

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	Thom Peperkamp
Student number	5164842

Studio		
Name / Theme	Public Building Graduation Studio 2023-24 The Vertical Campus A Public Hub of the Future in The Hague	
Main mentor	Ir. Henk Bulstra	Architectural Design
Second mentor	Ir. Sien van Dam	Theory and Delineation
Third mentor	Ir. Ger Warries	Building Technology
Argumentation of choice of the studio	<p>Public buildings play a significant role in my passion for architecture. This building typology is what sparked my passion for the field. From a young age, I have been fascinated by the grandeur of public structures, primarily found in large and densely populated cities. These buildings often reflect a strong character, one that mirrors the essence of the entire city and its zeitgeist. The substantial responsibility that comes with shaping the urban fabric is an exciting challenge to work with. In the latter, largeness is the norm, leading to vast spatial areas for interaction and workspaces for various groups of people, and in this case for the vertical campus, mainly for students. This scale is something I look forward to working with. Furthermore, the potential for playfulness that a university public building can offer to engage and stimulate students through architectural interventions is also of great interest to me. In the upcoming academic year, I aim to explore how a public building operates down to the smallest detail and how it contributes to the broader urban fabric and society. I intend to achieve this through focused research and the development of a suitable design that meets the expectations of an imposing, characterful, and playful public building located in the Hague city center.</p>	

Graduation project	
Title of the graduation project	Academic and Innovation campus, The Hague – Navigating university identity

Goal	
Location:	Prins Clauslaan, The Hague
The posed problem,	<p>Historically, university buildings did exhibit a certain prestigious identity, as seen in the campus in Oxford for instance. Identity is shaped by the combination of behavior, communication, and appearance. Its meaning is determined by the collective, not the individual (Grouls et al., 2007). Similar like the clothes we wear, buildings we occupy say something to the outside world about the people we are. University buildings exemplify this idea of identity. (Sun, 2017). Different identities of university buildings, primarily arising from the physical setting and spatial characteristics, result from a varied mix of 'solid' (traditional), 'liquid' (flexible), and 'gas' (on demand) composition (Den Heijer, 2021). The study sheds light on the impact of the contemporary architectural identity of various universities, which often remains limited to the internal program and aesthetics of university buildings. However, today the distinctive features of these faculties, that in general are mainly only accessible for the affiliated students, are scarcely found inside most of these structures. The banality in the aesthetics of those 'solid' academic architecture, often characterized by monotonous glass facades - as for instance observed in the AvB Tower, near the Prins Clauslaan in the Hague - disrupts the identity of university buildings.</p> <p>References indicate that currently a lot of methods of university construction detract from the prestige and distinctive characteristics of the faculties and other internal university functions, which were previously expressed with ornamental</p>

interventions, programmatic peculiarities, or other unique architectural ingenuities. In general, the facade and its program are one of the most crucial elements, perhaps the most important ones, for the representation and identity of those occupying the building, as well as for the identity of the city (Jurgenhake, 2016). Functions behind the facades are hardly recognizable today due to this aesthetical anonymity. Only the large signs with the names of the respective universities reveal what is happening behind the facades. This increasing anonymity of these university buildings and the negatively reduced dialogue between the urban environment and its associated social cohesion downplays interaction between users. The overall identity of university buildings must become more 'liquid' and 'gas', where universities are more flexible, shared and filled with opportunity and openness to the outside world (Den Heijer, 2021). A search to a good balance between solid, liquid and gas must be the goal.

The Hague Central Innovation District (CID) will be the location for the future vertical campus. This location becomes even more significant when considering The Hague's future vision of densification. The Hague, like many cities, is increasingly focusing on making better use of its limited urban space by densifying key areas. The CID has been identified as one of the city's main hubs for innovation and development, with plans to integrate more offices, residences, and academic institutions to make it a more vibrant district. The negative impact on social cohesion is exacerbated by the surrounding governmental buildings along Prins Clauslaan, which, with their isolated (archipelago) structure, create a detached and solid identity. Additionally,

	<p>the Utrechtsebaan highway acts as a traffic barrier, dividing the Centraal Station area and Bezuidenhout neighbourhoods. This results into a strong individualism and isolation, not only among the building typology, but also the people who occupy the buildings and the surrounding neighbourhoods. It is crucial for social bonding to get rid of this barriers and to have a public condenser, where the people of these ministries, neighbourhoods and campus can physically connect.</p> <p>Moreover, interviews conducted in this area also reveal that various target groups emphasize the absence of diversity in building functions and spaces for playing, learning, and socializing. Therefore, the design aims to navigate university identity through a vertical campus with a flexible solid-liquid-gas composition, expressing with the ambition to include both a partly public and university identity. It This strategy intends to function as a hybrid urban condenser catering to diverse target groups within the connected neighbourhoods of the the Hague Central Innovation District, where individuals of all ages can engage and live together. To establish a vibrant central educational hub that unifies diverse these neighborhoods and students, the design will prioritize diversity, visibility, interaction, adaptability, flexibility and movement, fostering an environment to play, learn, and socialize together.</p>
<p>research questions and</p>	<p>How do physical structures shape and communicate the solid-liquid-gas identity of university architecture? And in what ways can changes and trends in university architecture be employed as instruments to strengthen their public identity?</p>

	<p>Subquestions:</p> <ol style="list-style-type: none"> 1. How can the vertical campus building benefit from moving to a more public 'liquid' and 'gas' identity, instead of a 'solid' individual identity? 2. Which are the aspects that contribute to a more flexible (liquid) identity of the vertical campus? 3. How can the vertical campus improve the connections between students and other target groups in the area? 4. How can a vertical campus connect the Centraal Station area and Bezuidenhout through public functions while densifying The Hague's Central Innovation District?
<p>design assignment in which these result.</p>	<p>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 work of the Public Building studio involves reinventing past structures and questioning existing typologies through research and design as well as research by design, which can show helpful insights in relevant design questions in the field of public and academic architecture.</p> <p>For instance, the research and the concluding toolbox for navigating university identity can be a valuable resource for both architects and educational institutions aiming to create campus environments that are not only functional and innovative, but also reflect the unique identity and values of the institution in which they want to reflect with their physical buildings. By offering concrete recommendations and design elements, the research and</p>

toolbox will help improve the architectural and programmatic aspects of university campuses. The toolbox will be supported by a textual and visual study that has emerged from the reference studies. Potentially, the toolbox and research about solid-liquid-gas can also be related to the architectural requirements regarding identity and program of the Municipality of The Hague, where the vertical campus is planned to be located. In my design, these elements come together in a vertical academical and innovation campus, located in the Hague.

Process

Method description

Various research methods have been and will continue to be employed to accurately address the research questions.

- Collecting data:

Quantitative research was conducted to gather background information on The Hague and the Central Station area, where the Prins Clauslaan is situated.

- Conducting interviews:

The data collected during the site visit was further enriched through participant observation and interviews to identify the community and understand their needs in the Central Station Area. The approach of this research also includes:

- Reference projects:

Analysis of historical developments in university buildings, as well as an in-depth exploration of current trends in the university architecture field. This qualitative research encompasses various methods, such as theoretical and historical literature studies and case studies of various university buildings over the years to gain deeper insights into this subject. Based on selected universities that have been groundbreaking in modern academic architecture, a study will be carried out to highlight characteristic features on a programmatic and aesthetic level.

- Literature studies:

The selected university buildings to be examined should broadly demonstrate harmony and progress in vertical academic architecture, allowing changes in this type on aesthetic and programmatic levels to be documented, and the strongest elements

explained on the basics of the solid-liquid-gas method, pointed out in the book 'Campus of the future' by Alexandra den Heijer (2021). This will be translated to an organized and concluding toolbox.

- Research by Design:

The graduation 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 a form of research.

Literature and general practical references

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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)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.
3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?
4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?
5. How do you assess the value of the transferability of your project results?

It has been a transformative experience, combining the complexities of public buildings with the distinct requirements of academic architecture. This integration demands both complexity and simplicity, as the public aspect of the design calls for openness, accessibility, and interaction, while the academic component requires a more reserved and focused environment. Striking a balance between these elements was a significant challenge, effectively guided by the 'Research and Design' methodology and the 'solid-liquid-gas' framework from Alexandra den Heijer (2021). This approach allowed theoretical insights to be translated into concrete design principles, forming a strong foundation throughout the graduation process.

The design of the vertical campus, conceived as a public condenser, merges academic and public functions, responding to the unique urban context of the Central Innovation District, the Hague. The design aims to create a building that is both functional and vibrant, seamlessly integrating into the context of Prins Clauslaan. The urban fabric, previously divided by traffic barriers, now benefits from a cohesive, accessible structure that stands as a significant architectural addition to the city. The vertical campus serves not only as an educational facility but also as a social and innovative hub for the community.

The design is informed by extensive research on university identity and the solid-liquid-gas theory, resulting in a clear distinction between the public base and the academic top. The base functions as a public space, attracting diverse groups, including students, residents of Bezuidenhout, and office workers from the Central Innovation District. It offers accessible educational functions such as a library, digital and media center, exhibition spaces, and forums for social interaction. This inclusive environment makes the campus a dynamic and welcoming part of the city.

The ground floor is an open structure, forming a passage that encourages movement from the south to the north side of the linear Prins Clauslaan, creating a vibrant atmosphere for meeting and engagement. The design promotes connectivity, making the campus feel like a natural extension of the urban fabric. Visitors can explore the

public base through three main routes: The passage, the exhibition- and the libraryroute. These pathways offer an interactive experience through the base, supporting both collaborative and individual activities, encouraging interaction and community engagement between users.

The academic top is mostly reserved for students, staff, and campus-related visitors, providing a more focused environment for learning, teaching and research. It is characterized by a transparent design that fosters a sense of openness and connection to the city. Setbacks create outdoor terraces, offering spaces for study and relaxation while adding visual interest to the building's façade. Internally, an internal circulations system, embraced by multifunctional stairs, guide users intuitively through the structure, enhancing a spatial and educational experience.

In essence, the vertical campus integrates educational, social, and urban functions, blending harmoniously with the future vision of The Hague Central Innovation District. It is not just a place for learning but a dynamic hub for innovation, lifelong learning and public engagement. This project showcases the power of research-driven design to transform the public realm, creating a hybrid vertical campus that supports academic growth and community connection, while maintaining a strong architectural identity that enhances the university's presence in the city.