

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Personal information	
Name	Ruben Christoph Schonewille
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Studio		
Name / Theme	Public Building, the Vertical Campus: a Public Hub of the Future in The Hague	
Main mentor	Stefano Corbo	Project Design
Second mentor	Florian Eckardt	Building Technology
Third mentor	Sang Lee	Theory & Delineation
Argumentation of choice of the studio	<p>Throughout my architectural education, I have been interested in how we perceive buildings and the way this makes us interact with the building itself and each other, at different levels of the public realm. This interest grew seeing how this perception changes from person to person and throughout time. Furthermore, the idea of a Vertical Campus amused me and sparked my imagination on how this verticality brings forward different ways of interacting with learning environments. This is why I am motivated to research and develop a Vertical Campus that functions as a hub for the future, accommodating educational trends that are ever-changing.</p>	

Graduation project	
Title of the graduation project	The Vertical Campus as an Interface: encouraging social interactions between different actors in The Hague.
Goal	
Location:	SER Conference Center, The Hague, The Netherlands.
The posed problem,	<p>The vertical campus of the future requires a multitude of different learning environments, corresponding to the variety in how individuals and groups interact with their environment while learning. However, these learning environments run the risk of not properly communicating the ways in which they can be used to the user. Its multiplicity becomes lost in translation. Poor communication is also prevalent among the power clusters in The Hague: the SER offices and surrounding institutions along the Bezuidenhoutseweg seem to work in their own bubbles. Little interaction is present between these institutions and their surroundings: who knows what SER stands for, or what it does?</p> <p>Meanwhile, Gibson's theory of affordances and invariants has seen much development and research. It considers how perceived properties of an object indicate action possibilities, affordances, which communicate how an object can be used. Integrating affordances in the design process of learning environments could benefit the legibility of how they can be used to interact, but there is a gap where affordances are scarcely translated into architecture.</p>

research questions and	Main question: How can affordances be used in the design of the Vertical Campus to accommodate for learning environments that offer different levels of interaction? Sub questions: How do affordances and invariants relate to concrete architectural design moves? How are the affordances of Innovative Learning Environments different to traditional learning environments? How does the design of these environments address multiple ways of interaction between different actors?
design assignment	<p>The goal is to design a Vertical Campus, the multiplicity of which is supported by a rich collection of learning environments encouraging different actors to interact with each other, where they otherwise would have been working in their own bubbles. These environments vary in how they encourage (social) interaction, an important driving factor in the learning process. The action possibilities, relating to interaction, are clearly communicated to its users. This results in the Vertical Campus being a hub that attracts and allows different actors to interface with each other, stimulating growth on individual and collective levels.</p> <p>To achieve this, knowledge and guidelines in relation to social interactions are developed through research by design. The design is to take on a more phenomenological approach that elicits both a physical and emotional reaction, encouraging even the random passerby to take part in the pursuit of knowledge.</p>

Process

Method description

Literature studies have brought forward the importance of social interactions. The aim is to combine interactions and studies into affordances and invariants into architectural elements, leading to a set of guidelines and factors that should take a key role in the design process. Different combinations of these factors result in spaces with different qualities, indicating a level of interaction. Exploring these combinations through design leads to a collection of spaces and a set of guidelines that describe the role of affordances in architectural design. These guidelines address on one hand the requirements needed for learning environments considering interaction, on the other hand how affordances are made apparent to the user.

The objective is to guide the design towards an understandable language of affordances, so that users are stimulated to understand how a space can be used.

The guidelines and consequent designs for learning environments are compared to existing environments in The Hague. The aim is to find out which tools are already applied, or which combinations require more attention, which in turn informs prior research.

Literature and general practical references

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Reflection

1. Relation between my project and studio topics.

What is the **Vertical Campus**? This question has stood central during this year's graduation studio. From early on, social interactions have played a key role in my definition of the Vertical Campus. During the first semester and its collective research phase, we noticed a critical lack of interaction between the different actors present along the Bezuidenhoutseweg in The Hague. A common theme during our interviews was that both young and old, professional and student, local and commuter felt stuck in their own bubble. Furthermore, the many different institutions (governmental, educational, research) present in the area were poorly connected: a power hierarchy is present between these clusters. This was both the result of a disrupted urban fabric and strictly gated communities. Based on these observations (fig. 1), we envisioned the future campus to be a common ground by breaking up these clusters and "weaving" the urban fabric back together in key locations. This common ground stands for more transparency and participation in the decision-making that takes place in The Hague.

In terms of **urban integration and dynamics**, my Vertical Campus is located on a site of overlapping conditions: in between the park (Haagsche Bos), a residential neighbourhood (Bezuidenhout) and many different institutions. The main entrance is centred on a new axis between the park and city, literally continuing the urban fabric up into the tower. The theme of "common ground" takes on a different shape when verticality is introduced: a spring-like continuous space, as if the traditional horizontal campus has been folded onto itself. This forms the "public backbone" of the Vertical Campus (fig. 2).

However, a tall building on this location stands out. It sits on the boundary of the densified city centre, where the average height of surrounding buildings is drastically reduced to 15 – 20 meters. Despite this, it is highly likely that future expansions in The Hague will turn towards this area due to constraints in the already dense city centre.

Multiplicity is, in short, introduced as interactions between different parts of the program. The public backbone itself is a continuous amalgamation of different users and functions, from sports and media to cuisine and research. The spaces that branch off from the backbone take on these properties, injecting them into learning environments (fig. 3). A gym can house a meeting area for group work, while elsewhere a theatre is introduced into a classroom. The aim is to move away from the traditional classroom, which holds a tutor-focused design and lack of interaction.

Lifelong learning is addressed thanks to this hybridity and challenging of the norms. Different people and especially different ages have varying ways in which they interact with each other and their environment. After all, a child explores their environment in much different ways since most of what they see is still new to them, while the behaviour of an adult sometimes needs to be challenged to come to new insights. Hybridity makes elements interact with each other by putting them into a different context, both in terms of program and materialisation, which in turn results in people interacting with each other and their environment in surprising new ways.

Figure 1: conclusion drawing of P1 collective research, showcasing poorly connected power clusters.

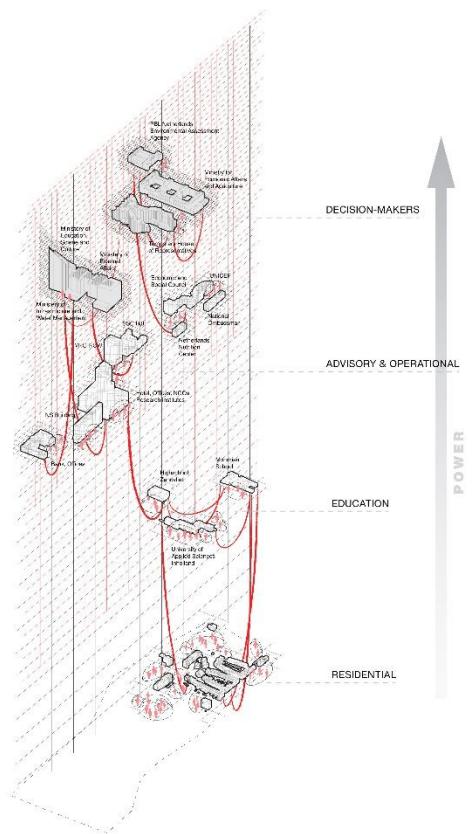
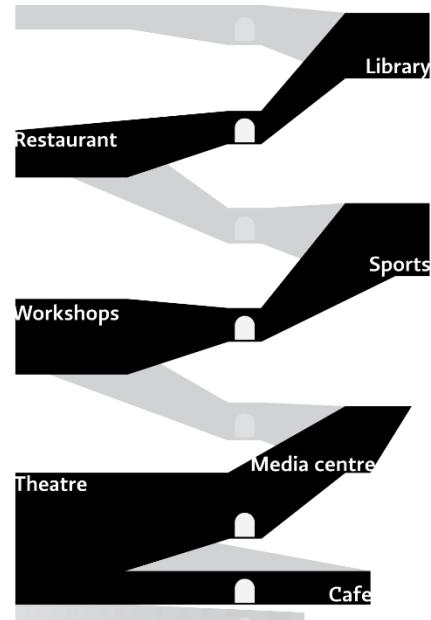


Figure 2: diagram of the public backbone and key elements of the program.



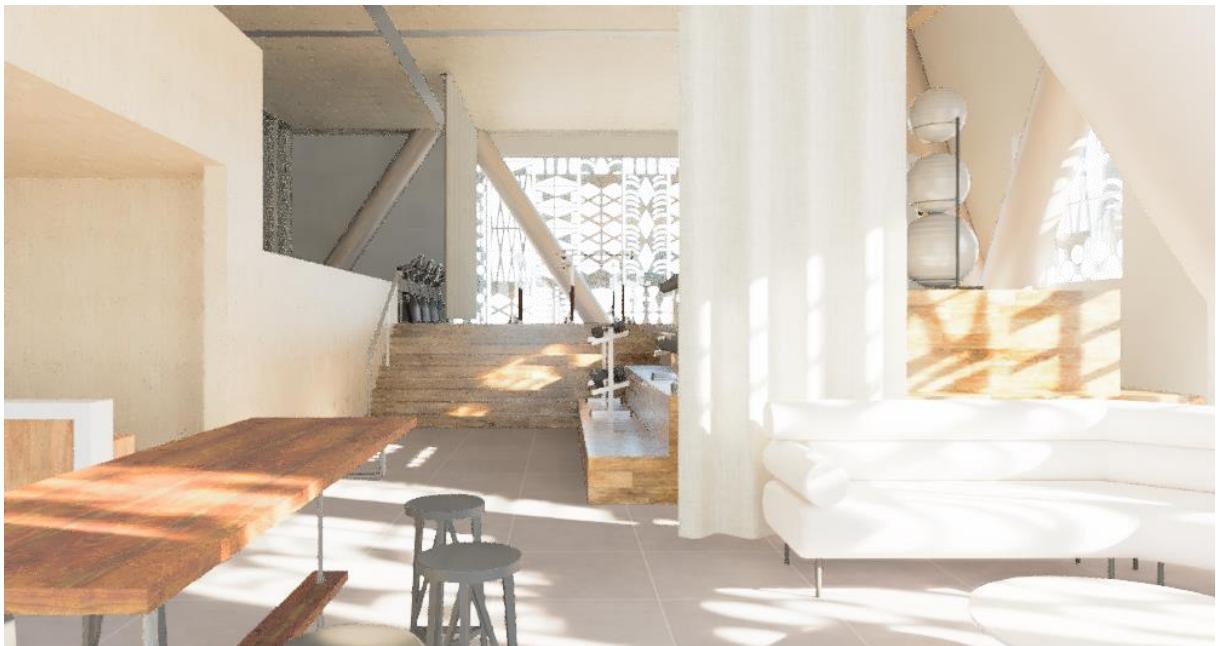


Figure 3: a hybrid of sports and informal learning spaces.

2. Reflection on research and design.

My aim was to develop a Vertical Campus that varies in which degree social interactions are encouraged between different actors. While the different levels of social interactions between multiple actors have been achieved, the “encouragement” part turned out different than expected. In the following reflection I will first reflect on the results and how they address my goals. I will then go over key learning moments during the process, highlighting the relation between research and design.

The design addresses multiple ways of interacting by balancing between different factors, resulting in combinations that suggest different levels of interaction. It balances between individual & collective, accessible & inaccessible and formal & informal. Literature studies and smaller case studies showed that learning environments are moving away from the traditional, towards more innovative spaces that are less formal and generic. However, while this was a good start, I realised that more was needed to make these environments future-proof. This was done by keeping multiplicity in mind, introducing foreign elements into the environments and balancing between generic & specific and rigid & flexible.

This hybridisation of learning environments also established interactions between different actors, ensuring a multi-disciplinary approach to education. Mixing different parts of the program, such as adding sports elements to learning environments and vice versa, creates new and unexpected combinations. Meanwhile, the public backbone not only introduces verticality to the campus, but also works as a collective circulation space where unexpected encounters can happen. On top of this, the generic character of this space allows for different key elements of the program to adapt over time.

Originally, my plan was to find out how implementing affordances into the design process could help to encourage interactions. However, after literature studies, I realised you don't design for affordances: they will be there, planned or not. Trying to force a specific use did not work, therefore I took on a more anti-anthropocentric stance that focused more on which different combinations I could make in terms of program, materialisation and signs, rather suggesting or provoking a certain reaction. Instead of forcing it, I positioned myself to

let go of control and simply set the conditions for the unexpected. Not everything needs to be set in stone, allowing room for interpretation and changes over time.

This “letting go of control” applied to several parts of the process. In terms of design, there were many moments where I was getting ahead of myself, designing redundant details and unnecessarily overcomplicating things. This doesn’t work in a fast-paced, large-scale project and lost me a substantial amount of time. Only after several tutoring sessions where this was pointed out, it dawned on me that it is important to simplify. This also applied to my research: I had too many ideas that I wanted to apply and investigate, resulting in a confusing P2. After restructuring my work, I felt more confident and motivated about my project.

Initially I approached this studio with a clear distinction between research and design. This can be seen in my original methodology, where I focused on a rather linear process where research informs a final design. During the theory & delineation assignments, especially the psychogeographic map and performative conceptual model, I realised how a framework for the Vertical Campus can be formed through experimentation. Having this framework added more focus to later design explorations. However, because of my initial distinction between research and design, some of the assignments were lost on me and had a minimal impact on my process. Furthermore, the different experiments could have had a larger impact if I had put more effort into documenting them in my research and design journal. I take this as an important learning moment. Better documentation would have helped with the clarity of my project overall, in terms of ambitions, concept and design explorations.

3. Relevance of my project in the larger social, professional and scientific framework.

Initial research into my topic immediately led to flexibility and adaptability of buildings. Cedric Price, for example, who claims that architecture is too slow, designed the Fun Palace – a framework that allows rooms, walkways and stairs to move around and adapt. The larger discourse, when confronted with terms such as flexibility and adaptability, seems to immediately turn towards designs like Cedric Price’s Fun Palace: a machine that changes according to what society demands of it. With my project I aim to approach the problem from a different angle: what if the user can more easily adapt within the building by understanding the potential of what’s present, instead of the entire building adapting to constant changes in demand?

This project helps to create understanding on a topic that is often implicitly learned through experience, a benefit relevant for young professionals. In general, it creates awareness of the impact our decisions during a design process have on the interpretation of the result. Furthermore, improved knowledge of affordances in architecture helps to understand what a building already offers, allowing architects to understand and work with what is already there and how to anticipate or leave room for future changes in demand.

It is important to note that I often mention the “design of learning environments”. The designed spaces are merely the physical part of this environment. Similar to a “church”, the physical building that houses the church (a.k.a. the religion that is currently being followed) is just one part of the larger image. In the case of the learning environment, an important aspect beside the physical learning space is the pedagogical background which most of the current studies have investigated. Much research has gone into these educational methods that support interaction, but the physical environment is still lacking behind. My project applies these developments in educational methods, but also looks forward to make room for future developments.