

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	Jiarui Xing
Student number	5992087

Studio		
Name / Theme	Interiors Buildings Cities	Graduation Project
Main mentor	Jurjen	Architecture track
Second mentor	Matthijs	Architecture track
Argumentation of choice of the studio	I like to make physical models to explore the design scheme, and I also like to explore the impact of interior design on architecture and cities.	

Graduation project	
Title of the graduation project	Interiors Buildings Cities Graduation Project : Palace
Goal	
Location:	Antwerp, Belgium
The posed problem,	New home for VAI, complicated circulation and connection problems, and sustainable recycle
research questions and	The impact of the new building on connection and circulation, recyclable structure and materials
design assignment in which these result.	Functional sorting, structure case study, history analyse

The Flanders Architecture Institute (VAI) is currently based at De Singel, a modernist cultural campus on the Southern periphery of Antwerp's historical centre. Now VAI needs a new home which build on the relationships and and potential synergies that already exists between De Singel and VAI. The posed problem is the new place for VAI and solve the problems of De Singel at the same time. Such as the circulation of De Singel, connection problems in De Singel and the relationship of courtyards and new building, for the new building, it is always good to be sustainable with the contrast of De Singel.

According to the posed problem, the research question is mainly based on the original functional division of De Singel, creating more connections and integration,

and the impact of the courtyard on the new building and the formal language of De Singel. At the same time, in terms of material research on structure, as a reflection on the large-scale application of concrete in De Singel, the new building focuses on lightweight structure and recycling.

Sort out the different historical periods of De Singel, the relationship between VAI and De Singel and related possibilities, and the connection between De Singel and the city. Disassemble and analyze the formal language and characteristics of De Singel and continue to use them in the new building. Case study analysis of materials and combine with design.

Process

Method description

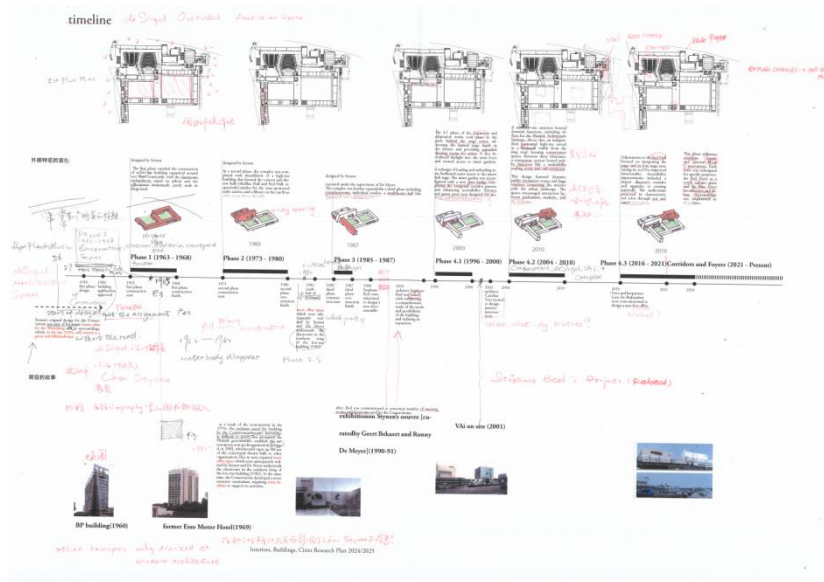
First, the design begins by analyzing the different historical periods of De Singel's construction and crafting a form that aligns with its original architectural language. The design primarily adopts the loop structure, a defining formal language of De Singel, to create a courtyard while extending it and introducing additional connection nodes. This approach fosters greater integration and interaction. Simultaneously, as an independent research institution, VAI aspires to maintain its autonomy while enhancing interactive spaces with De Singel.

Secondly, the design emphasizes respecting De Singel's historical significance as a monument. Efforts are made to minimize its alteration while addressing structural and material concerns through sustainable and recyclable solutions. The proposal introduces a new structural system that employs lighter materials, facilitating future recycling and adaptive transformation.

Literature and general practical references

Literature (theories or research data) :

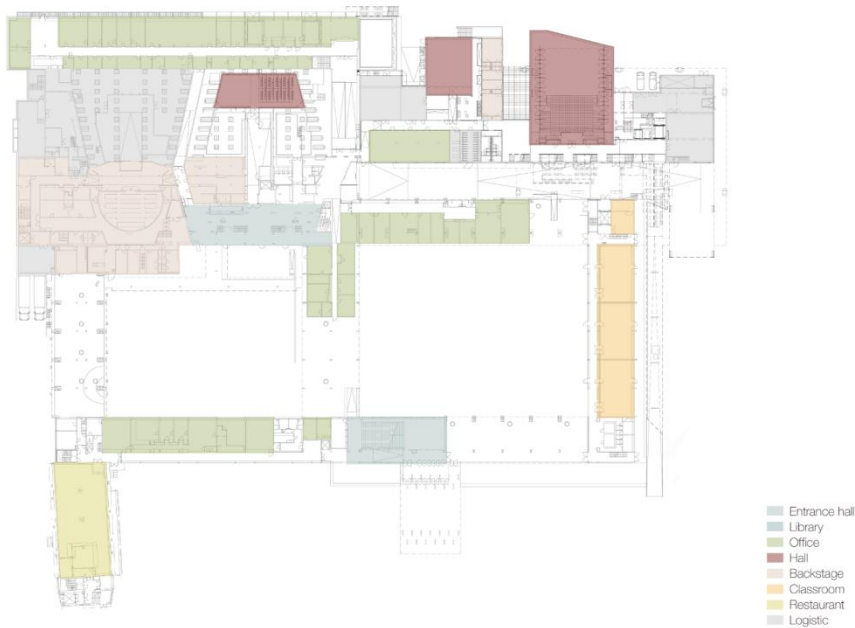
The timeline of De Singel:



The analyse of urban structure:



Function analyse:



COLLECTIEGEBOUW VLAAMS ARCHITECTUURINSTITUUT_Haalbaarheidsstudie voor het bouwen van een publiek toegankelijk collectiegebouw voor de collectie van het Vlaams Architectuurinstituut.

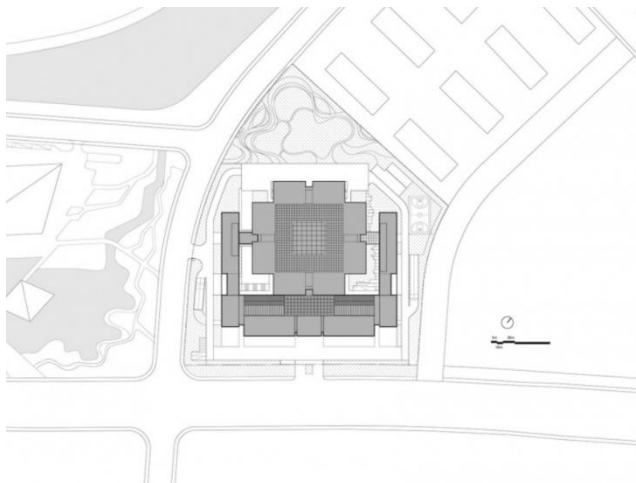
deSINGEL INTERNATIONAL ARTS CAMPUS. A CONSERVATION STUDY.

Curating the Campus 2004-2014

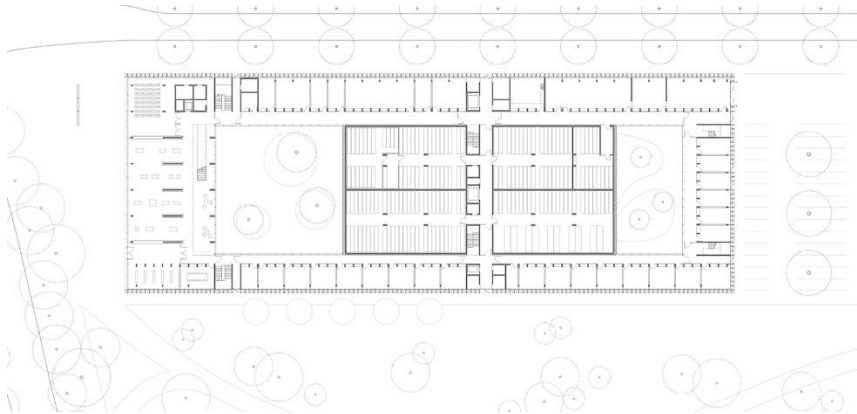
International Arts Campus _ deSingel

General practical experience/precedent:

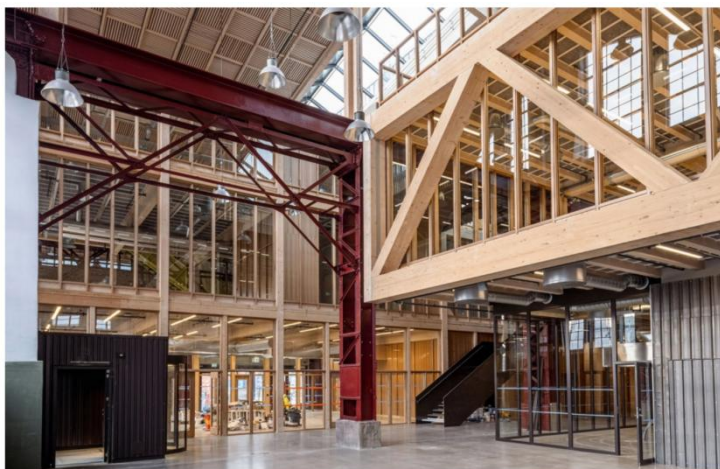
New Building of the Second Historical Archives of China



Historical Archive of the City of Cologne



Gjuteriet by Kjellander Sjöberg



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)?

My academic journey reflects a progressive and deepening relationship with architecture, moving systematically through various scales of design and analysis. Beginning with the master's program and advancing to the architecture track, I eventually joined the Interior Building Cities studio, which guided my exploration from the city scale to architectural environments, then to the building itself, and ultimately to the intricate study of interior spaces.

For my graduation design, I focused on the theme of interior spaces, conducting in-depth research and analysis while simultaneously addressing the role of De Singel within the urban context and its broader impact on the city. This approach highlights the interconnectedness of scales, creating a dynamic, cyclical process where insights from one level inform and enrich the next. Through this journey, I have cultivated a comprehensive understanding of how architectural design integrates with its environment, fostering growth and innovation at every stage of exploration.

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

The partial transformation and extension of De Singel in this design have significantly contributed to revitalizing the community, fostering a more dynamic and engaging urban environment. This transformation is particularly evident in the thoughtful treatment of public spaces, which enhances their functionality and accessibility, and the improvement of internal connections and circulation, which creates a more seamless and intuitive user experience. These changes not only strengthen the integration between the building and its surrounding context but also promote social interaction and community engagement.

A key aspect of this design is the use of lightweight materials, such as wood and steel, which play a crucial role in achieving sustainability and aligning with green environmental principles. These materials embody a forward-thinking approach by considering the building's entire life cycle—from construction to eventual decommissioning—thus minimizing its environmental footprint. Additionally, such materials offer flexibility and efficiency in construction while ensuring durability and aesthetic appeal.