

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	Anton Presură
Student number	5304652

Studio		
Name / Theme	AR3AD110 Dwelling Graduation Studio: Designing for Care in an Inclusive Environment 2024/25	
Main mentor	Kobe Macco	Architecture & Landscape Architecture
Second mentor	Birgit Jürgehake	Architecture
Third mentor	Birgitte Hansen	Research Mentor
Fourth mentor	Jasmina Campochiaro	Building Technology
Argumentation of choice of the studio	<p>I have always been interested in the topic of mental health and how this intersects with architecture.</p> <p>Furthermore, I found it interesting how health related issues in the past such as tuberculosis were so influential that even architecture adapted to it, whilst a more recent issue such as mental health barely has any influence on architecture.</p> <p>For my graduation, I wanted to create an architectural project where mental health is perceived as urgent as, for example tuberculosis was in the past, therefore the choice of this specific graduation studio.</p>	

Graduation project	
Title of the graduation project	Phenomenology as a tool for students' mental well-being
Goal	
Location:	Rotterdam, The Netherlands, Tarwewijk, Brielselaan
The posed problem,	The pandemic lead to an increase in mental health issues, and is predicted to increase even further

	<p>Students tend to be a target group with a high prevalence regarding mental-health issues</p> <p>Which leads to longer counselling waiting lists, worsened academic performance, and even leading to dropping out</p> <p>This is further worsened by the housing crisis which forces students into poor quality and cramped accommodations.</p> <p>The specific design site lacks proper spatial appropriation by the inhabitants. The site consists of two buildings, separated by an in-between street. On the north side there is a Turkish cultural center that does not have any windows facing the surrounding streets, and only has a completely fenced off garden, which is their only connection to the outside. Furthermore, the visitors often only visit the building twice a week.</p> <p>On the south side is a residential building with its ground floor designed for commercial spaces, this however is fully used by auto repair shops, which do not need windows, and therefore covered them up from the inside.</p> <p>The in-between street has on one side, covered windows, and on the other a fenced of garden, permitting disorder and crime.</p>
research questions and	<p>Question to be answered further by graduation project:</p> <p>How can the design of residential living environments, viewed through the prism of phenomenological theory, support and enhance the mental well-being of students? A Tarwewijk case study.</p> <p>Sub questions already answered by research:</p>

	<p>What does phenomenological theory propose for the design of residential living environments in relation to mental well-being?</p> <p>How do the ideas proposed by phenomenological theory regarding mental well-being align with the findings of empirical research on mental well-being?</p> <p>What living environment features have already been discovered and implemented in order to enhance mental well-being?</p> <p>What living environment features are most desired by students within the Netherlands, for their mental well-being?</p>
design assignment in which these result.	<p>The proposal is the redesign of the corner of an urban block, into student residences with a focus on mental wellbeing enhancing architectural features.</p> <p>The brief also aims to revitalize an existing in-between street which is currently desolate and misused by transforming it into a mental wellbeing hotspot for the students and the neighborhood.</p>
Process	
Method description	
<p>This study began with an exploration of phenomenological theory books, with the objective to extract themes and concepts relevant to the topic of mental well-being.</p> <p>The following step was a literature review of empirical studies across psychology, sociology, and anthropology, utilising the themes extracted from the phenomenological theory books as a starting point. The same topics were explored from an empirical perspective whilst at the same time these were compared to the previous phenomenological findings.</p> <p>This study also has case studies of architectural projects that have to some extent been designed with mental well-being in mind. Through these precedents, this study</p>	

aims to identify already implemented architectural means that support mental well-being.

The next phase of the research involved conducting interviews with students in the Netherlands. These interviews focussed on exploring what students wished they had within their living environments to better support their mental well-being. The interview process was divided into two parts.

In the first part, a set of questions was developed based on topics which were found to be relevant in the phenomenological theory review, the empirical research literature review and the case studies. These questions were integrated within a questionnaire and distributed.

In the second part, a small group of students was provided with a printed floor plan of their current bedroom. They were invited to draw and annotate directly on the floor plan to visually express their desires and ideas for an ideal living environment that supports their mental well-being.

All the afore mentioned research methods contributed to the creation of a set of guidelines, by extracting the most relevant findings from each method. These guidelines will be used as a point of departure for the designing phase within the graduation project.

The implementation of these guidelines within the student residences will be the following part of the graduation project in order to create student residences with the main purpose being the support and enhancing of the students' mental wellbeing.

Literature and general practical references

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

Phenomenological Literature

Bachelard, G. (1958/2014). *The poetics of space* (M. Jolas, Trans.). Penguin Classics. (Original work published 1958)

Zumthor, P. (2010). *Thinking architecture* (3rd expanded ed.). Birkhäuser.

Zumthor, P. (2006). *Atmospheres: Architectural environments, surrounding objects*. Birkhäuser.

Hertzberger, H. (2016). *Lessons for students in architecture* (7th ed.). nai010 publishers.

Pallasmaa, J. (2012). *The eyes of the skin: Architecture and the senses* (3rd ed.). Wiley.

(a part of the) Empirical Literature

Torresin, S., Albatici, R., Aletta, F., Babich, F., Oberman, T., Stawinoga, A. E., & Kang, J. (2022). Indoor soundscapes at home during the COVID-19 lockdown in London – Part II: A structural equation model for comfort, content, and well-being. *Applied Acoustics*, 185, 108379. <https://doi.org/10.1016/j.apacoust.2021.108379>

Easterbrook, M. J., & Vignoles, V. L. (2015). When friendship formation goes down the toilet: Design features of shared accommodation influence interpersonal bonds and well-being. *British Journal of Social Psychology*, 54(1), 125–139. <https://doi.org/10.1111/bjso.12062>

Strachan-Regan, K., & Baumann, O. (2024). The impact of room shape on affective states, heart rate, and creative output. *Heliyon*, 10(6), e28340. <https://doi.org/10.1016/j.heliyon.2024.e28340>

Gómez-Puerto, G., Munar, E., & Nadal, M. (2016). Preference for curvature: A historical and conceptual framework. *Frontiers in Human Neuroscience*, 9, 712. <https://doi.org/10.3389/fnhum.2015.00712>

Wang, C., Lu, W., Ohno, R., & Gu, Z. (2020). Effect of wall texture on perceptual spaciousness of indoor space. *International Journal of Environmental Research and Public Health*, 17(11), 4177. <https://doi.org/10.3390/ijerph17114177>

Zhang, S., Sun, Z., Chen, S., Li, Y., & Liu, J. (2022). Effects of indoor plants on human physiological and cognitive functions: A systematic review and meta-analysis.

International Journal of Environmental Research and Public Health, 19(7), 7454.
<https://doi.org/10.3390/ijerph19074554>

Brace, O.; Garrido-Cumbrera, M.; Foley, R.; Correa-Fernández, J.; Suárez-Cáceres, G.; Laforzezza, R. Is a View of Green Spaces from Home Associated with a Lower Risk of Anxiety and Depression? Int. J. Environ. Res. Public Health 2020, 17, 7014.
[Google Scholar] [CrossRef] [PubMed]

Precedents

Tietgen Dormitory, Copenhagen, Denmark, 2006, Lundgaard & Tranberg Architects.

Student Housing 912, Sant Cugat del Vallès, Spain, 2012, H Arquitectes and dataAE.

Placidus Student Welfare Spaces, Melbourne, Australia, 2023, Branch Studio Architects.

Variowohnen Wuppertal, Wuppertal, Germany, 2020, ACMS Architekten.

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 topic of mental wellbeing within the target group of students viewed from the prism of phenomenology is closely the studio topic of designing for care, firstly it takes into consideration the care aspect of the students by implicating their mental wellbeing, furthermore the eventual design assignment implies the creation of student residences which reflects its architectural aspect, lastly, the topic is connected to the master AUBS as a whole, as it brings forth the different scales, at which the residences will be designed. The scale of the context, the revitalization of the in between street, urbanism. The scale of the building, the programming and fitting of the student residences within the plot, architecture. The scale of the details, the implemented architectural details that are beneficial for mental wellbeing, building sciences.

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

The phenomenological lens through which the research has taken place and through which the graduation project will commence, is what makes this project unique and relevant within the topic of care. The topic of mental wellbeing has already been researched in academic literature, but not with the perspective of phenomenology,

Furthermore, architectural projects for student residences, are slowly integrating mental health related architectural design choices, however there are few existing projects where the sole purpose is the support and enhancing of the students' mental wellbeing. Making it relevant within its domain of student residences.