

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Personal information	
Name	Marjolijn Elisabeth Suzanne van der Veen
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Studio		
Name / Theme	AR3AD110 - Dwelling graduation studio: Designing for care in an inclusive environment	
Main mentor	Kobe Macco (design)	Leo Oorschot (research)
Second mentor	Birgit Jürgehake (design)	Birgitte Hansen (research)
Building technology mentor	Paddy Tomesen	
Argumentation of choice of the studio	I have always been passionate about designing for elderly people with dementia. During my HBO Bouwkunde studies in Enschede, I completed a 10-week course on this subject, where I designed a single room specifically tailored to the needs of elderly individuals with dementia and severe behavioral challenges. This interdisciplinary project was a collaboration between students of Fashion, Nursing, and Architecture. My role focused solely on designing the interior of the room, without addressing architectural context. When I came across this master studio, I immediately knew I wanted to take this interest further: to design not just a room for this target group, but an entire building and its surroundings.	

Graduation project	
Title of the graduation project	Designing Dignity <i>Designing care facilities to enhance autonomy and quality of life for people with dementia</i>
Goal	
Location:	Tarwewijk, Rotterdam
The posed problem,	The lack of autonomy and quality of life for elderly people with dementia in care facilities.
research questions and	Main research question: How can a care facility for people with dementia be designed to foster a humane and inclusive environment, with a focus on promoting autonomy and quality of life, for example in a neighborhood like Tarwewijk? Sub questions:

	1. How can the surroundings of a care facility contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life? 2. How can the layout of a care facility building contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life? 3. How can a residents room contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life? 4. What specific needs does the Tarwewijk neighborhood have concerning care and housing for people with dementia, and how can these needs guide the design and integration of such facilities?
design assignment in which these result.	
A new care concept will be designed for an urban context where diverse cultures meet, such as in the Tarwewijk. This design aims to provide tailored solutions for different cultural groups when faced with dementia in old age. First, there will be small-scale 24/7 care facilities. Additionally, intergenerational homes will be introduced, catering to cultures like the Turkish and Moroccan communities, where families often prefer to care for their elderly parents at home. Finally, assisted living apartments will be designed for elderly couples, allowing them to live together when one partner is in the early stage of dementia. These apartments will offer optional care services, enabling couples to maintain their shared life. This design ensures that everyone can find a suitable option within this care concept, moving beyond the limitation of a traditional nursing home.	
Process	
Method description	
This research will employ a combination of literature study, fieldwork, interviews, workshops, case studies, and mapping to explore how care facilities for people with dementia can be designed to promote autonomy and quality of life.	

LITERATURE STUDY

A literature study will provide valuable insights into dementia, care facilities, and their architectural designs. Specific search terms such as '*design for dementia*' are used to search for relevant studies, articles, and books via Google Scholar. The search will be limited to sources published from 2000 onward to ensure that the information is current and relevant to the rapidly evolving care concepts in the Netherlands. The selected literature will be analyzed based on the six key principles: autonomy, privacy & social space, outdoor environment, familiarity, orientation & accessibility, and sensory engagement. Additionally, books will be sought in online bookstores using the same search terms.

FIELD WORK

Fieldwork will be conducted over eight days at three dementia care facilities. These facilities are: Randerode in Apeldoorn, Boswijk in Vught and Reigershoeve in Heemskerk. Observations and interviews with residents, nurses, and family member will provide insight into the care environment.

Observations will be structured across several levels:

General

Focus on the facility's layout, resident's daily movement, autonomy in daily choices, and participation in offered activities.

Environmental level

Examining outdoor space accessibility, residents movement and layout.

Building level

Analyzing common areas, circulation spaces and usage frequency of spaces.

Room level

Observing residents movement within personal rooms and their control over the space.

These observations will be documented through drawings and sketches, offering a comprehensive view of the care environment and its impact on daily life.

INTERVIEWS

Interviews will be conducted with residents, family members and staff during the fieldwork to gain deeper insights into their experiences.

Interviews are also conducted with the residents of Tarwewijk to understand how they would like to age in their own neighborhood and how they would integrate a care home for people with dementia into the district.

WORKSHOPS

During the fieldwork, workshops will be organized with residents. In these workshops, participants will view various images and talk about their 'ideal' living environment based on their preferences for design.

CASE STUDIES

The three visited care facilities will serve as case studies for this research. By examining the six key principles in each facility, it will be possible to compare and contrast various aspects of their environments and approaches to care. This comparison will highlight both the differences

and similarities between the facilities, showing how each one addresses the needs of residents with dementia.

MAPPING

As part of this research, mapping will be used to identify and visualize key points related to dementia care within the Tarwewijk. For this method, the group analysis of the Tarwewijk, conducted during the first 10 weeks of the graduation year, will be used. Additionally, certain topics will need to be mapped independently, such as wayfinding and resting spots in the neighborhood.

Literature and general practical references

For this research, a mix of articles and books will be used.

The most important books that will be referenced during the research are:

- Architectonica. Een thuis voor mensen met dementie. By Erik Stroobants & Patrick Verhaest
- Design for nature in dementia care. By Garuth Chalfont.
- Kleinschalig genormaliseerd wonen voor personen met dementie. By Chantal van Audenhove.

The other literature that is used is as follows:

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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)?

This graduation project focuses on designing small-scale care facilities for elderly with dementia in multicultural neighbourhoods, which aligns closely with the studio topic 'health & care' because it addresses the specific needs of this vulnerable group of people that needs to be cared for. This topic also directly connects with the master track in Architecture (A), exploring how architectural strategies can enhance the quality of life for this target group. This project also fits within the broader goals of the Msc architecture urbanism and building sciences by addressing social issues through spatial design and examining the role of architecture and its surrounding landscape in improving human well-being.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

The relevance of this graduation work in the larger social, professional, and scientific framework is significant. Socially, it addresses the need for improved quality of life for elderly individuals with dementia. Professionally, it aligns with trends in healthcare architecture that prioritize person-centered design. Scientifically, it contributes to the understanding of how architectural design influences health outcomes, providing evidence-based insights for best practices in creating supportive environments for elderly with dementia.

Next steps

After the P2 presentation, the building design will be further developed. Currently, it consists of mainly masses. The design guidelines from the research must be further integrated to create a design that is supported by the findings of the research. The next steps will involve refining the masses, which will eventually need to be developed in constructional detail. Besides this, every scale must be thoughtfully considered: the environmental scale, the building scale, and the room scale, to achieve a cohesive and well-integrated design.