Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Angeliki Sykiotis
Student number	5611075

Studio		
Name / Theme	Dwelling Graduation Studio: Designing for care in an Inclusive Environment	
Main mentor	Elke Miedema	Architecture - Design Mentor
Second mentor	Jos Lafeber	Architecture - Building Technology
Third mentor	Frederique van Andel	Architecture – Research Mentor
Argumentation of choice of the studio	Health(care) is a more than ever pressing issue, nowadays. Designing for an inclusive environment and setting humans in the center of the design is really important, since architects - as mediators between the built environment and humans - play a catalytic role in the improvement of the physical and mental health of people. The selection of this studio stirred from my interest in learning how to design for a vulnerable population. Yet, this process will allow me to face challenges that will evolve my architectural thinking and practice as a whole.	

Graduation project	
Title of the graduation project	A place to call home. Assisted living housing for the intellectually disabled.
Goal	
Location:	Lelystad, Netherlands
The posed problem:	Until the mid-20th century, ID individuals were treated as mentally ill and were excluded from society. The vast majority of them was marginalized, either living with their families, yet hidden from the 'outside' world, or in institutional settings such as primarily psychiatric establishments (Matheis, 2019). In the onset of the 21st century, a better scientific understanding of

	intellectual disabilities and the human rights movement were the advocates towards the deinstitutionalization of ID people. In December 2006, the United Nations adopted the Convention on the Rights of People with Disabilities and officially acknowledged the rights of disabled individuals to be equal members of the society (United Nations, 2006). Article 19 of this convention stresses their right to self-determination, including independent living and social inclusion. Thereafter, many countries worldwide, including the European Union, initiated a process of deinstitutionalizing ID people and encouraging independent and individualized models of housing for them (FRA-European Union Agency for Fundamental Rights, 2017). Thus, in the recent decades, **the need for care and support, including housing, for the intellectually disabled has risen significantly** (Roebuck, 2021); in the Netherlands, for instance, the current **annual growth rate of this demand is around 7%** (Woittiez et al., 2018). This commitment to respect the rights of ID people and their inclusion in society gave room to the emergence of new housing typologies to foster their needs, such as supported living housing, group homes, village communities, or shared apartments (Roebuck, 2021). The choice of the appropriate housing option is very important to the overall quality of life of ID people ((Buntinx & Schalock, 2010, Bigby & Beadle-Brown, 2018). **Unfortunately, studies over the last two decades have indicated that the QoL of ID individuals is lower, compared to individuals without disabilities** (Roos, J., et al., 2022). The Dutch Ministry of Health, Care and Sport estimates a prevalence of 2,5% (440,000 people) for both adults and minors intellectually disabled (Moonen et. al., 2022). According to 2021 data provided by the Dutch public databases (Cuypers et al., 2021), the prevalence of ID adults in the general population is 1,45% (187,149 people). Half of them (91,064 individuals) need residential care and support in daily living, but the numbers show that not all of them receive it (Roos, J. et al., 2022). The ID prevalence is much higher among homeless people in the four major Dutch cities (Amsterdam, The Hague, Rotterdam and Utrecht). With this prevalence rising to 30% (Van Straaten et al., 2014), **pressing attention should be put towards affordable housing for ID adults.**

Research questions and design assignment in which these result.	The main research question that follows and the four sub-questions that additionally arose will further guide the process: How can biophilic design be implemented to improve the quality of life of adults with intellectual disabilities who live in supported living environments? Sub-questions: 1. What cognitive and adaptive challenges do ID individuals who live in supported living housing face on a daily basis? 2. What types of supported living housing are currently accessible to ID adults to accommodate their right to independent living 3. How is the quality of life (QoL) defined for people with intellectual disabilities (ID) and what is its relevance when it comes to the built environment? 4. What principles of biophilic design can be used as tools to propose a new model of supported living housing for ID people?
The design output will aim to reformulate the housing model of supported living for people with intellectual disabilities. Taking into consideration the three major domains that construct the QoL, independence, social interaction and well-being, the design aims to propose a solution towards improving their quality of life.	

Process

Method description

[A description of the methods and techniques of research and design, which are going to be utilized.]

Ethnographic research:

The main strategy to gather empirical data related to the research questions and to validate the theoretical framework was qualitative-ethnographic research. Ethnography, helped me collect data on the behaviors, challenges and strengths ID people face and gave me an insight on how they are impacted by the built environment. During the course of the fieldwork, I conducted research at supported living facilities for ID individuals in Greece and the Netherlands, as well as in locations where ID people work and interact with the public realm, a cultural centre with a café, and a day care centre. The main ethnographic tools I used were:

Observations and Note Taking:

I used two types of ethnographic observations: a. selective/non-participant, when I didn't want to interfere with ID people's routine but to focus on a pre-selected objective, and b. active-participant, when I wanted to energetically participate in their everyday life practices (Groat & Wang, 2013; Lucas, 2016; Kras, 2018; Sheridan, 2018). I used the first one to observe the built environment of the supported living residents, the day care center and the coffee shop where ID people worked, to focus on their behavior while interacting with others. I used the active-participant observation when I wanted to be part of their activities and feel the challenges and limitations they confront.

Interviews with Residents, Supporting Staff, Caregivers and Architectural Professionals:

My additional ethnographic tools were informal/unstructured and semi-structured interviews with residents, supporting staff, caregivers and architectural professionals. As Finesurrey (2018) mentions, informal unstructured interviews take the shape of an informal conversation, but they are helpful in gathering background information. Semi-structured interviews have a prepared set of structured questions and a list of open-ended ones, or let the interviewee add personal comments and insights. I've chosen these types of interviews since are more friendly and non-threatening (Lucas 2016; Finesurrey, 2018).

Sketches, Photographs and Maps:

Drawings, diagrams and maps are valuable tools for the architectural research (Groat & Wang, 2013; Lucas, 2016). Using these tools in my research gave me the opportunity to create concise, descriptive and first-hand graphic representations while capturing aspects of the life of ID individuals.

Architectural Precedent Studies:

An architectural case study analysis gives empirical data of a built environment in "real life-context" (Groat& Wang, 2013, 421). Analyzing existing projects of supported living housing as references was used as a tool to study architectural principles and design qualities that are implemented in reality, aiming to cater the needs of people with intellectual disabilities.

Site and Context Analysis of the Design Location:

To illustrate the qualities of the region, neighborhood and intervention site in Lelystad, the tools of mapping and drawing were used to generate different layers of information that play a catalytic role in design decision making. In addition, conversations with

urbanists Nikè Ruijter and a site visit gave the opportunity to get insight into the urban history of the region, make personal observations and collect photographs.

Literature and general practical preference

[The literature (theories or research data) and general practical experience/precedent you intend to consult.]

Theoretical framework:
For this research, the theoretical and architectural framework was centered around four areas: a. people with intellectual disabilities and their right to social inclusion and independent living, b. supported living typologies, c. quality of life, and finally d. biophilic design.

Fieldwork:
Empirical data collection was achieved through observation of various facilities in real-life context. Firstly, the fieldwork was focused on two supported living facilities: Petagma, located in Athens, Greece and Jongerenwoonvorm, located in Rotterdam, Netherlands. Moreover, in order to get acquainted with the target group and visualize the program for the design proposal, it was important for this body of research to also visit facilities that touch on the public domain. Thus, I visited two locations where IDD people spend the day outside the house, either working or doing extracurricular activities: Myrtillo Café, in Athens, Greece and Willlem Felsoord Daycare Center, in Delft, Netherlands.

Precedent studies:
The study of existing supported living housing as precedents enriched this research in understanding the value architecture can add to the quality of life of people with intellectual disabilities. Three projects in different locations were chosen for studying their architectural qualities: Zig Zag, a supported living facility for IDD people, designed by Andrea Möhn and Bouman Architects; Huis aan 't laar by 51N4E, located at Zoersel, Belgium and, finally, Emiliani, designed by UR Architects at Lokeren, Belgium.

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

A MSc in Architecture and the *Graduation Studio on Dwelling* intend to provide me an academic background which, through research and practical application, will offer me new insight and knowledge in the field.

The *Designing for care in an Inclusive Environment* studio challenges my architectural thinking into designing for a future healthcare system that does not only cater for a specific population, but also affects the world as whole. To me, when the design process becomes human-centered, there is an added value to any architectural decision that is made; this goes beyond aesthetics and can contribute to creating more meaningful projects that offer to the societies as a whole.

This graduation project focused on assisted living housing for the intellectually disabled, as part of the healthcare studio, sets the humans at the center of design. Taking into consideration the needs of intellectually disabled and studying their challenges related to the built environment raises several societal, architectural and tectonic issues that are harmonized with the core values of the TU master program and Architecture track.

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 research is to formulate the framework to design a new housing model towards ameliorating their quality of life.

Moreover, this research, may contribute to the architectural field in general, as it focuses on biophilic practices that reevaluate the relationship people have with nature in the urban fabric.