

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Personal information	
Name	Eline Koes
Student number	5732069

Studio		
Name / Theme	AR3AD110 Dwelling Graduation Studio: Designing for Care in an Inclusive Environment	
Main mentor	B.M. Jürgenhake	Architecture
Second mentor	A.B.J. van Deudekom	Building Technology
Third mentor	L.M. Oorschot	Research
Argumentation of choice of the studio	<p>My experiences during internships at two architecture firms have helped me realize that I have always been drawn to the social aspect of designing. With architecture I want to contribute to making a positive impact on people's lives. The current situation in the Netherlands calls for new solutions and significant changes in society towards the health care. I see it as a challenge to create an environment where every individual can live healthy and use their qualities to improve their neighborhoods.</p> <p>I am also enthusiastic about the human centered research within this studio. I want to learn more about specific groups, healthcare buildings, and the people who work within them. Therefore, this studio offers the ideal opportunity for me to pursue my interests.</p>	

Graduation project	
Title of the graduation project	How the Living Environment could contribute to Healthy Ageing
Goal	
Location:	Tanthof-West, Delft
The posed problem,	<p>Without intervention, the ageing population will face three major challenges:</p> <ol style="list-style-type: none"> 1. An increase of people dealing with non-communicable diseases. 2. A shortage of healthcare staff. 3. Rising healthcare costs, which makes the healthcare unsustainable. <p>The healthcare system must shift its focus towards preventing instead of treatment. Architects and urban planners play a crucial role in shaping the living environment and should be an integral part of the solution for creating a health-promoting living environment.</p>

research questions and	<p>How can Dutch living environments be adapted or designed to promote healthy ageing and assist the elderly in maintaining their vitality?</p> <ul style="list-style-type: none"> - What are the key elements that influence the health and well-being of the ageing population in Blue Zones and other examples? - How can those key elements that contribute to health and well-being be integrated into urban planning and housing design? - What architectural features can encourage healthy lifestyle choices within residential buildings? - How can the Blue Zone concept be implemented within existing Dutch urban living environments?
design assignment in which these result.	Design guidelines for architects and urban planners, to encourage physical activity, foster social interactions, place more green spaces to create a healthier living environment

Process

Method description

Literature research / Case studies

- Literature about the Blue Zones; Spatial elements related to stimulating physical activity and social connections and creating more green spaces in the living environment.
- Case studies that implemented Blue Zone principle to understand how these projects implemented healthy ageing in the Netherlands. Both new and existing projects will be studied.

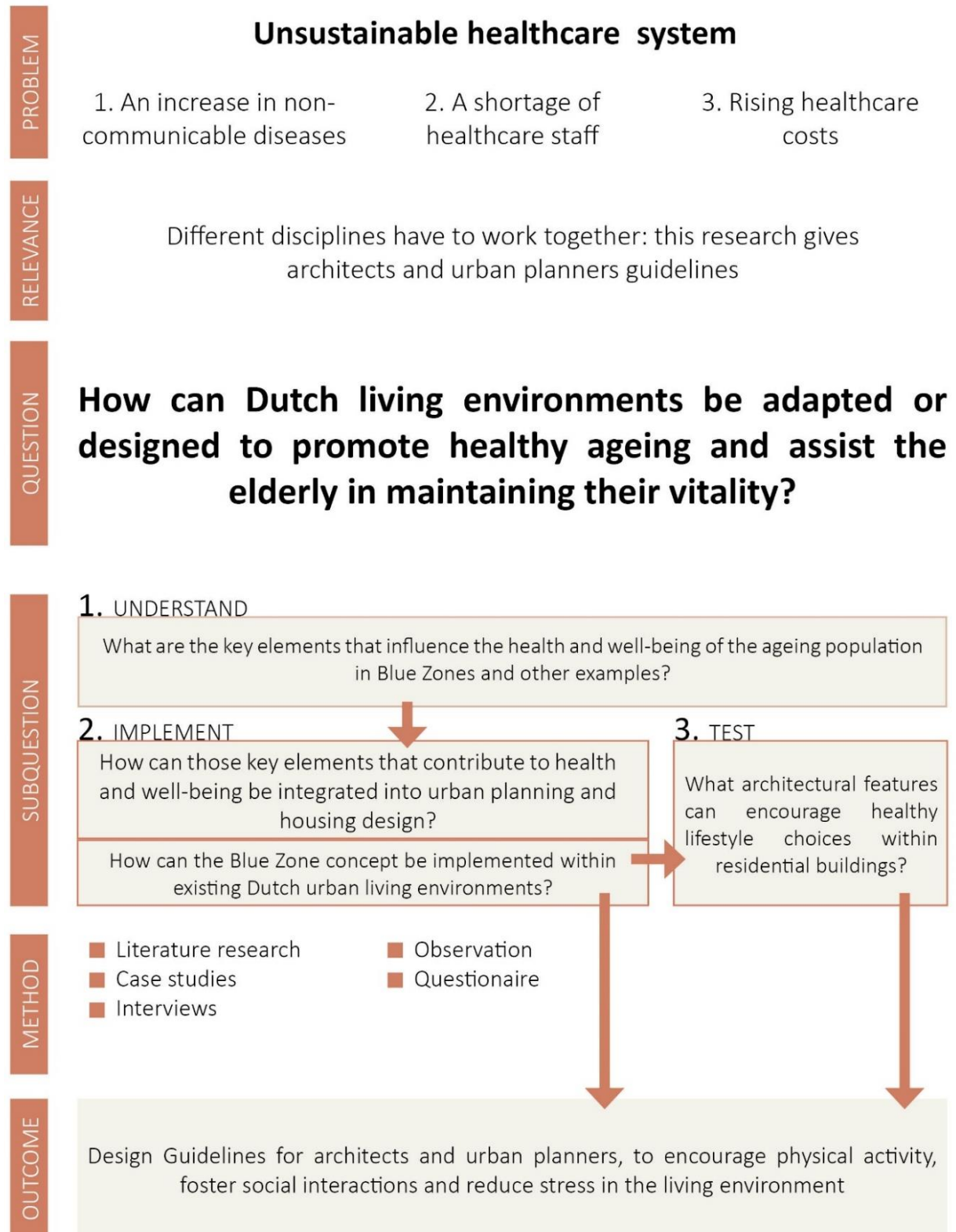
Questionnaire

- A questionnaire with 20 questions to gain insight of the participant's (65+) experiences within a housing complex for elderly, their physical activity levels, their social connections and community preferences.

Observations / Interviews

- Observations of behaviour of people (65+) related to physical activity, social connections and green space.
- Interviews with residents (65+) of the housing community about daily routines related to health.
- Interviews with professionals about the implementation of health-promoting architecture and green space. Such as the municipality of Delft and the BloeiZones Fryslân.

Research Diagram



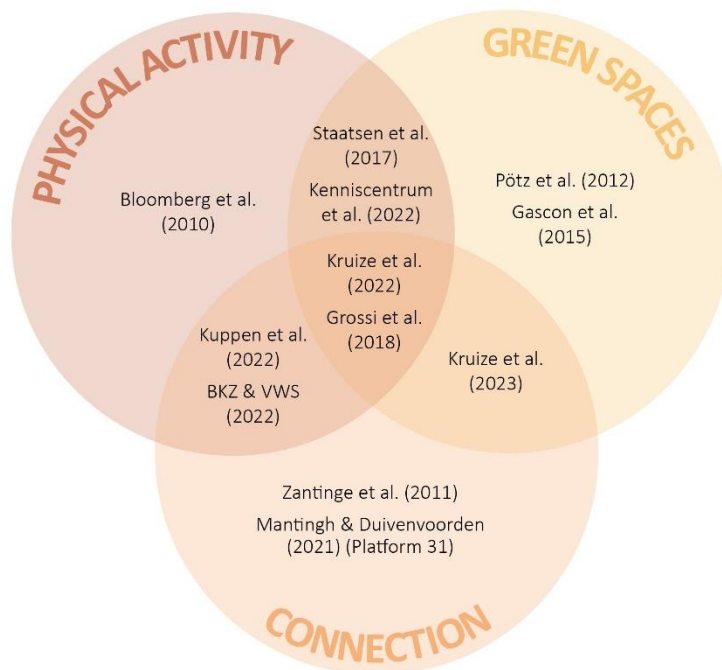
Literature and general practical references

The theoretical framework explores the concept of healthy aging, particularly focusing on Blue Zones, regions in the world associated with long and healthy lives. Buettner and Skemp identified nine key lifestyle attributes present in Blue Zones, which include factors beyond the built environment, such as personal choices and cultural aspects. The success of Blue Zones is often tied to traditional lifestyles with physically demanding activities.

In the Netherlands, initiatives like the BloeiZones in Friesland adapt Blue Zone principles for healthy aging, emphasizing themes like citizenship, green spaces, active leisure, healthy mobility, healthy living, healthy diet, and financial well-being. However, there is a need for critical assessment, especially considering the different setting from the Blue Zones and the absence of technology in these approaches.

Another example is the Cartesius neighborhood in Utrecht, an urban project prioritizing physical activity, healthy food, community, purpose, and relaxation. However, this project is still in development, making it challenging to draw conclusions.

Existing literature highlight the relationship between the living environment and health, as the environment can either promote or hinder physical activity, social interactions, behaviour, motivation, and stress reduction. Building on the principles of the Blue Zone and existing literature, this study focuses on three spatial domains—physical activity, green spaces, and social connection—within the urban living environment.



Practical experience / precedent

- Experiences at fieldwork week at housing community for people over the age of 65.
- Experience impairments that come with old age.
- BloeiZones Fryslân
- Case studies (Cartesius, Utrecht; Communal living, Nieuwegein; Dementia-friendly walking route, Dronten)

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)?

The studio theme revolves around designing for care in an inclusive environment. This research explores how the living environment can contribute to healthy aging, aiming to reduce the required care and to extend people's independence. It addresses the increasing relevance of solutions for the elderly, providing valuable insight. Additionally, it offers architects and urban planners guidelines to create a healthier living environment.

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

This research is relevant as there is an urgent need for change within the Dutch healthcare system. The ageing population is facing increased health issues, and the number of caregivers is insufficient to meet these demands. The Dutch government has written policies for preventative measurements, but there are not enough concrete projects realised. To make a living environment healthier, people from the neighbourhood, or the municipality must act. Architects and urban planners play a crucial role in shaping the living environment and should be an integral part of the solution for creating a health-promoting living environment.