

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examcommissie-BK@tudelft.nl](mailto:Examcommissie-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	Edwin Scharringa
Student number	4469941

Studio		
Name / Theme	Complex Projects – Bodies & Building Berlin	
Main mentor	Hrvoje Šmidihen	Architecture
Second mentor	tbc	tbc
Argumentation of choice of the studio	<p>The Complex Projects graduation studio aims to impart a methodological and structured approach to the design process through the examination of complex and demanding design assignments. By engaging with these challenging projects, I am presented with the opportunity to develop my ability to process, organize, and utilize a vast amount of data in a systematic and efficient manner. This studio provides a unique learning experience that enables me to apply my skills and knowledge in a realistic context, and equips me with the tools and strategies necessary to identify and solve complex design problems.</p> <p>I think that the focus on developing a structured and data-driven approach to design is particularly relevant in today's increasingly complex and data-intensive design processes. Developing and applying this working method is a valuable skill that I am eager to learn and possess.</p> <p>Additionally, the studio's focus on designing public buildings aligns with my personal fascination and interest in this field of architecture. Designing a 'one of Berlin' building is a unique design task that is a huge challenge, but will provide me with valuable and informative experiences.</p>	

<b>Graduation project</b>	
Title of the graduation project	Seat Architecture: Berlin Performing Arts Center
<b>Goal</b>	
Location:	Messe Nord, Berlin
The posed problem	<p>Germany has more than 80 opera houses, including three in the city of Berlin alone which offer a very wide range of opera, operetti and ballet. However, opera is in decline in its current format. Whilst it was a highlight of contemporary cultural life in the late 18th and 19th century (Fairman, 2019), it seems nowadays that opera no longer holds the interest of the general public. It is a piece of seat architecture that appears to be expired.</p> <p>To make opera accessible to a larger public and to be a highlight of contemporary cultural life again, something has to change. How can a broader audience feel engaged with what is happening on a stage? Not only the type of performance itself could be more in line with the needs of a new audience, also the perception of a performance can be addressed.</p> <p>When focusing on the relation between the audience and the stage, there is much resemblance between much of the twentieth century cinemas and theatres: the picture frame of the theatre proscenium bears similarities to the screen in a cinema. The audience sees and hears a performance almost in a passive way, despite the audience having an active role in the success of a performance (Mackintosh, 1993).</p> <p>Besides, the program that most opera houses offer, is not necessarily a 'one-off experience'. The major opera performances are often a co-production of different operas around the world. This makes it possible to see essentially the same performance, with the same cast and décor, at the Metropolitan Opera in New York as at Palais Garnier in Paris: an artistic experience is offered that is unique because of the performance and not by definition of the building itself.</p>
research questions	<p>This research seeks to touch on larger topics such as the engagement of an audience and its experiences of a performance. The central question that is aimed to answer, is as follows: <i>"What is the relation between the performing space (auditorium and stage) and the performance on stage?"</i></p> <p>To better understand this topic, the following related sub-questions will be addressed which focus on the relationship between the audience and the performance: <i>"What is the role of the seat?"</i></p>

	<p><i>“How can the audience be repositioned in performing arts spaces?”</i></p>
<p>design assignment</p>	<p>A performing arts center in Berlin lends itself perfectly to exploring how the building itself can influence performing arts, such as opera and its relationship with its audience. By designing a variety of performing spaces with a total capacity of 2.800 seats, the research questions are aimed to be answered in an architectural design. The design is an interplay between architecture, performing arts, and audience engagement, providing insight into how the physical characteristics of a performance space can create a unique experience.</p> <p>The total building size is 47.200 sqm (GFA) and consists of the following spaces:</p> <ul style="list-style-type: none"> <li>. Public flow space – 6.800 sqm</li> <li>. Public amenities – 1.800 sqm</li> <li>. Support spaces – 800 sqm</li> <li>. Performing halls – 7.000 sqm</li> <li>. Other – 9.500 sqm</li> <li>. Back of house – 9.800 sqm</li> <li>. Technical – 7.900 sqm</li> <li>. Cores 3.600 sqm</li> </ul> <p>The performing arts center is designed for a specific client: ZKM   Center for Art and Media. The ambitions of this cultural institution comply with the requirements for this specific performing arts center.</p> <p>The proposed site for the performing arts center is situated at Messe Nord, a train station on the Ringbahn of Berlin, and is renowned for its outstanding accessibility, both from within the city and from all throughout Germany.</p>
<p><b>Process</b></p>	
<p><b>Method description</b></p>	
<p>The overarching methodology is to develop a design brief for performing arts center in Berlin, which will be the basis for the design process in Msc4. This document is divided in the topics of program, client and site. Each topic has its own research methods that are explained below:</p> <p><i>Program</i></p> <p>To define the building’s program, various means are used. Firstly, a database is built, consisting of over twenty relevant projects from different periods and cultures. This tool is used to extract comparable data which shows correlations, differences and tendencies in topics such as capacity, building size, theatre size, etc. Also, it makes insightful which projects are best suited for further analysis.</p> <p>Secondly, five relevant case studies (one opera house, one concert hall and three performing arts centers) are used for an in-depth analyses on three different scales.</p>	

An urban context analysis is made for understanding size, urban integration and position in the city relative to mobility. By using floor plans, sections and photos, the program of each building is investigated. Categorizing the specific spaces in eight generic program groups, provides a comparable program breakdown for each case study. Based on this program research, a synthesis is formed that serves as conclusion on organizational principles.

The development of the project's program uses the method of benchmarking: evaluating the program division by comparison with the most relevant case studies. Afterwards, the program is critically tailored, which has been made possible by the discovered tendencies in the database.

Lastly, the key spaces, in this case performance halls, are refined: case studies, visits to operas and literature research about the role of the seat and the relation between stage and audience, is informing this refinement.

### *Client*

The research method applied for the topic 'client', includes a process of collection, comparison and evaluation. The first step is to take stock of all potential clients by looking at existing organizations in Berlin, but also by studying other comparable institutions that were uncovered during the case studies research. This is followed by an examination of the concerning clients itself by asking the following questions: What are the ambitions and goals? What does the organizational structure look like? Who are the stakeholders and users? How is the client's reputation? Does the current situation suit the needs? Eventually, these items are summarized and tested against the requirements set for an appropriate client. Evaluation of the options ultimately leads to a well-substantiated choice.

### *Site*

For the topic 'site', the research method consists of two parts: identification (groupwork) and analysis (individual work). An important part of the site selection process involves group work focusing on the topic of mobility. Formulating the definition of mobility and identifying three key points help to capture this broad topic at its essence. Each key point is studied in more detail by using GIS (Geographical Information System) as the foremost source of data and is translated into requirements. These requirements can be considered as layers that represent mobility. By superimposing these three layers, areas that are accessible to many people within a small time frame, emerged on the map: these are the mobility hotspots of Berlin. For guidance, a group vision has been formulated that takes a certain position towards mobility and provides support in the selection of specific locations. Similarly to the method used for client, a process of formulating requirements, evaluating options and comparing them is the approach.

Next, in order to form a design brief as specific as possible, various analyses are conducted for site. Both the physical and non-physical context are addressed. The urban analysis includes several scales, ranging from XL (scale of Berlin) to S (specific site).

### Literature and general practical preference

Alan Read. (2008). *Theatre, intimacy & engagement: the last human venue*. Palgrave Macmillan EBooks.

Apthorp, S. (2018, November 9). *How opera became Berlin's birthright*. Financial Times. <https://www.ft.com/content/f60510ea-e282-11e8-8e70-5e22a430c1ad>

Bohne, G., Silber, Triplett, T., & Iyengar, S. (2015). *A decade of arts engagement: Findings from the survey of public participation in the arts, 2002–2012*. National Endowment for the Arts.

Bowman, N. A. (1964). The Ideal Theatre: Emerging Tendencies in Its Architecture. *Educational Theatre Journal*, 16(3), 220–229. <https://doi.org/10.2307/3204663>

Breton, G. (1989). *Théâtres: Theaters*. Editions du Moniteur.

*Das ZKM*. (n.d.). Zentrum Für Kunst Und Medien Karlsruhe. Retrieved November 14, 2022, from <https://zkm.de/de/das-zkm>

Deutsche Musikinformationszentrum. (2022). *Verhältniszahlen für Besuche, Einspielergebnisse und Zuschüsse öffentlich finanzierter Theater* [Dataset]. miz.

Fairman, R. (2019, January 11). *Is the future of opera all doom and gloom?* Financial Times. <https://www.ft.com/content/0ecada68-0f4e-11e9-a3aa-118c761d2745>

Grey, T. (2018, February 19). *An unlikely youth revolution at the Paris opera*. The New York Times. <https://www.nytimes.com/2018/02/19/arts/music/paris-opera-young-audiences.html>

Mackintosh, I. (1993). *Architecture, Actor and Audience (Theatre Concepts)* (1st ed.). Routledge.

*Oxford English Dictionary*. (2022). Oxford English Dictionary. <https://www.oed.com/>

Pierce, R. (1968). "Intimacy" in the Theatre. *Educational Theatre Journal*, 20(2), 147–151. <https://doi.org/10.2307/3204898>

Strong, J. (2010). *Theatre buildings: a design guide*. Routledge.

### Reflection

1. The research topic of the performing arts center and its exploration of the role of seating in theater aligns well with the graduation studio topic of Complex

Projects, as seating can be seen as a data point that determines the size of the building. The studio's primary focus is on the building and how it meets the requirements related to measures, movements, comfort, experience, safety, and security. The demand from bodies for buildings has increased, and the building needs to be more efficient while also growing larger and more complex. The study of the seating in theater is relevant to the studio topic as the number of seats (capacity) controls the overall sizing of the building: for example, capacity determines the size of the auditorium which in turn determines the size of the foyer and lounge. Even the number of toilets is based on the number of seats in a theater. This research topic is an example of how the building is shaped by data points and how its efficiency and complexity is determined by the bodies' requirements.

2. The social relevance of this graduation project is as follows: the examination of the engagement and experiences of audiences in relation to performance sheds light on the dynamic and multifaceted relationship between audience and performer. This topic is not limited to traditional performance venues such as theatres, operas, or concert halls, but is also relevant to other fields, including education and politics. The act of teaching, for example, can be regarded as a form of performance, with the teacher as the performer and the students as the audience. Through a deeper understanding of the performer-audience relationship, valuable insights can be gained that can inform the design and configuration of performance spaces, classrooms, parliament chambers and other settings. This knowledge can facilitate the creation of optimal spaces for the engagement of audiences.