

Scapes of Wellness: Supported Living Housing for the Intellectually Disabled

1. What is the relation between your graduation project topic, your master track (Ar, Ur, BT, LA, MBE), and your master programme (MSc AUBS)?

A MSc in Architecture and the *Graduation Studio on Dwelling* intends to provide me an academic background which, through research and practical application, would broaden my professional insights and knowledge. The *Designing for Health & Care: Towards an Inclusive and Healthy Environment* I've chosen for my graduation project challenges my architectural thinking into designing for a future healthcare system that does not only cater for a specific population, but also affects the society as a whole. The humanistic orientation of this studio totally aligns with my belief that when the design process becomes human-centered, there is an added value to any architectural decision made; this goes beyond aesthetics and can contribute to the creation of more meaningful projects.

In such a context, my graduation project is focused on **supported living housing for the intellectually disabled (ID)** and sets the users at the center of the design. The right of ID people to independent living that promotes their quality of life and social inclusion, as stated by the United Nations Convention on the Rights of People with Disabilities (United Nations, 2006), and their challenges related to the built environment, raise several societal, architectural and tectonic issues that are harmonized with the core values of the TU Delft master program and Architecture track. For instance, what design tools best suit ID people's strengths and limitations? What architectural modifications should be made to ensure the necessary privacy while creating an open community? What materials create a comfortable and safe environment for these adults that, at the same time, align with the principles of environmental sustainability?

2. How did your research influence your design/recommendations and how did the design/recommendations influence your research?

The formation of my thesis project has been a product resulted both from ethnographic research and research by design, seeking the answer to the question ***"how can biophilic design be implemented to improve the quality of life of ID adults who live in supported living environments?"***

Starting the process with literature reviews, then visiting facilities for observations and interviews and, last, conducting precedent studies gave me valuable evidence in regards to the needs of the target group. The findings of my research indicated that a small-scale living facility located in the heart of a neighborhood, accessible by public transportation and close to public functions, seems ideal for ID residents who live in supported living arrangements. Moreover, such a program can benefit from hybridity, combining dwellings with recreational and

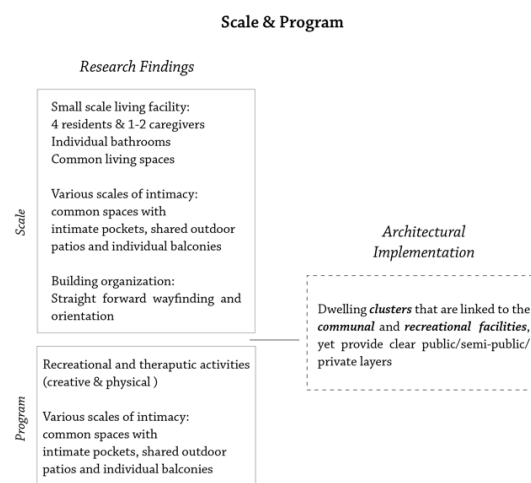


Figure 1. Social and spatial accessibility for ID people's supported living facilities: Research findings and their architectural implementation.

therapeutic facilities that can enhance the health and well-being of both the ID population and the neighborhood community. These findings guided my design process and architectural implementation towards three basic themes: social and spatial accessibility, scale and program and, finally, biophilia and atmosphere (figures 1-3).

Yet, researching and designing has been a reciprocal process, where one informs the other. While putting theory into practice, I studied more precedents, tried a couple of design ideas and discussed my thoughts and creative frustration with my design and built technology advisors during our weekly meetings. This constructive process led me to reevaluate my preliminary sketches and massing ideas a couple of times before reaching a feasible design suggestion.

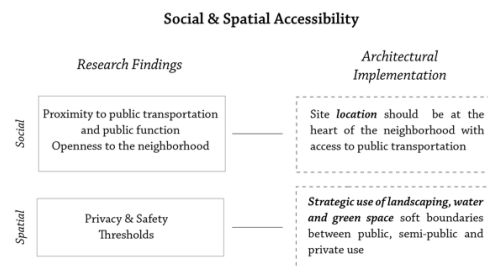


Figure 2. Scale and program for ID people's supported living facilities: Research findings and their architectural implementation.

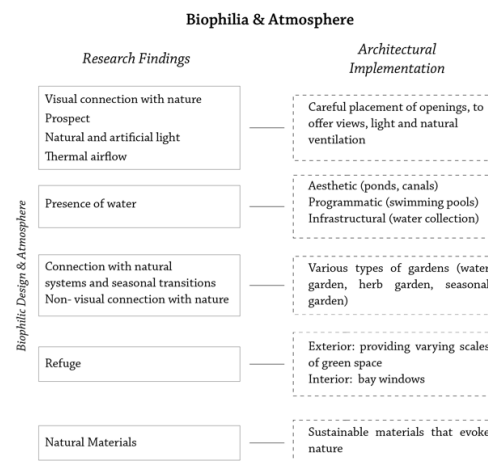


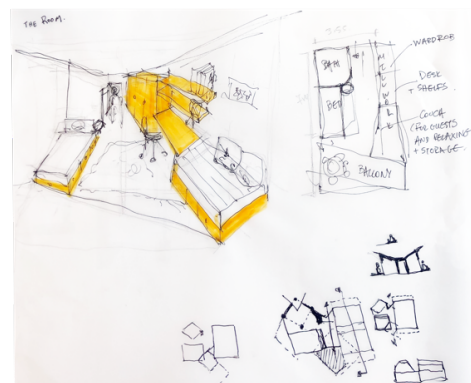
Figure 3. Biophilia design and atmosphere for ID people's supported living facilities: Research findings and their architectural implementation.

3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?

The methods I used to collect data during the research were literature review -which provided me with theoretical guidance for the empirical research- and fieldwork. During the fieldwork in Greece and the Netherlands, I talked with residents and caretakers of the supported living houses, made observation and sketches on their built environment and got acquainted with their strengths and challenges. Additionally, informal interviews with architects and the study of precedents gave me the opportunity to explore how architects in practice approach the design of facilities catered to this population. As a result, from all this research I got insight into how evidence-based data can be translated into architectural qualities. Yet, given the time, what I believe would have helped me in the process, would be to study more precedents focusing not only on the building itself, the interior organization and the materiality, but also on its relationship with the surrounding area and the site scale.



Figure 4. Research findings influencing the idea of the room.



I started the design process with several ideas, focused on architectural values that I appreciate, but not all of them were connected to the research I had conducted; this disoriented me for a while, but it also helped me better conceptualize my architectural position. Focusing back on the research and re-evaluating my findings was something that helped me build my design ideas around the needs of the everyday life of intellectually disabled (figure 4). At that time, I re-wrote the concluding part of the research report (discussion & conclusions and reflection towards the design), something that helped me re-connect with the core of my research and gave a fresh start to my design (figure 5).

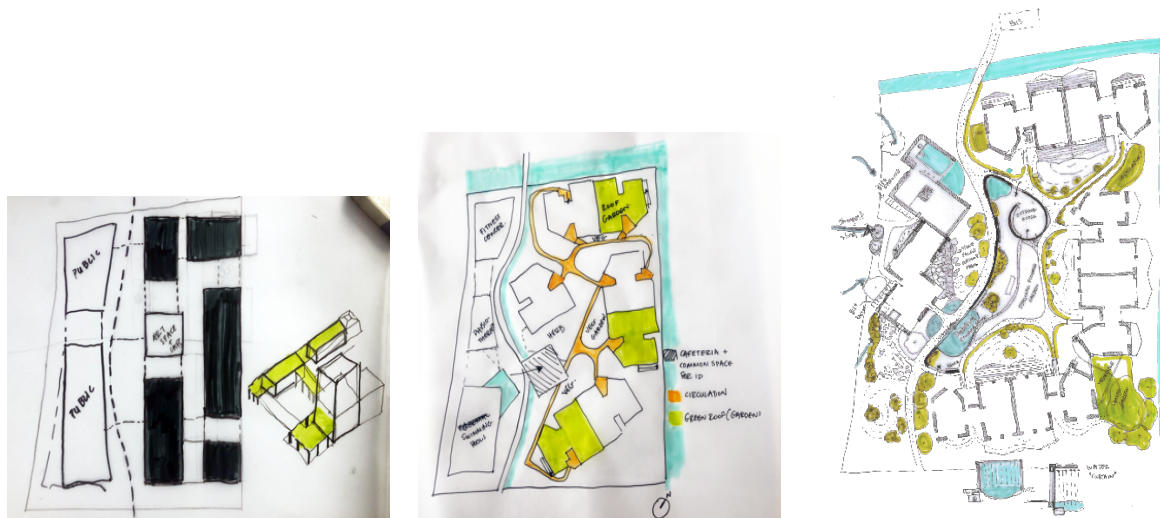


Figure 5. Sketches from various phases of the project.

4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

Nowadays, more than ever, it is essential to 'use' the field of architecture to provide for vulnerable populations. Thus, the driving force of this research was the rising need for additional supported living housing for ID adults and the fact that, besides all efforts so far, the architectural environment offered to this population still remains of lower quality. Having in mind their right to independent living, social interaction and well-being, the goal of this graduation project was to formulate a framework leading to the design of a new housing model towards the improvement of their quality of life: *that is a housing arrangement combining a hybrid program of dwellings and recreational facilities that can enhance the health and well-being of both the ID population and the neighborhood community.*

Undoubtedly, designing for the vulnerable population of ID, and especially conducting research that involves visiting and talking to them involves some ethical issues that require adequate handling. Arranging fieldwork and essentially visiting their homes requires permission and consent from the managing partners of the institution, as well as a delicate handling, while being there in person, in order not to intervene in their personal space and make them feel uncomfortable. In addition, safeguarding their personal data in written documents as well as in photographs is essential to protect the integrity of the research and the people likewise. In any case, regardless of the difficulties that one may encounter, such projects are valuable and essential, since society – and architects- must give back to ID people their deprived dignity and a better quality of life.

As far as the ethical base of my design, it is rooted on the belief that "all people are bio-social beings" seeking social inclusion and on the research findings suggesting that ID people's social inclusion is beneficial for both ID and neurotypical population; therefore, my design suggestion fosters hybridity based on supported

living housing combined with a public facility (a wellness centre (consisting of gymnasium, swimming pool, multipurpose facility and a café) that is shared with the community. Last, but not least, the suggested design is biophilic and promotes people's connection with nature, natural materiality, biodiversity and sustainability.

5. How do you assess the value of the transferability of your project results?

All the choices I made during the design process were primarily focused on meeting the needs of ID individuals and relied on evidence-based research. At the same time, the focus on biophilic design – spatial, material and social- that reevaluates the relationship people have with nature in the urban fabric, is something that could be instantly implemented, especially in places like Lelystad, where the site is located (figure 6). This connection with nature can also influence the materiality and design choices steering towards designing circular buildings.

The findings of the architectural implementation can be applied to different locations, in Netherlands or abroad, yet adjusted to meet the national guidelines of each country and site context. For instance, the chosen site in Lelystad has the advantage of being close to a canal, something that enhances the connection with natural systems. Yet, in other locations the creation of this relationship could be achieved through the implementation of gardens, not only horizontally but also vertically, featuring native plants and vegetation. In addition, the developed dwelling cluster of my design could be modified and repeated according to the size of the plot, and placed in the proper orientation to maximize the energy efficiency, solar gains as well as views.



Figure 6. Concept sketch for the reevaluation of the existing master plan for Lelystad.

6. Two reflection questions which relate to the content of my work.

- Why is the choice of a cluster-individual houses preferred over a multistorey building?

Throughout the initial design process, I was wavering between the idea of an apartment building opposed to separate dwelling clusters. Although, for financial reasons, the apartment building would be preferred as it can hold more apartments, I chose to base the design on the use of individual clusters that are connected with paths and various types of gardens. As an architect, I thought that individual houses would create a simpler building organization and straight forward circulation paths that is desirable for the target group of intellectually disabled. At the same time, with this specific organization of the clusters there is a direct connection with the natural environment, both on the ground level and the rooftops, linking the natural

environment with the urban one (figure 7). In addition, the individuality of the houses resembles a small village, where a strong community can be formed and social interaction is encouraged.



Figure 7. Concept Sketch for the clusters and their relationship to the natural environment.

- What alternative facilities would be suggested, in place of the wellness centre, suitable and beneficial for the intellectually disabled and – at the same time- for the local community?

The integration of public functions is important both for the intellectually disabled people and the neighborhood at Lelystad that is lacking amenities. According to my research, ID people and the local community would both benefit if engaged in common activities, such as being colleagues at a work environment. If properly trained, ID individuals can be very productive in low-skilled manual jobs, helped by neurotypical personnel in management and digitalized procedures.

Facilities in which ID people may co-work and interact with the local community would include the catering sector (café, restaurants, pastry shops), laundry services, craft shops, community garden, animal farming and produce shop, or library. Although, the integration of some of these public functions was initially part of my design ideas, being constrained by the limited time and the workload, I decided not to incorporate them in the design and focus only on the café and recreational facilities including the swimming pool.