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	Ioannis Mexis
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Studio	
Name / Theme	AR3AR111 Heritage & Architecture Graduation Studio- Future of Structuralism
Teachers / tutors	L.G.H. Spoormans (Main Mentor) Frank Koopman (Building Technology Mentor) Ivan Nevzgodin (Cultural Value Mentor)
Argumentation of choice of the studio	Nowadays, due to globalization where cities tend to be dominated by similar-modern looking and impersonal buildings, historic buildings are the ones making each place unique. Such buildings, are carriers of memories and history defining the identity of their environment. Due to the values and scars of history that they have carried through time, they have become an integral part of our modern societies. Having studies such projects in both academic and professional levels, as well as my origin (Greece), intervening on historic buildings is a topic that has fascinated me due to the unique challenges that each case can offer. Compared to designing on an empty plot, intervening on pre-existing structures, requires deep understanding of the environment and its values. Also, the fact that such buildings have become an inseparable part of their context requires even more well-thought design decisions by the architects, as the result is irreversible. Structuralism being a movement of architecture that has not yet been investigated by many architects, makes the project an even more intriguing challenge. I also believe, that dealing with such a complex building, would allow me to deepen my knowledge on heritage related projects and in the way that an architect can interact with them, enabling me with vital skills and knowledge in order to become a more thorough architect.

Graduation project	
Title of the graduation project	Revitalization of Leiden Humanities Campus.
Goal	
Location:	Faculty of Humanities, Leiden University, Leiden, The Netherlands
The posed problem,	The aim of this graduation studio is to study how architects nowadays can deal with the young structuralist monument. As it is a rather un-discovered movement, it will be a challenge for the students to find unique solutions on the way these monuments can be revitalized, maintaining and highlighting their values. Comparing structuralist buildings to other historic buildings, in terms of their age, they offer a higher intervention potential for architects. Also, the idea of expansion underlying structuralism buildings shows their architects ambitions to make buildings that can adapt to future needs. Talking specifically about the Faculty of Humanities in Leiden, many of the architect's ambitions were never realized and also the composition's buildings are completely detached from each other, the university and the city of Leiden. Such problems need to be considered and solved in my intervention proposal.
research questions and	How can I relink the cluster's buildings with each other, the university as a whole and with the wider context, Leiden and its inhabitants? Although this is the main research question and aim of my proposal, other sub-questions will also allow me to formulate a more thorough end result. - What are the values of this building, and how can I maintain and highlight them with my intervention?

	-What direction are university buildings heading to nowadays? -How can my intervention create the potential for revitalization not only of the university but the surrounding context as well.
design assignment in which these results.	Pursuing the appropriate design and programmatic interventions my proposal will connect the cluster's buildings with each other and with the rest of the university buildings. Through the introduction of a new industrial function in the university (entrepreneurship center, incubator, workshops etc.) the university's position will be strengthened in the rapidly evolving educational market. Students working as trainees as part of their educational program will be able to assist the general public, enhancing both their professional skills-experience as well as connecting the university with Leiden. Talking about the design interventions, creating an icon for the university will create a new revitalized front image for the university, and highlight its presence in the context still in a respectful manner. The regeneration of the university could also act as a catalyst for the regeneration and development of the area.

Process

Method description

Dealing with heritage related projects, key is the prior to design research in order to fully understand the existing building and its values. Starting from a deep off-site research from books and drawings that will be performed in groups, I will get an objective idea of the history and significant architectural elements of the building. Continuing, in order to indulge with the space, and understand its spatial qualities a site visit is required, followed by after site analysis. The findings of this off and on-site analysis will be conducted in the form of a booklet. Then, I will use the outcomes of the analysis for my individual project.

Doing a further research to aspects that we hadn't investigated as a group, I will deepen my knowledge on the future of universities and specifically how & why nowadays the co-existence of industry and universities has become a rising phenomenon. Studying precedents is a vital step prior to design in order to understand the benefits of such a programmatic intervention and how can this intervention be successfully incorporated.

Moving on towards the design phase of the project, I will start investigating in models and sketches the form of my intervention. After finding a form which fulfils my project's aims I will start investigating it and testing it in more detail. Working with models and hand-drawn sketches is a quick way to test many options and understand what fits the best. At the same time, I will start organizing the functions in plans, again through hand-drawn sketches.

Once I have worked on hand-drawing and models and reached a level where I want to start testing my proposal in more detail I will start designing my proposal in a 3D computer model. Working at the same time with different means (hand-drawing, physical and computer models) act supplementary to each other, helping me test different aspects of the proposal on different scales (from the relation with the context to details) at the same time.

Literature and general practical preference

Researching and studying realized projects from the international architectural world in the way architects deal with heritage related buildings as well as the direction universities are heading towards, will help me inform and consolidate my design decisions. Studying the introduction of industry functions in the educational environment, through precedent analysis, will allow me to strengthen my architectural position and inform my project in order to achieve a successful result.
Together with the literature I have studied, the lectures organized by our studio and site visits that I have already participated have provided me with vital information about the project.

Literature:
- Cramer, Johannes, Breitling, Stefan. Architecture in existing fabric: planning, design, building (Basel: Birkhäuser, 2007).
- Forsyth, Michael. Understanding historic building conservation (Oxford, UK: Blackwell, 2007).
- Kuipers, Marieke, de Jonge, Vessel, Designing from Heritage, Strategies for Conservation and Conversion (Delft: Stichting Rondeltappe Bernoster Kemmers, 2017).
- Lucas, Ray, Research Methods for Architecture (London: Laurence King Publishing Ltd, 2016).
- Meurs, Paul, Heritage-Based Design (Delft: Stichting Rondeltappe Bernoster Kemmers, 2016).
- Orbasli, Aylin. Architectural conservation (Malden, MA: Blackwell Science, 2008).
- Semes, Steven W. The future of the past (London: W.W.Norton & Company, 2009).

Reflection

Relevance

Through my graduation project, I will explore a new approach of intervening on structuralist buildings, influenced from an international context and through my prior education and work experience. In addition, I aim on presenting how a university with strong ties to the industry and society, can promote a well-rounded education.

On the other hand, talking about the value of my proposal for specifically the Humanities faculty and its context, through my proposal my aim is to positively affect the development and regeneration of the university and its context though programmatic and architectural (form & image) alternations, strengthening the Humanities Buildings' position both in the university and the wider context.

Following the tendency of educational facilities to be associated with the professional environment from early stages, the introduction of industrial related functions (incubator, entrepreneurship center, placement positions for students as part of their degree) to the university, would become an innovation for the university of Leiden, giving a new essence and spirit to it Leiden and engage it with the society of Leiden.

Time planning

Quarter 1: General study & Analysis of Structuralism

Weeks 1.1-1.4:
During this period, the aim was to deepen our understanding to the movement of Structuralism, analyzing in groups six iconic Dutch Structuralism buildings.

Weeks 1.5-1.9:
During this period, we visited the two proposed buildings for intervention, Centraal Beheer and Faculty of Humanities in the Leiden University. After choosing one of the two, in my case the Faculty of Humanities, we started analyzing the building in groups in terms of its history, architectural values, technical aspects and cultural value.

Weeks 1.10- P1 Presentation:
During this period, we finalized the aforementioned report and individually presented our preliminary ideas for our proposals. For the presentation I had prepared a perspective drawing of my proposed idea, accompanied by a 1:200 massing model.

Quarter 2: Program Finding, scenarios, defining aims and opportunities

Weeks 2.7- 2.9- (20.12.2017-P2 Presentation):
During this period, I will focus on making all alternations and improvements that I discussed with my tutors during the last tutorial, before the Christmas break. These included defining my projects aims clearly using graphics and diagrams to show my design and research methods. After finishing these, I will focus on developing my design. This will include physical and computer modelling, as well as hand-drawn perspectives and orthographic. Using multiple formats allows me to always find the most efficient way (for me) in developing my project. Working also in different scales, from larger scale (1:1000 models) to details will allow me look at the project from different points of view from early stages. My aim until week 2.9 is to have the plans of my proposal, as well as models and drawings showing the exterior and some interior views of my proposal.

Weeks 2.10-3.1 (After P2 Presentation- week 3.1 beginning of the third quarter)
During this period, my aim will be to reflect on the comments my tutors will give me during my P2 presentation and adapt my proposal following their instructions.

Quarter 3: Design development

Weeks 3.1-3.3 (15.02.2018-08.03.2018)
During this period, I will develop my proposal following each week's tutorials and feedback from my tutors. I will also focus more on the technical part of my design, designing in detail façade fragments, thinking about materiality, natural ventilation and some technical details.

Weeks 3.4-3.8 (08.03.2018-P3 Presentations)
During this period, I will develop even further my design as well as the technical aspects underlying it, in preparation for the P3 Presentations. My aim for this presentation is to have a developed proposal in digital form, together with physical models required for an observer to fully understand my project. Right after the P3 presentation I will take some time to reflect on my tutors' comments and make any suggested adaptations to my scheme.

Week 3.9 (After P3 Presentations- 19.04.2018)
During this period, we will go on an Excursion. Looking at realized projects will help get inspired for my graduation project.

Week 3.10 (19.04.2018-26.04.2018)
During this period, I will continue developing my project according to my tutors' comments from the P3 presentation and the week's tutorial.

Quarter 4: Finalizing design proposal

Weeks 4.1- 4.4- (26.04.2018-P4 Presentation):
During this period, I will continue on developing my design from the larger scale to details in preparation for my P4 presentation. I will also update any models that I have already made (1:1000) and could be still used and remake the ones that need to be done more accurately and fine (1:200, 1:100 and an 1:20 detail model-if needed). These models could be later on used for my P5 presentation. I will also produce realistic perspectives of both the exterior and interior spaces in order to fully understand how my building would look in reality in order to decide the appropriate materials that need to be used.

Weeks 4.4-4.5 (P4 Presentation-31.05.2018):
After my P4 presentation, I will focus on developing my project according to my tutor's comment from the P4 Presentation.

Weeks 4.6-4.9 (31.05.2018-P5 Presentation):
During this period, I will mainly focus on the presentation material of my project. I will finalize all drawings, produce realistic renders from different points of view both of the exterior and interior of the space, in order for someone to fully understand my project. I will also finalize the models from my P4 presentation or redo if needed any of them. During the whole course, I have-will be putting together a booklet showing the whole process of my design, which I will need to finalize and hand it in to my tutors together with my presentation.

List of presentation material:
-Prior design analysis
-Aims of project
-Masterplan 1:1000
-Floor Plans 1:200
-Sections 1:200
-Elevations: 1:200

-Structural Axonometric & Plan
-Details 1:5, 1:20
-Mechanical Installations (cooling, heating) & Natural ventilation diagrams
-Physical models (1:1000, 1:200, 1:100)

Weeks 4.10-4.11 (P5 Presentation)