Research Plan

Public Building Graduation Studio: The Vertical Campus

"Designing a inclusive knowledge based experience center"

Chiel Vlutters (5724538) 5 Nov. 2023

AR3A010: Research Plan Department of Architecture, Urbanism and Building Sciences, Technical University Delft Examinator: Dr. D.C. Baciu

Design brief

Within the framework of our Graduation Studio for Public Building, our current project entails crafting a hybrid structure tailored for higher education right in the heart of The Hague. Universities of great repute, such as Leiden University and TU Delft, are looking to expand their reach and have cast their eyes upon The Hague as an ideal locale for this endeavor. The selected site lies in close proximity to the central station, enhancing accessibility. Nonetheless, space constraints have emerged as a challenge, attributable to the burgeoning demand for government offices and public amenities. As a remedy, our studio proposes a vertically compact hybrid building that amalgamates a diverse array of functions, reinvigorating the locality and introducing elements of diversity, innovation, and experimentation. This design serves as a catalyst for enhancing urban living and presents fresh educational and residential alternatives within the city.

Problem statement

Anticipated to witness a steady annual increase of around 2% in university enrollments up to the academic year 2029/2030, higher education institutions in the Netherlands are poised for ongoing expansion (Ministerie van Onderwijs, Cultuur en Wetenschap, 2023). Consequently, universities are exploring avenues to accommodate this growth, considering strategies like densifying existing campuses, expanding current facilities, or venturing into new locations to support their expansion. This has given rise to the concept of the 'decentralized' campus, where university faculties are dispersed across various cities rather than being centralized on a single campus. While this decentralization can lead to challenges, it also presents an untapped opportunity that could potentially eliminate the need for clustered campuses in the future.

When local residents lack a direct connection with their nearby university or educational institution, their benefits often remain confined to financial gains, with little to no interaction with the institution. The contrasting lifestyles of local residents and students can lead to tensions between these two groups, and in some cases, cities can become overwhelmingly student-dominated. The decentralized campus concept offers a potential solution to alleviate the pressures faced by such cities.

Furthermore, universities located on the outskirts of a city may not always appear welcoming to local residents, further deepening the divide between these two worlds. By fostering a

more open and engaging relationship with their local communities, universities can make a substantial impact. This impact extends to promoting lifelong learning, enriching local culture, and facilitating resource and knowledge sharing. Prioritizing transparency and accessibility not only benefits the growth of the local community but also offers the university invaluable real-world experience in return.

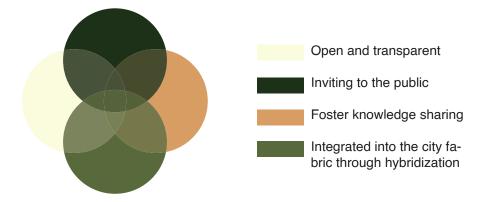
Throughout my personal educational journey, I have witnessed the profound impact of blending theoretical learning with practical experience on student development. While universities often emphasize theory-based learning, practical elements are at times underemphasized. Encouraging active collaboration between businesses and students creates an environment where knowledge endures longer, and students gain valuable real-world experience, which they can then share with others. This reciprocal relationship benefits all parties involved.

Objective

It is imperative to redefine the conventional campus into a forward-thinking concept that not only fosters lifelong learning but also eradicates the boundaries between theory and practice once and for all. To achieve this vision, we have articulated four design principles that collectively constitute the fundamental elements of a future-ready campus facility.

These four design principles, when synthesized, lead to a prospective conclusion: the conventional term "educational facility" should give way to a more encompassing designation – an "experience center" where individuals from all walks of life have the opportunity to engage, learn, and share knowledge. This realization prompts the formulation of the following research question:

"How can we design a decentralized and hybrid educational experience center in The Hague that gives back to the people, thus directly impacting its local communities?"



Methodology

In order to address the research question presented earlier, it is essential to break down the question into smaller, more focused sub-questions that shed light on the problems and challenges inherent in the overarching inquiry. Four distinct sub-questions can be devised to provide clarity and insight into the research question:

- "How can an open and transparent educational building be effectively designed?"
- "What strategies are required to create an education facility that is inviting to the public?"
- "How can the promotion of knowledge-sharing within educational buildings be optimized?"
- "In what ways can a hybrid building be seamlessly integrated into the urban fabric of The Hague?"

The research methodology will primarily rely on desk research, occasionally supplemented with fieldwork, such as interviews or surveys. The primary focus of the study will revolve around comprehensive case studies, complemented by the analysis of historical data relevant to the design of educational facilities.

Case studies

To explore potential solutions for the design challenges associated with a vertical campus, we have compiled an evolving list of case studies. This list is intended to be continually updated as the need arises. At present, it comprises a selection of educational and experience center buildings. The aim is to gain deeper insights into the nuances of harmoniously merging these two functions within a single design.

The Roy and Diana Vagelos Education Center, Columbia University

What truly sets this building apart and piques the interest for this research is its open and transparent design. Furthermore, its vertical orientation adds an intriguing dimension, offering valuable insights into the challenges associated with stacking functions in a vertical context.

Diller Scofidio + Renfro architects, The Roy and Diana Vagelos Education Center, 2016, New York City, NY, USA.



ITC faculty, University of Twente

The interior design is distinctly three-dimensional, seamlessly blending offices, classrooms, labs, and interactive spaces for both researchers and students. The ground floor includes a relaxed Social Hub for various activities, all interconnected through a central atrium, fostering collaboration and innovation.

Civic Architects, ITC faculty, 2023, Enschede, OV, NL



BMW Experience Centre

The experience center's design emphasizes the presentation of a high-end product within an open space. From an educational exhibition perspective, one can glean insights into how architecture and spatial layout direct attention to specific areas or objects. These principles can be applied to various exhibition formats within an educational building.

Archihope, BMW Experience Centre, 2022, Chengdu, SC, CN



AFAS Experience Center

The building's distinctiveness lies in its tulip-like aerial appearance, housing a blend of office spaces, studios, sports facilities, a theater, and a restaurant. Given the integration of these diverse functions within a single structure, it offers an intriguing case study to explore the design's approach to harmonizing these varied elements.

Just Architects, AFAS Experience Center, 2018, Leusden, UT, NL



Bibliografy

Ministerie van Onderwijs, Cultuur en Wetenschap. *Prognose aantal studenten wo. 2023.* https://www.ocwincijfers.nl/sectoren/hoger-onderwijs/kengetallen-wetenschappelijkonderwijs/studenten/prognose-aantal-studenten-wo#:~:text=Het%20geraamde%20 aantal%20studenten%20in,komende%20jaren%20nog%20iets%20door. (opened October 11, 2023).

Dufault, Katie H. *Rethinking Partnerships on a Decentralized.* Journal, Purdue University, 2017.