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	Chris Huisman
Student number	4701771

Studio		
Name / Theme	AR3AP100 Public Building Graduation Studio	
Main mentor	Stefan Witteman	Project Design (Architecture)
Second mentor	Piero Medici	Building Technology
Argumentation of choice of the studio	I have always been interested in designing complex, public structures, dealing with iconic values, the urban context and the project brief in an abstract or conceptual way. The studio topic of "Music Marvel" (designing a concert hall) connects seamlessly to this interest.	

Graduation project	
Title of the graduation project	From Form to Venue *architectural form as an amplifier for music venues.*
Goal	
Location:	The Hague, Binckhorst
The posed problem,	Defining how architectural form can contribute to the experience of a music venue.
research questions and	How can form amplify a building for music?
design assignment in which these result.	The design of a music venue in the Binckhorst.

The design location is situated in the Binckhorst, an industrial area and business park located south east of the city centre of The Hague in The Netherlands. Contrary to it's rather strong position, the Binckhorst is an isolated site within the city because it is surrounded with strong borders such as railroad tracks and a canal. Because of city growth, the municipality of The Hague is planning to transform the Binckhorst into a dense and lively working and living area that is well connected to the rest of the city.

In order to meet the desire of densification and in order to make the Binckhorst more lively, a public building for a concert hall, or a "Music Marvel", will be added to the area. With the design of this music venue, specific focus will be put on one of the most fundamental aspects in architecture: form. The reason for putting emphasis on form comes from a personal fascination as well as the fact that distinct forms are

more or less absent in the current situation of the Binckhorst. Therefore it is an opportunity to use form to strengthen both the design for a music venue and the future urban landscape.

Related to music, the need for strengthening something can be translated to the concept of an amplifier: a device for making weak signals audible by increasing the power of these signals. Therefore, with this project, the word *amplifier* will be used as an analogy for *strengthening*, *making visible* and *adding (iconic) value*. Research will be conducted on how architectural form can be used as an amplifier for the experience and perception of a building for music and the music venue will be an amplifier for the Binckhorst.

This means that in the first place, the goal of this project is to design a music venue in the Binckhorst. Next to that, the focus will be on researching if, and how, architectural forms can be used consciously to strengthen a visitor's experience of a building. With this, the intention is to get a better understanding of the influence of architectural forms on the perception of a building, as well as to find clear answers on how these forms can contribute to creating a more immersive experience for visitors of a music venue. In other words: architectural form will be used as an *amplifier* for experiencing a concert and the music venue itself will act as an *amplifier* for the urban development of the Binckhorst.

Process

Method description

In order to reach this goal, several actions will take place to create enough input for the design assignment as well as to contribute to the broader discourse. To find an answer to the main research question (*"how can form amplify a building for music?"*), literature research will be conducted on form theory and several case studies will be analysed on their appearance in relation to the experience of the venue. This will form the theoretical framework of the project from which a "form catalogue" can be constructed. This catalogue of forms will provide general knowledge on what kind of forms can evoke what kind of experiences, which will be widely applicable within the field of architecture. Simultaneously with this theoretical research, site specific research will be done to collect the qualities and forms present in the Binckhorst and in The Hague, to be used in the design project.

For the structure of the graduation project, three specific themes and questions will play a central role within the project:
1. Form theory: what do physical forms do in the sense of perception and experience? (literature review)
2. Music venue typology: what aspects of a building for music can and need to be amplified and how can form contribute to that? (case studies analysis)
3. Site: what qualities and forms are present on the site and can be amplified by a building for music? (site analysis)

To set a basis for the project, literature research will be conducted on what architectural forms can do for the experience of a visitor of a building. Next to that, case studies will be analysed to acquire more knowledge on typical forms in relation to other building aspects such as program, acoustics, construction and experience. Finally, design research will be done to explore possibilities and get an understanding of the context as well as to implement the theoretical findings directly into the design, in order to find more profound design solutions that are specific for the location and the assignment.

Literature and general practical preference

The literature listed below will be used to gain knowledge on form theory. These books will be consulted and used for the first part of the theoretical framework of the project: to get an understanding of what physical forms can do in the sense of the perception and experience of a building.

Alexander, C. (1964). *Notes on the Synthesis of Form*. Harvard University Press.

Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A Pattern Language: Towns, Buildings, Construction.* Oxford University Press.

Bachelard, G. (1964). *The Poetics of Space*. Presses Universitaires de France.

Bacon, E. N. (1967). *The Design of Cities*. Thames & Hudson.

Ching, F. D. K. (1979). *Architecture: Form, Space, & Order.* John Wiley & Sons Inc.

Corbusier, L. (1985). *Towards a New Architecture.* Dover Publications.

Forsyth, M. (1985). *Buildings for Music: The Architect, the Musician, and the Listener from the Seventeenth Century to the Present Day.* The MIT Press.

Lynch, K. (1960). *The Image of the City*. The MIT Press.

Ungers, O. M., Koolhaas, R., Riemann, P., Kollhoff, H., & Ovaska, A. (1977). *The City in the City - Berlin: A Green Archipelago*. Lars Müller Publishers.

Zumthor, P. (2006). *Atmospheres.* Birkhauser.

Next to this, several case studies (concert halls) will be analysed specifically on form and its relation to the program and experience of these buildings. The music venues that will be used for analysis are:

- Berliner Philharmonie, Hans Scharoun, Berlin, Germany (1963)
- Muziekgebouw aan 't IJ, 3XN, Amsterdam, The Netherlands (2005)
- Casa da Música, OMA, Porto, Portugal (2005)
- Oslo Opera House, Snøhetta, Oslo, Norway (2007)
- Philharmonie de Paris, Jean Nouvel, Paris, France (2015)
- Tivoli Vredenburg, Herman Hertzberger, Utrecht, The Netherlands (2014)

As can be expected, the theory given and obtained during the BSc and the MSc 1-3 semesters is treated as known. For this course specifically, this includes site specific information and group research conducted during the first semester of the Public Building Graduation Studio, on sixteen buildings for music as case studies.

Down below, a global planning of the MSc 4 is described:
Week 3.1 – 3.7: Design Development
  - Continuation of research on form, to serve as direct input for the design and to construct the "form catalogue".
  - Further exploration of the design, from scales 1:500/200 to 1:100/50/20/5.
Week 3.8: P3 Presentation (Progress Review)
Week 3.9 – 4.3: Further Design Development
  - More detailed and concrete design, technical aspects, models.
  - Finishing both research and concept (vision, diagrams), preparation for P4.
Week 4.4 – 4.6: P4 Presentation
Week 4.7 – 4.8: Finalization
Week 4.9 – 5.1: P5 Final Presentation

Reflection

1. Relation between project, studio and master programme.
   The graduation project and the topic of the studio are directly related to each other. The aim of the Public Building studio is to "explore the vital role of music as a public event and to investigate how architecture can be engaged in music as an important part of civic life and urban milieu." (AR3AP100 Public Building Graduation Studio 2021-22, 2021, p. 5). The focus of the studio is on the physical context as well as on the socio-cultural context of creating a public space. This graduation project will explore these aspects and it will result in the design of a music venue. Next to that, the graduation project puts the emphasis on form as a tool to design a more immersive experience. Architectural form is a fundamental aspect within the field of architecture and therefore the research relates to the overall master programme.

2. Relevance in the larger framework.
   In the larger social, professional and scientific framework, this graduation project is relevant in the sense that it will provide knowledge on the relationship between the physical appearance (or: *form*) of structures and the experience one can have when interacting with such structures. This will be presented as a catalogue of fundamental forms and can be used as a design tool to emphasize certain experiences through the use of these forms. Besides, the research method is set up in such a way that it can be applied to and repeated for other disciplines or projects within the field of architecture.

   AR3AP100 Public Building Graduation Studio 2021-22. (2021). *MUSIC MARVEL.* [Studio Handbook]. https://brightspace.tudelft.nl/d2l/le/content/398796/view Content/2481011/View