

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	Rutger Natanaël Kok
Student number	4781589

Studio		
Name / Theme	Public Building	
Main mentor	Paul Kuitenbrouwer	Project Design
Second mentor	Florian Eckardt	Technical Building Design
Third mentor	Stefano Corbo	Theory & Delineation (Research)
Argumentation of choice of the studio	<p>This studio was chosen because of multiple reasons. What is interesting about this studio is that all the knowledge gained in the last few years (bachelor + master) is needed to make a complete final design. Thereby, this studio connects real life problems/circumstances with your own interests. In this case; the way architecture can have influence on the health/well-being of the people that use the building.</p> <p>Public buildings are the kind of buildings that can have a big impact on the society. It is a kind of building that can be attractive for all kind of people, connecting users and neighborhoods. It can change peoples thoughts, behavior and in case of this graduation project, the well-being and health conditions.</p> <p>Todays public architecture should be based on multiplicity and hybridity. The architecture should be (easily) accessible for the whole society and should include multiple functions with its own milieu. The building should be resilient, focusing on sustainability and the future.</p>	

Graduation project	
Title of the graduation project	The sensory healing-scape
Goal	
Location:	Berlin, Friedrichshain, Andreasviertel
The posed problem,	An architect should not only design spaces and functions, but he or she does have the ability to design architecture in a way

	<p>whereby the architecture itself can influence the environment and their people, such as health conditions, (safety) feelings, behaviour and productivity. Architecture can trigger your senses, which can have direct influence on the way people feel and behave and it can have an impact on the health conditions of the users.</p> <p>Within the Berlin site area, there is a need to improve the health conditions of the city and the well-being of the individual. On the well-being scale of the Organisation for Economic Co-operation and Development (OECD), Berlin scores 4.8/10 points on the scale of life satisfaction, 6.7/10 on health, 6.9/10 on civic engagement and 4.8/10 on environment. (OECD, n.d.). There is a low amount of social interaction between residents and there is not that much communal activities. Within the site area (Andreasviertel - Weberwiese - Wriezener Bahnhof) we cannot see any specific designed places or buildings based on improving the health conditions of the people in the city. People generally are not being stimulated to social interaction, physical activities or being exposed to nature, except from small green parks.</p>
<p>research questions and</p>	<p>A public condenser, a place for all people, no matter which culture, age, gender and interests, is a perfect place to improve people's well-being and the health of the city. Stimulating people to improve their well-being by creating certain 'Atmospheres' - places that you can read, becoming involved with and that manages to move people. (Zumthor, 2006). – using multisensory design techniques. "The quality of a space or place is not merely a visual perceptual quality as is usually assumed. The judgement of environmental character is a complex multi-sensory fusion of countless factors, which are immediately and synthetically grasped as an overall atmosphere, feeling, mood or ambiance." (Pallasmaa, 2014).</p>

	<p>The research question is as following; How to create an interactive atmosphere based on multisensory design, that stimulate people to improve their well-being, physically and mentally?</p> <p>This main question should be answered based on these sub-questions:</p> <ul style="list-style-type: none"> - How can space communicate emotions and behavior? - How can multisensory experience increase the publicness of an architectural design? - What kind of forms, materials and functions relate to an interactive and stimulative atmosphere?
<p>design assignment in which these result.</p>	<p>The design of this community centre is based on several Theory & Delineation assignments. In the last semester, several techniques are used to gain knowledge and discover what is needed in the design of the building. The last semester was focused on the ideas behind the design; what do you want to achieve with your design and how should the building be used/experienced. The schematic design is developed on the basis of these assignments and exercises.</p> <p>The design will consist of a main route which invites people to enter the 'design area'. Along this route, you can find several buildings that can have direct influence on peoples health conditions, such as a sport hall, a swimming pool, a gym, a doctor/physiotherapy and a building to gain knowledge about health. Next to the buildings, the park route consist of several spaces to practice your daily exercises, enjoy resting or have social interaction with others.</p> <p>After P2, the building will be developed in more detail, focusing on materiality, structure and detailing. A detailed planning can be found at the end of this document.</p>

Process

Method description

This research will be based on the 'Research by design' method. The research by design approach consists of different techniques, like collages/montages, diagramming, superimposing, mapping and modelling. These techniques give new insights and ideas on how to tackle the overall assignment.

Literature studies should give extra 'evidence based' information that can be used to formulate the building. Literature is used to gain knowledge in how multisensory design should be accomplished, how to stimulate people and how to create an interactive experience. The 'research by design' approach will also help answering these questions. Interviews and observation during the excursion gave insight in how people experience the existing space and to investigate what is missing in the site area.

During the excursion to Berlin in week 1.4, several interviews with residents were done. The questions were based on how people feel about living in the area, what they do on daily basis and which kind of functions are missing for them. Based on these interviews, there can be concluded that, in general, people are feeling quite good. There are many young adults and children living in the area. The missing functions are mainly based on sports, like a fitness, a pool for education and a doctor in the near area.

Based on observation, there can be concluded that the area is not designed in a way to improve people's health condition. In comparison with other areas in the city, there is a low amount of green and public spaces for social interaction. The well-being in the area should be improved.

Literature and general practical preference

Used literature:

Bloomberg, M.R. (2010). Active Design Guidelines.

<https://www1.nyc.gov/assets/planning/download/pdf/plans-studies/active-design-guidelines/adguidelines.pdf>

C.N, S. N. (n.d.). Understanding multisensory architecture.

https://www.coa.gov.in/show_img.php?fid=148

Marquez, A. (n.d.). Introduction to Multi-sensory Design.

<http://www.aknamarquez.com/blog/2017/7/23/what-is-multi-sensory-design>

Mau, B. (2018). Designing LIVE. In E. Lupton, & A. Lipps (Eds.), *The senses: Design beyond vision*, (p. 20–23). Hudson: Princeton Architectural Press.

OECD Regional Well-Being - How is life in Berlin? (z.d.). OECD Regional Well-Being.

<https://www.oecdregionalwellbeing.org/DE3.html>

Pallasmaa, J. (2014). Space, place and atmosphere. Emotion and peripheral perception in architectural experience. *Lebenswelt: Aesthetics and Philosophy of Experience*, 4(4). <https://doi.org/10.13130/2240-9599/4202>

Pallasmaa, J. *The Eyes of the Skin – Architecture and the Senses*. United Kingdom: Wiley-Academy, 2005.

Spence, C. (2020). Senses of place: architectural design for the multisensory mind.

Cognitive Research: Principles and Implications, 5(1). <https://doi.org/10.1186/s41235-020-00243-4>

Vignjevic, A. (2017). Dialectic Atmosphere of Architecture. *AM Journal*, No.12, p.41-54. <http://dx.doi.org/10.25038/am.v0i12.166>

Zumthor, P. (2006). *Atmospheres: Architectural Environments. Surrounding Objects*. Birkhauser - Publishers for Architecture. <http://ci.nii.ac.jp/ncid/BA77504088>

Used case-studies:

- Domestic Astronomy (Phillipe Rahm)
- Gallery of Culture house, Arnhem (Neutelings Riedijk Architects)
- Groot klimmendaal, Arnhem (Koen van Velsen)
- Jade Eco park (Philippe Rahm)
- Naturalis Biodiversity Centre, Leiden (Neutelings Riedijk Architects)
- Olympic Sculpture Park, Seattle (Weiss Manfredi)
- Opera house, Oslo (Snøhetta)
- Ørestad College, Copenhagen (3XN)
- Park 'n' play, Copenhagen (JAJA Architects)

- Zighizaghi, Favara (OFL Architecture)

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)?

Architectural design should bring something extra rather than only designing for a specific function. This project is designing a community centre which stimulates people to improve their health conditions or well-being. This architectural project delivers a design that includes the studio assignment (community centre) AND own interests and research (health promoting architecture).

This studio is in relation with some other interesting courses followed in MSC 1 and 2. In MSC1, the course 'Extreme Architecture' was introducing the assignment of designing a community centre, which was an interesting combination of schematic design and detailing. In MSc2, a thesis is written about how architecture can influence the health conditions of elderly people. This topic is translated into the design of a new living concept of elderly housing in combination with young families and students in the course 'Designing for an inclusive living environment'. The MSC3/4 studio of Public Building is a combination of other courses during MSC1 and 2.

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

This project shows how an architectural design can accomplish more than only designing for a specific function. It shows how space and functions can have influence on other aspects, in this case the health conditions of people. These aspects could be used in lots of other projects, which could influence the world and her population, which is more and more important these days. This graduation project is showing that public buildings are not only places where people come together to do specific activities, but that it can be a place that influences peoples feelings, behavior and conditions, next to the function itself. In this case this is about stimulating the well-being of people.

Planning:

The P2 presentation is based on conceptual and sketch design. It explains how the assignments of Theory & Delineation formed the topics and the concept of the graduation assignment and how this have influenced the Project Design choices. The design is showed based on conceptual floorplans, sections and 3D views. It shows the concept and the goal of the project.

In the first few weeks after the P2 presentation, there will be worked on the feedback of the presentation. After this, the design will be further developed from concept design into preliminary design (P3). This means that there will be more attention paid to technical and structural subjects and materiality. After P3, the design will be further developed into the final design (P4).

P2 (week 3.1) till P3 (week 3.7): The sketch design will be further developed into detailed floorplans, sections and details and the building will be developed in terms of materiality, sustainability and circularity.

P3 (week 3.7) till P4 (week 4.4-4.6): The final design will be presented. This design should contain the work of P2 plus development in Technical Building Design, materialization, and representative construction details. The Graduation Report should demonstrate the understanding of and adherence to professional responsibility, ethical awareness, scientific analysis, creativity, sensible decision-making, and argumentation skills necessary as an architect and for the profession at large. The individual graduation report should not only elaborate on the Graduation Project's societal and disciplinary relevance, but also address design ethos and how the graduation project addresses the multiplicity of imperatives inherent in any architectural work.

P4 (week 4.4-4.6) till P5 (4.9-5.1):

The design of P4 can be further developed, based on the feedback of the P4 presentation. The whole design process and finalized materials will be presented during the P5 presentations. This is the final presentation before graduating.