Reflection on Research and Design – Ruben Bogert – 5272157 – 05-05-2025

1. Relationship between the Graduation Project, the Master Track, and the Master Programme My graduation project focuses on improving the living environment for older adults in urban areas such as Tarwewijk. This aligns closely with my master track and the broader master programme, particularly in the fields of urbanism, landscape architecture, and above all, architecture. By adopting an interdisciplinary approach, my project integrates knowledge from urban planning, landscape architecture, and specifically architecture and social sciences.

Studio and Studio Choice My graduation project, titled *Healthy Ageing in Tarwewijk*, is part of the AR3AD110 Dwelling Graduation Studio. I chose this studio due to my personal interest in the healthcare sector. The increasing pressure on healthcare is a major societal challenge. While opening new care institutions seems like an obvious solution, there is a significant shortage of healthcare personnel. As a result, alternative housing models are needed to enable older adults to live independently for longer. My project addresses this issue and explores how architecture can contribute to a solution.

2. The Interaction between Research and Design Research has played a fundamental role in shaping the design. By analysing existing living environments and the needs of older adults, concrete design principles have been identified (see the design guidelines in the research). These insights have informed design decisions such as fostering social interaction, implementing flexible housing units, and creating communal spaces to enhance social cohesion. Conversely, the design process has also generated new research questions, such as the implementation of circular building principles within social housing. However, this is a broader topic and not specifically related to my research focus.

Research Question and Design Principles The central research question of my graduation project is: *How can the living environment in Tarwewijk be improved to enable older adults to live independently at home for longer?* This main question is divided into three sub-questions:

1. What is the current housing situation of older adults in Tarwewijk?
2. What are the needs of older adults concerning their living environment?
3. Which design principles from existing reference projects can contribute to an improved living environment for older adults?

Based on these questions, design principles have been developed and applied to a housing complex in Tarwewijk. The design focuses on:

- Communal spaces that promote social interaction.
- Accessible infrastructure that integrates well with the surrounding neighbourhood.
- Strengthening weak social networks to enhance self-sufficiency.
- Facilitating social encounters through architecture.
- Adaptable housing units that accommodate changing care needs.

3. Evaluation of the Chosen Approach and Methodology My approach combines literature research, case studies, and interviews with experts and residents. This methodology has been effective in gathering both quantitative and qualitative insights.

Research Methods

- **Quantitative research**: Statistical data and mapping provide insight into the current housing situation.
- **Photographic documentation**: Visual material captures the physical and social aspects of the neighbourhood.
- **In-depth interviews**: Conversations with older adults and healthcare professionals offer insights into needs and preferences.
- **Literature review**: Academic literature on age-friendly neighbourhoods and housing adaptations forms a theoretical foundation.
- **Case study analysis**: Existing housing concepts such as *Knarrenhof* in Zwolle and *Scheldehof* in Vlissingen provide inspiration for design solutions.

The developed design guidelines have been applied at every scale level of the building. The research maintains a direct link to the design process. Feedback from lecturers has further improved the graduation project. I primarily received feedback on how I applied the design guidelines. In other words, the design guidelines were used as a benchmark to evaluate my design.

4. Academic and Societal Value of the Project Academically, this research contributes to the discussion on enabling older adults to live independently for longer in an urban context. Societally, the project provides practical guidelines for policymakers and housing associations to better align existing living environments with the needs of older adults. In this way, the pressure on the healthcare system can be partially alleviated. However, this is just one of many necessary changes. A comprehensive approach at various levels and across different fields is required to address the current healthcare challenges effectively.

5. Transferability and Applicability of Results The principles developed in my project are transferable to other urban neighbourhoods facing similar demographic challenges. This can be achieved by developing a manual with design strategies and policy recommendations. However, implementation requires customisation based on location-specific regulations and existing infrastructure.

Literature and References My research is based on multiple sources, including:

- WHO Age-Friendly Cities Framework
- Case studies such as *Knarrenhof* and *Scheldehof*
- Statistics and publications from the Dutch Central Bureau of Statistics (CBS)
- Reports from the Netherlands Institute for Social Research (SCP)
- Publications such as *Designing for Social Interaction* and *The Architecture of Ageing*

6. Self-Developed Reflection Questions

- To what extent is it plausible that the specifically applied design solutions (such as fostering social interaction through architecture) will actually be effective?
- How likely is it that people will actually be able to live independently for longer by creating a community at the urban level? Does the design genuinely contribute to this?

7. Outlook on the Further Graduation Process In the upcoming period between P4 and P5, I will work on creating a scale model of the building at 1:500, as well as two models at 1:50. One of the 1:50 models will represent stacked apartments, similar to the fragment I presented at 1:50. In addition, I will develop a 1:50 model of the stacked collective spaces located in the courtyard.

Furthermore, I will process and incorporate the feedback received during P4.