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	**Elena Englmann**
Student number	5853095

Studio		
Name / Theme	Public Building Graduation Studio "Vertical Campus"	
Main mentor	Henk Bultstra	Architecture
Second mentor	Ger Warries	Building Technology
Third mentor	Sien van Dam	Theory & Delineation
Argumentation of choice of the studio	Throughout my Bachelor studies in Munich, my interest in educational buildings grew as I engaged in various projects, including designing a new university building and transforming an existing campus site. Last summer, I had the chance to deepen my understanding of this subject through the MSc2 elective course "Campus Utopias." The course primarily examined campus projects characterised by horizontal expansion, sparking my curiosity about the concept of a "Vertical Campus" as a response to the growing urbanization and densification of our cities.	

Graduation project	
Title of the graduation project	**A creative journey through the open campus**
Goal	
Location:	The Hague, The Netherlands
The posed problem,	
research questions and	
design assignment in which these results.	
While there has been a great shift in pedagogical and technological approaches towards more hybrid learning concepts during recent years, it is also time to open up architectural spaces to a broader notion of public - multi-cultural, diverse, and intergenerational – and develop new perspectives on how these spaces can supply	

answers to a changing and more and more diverse set of values and needs of today's learners. Not only the requirements and wishes of the increasingly heterogeneous and multicultural student body have changed, such as 24/7 accessibility or flexible arrangement of learning hours and courses, but also the challenges of an unknown future, which requires skills such as communication, collaboration, critical thinking and creativity. Therefore, this project and the conducted research aim to investigate the potential of hybrid learning spaces to enhance the creative thinking process of life-long learners.

For this reason, the project's primary research questions revolve around identifying the spatial qualities that either activate or challenge the user's creativity and how these qualities can be seamlessly integrated into the design of contemporary hybrid learning spaces. Building on the conducted research, the project proposes a set of design principles for divergent and convergent hybrid learning spaces that refer to the layout and size of spaces, the fixed or flexible integration of furniture as well as analogue and digital learning tools, the influence of social interaction and the exposure to exterior stimulation.

Moreover, the project aims to explore how different convergent and divergent learning spaces can be distributed throughout the vertical section of the campus building. By designing a "Vertical Campus" for The Hague's Central Innovation District, the graduation project not only addresses the challenges of ongoing urbanization and densification but also investigates how different sorts of movement through a vertical building complex and a set of different learning spaces can form part of the users' creative journey. Consequently, the project ultimately strives for the design of an open campus, which can be accessed by learners from all socio-economic, cultural and religious backgrounds and offers spaces for different generations and stakeholders in the city of The Hague.

Process

Method description

The project utilizes several qualitative and speculative research and design methods to develop an adequate design proposal.

The literature review investigating the research areas of creativity and hybrid learning spaces is based on two theoretical frameworks. The first one addresses the concept of "convergent" and "divergent" creative thinking patterns, while the second framework relates to hybrid learning spaces and suggests that an interdisciplinary approach combining pedagogy, technology and space is needed (PST framework) for the coherent design of hybrid learning spaces (Gil et al. 2022, p.3). Based on the

findings of this literature review the project identifies several spatial qualities which enhance or challenge the creative thinking process of users and uses these parameters to analyse fifteen case studies consisting of contemporary campus buildings in the UK, U.S., Australia, and Europe. Based on these case studies the project develops a set of design principles for convergent and divergent hybrid learning spaces and speculates on how the spatial qualities of these spaces can be further enhanced in the future.

Furthermore, the studio uses a specific method known as Research-by-Design. Research-by-Design focuses on design work as a special form of research. It considers theory and praxis, analysis, and imagination as inseparable and as a medium to help conceive and develop architectural ideation. Research is not only about preparation, description, and explanation but also more importantly about projection and speculation. Research is therefore a form of design and design is a form of research. Various Research-by-Design techniques such as diagrams, mapping, collages, montages, conceptual sketches and models are used to further develop the design project.

Literature and general practical references

Literature

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Reflection

The Public Building studio investigates the future of public buildings and their role in the built environment, by developing new spatial formulas, programmatic articulations, and building components. The Graduation Studio aims to produce future-proof designs that are sustainable and investigates the possibilities of design thinking in a world where the definition of what an architect is and does, ceaselessly shifts. Public architecture should respond to and accommodate today's needs while anticipating the future. The concept of a public campus offers a useful approach to the venues of higher education in the future. By combining various functions such as learning spaces, office spaces, medical facilities, sports facilities, and commercial and public functions within one campus complex, the project addresses the themes of hybridity and multiplicity within the Public Building Studio. Through the design proposal for future hybrid learning spaces, the project also delves into the concept of lifelong learning and examines how these diverse functions can be integrated into a sustainable spatial and structural design. Finally, the project develops a strong concept to ensure the vertical accessibility of the campus building and open up existing governmental institutions to the general public. The design project therefore follows the Public Buildings Studio's belief that a true public building is accessible to everyone and empowers the public to move freely throughout the city.

Within the Architecture master track, the project deals with the technical, spatial, and social challenges inherent in designing educational and public built environments. The graduation project aligns with the MSc Architecture, Urbanism, and Building Sciences program by synthesizing knowledge and skills from design practice (designing public and educational spaces within a densely populated urban fabric), the social sciences (the creative thinking process and the future of teaching and learning), and technology and engineering (sustainable and resource-saving high-rise building design).

The project holds relevance within a broader professional and scientific framework, exploring a research topic that intersects various knowledge domains and requires collaboration across different research areas such as pedagogy, technology, and architecture. The design of hybrid learning spaces has made significant progress in integrating new pedagogical approaches, technical equipment, and digital learning spaces. In this context, the design project proposes solutions to align the tangible, built environment with recent developments in teaching and learning, facilitating the

generation and sharing of knowledge among all participants in public life. In the Central Innovation District in The Hague, there exists a significant amount of knowledge, for instance in the municipal and governmental buildings or the large amount of educational institutions present on site. Unfortunately, this knowledge is not accessible to the general public. For this reason, I see hybrid learning spaces as an opportunity not only to enhance the creative journey of life-long learners but also to share knowledge and make it accessible to different stakeholders and a diverse set of users.