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	Jianing Liu
Student number	5290236

Studio	
Name / Theme	Designing for Care / Architectural designs for the elderly
Main mentor	Birgit Jürgenhake	Field of Architecture, designing for care
Second mentor	Lex van Deudekom	Building Technology
Argumentation of choice of the studio	The unprecedented challenge of our demographics requires global actions to meet the changing needs of an ageing population, to provide the opportunity for older people to live a long and healthy life.

Graduation project	
Title of the graduation project	Open the Door: Living Environment Design for Reconciling Social Loneliness in Old Age
Goal	
Location:	Apollostraat 110 Morgen, Hillegersberg, Rotterdam
The posed problem,	1.From loneliness to social loneliness: social loneliness has been considered as a major problem of ageing, which can have significant negative effects on both mental and physical health among the elderly. 2. From social loneliness to communal space: studies show that the expected increase of the quantity of social interactions within communal spaces is supposed to exert a positive effect on social loneliness.
research questions and	What are the design strategies in the living environment for reconciling social loneliness in old age?

	Sub 1: How to build intimate social connection in-between private spaces in the living environment for the elderly? Sub 2: How to create communal space for supporting social connection in the living environment for the elderly?
design assignment in which these results.	Building an open and intimate neighborhood through connection in answer to the elderly's urgent problems from aged-related social losses.

The main goal of this study is to consider the possibilities that our living environment could go beyond the adaptation to its own structures, to explore effective design practice for the elderly among whom the social loneliness is widespread. The research questions are focused on design principles and strategies which are suited to specific needs from different scales, including outdoor environment at the neighborhood level, and smaller scale within the building (elderly homes). The preliminary conclusion consisting of innovative concept and skills would be integrated as an encouragement for the elderly to get out of their private space for better social connection.

Process

Method description

1.Visual anthropology
The study starts on the basis of visual anthropology and direct contact with the target group, and will go further under this domain from more architectural perspectives. The anthropological research makes up the main body of the study, and re-examination of the fieldwork according to the research question contributes to solid argument and insight into the subject.
2.Literature reviews
The sufficient bibliography consisting of international publications would clarify the background and definitions related to the subject. Besides, a comprehensive set of living environment characteristics that are closely linked to the health and well-being of older people is underlined. Further, the guideline based on literature review is used as performance criteria of critical variables involved in the design of neighborhood and elderly homes, and efficient design reference for following case studies.
3.Case studies
A variety of case selection helps to demonstrate the general design solutions and specific architectural strategies.
4. Interviews
The study requires detailed knowledge about the daily habits, activities, routes, rituals and feelings of the elderly and their supporters outside the private space.

Literature and general practical preference

Sim, David, and Jan Gehl. *Soft City: Building Density for Everyday Life.* Washington, DC: Island Press, 2019.

Gehl, Jan, and Jo Koch. *Life between Buildings: Using Public Space*. Washington, DC: Island Press, 2011.

Gehl, Jan, and Birgitte Svarre. *How to Study Public Life*. Washington, DC: Island Press, 2013.

Langdon, Philip. *Within Walking Distance: Creating Livable Communities for All*. Washington, DC: Island Press, 2017.

Aelbrecht, Patricia, and Quentin Stevens, eds. *Public Space Design and Social Cohesion: An International Comparison*. New York: Routledge, Taylor and Francis Group, 2019.

Burton, Elizabeth, and Lynne Mitchell. *Inclusive Urban Design: Streets For Life*. Oxford: Taylor & Francis, 2006.

Howell, Sandra C. *Designing for Aging: Patterns of Use*. Cambridge, Mass.: MIT Press, 1980.

Newman, Oscar. *Defensible Space*. New York: Macmillan, 1973.

Gameren, Dick van, Hans Ibelings, D'Laine Camp, and Peter Mason. *Revisions of Space: An Architectural Manual*. Rotterdam: Nai, 2005.

Project 1. 110 Morgen Neighborhood, Rotterdam, The Netherlands
Project 2. Liduinaplein Neighborhood, Rotterdam, The Netherlands
Project 3. De Drie Hoven, Amsterdam, the Netherlands
Project 4. De Zonnetrap, Rotterdam, the Netherlands

Reflection

1. Ageing brings a higher risk of social loneliness, and limited access to affordable and high-quality living environment. Since living environments including their homes and neighbourhoods, are essential variations which can directly affect older people's physical and mental capacity, it is important to consider environmental and design approaches that ameliorate the losses associated with older age to improve their life quality. And this design assignment is highly related to the vision of the studio.

2. The design assignment involves the design of a housing project and its environment. The main focus is the negotiating process of making (design) decisions on an environment, in which elderly with care demands can live together with others and will be part of the community. The need to know more about inclusive housing design is consistent with the changing need of our ageing society, which requires adaptations to the way it is structured across all sectors. For example, health and social care, transportation, housing and urban planning.