nature

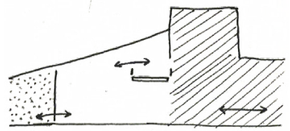


Ceiling height variety

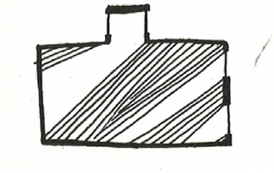
Tactile and warm materials



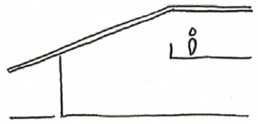
Escape spaces



Spatial transistions



Filtered light and shadow



Previewing

Publicity gradient

DESIGN TRANSLATION
THE COMMON HOUSE

OWN DESIGN, THE HAGUE, NL

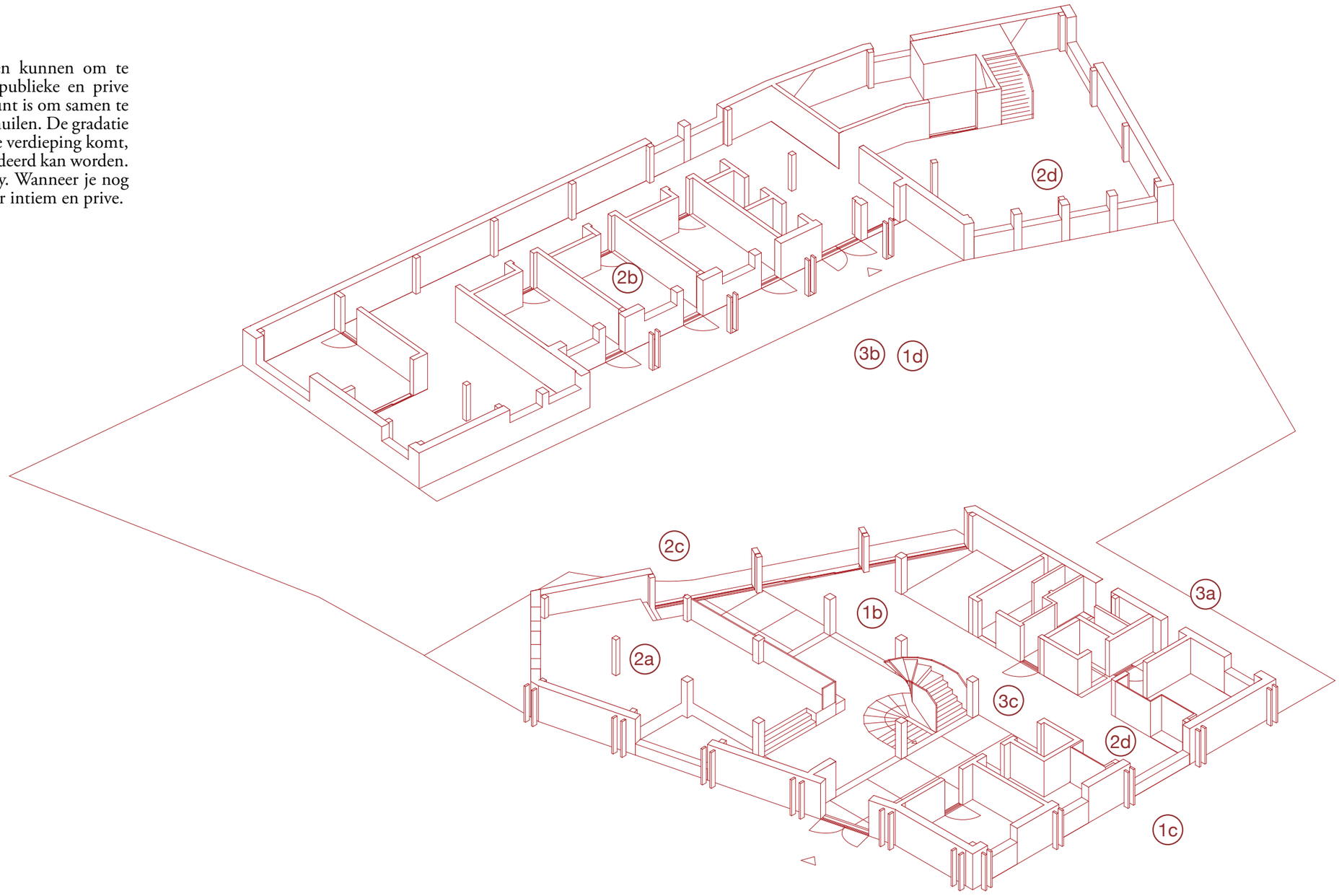
The Common house is een plek waar individuals heen kunnen om te studeren, ontmoeten of spelen. Er is een variatie aan publieke en prive plekken. De centrale toren geeft aan dat dit een middelpunt is om samen te komen. Maar er zijn ook grote ramen waar je je kan verschuilen. De gradatie van publiek naar prive is verticaal. Wanneer je op de eerste verdieping komt, is een wat meer besloten boekenkast te vinden, waar gestudeerd kan worden. Ook zijn hier kleine cubicles te vinden voor meer privacy. Wanneer je nog een verdieping omhoog worden de werkplekken nog meer intiem en prive.

LEGEND

1b: Tactile and natural materials
1c: Rhythms of elements
Filtered light and shadow (skylight)
1d: Views of nature

2a: Hierarchy of spaces
Wayfinding cues
Clear transitions (large door)
Ceiling height variety (layered thresholds)
Transition from a quiet to a busy area
2b: Symmetrical floorplans
2c: Workspaces not near circulation area (1st floor)
Shaded outdoor space
2d: View from above
Glimpses into adjacent rooms and garden

3a: Calm vs. active routes
3b: Central points of recognition
Distinctive features
Layouts with grouped related functions
3c: Flow-oriented circulation



DESIGN TRANSLATION
THE COMMON HOUSE

OWN DESIGN, THE HAGUE, NL

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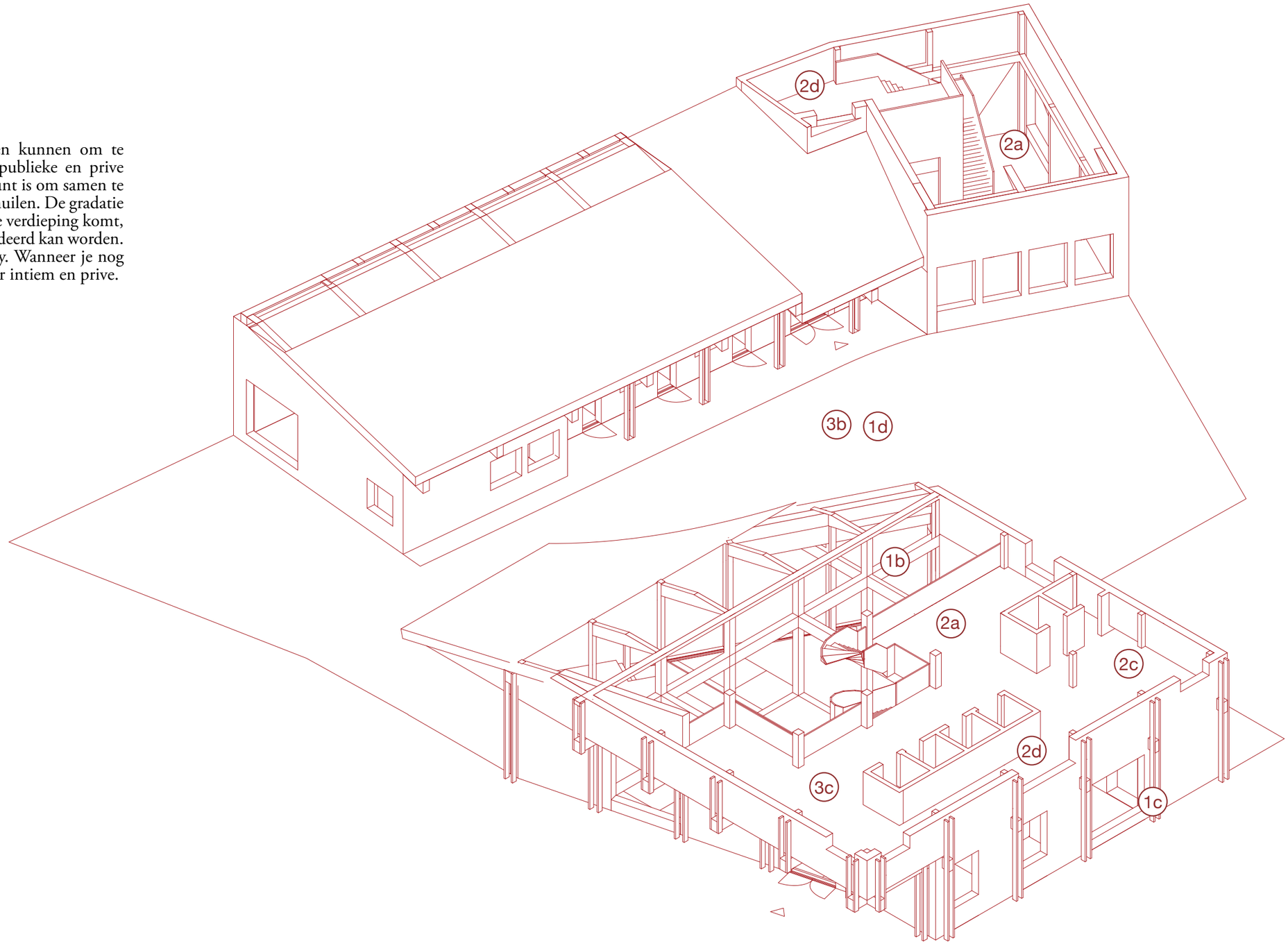
LEGEND

1b: Tactile and natural materials
1c: Rhythms of elements
    Filtered light and shadow (skylight)
1d: Views of nature

2a: Hierarchy of spaces
    Wayfinding cues
    Clear transitions (large door)
    Ceiling height variety (layered thresholds)
    Transition from a quiet to a busy area
2b: Symmetrical floorplans
2c: Workspaces not near circulation area (1st floor)
    Shaded outdoor space
2d: View from above
    Glimpses into adjacent rooms and garden

3a: Calm vs. active routes
3b: Central points of recognition
    Distinctive features
    Layouts with grouped related functions
3c: Flow-oriented circulation



DESIGN TRANSLATION
THE COMMON HOUSE

OWN DESIGN, THE HAGUE, NL

The Common house is een plek waar individuals heen kunnen om te studeren, ontmoeten of spelen. Er is een variatie aan publieke en prive plekken. De centrale toren geeft aan dat dit een middelpunt is om samen te komen. Maar er zijn ook grote ramen waar je je kan verschuilen. De gradatie van publiek naar prive is verticaal. Wanneer je op de eerste verdieping komt, is een wat meer besloten boekenkast te vinden, waar gestudeerd kan worden. Ook zijn hier kleine cubicles te vinden voor meer privacy. Wanneer je nog een verdieping omhoog worden de werkplekken nog meer intiem en prive.

LEGEND

1b: Tactile and natural materials
1c: Rhythms of elements
Filtered light and shadow (skylight)
1d: Views of nature

2a: Hierarchy of spaces
Wayfinding cues
Clear transitions (large door)
Ceiling height variety (layered thresholds)
Transition from a quiet to a busy area
2b: Symmetrical floorplans
2c: Workspaces not near circulation area (1st floor)
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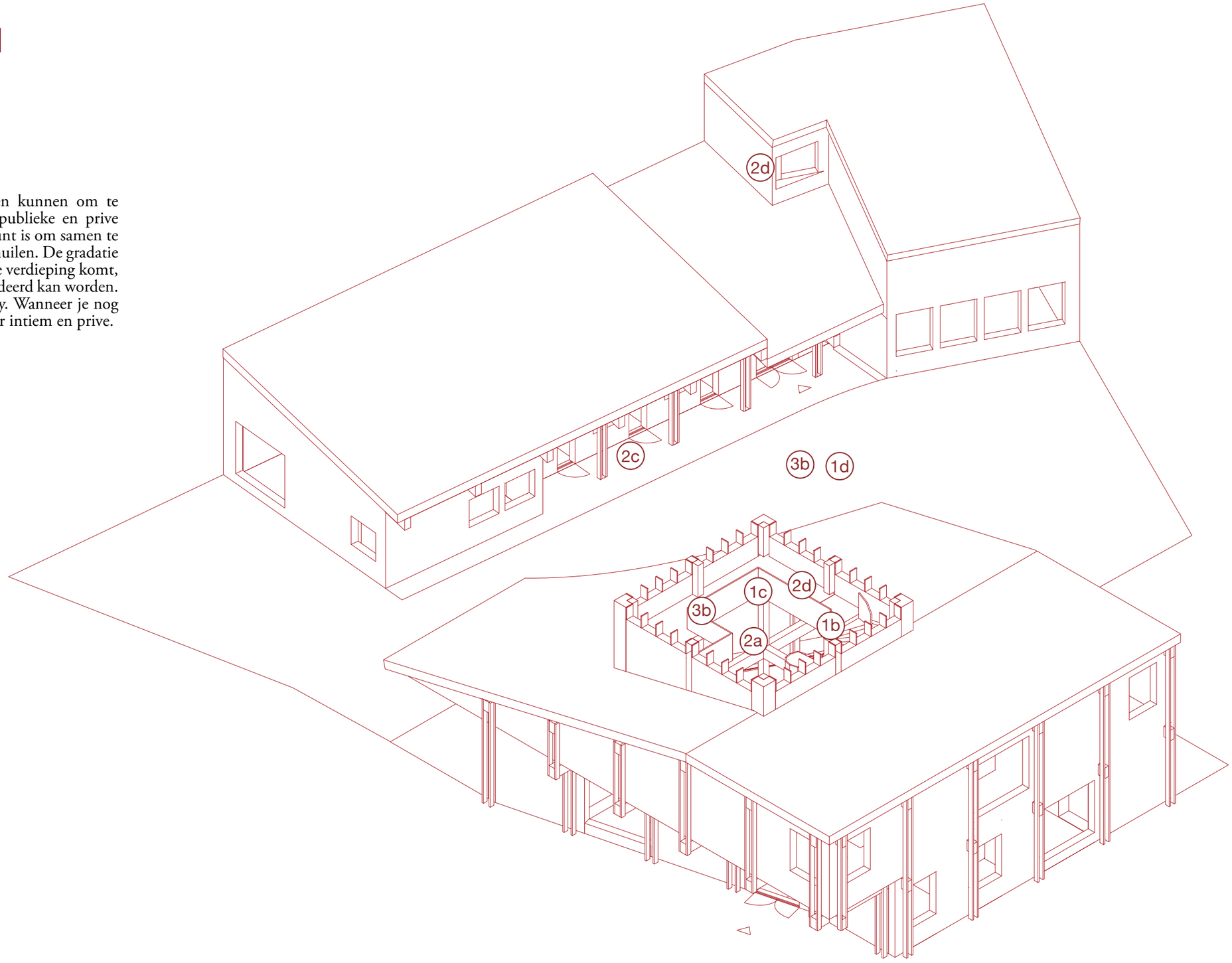


07

REFERENCES

REFERENCES

Articles

Chapman, R., and M. Botha. *"Neurodivergence-Informed Therapy."* Developmental Medicine & Child Neurology, vol. 65, no. 3, 2023, pp. 310–17, https://doi.org/10.1111/dmcn.15384.

Dunn, Winnie. *"Supporting Children to Participate Successfully in Everyday Life by Using Sensory Processing Knowledge."* Infants & Young Children, vol. 20, no. 2, 2007, pp. 84–101, https://doi.org/10.1097/01.IYC.0000264477.05076.5d.

Gaines, K., Bourne, A., Pearson, M. et al. *A Sensory Approach to Design: Inclusive Principles*. J Autism Dev Disord (2025). https://doi-org.tudelft.idm.oclc.org/10.1007/s10803-025-07156-5

Hughes, J. M. F. *Nothing About Us Without Us: Increasing Neurodiversity in Disability and Social Justice Advocacy Groups*. Autistic Self Advocacy Network, 2016, autisticadvocacy.org/wp-content/uploads/2016/06/whitepaper-Increasing-Neurodiversity-in-Disability-and-Social-Justice-Advocacy-Groups.pdf.

Lübke, K. T., and B. M. Pause. *"Always Follow Your Nose: The Functional Significance of Social Chemosignals in Human Reproduction and Survival."* Hormones and Behavior, vol. 68, 2015, pp. 134–44, https://doi.org/10.1016/j.yhbeh.2014.10.001.

White, S. W., et al. *"Social-Cognitive, Physiological, and Neural Mechanisms Underlying Emotion Regulation Impairments: Understanding Anxiety in Autism Spectrum Disorder."* International Journal of Developmental Neuroscience, vol. 39, 2014, pp. 22–36, https://doi.org/10.1016/j.ijdevneu.2014.05.012.

Books

Alexander, Christopher, et al. *A Pattern Language: Towns, Buildings, Construction.* Oxford UP, 1977.

Boys, Jos. *Doing Disability Differently: An Alternative Handbook on Architecture, Dis/ability and Designing for Everyday Life*, Taylor & Francis Group, 2014. ProQuest Ebook Central, https://ebookcentral-proquest-com.tudelft.idm.oclc.org/lib/delft/detail.action?docID=1694646.

Boys, Jos, editor. *Disability, Space, Architecture: A Reader*. Routledge, Taylor & Francis Group, 2017, https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1470053.

Channon, Ben. *Happy by Design: A Guide to Architecture and Mental Wellbeing*. 2nd ed., RIBA Publishing, 2023.

Gaines, Kristi, et al. *Designing for Autism Spectrum Disorders*. Routledge, 2016, https://doi.org/10.5040/9781315856872.

Kaplan, Rachel, and Stephen Kaplan. *The Experience of Nature: A Psychological Perspective*. Cambridge University Press, 1989

Mallgrave, Harry Francis. *The Architect's Brain: Neuroscience, Creativity, and Architecture.* Wiley-Blackwell, 2010, https://doi.org/10.1002/9781444317275.

Oldenburg, Ray. *The Great Good Place : Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community.* Berkshire edition, Berkshire Publishing Group LLC, 2023, https://www.jstor.org/stable/10.2307/jj.9561417.

Pallasmaa, Juhani. *The Eyes of the Skin: Architecture and the Senses*. 4th ed., Wiley, 2024.

Russell, Ginny. *"Critiques of the Neurodiversity Movement."* Autistic Community and the Neurodiversity Movement, 2020, pp. 287–304.

Singer J. *Can't you be Normal for once in your life?* In: Corker M, French S, editors. Disability discourse p.59. Buckingham; Philadelphia, Pa: Open University Press; 1999. (Disability, human rights, and society).

Singer, Judy. *NeuroDiversity: The Birth of an Idea*. Revised ed., 2017, PDF file.

Documents

British Standards Institution. PAS 6463:2022 – Design for the Mind: Neurodiversity and the Built Environment Guide. BSI, 2022.

Research

Normansell-Mossa, Karys M. *"Sensory Sensitivity and Intolerance of Uncertainty Influence Anxiety in Autistic Adults."* 2021. Theses and Dissertations, no. 9565.

Websites

"The DisOrdinary Architecture Project." The DisOrdinary Architecture Project, disordinaryarchitecture.co.uk/. Accessed 8 Jan. 2026

"Den Haag in Cijfers." Gemeente Den Haag, denhaag.incijfers.nl/. Accessed 13 Jan. 2026

Hall, Donald. "The Third Thing." *Poetry*, Nov. 2004, www.poetryfoundation.org/poetrymagazine/articles/60484/the-third-thing.[1]

08

APPENDICES

APPENDIX A

PRELIMINARY CASE STUDY RESEARCH

All themes extracted from these five case studies were grouped, ultimately resulting in the three main themes.

The spatial themes identified in this research are:

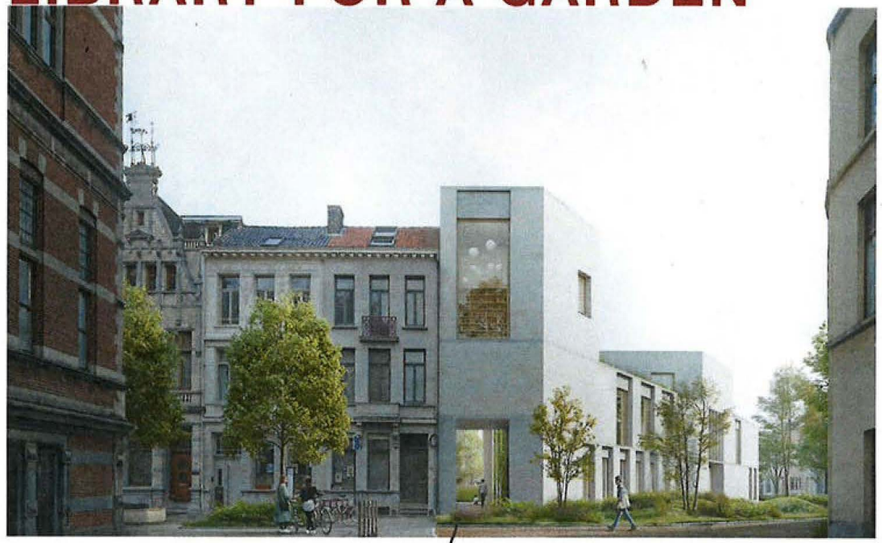
Protected inner space
Oriented around nature
Public courtyard
Exposed timber
Light from above
Acces to nature
Conncetion to central space
Muted colours
Shaded open space
Staggered volumes for acoustive comfort
Choice-driven learning environment
Clear visual connections

01

LIBRARY FOR A GARDEN

Library for a Garden / Studio Nauta Antwerp

LIBRARY FOR A GARDEN



inviting

open vs. closed

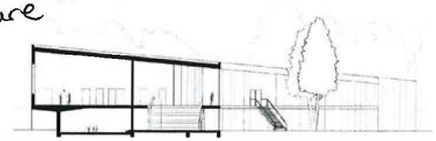
exposed timber

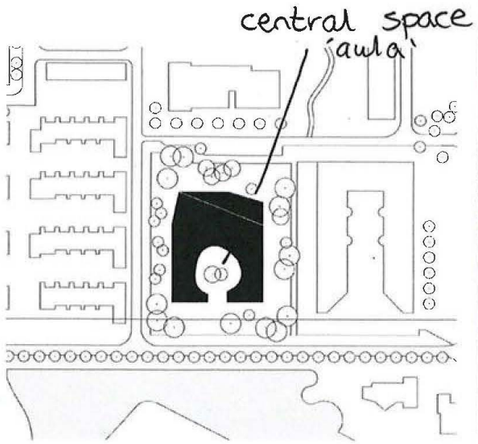
Library for a Garden / Studio Nauta

02 SCHOOL

protected play space

responding to surrounding nature



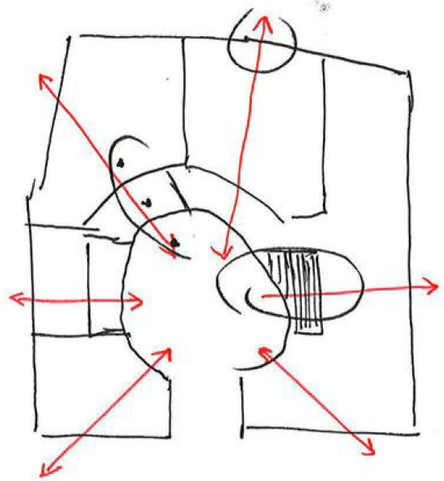


provides shade

HKC de Wereldboom / Berger Barnett Amsterdam

passage of light during the day

combination of school for special needs and regular education (united)



different spaces are connected to aula

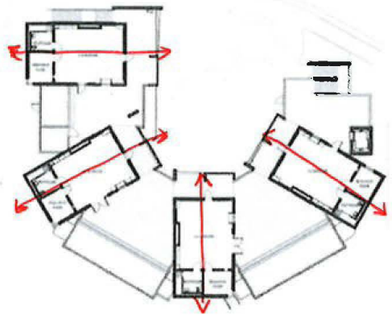
protected inner open space

connection to central space

emailed for plans

03 SCHOOL

protected inner space

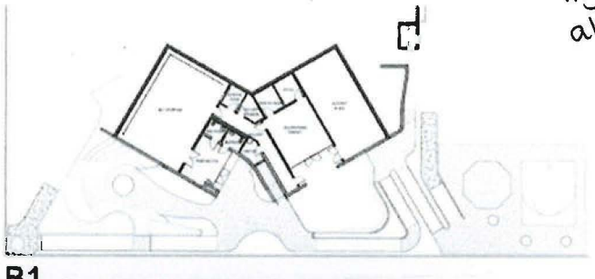


L2 connection to central space

oriented around nature/outdoor

L1

light from above



B1

Lower School Campus of Westmark School / NBBJ ~~Sa~~ California

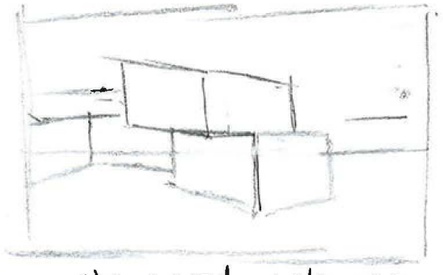
Light

decreased excess stimuli
limited distraction from outside

warmth of exposed mass timber elements

paths, nooks, hubs for choice-driven learning environment

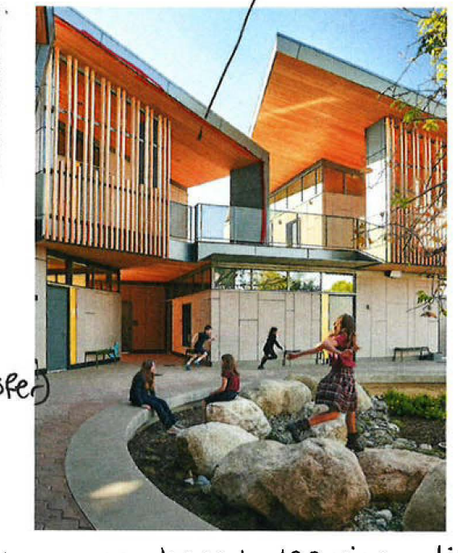
muted colours, dimmable light



staggered volumes for acoustic comfort (minimise sound transfer)

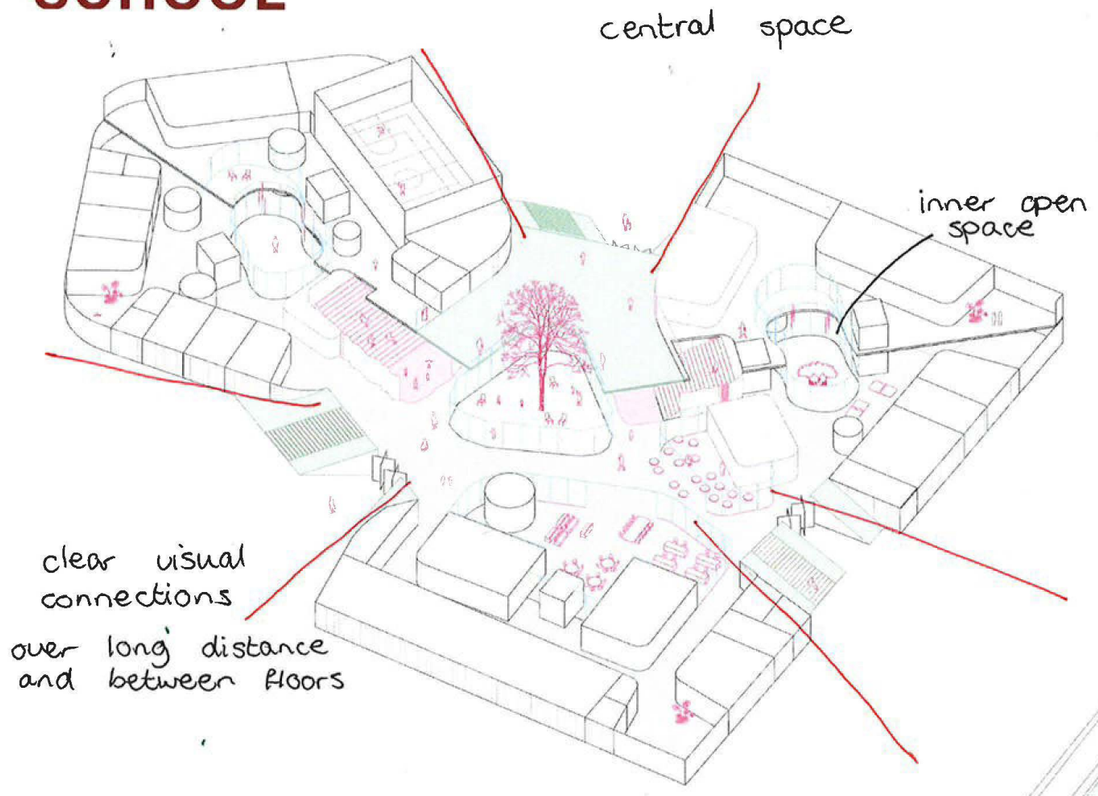
classes are not on ground floor

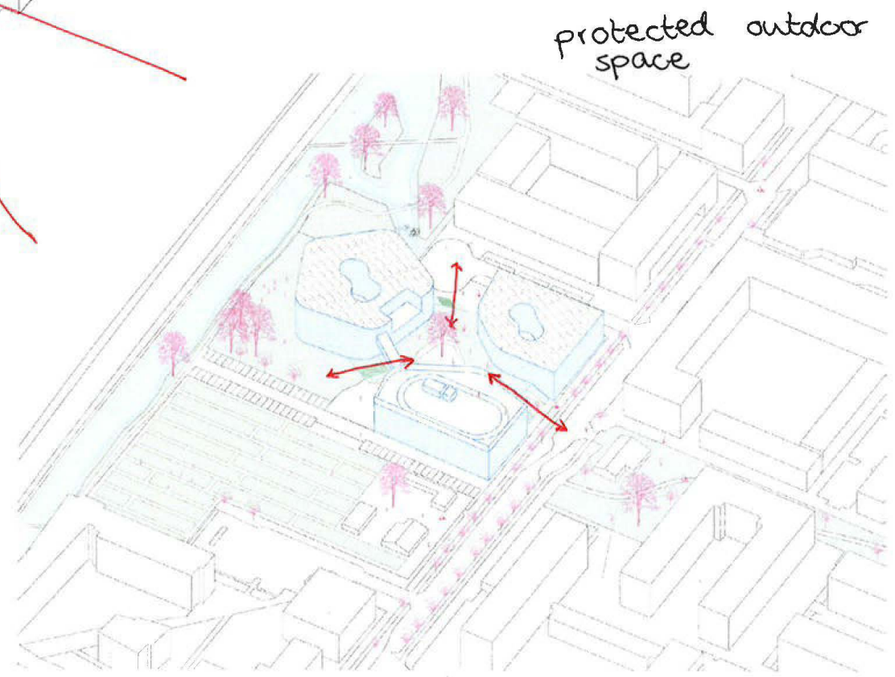
shaded open space



language-based learning differences

SCHOOL study

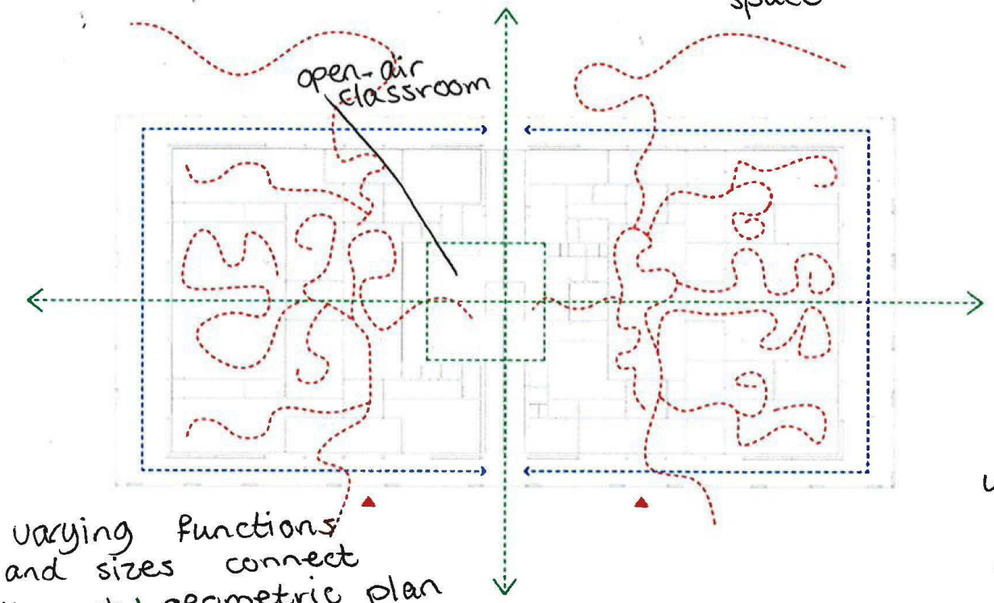




Education for deaf and hard of hearing / Berger Barnett

Study Amsterdam

EDUCATION CENTER



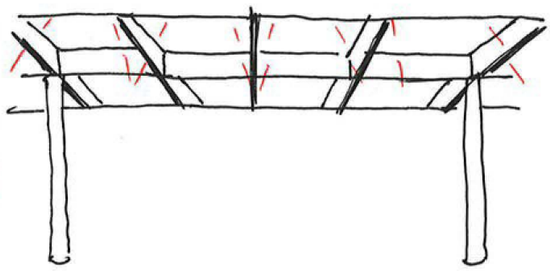
warmth of exposed mass timber elements

united under one roof
equality, public vs private use have the same hierarchy

Inclusive Education Center / Enrico Molteni Architecture italy

muted colours

openings allow for connection, natural lights



light from above

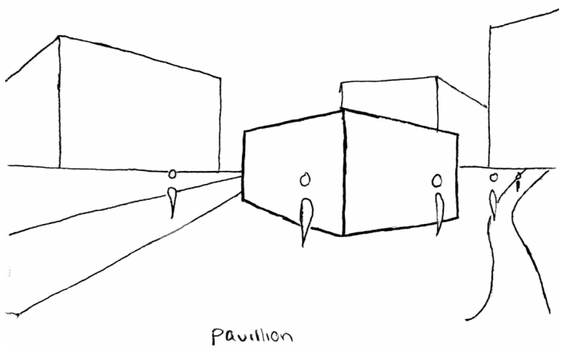
APPENDIX B

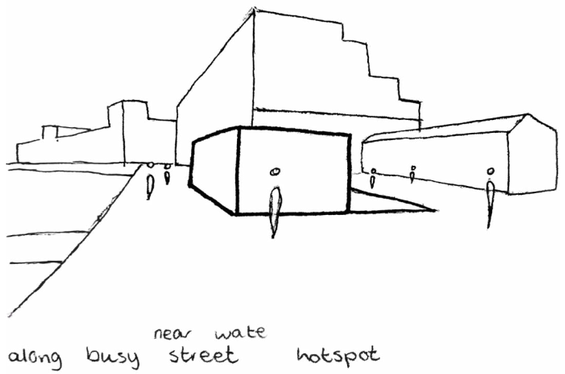
GUIDELINES

SPATIAL THEME	MODALITY	EFFECT ON SENSORY INPUT	USER STRATEGY	QUADRANT	FOUND IN CASE - STUDY
	VISUAL, AUDITORY, TACTILE, VESTIBULAR	INCREASE, DECREASE, GRADE OR STRUCTURE SENSORY INPUT?	PASSIVE / ACTIVE / BOTH	LOW REGISTRATION, SENSATION SEEKING, SENSORY SENSITIVE OR SENSATION AVOIDING?	SCHOOL IKC PRINS CONSTANTIJN / MUSEUM SINGER
1a: Staggered volumes	Visual, auditory	Graded	Environment does the work, users can say passive	Sensation avoiding: can move to more shielded volumes to reduce input	Both
1a: Sound absorbing materials	Auditory	Decrease	Passive, environment does the work	Sensory sensitivity: reduces overwhelming noise buildup Sensory avoiding: Avoiders of sounds don't need to act	Museum
1a: Rounded surfaces	Visual, tactile	Decrease	Passive, no aggresive edges or corners	Sensory sensitivity: Avoids surprising contrasts Sensory avoiding: Environment already eliminates nuisances.	Museum
1b: Tactile and natural materials	Visual, tactile	Decrease	Environment does the work, users can say passive	Sensory sensitivity: less likely to be startled or fatigued by sudden changes or harsh contrasts	Both
1b: Material transition	Visual, tactile	Graded	Mainly passive (transition happens automatically as you move through space), optional active (people can anticipate/use the change)	Sensory sensitivity: predictable change prevents surprise, softens sensory shift Low registration: Clear tactile/visual cue helps mark spatial boundaries	Museum
1c: Rhythms of elements	Visual	Structure	Mainly passive (the rhythm is just there), but some people may actively use counting or pacing as self-regulation (a bit active)	Low registration: clear, repeated cues make it easier to notive where you are and when things change	Both
1c: Low contrast colour scheme	Visual	Decrease	Passive, environment does the work	Sensory sensitivity: prevents fatigue from high contrast Sensation avoiding: An individual might look for low contrast	Both
1c: Filtered light and shadow	Visual, thermal	Decrease, structure	Passive, the light is already moderated. But individuals might choose spots with more or less light (active)	Sensory sensitivity Sensation seeking (when the pattern of light/shadow is more stimulating)	School

APPENDIX C

LOCATION RESEARCH

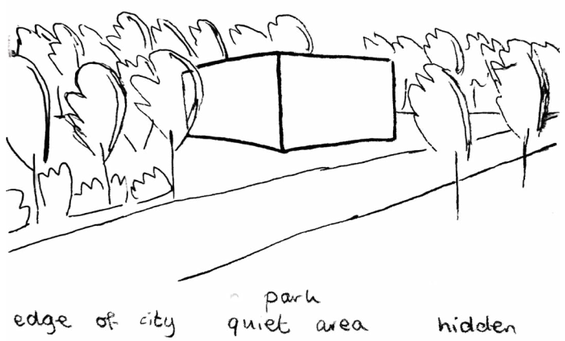




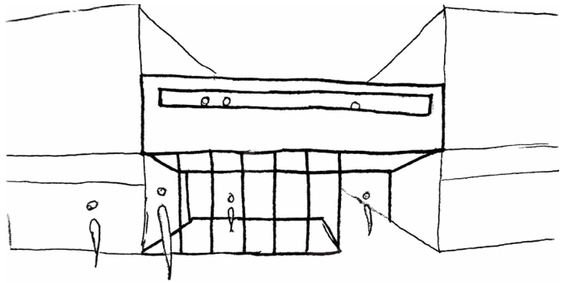
A STUDY

In order to understand the needs of the location, there was a study done towards the sort of plot where the project could be located.

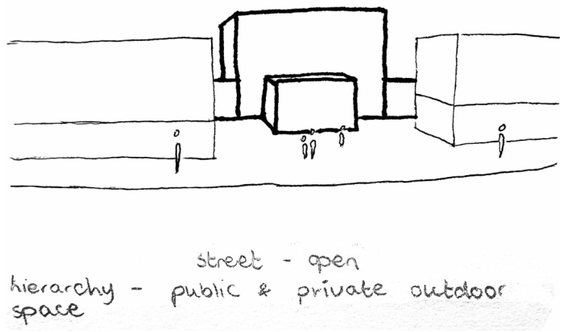
A building that would sit on its own, along water or in a park, would feel very random. Like is visible on the two sketches above, a location like this would be very open and vulnerable. This might not be the correct location for people seeking shelter from a busy urban area.

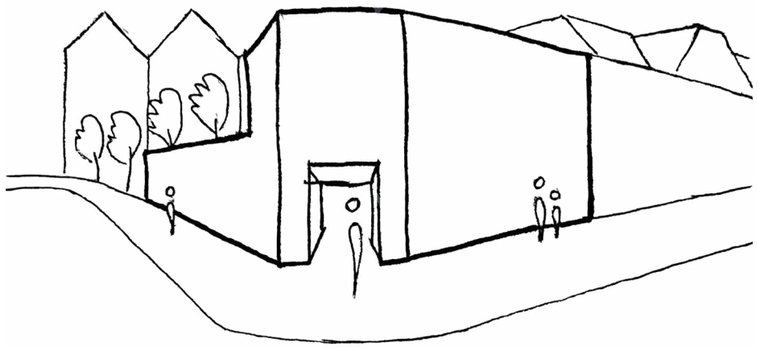


A location like the one above, hidden in a park, might be too much the opposite. People would have to find the quiet and hidden area, while they might need something a bit more engaging.

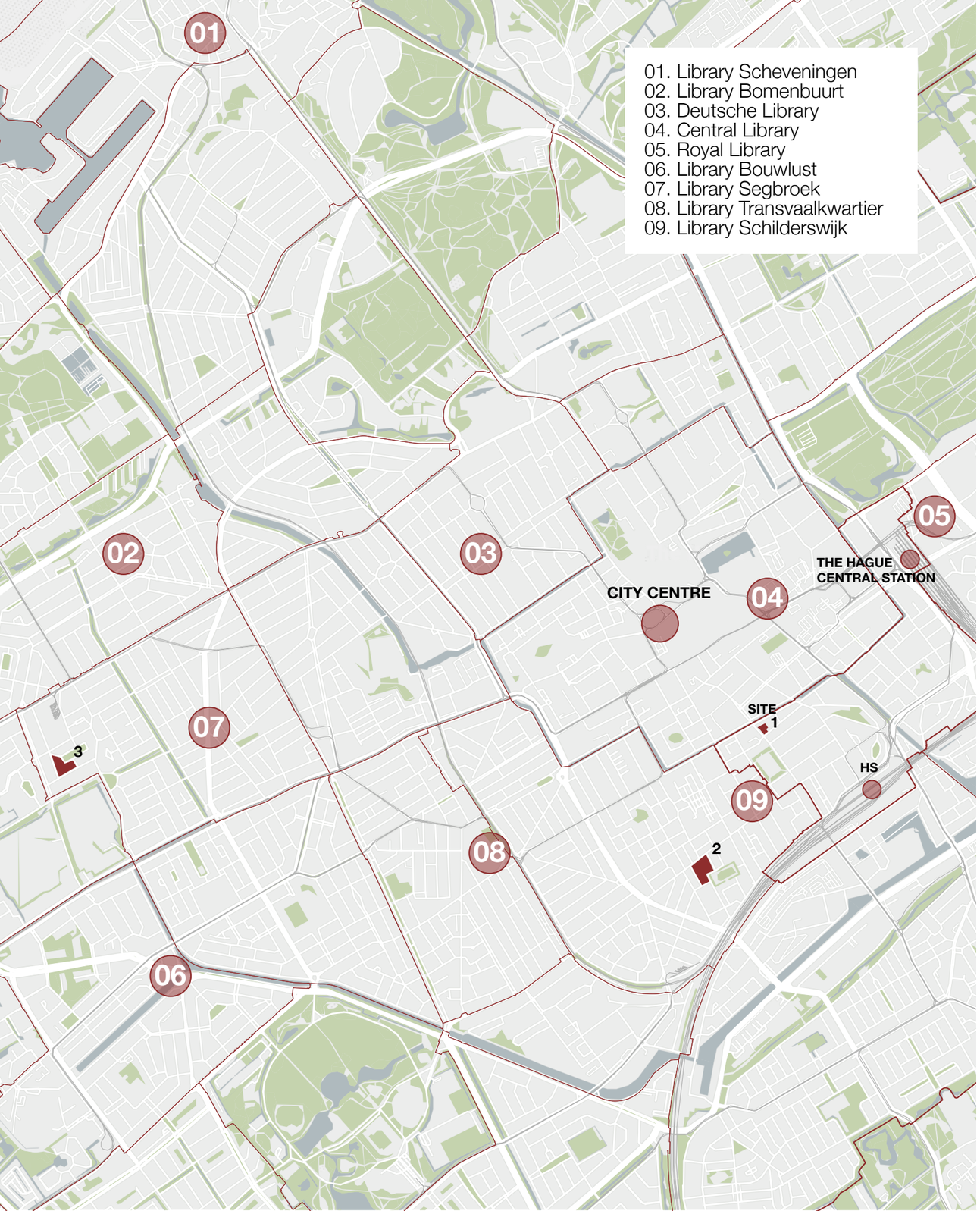


An inbetween space, is what would be best. Space for an intimate garden, while being along a more busy street. This directed the research to locations that had the opportunity for a building that would fit in the existing plot. A building situated between buildings would have a private outdoor space and eyes on the street, but is perhaps not the most easiest to find.





Therefore a corner building would be the most fitting, because it can be seen from multiple angles, which makes it legible and provides clarity to the visitor.



FUNCTIONS

A list of libraries in the Hague, showing that the neighbourhood of the site has none.

APPENDIX D

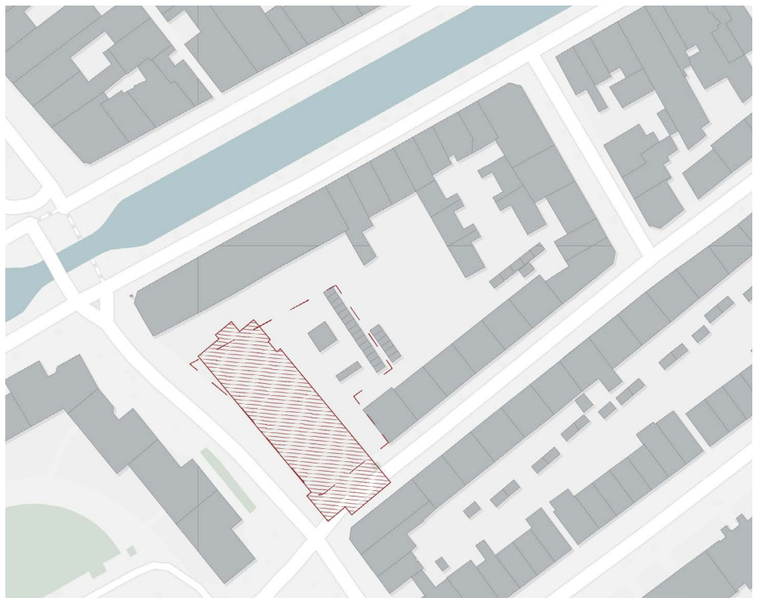
PROGRAMME RESEARCH

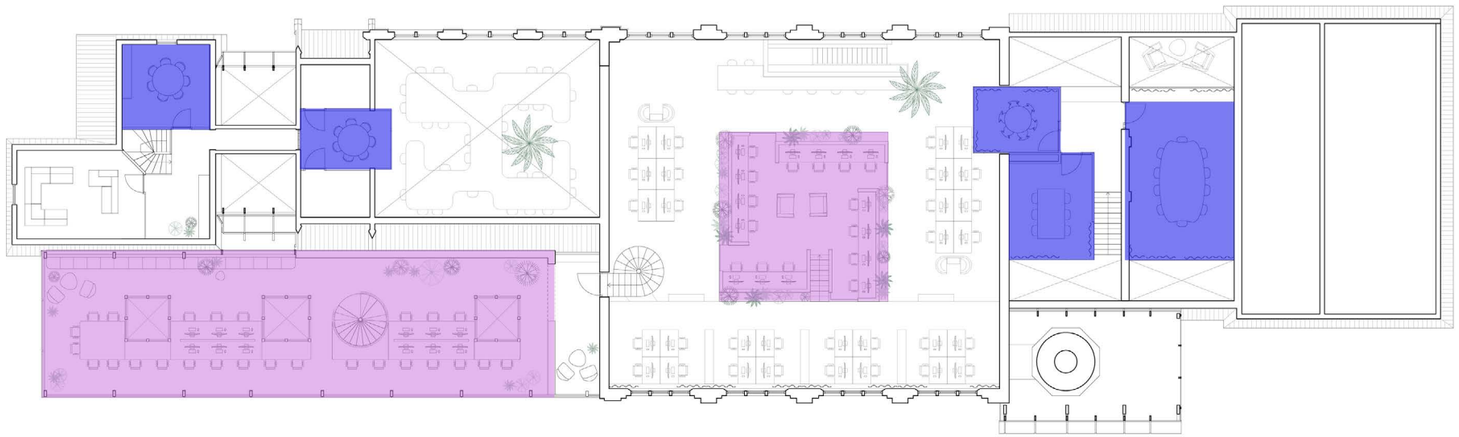
HET VAKWERKHUIS, DELFT

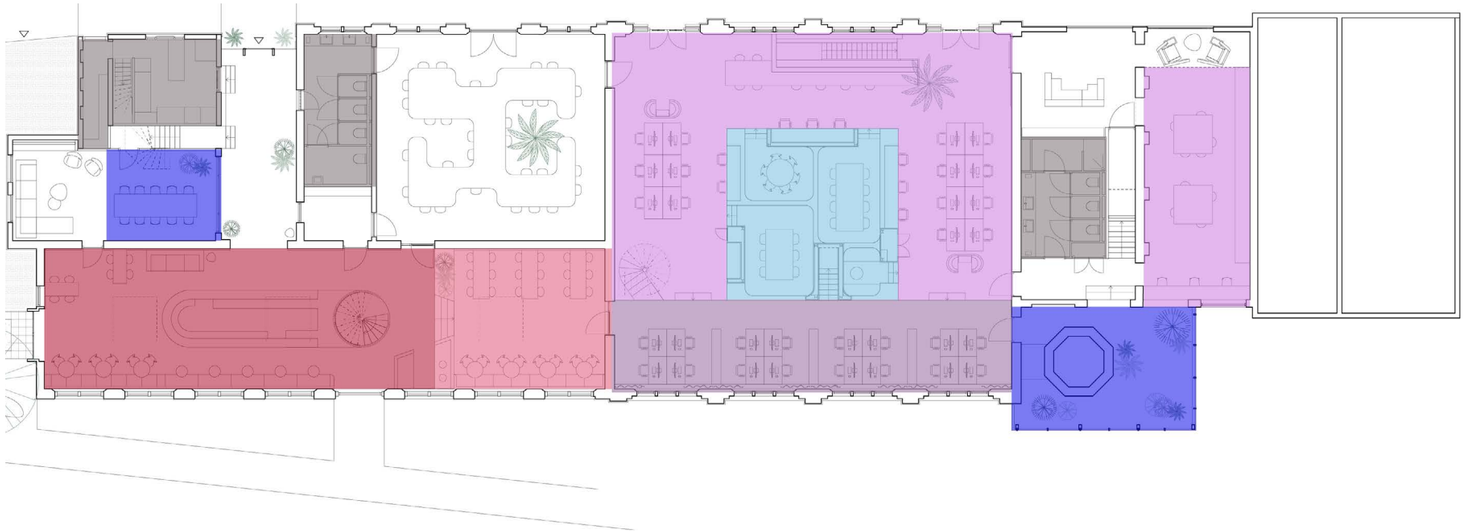
Vakwerkhuis, designed by Vakwerk Architecten, offers an interesting arrangement of workspaces, combining private, semi-public, and public areas. It served as a reference for the way different types of workspaces can come together and helped determine the spatial scale of the Common House in The Hague. By analysing the floor plan, it became possible to understand how large the programme for the Common House could be.

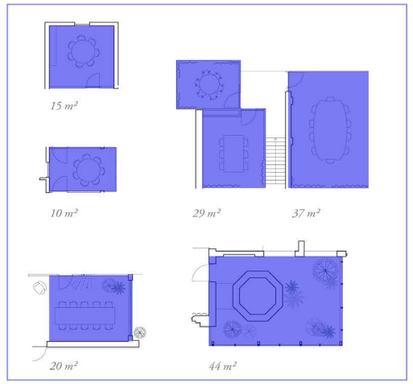
The building is divided into four main functions: restaurant, multifunctional spaces, meeting rooms, and workspaces. For the Common House in The Hague, a more balanced distribution of the functions of playing, working, and meeting was intended. This research also helped reflect on how much space is needed for studying, meeting, or playing, and how much private versus public space is required for these activities.

By placing the floor plan on the site in The Hague, it became possible to compare the spatial dimensions in square metres and conclude that the Common House would need to be smaller or require a different distribution on the plot

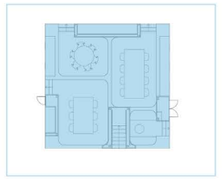




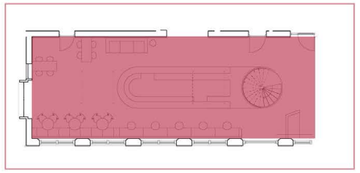




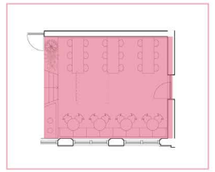
PRIVATE MEETING SPACE 155 m²



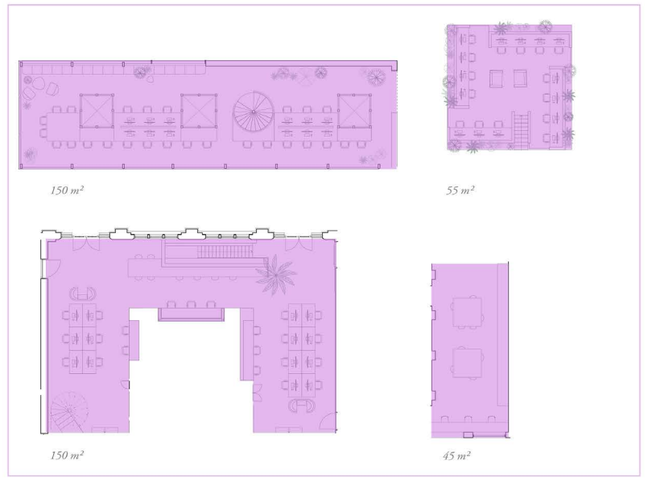
PUBLIC MEETING SPACE 40 m²



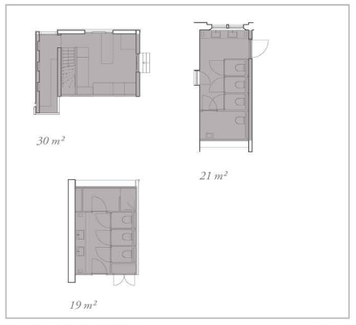
PUBLIC CAFE 105 m²



SEMI PUBLIC CAFE 45 m²

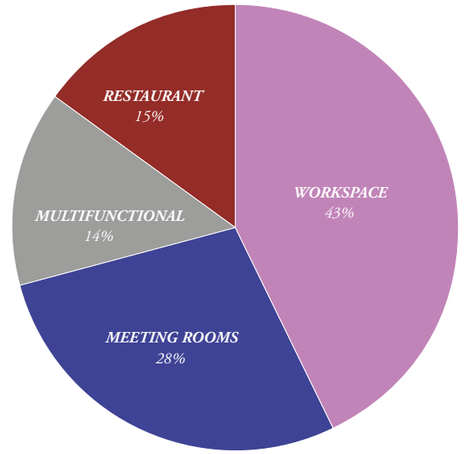


PUBLIC WORKSPACE 400 m²

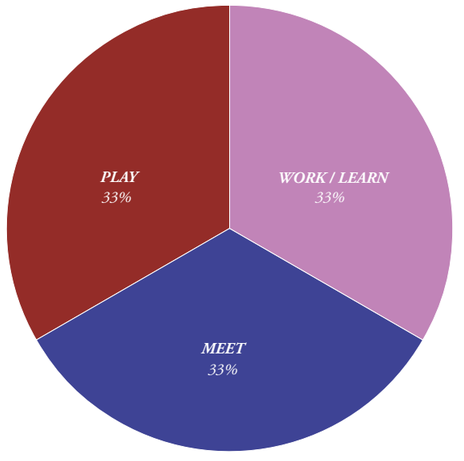


KITCHEN / BATHROOM 70 m²

SEMI PUBLIC WORKSPACE 67 m²



VAKWERKHUIS 1200 m²



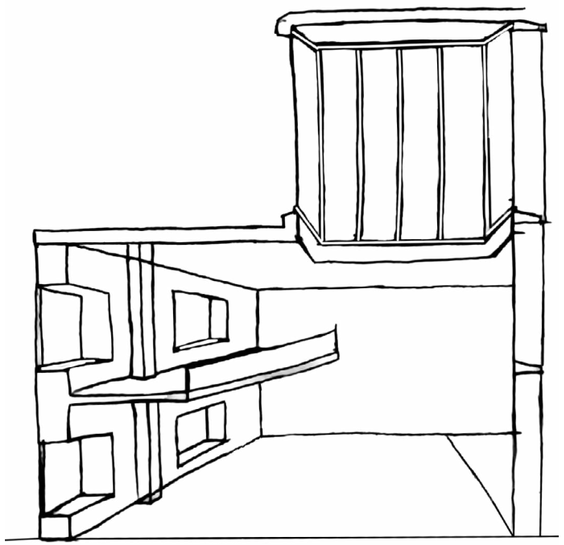
SPINOZASTRAAT, THE HAGUE 600 m²

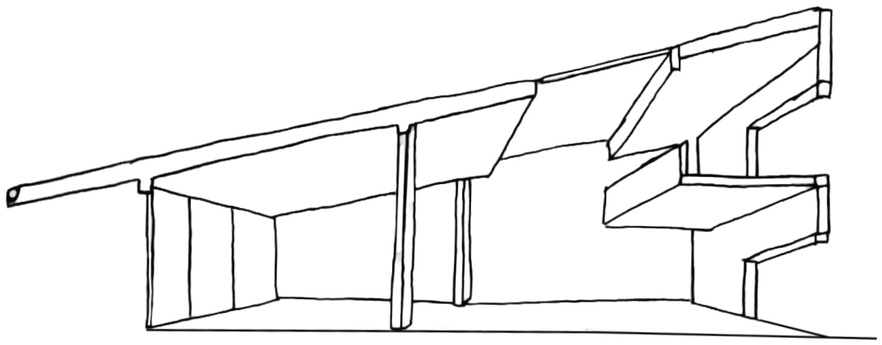
APPENDIX E

RESEARCH BY DESIGN: CEILING HEIGHT

What might a ceiling height variation look like? How does it inform individuals where they are?

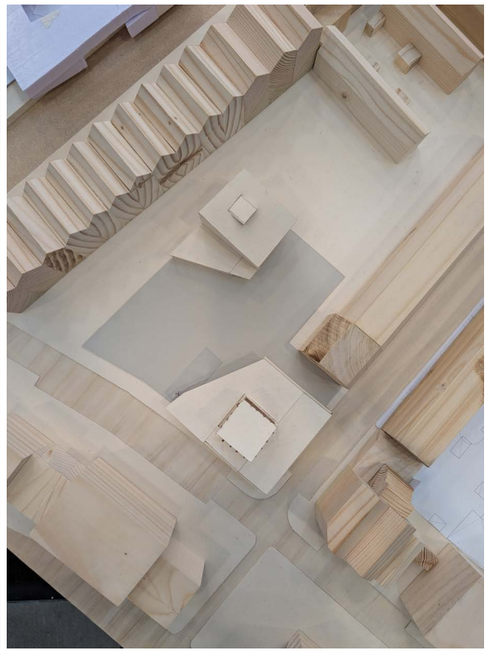
How does that look when combined with a shaded outdoor space?





APPENDIX E

RESEARCH BY DESIGN:
MASS STUDIES


APPENDIX E

RESEARCH BY DESIGN:
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