

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	Rushil Raj Kapoor
Student number	5607264

Studio		
Name / Theme	Dwellings Studio: Design for Care In an Inclusive Environment	
Main mentor	Elke Miedema	Architecture
Second mentor	Frederique van Andel	Research
Third mentor	Jos Lafeber	Building Technology
Argumentation of choice of the studio	One's mental and physical wellbeing is utmost important in order to succeed in any field. Often a blind eye is turned towards these things which could lead to severe conditions. The built environment and human behavior are interrelated, and architects are the mediators of this bond. Buildings can have a large influence on the overall wellbeing of a person and the pandemic made everyone realize this. As future architects, it is our responsibility to design in order to create the best and prepare for the worst environments. I therefore found the studio very interesting and a viable graduation choice.	

Graduation project	
Title of the graduation project	Towards Normalisation: De-Institutionalising Mental Healthcare and Catering the Youth

Goal	
Location:	Laakkwartier, Den Haag
The posed problem,	Whether it is social media, societal burdens or stigmatization, what is important to acknowledge is the fact that mental illnesses are omnipresent, even in countries that have taken conscious steps towards reduction. Netherlands is a country with a very sophisticated educational system. They have successful programs for children

with Special Needs and also have psychologists in most of the ordinary schools for the students to talk to. Yet according to the NL Times, Dutch young adults have higher rates of mental illness than the rest of Europe. Dutch studies suggest that girls and young adults in particular were more likely to suffer from mental illnesses and nearly half of the youth were negatively impacted by the pandemic. Netherlands is also known to have poor youth access, and this is due to the long waiting lines for youth and mental care that were a by-product of the coronavirus pandemic. Hence there is a problem at hand that requires viable solutions to reduce the high number of mental illnesses in Netherlands.

It is clear to say that mental health illnesses among the youth is on the rise. The new cycle of modern lifestyles and habits alongside additional influences such as social media, have a concerning impact on young adults. Current institutions and facilities lead to possible social exclusion and isolation for those afflicted. Certain design principles within the built environment can improve the approachability and attractiveness of mental health care facilities. It is important to analyze how these principles can be implemented in order to normalize visiting health care facilities especially for the youth that have mild to moderate mental illnesses, so that preventive measures can be taken at an early stage of the illness.

<p>research questions and</p>	<p>What design principles can support the prevention of mild to moderate mental health illnesses among young adults, to improve quality of life in their adulthood? In order to answer this research question, one must investigate the following sub questions:</p> <ul style="list-style-type: none"> • How can mental health illnesses be prevented among young adults? • What are the needs of young adults with mental illnesses, in order to improve the quality of life? • What architectural principles would stimulate young adults to take preventive measures towards their mental health? • How do current facilities accommodate young adults with mental illnesses?
<p>design assignment in which these result.</p>	<p>Youth Mental Health Care Facility</p>
<p>The primary aim of the research is to explore de-institutionalisation as theme and approach as an alternative architectural solution to current existing mental health facilities. Additionally, to determine how mental illnesses can be prevented through community centres alongside curation through communal based living done to promote social connectedness by the help of biophilic and natural design elements integrated in an urban context.</p>	
<p>Process</p>	
<p>Method description</p>	
<p>The methods and techniques that will be utilized for research and design can be categorized into three: Literature Research, Architectural Research and Anthropological Research.</p> <p>Literature Research: This will be done by finding relevant sources and academic papers on data bases such as the TU Delft library as well as online scholar platforms</p>	

such as Scopus. Through this, a list of research papers, scientific articles, books and additional publications will be determined. The aim is to identify and incorporate the design choices that are hinted through these sources in order to elevate the atmosphere of design.

Architectural Research: By using several combinations of keywords such as mental health AND youth AND social media. As well as youth AND care AND services helped in determining reference projects and case studies. Countries such as Canada and New Zealand already have established systems in place that similar to the ideologies and goals of the thesis. These concepts of "Community-Based Youth Service Hubs" and "One-Stop Shops" are relevant references. Additionally, two case studies were used and analyzed due to their relevance to the topic and due to their important design features. The two case studies are Trillium Secure Adolescent Inpatient Facility and Health Nursery School in Orkelljunga.

Anthropological Research: This would include attaining first-hand knowledge through fieldwork in the form of site visits, interviews and surveys. It is important to know the needs of the target group and at the same time, acknowledge the solutions made by the built environment at present. Observing, interacting with the patients as well as interviewing the caretakers would help in getting a better insight. This will help in making consciously better design choices based on the experience gained through the fieldwork.

Literature and general practical preference

Literature Review:

Prevention is better than cure

The Lancet Psychiatry. (2022). Prevention is better than cure. *The Lancet Psychiatry*, 9(8), 601. [https://doi.org/10.1016/s2215-0366\(22\)00238-3](https://doi.org/10.1016/s2215-0366(22)00238-3)

Substance Abuse and Mental Health Services Administration. (2019). Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health (HHS Publication No. PEP19-5068, NSDUH Series H-54). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

Jollant, F., Lawrence, N., Olié, E., Guillaume, S., Courtet, P., & Phillips, M. L. (2013). Promoting positive mental health: A link between emotion regulation and self-esteem. *Journal of Affective Disorders*, 145(1), 22-28.

McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2013). Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents. *Archives of General Psychiatry*, 70(4), 319-326.

Berman, M. G., Jonides, J., & Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science*, 19(12), 1207-1212.

Parks, S. A., & Pillow, D. R. (2014). A review of the relationship between physical activity and mental health in children and adolescents. *Journal of Child Neurology*, 29(5), 617-625.

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, 7(7), e1000316.

Social connectedness through community-based living

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin*, 98(2), 310-357.

Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: a nine-year follow-up study of Alameda County residents. *American journal of epidemiology*, 109(2), 186-204.

Kuo, F. E., & Taylor, A. F. (2004). A potential natural treatment for attention-deficit/hyperactivity disorder: evidence from a national study. *American journal of public health*, 94(9), 1580-1586.

Relf, D., & O'Brien, L. (2015). The role of the built environment in promoting mental health. *Health promotion international*, 30(1), 19-26.

Talen, E. (2010). *Community by design: New urbanism for Suburbs and Small Communities*. John Wiley & Sons.

Kellett, P., & Tewdwr-Jones, M. (2010). *Public life and urban form*. Routledge.

Rapoport, A. (1990). *The meaning of the built environment: a nonverbal communication approach*. University of Arizona Press.

Natural environments and biophilic design

Kaplan, R., & Kaplan, S. (1989). *The experience of nature: a psychological perspective*. Cambridge University Press.

Ulrich, R. S. (1984). View through a window may influence recovery from surgery. *Science*, 224(4647), 420-421.

Hartig, T., Mang, M., & Evans, G. W. (1991). Restorative effects of natural environment experiences. *Environment and behavior*, 23(1), 3-26.

Clements-Croome, D. (2006). *Creating the productive workplace*. Routledge.

Kellert, S. R., Heerwagen, J., & Mador, M. L. (2008). *Biophilic design: the theory, science, and practice of bringing buildings to life*. John Wiley & Sons.

Relf, D., & O'Brien, L. (2015). The role of the built environment in promoting mental health. *Health promotion international*, 30(1), 19-26.

Kellett, P., & Tewdwr-Jones, M. (2010). *Public life and urban form*. Routledge.

Channon, B. (2018). *Happy by design: A guide to architecture and Mental Wellbeing*. RIBA Publishing.

Case Studies:

Leiva, S. (2017, February 3). *Trillium Secure Adolescent Inpatient Facility / TVA architects*. ArchDaily. Retrieved January 2023, from https://www.archdaily.com/803705/trillium-secure-adolescent-inpatient-facility-tva-architects?ad_source=search&ad_medium=projects_tab

Luco, A. (2022, July 7). *Health Nursery School in örkelljunga / chroma arkitekter AB*. ArchDaily. Retrieved January 2023, from https://www.archdaily.com/984958/health-nursery-school-in-orkelljunga-chroma-arkitekter-ab?ad_source=search&ad_medium=projects_tab

Fieldwork:

HVO Querido Social and Care Centre

Yulius Psychiatric Care Facility

Interview with Jason Miedema

Interview with TU Delft psychologists

Interview with OMA architect

2 surveys

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)?

Like mentioned above, mental illnesses have been on a rise. Theories and literature presented such as the one by the infamous Dutch scholar, Desiderius Erasmus suggests that prevention is better than cure. Besides this, I also believe that the de-stigmatization and de-institutionalization of mental health facilities for the youth can be done by normalizing seeking for help. Design strategies can help in making facilities more approachable and attractive and that is the relation between the graduation topic and the master track. Target group understandings and requirements followed by architectural design alongside structural analysis would help in creating solutions. Human behavior is influenced by the built environment and architects are the curators of this. Hence creating viable solutions and a harmonic synergy is attempted by the knowledge gained by the master program and its offerings.

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

While the goal is not to scientifically or medically prove something, I do believe that the built environment can be used as a tool to curate change. This change could be the environment of a care center, the experience of the patients or it could also be a change in the medical system through a physical restructure of care centers around a city. I believe that this is the relevance of the graduation work. It could help and inspire professionals to make a change that is required and at the same time it can socially create awareness for a desired goal.