About the studio

Architectural Engineering is a studio focused on innovative possibilities for the future of architecture. It is an open-ended studio that encourages you to think for yourself about what the role of architecture should be and how new forms of architecture can contribute to a better future. The studio is very free-form, which suits me well, and I've really enjoyed the freedom my instructors gave me. Whether it was about the problem statement, the outcomes, or the design itself, I always felt the freedom to shape my own process.

About my topic

I started this year with a fascination for nature, especially how nature grows. I initially wanted to do something with plant growth and integrate nature with architecture in such a radical way that nature and construction would become intertwined. I read books about Baubotanik architecture and focused on the technical side of this fusion between nature and construction. When I presented this in the studio, the question came up: "Why does the city need this?" At first, I thought this was an easy question to answer, but it turned out to require a deeper response. What is it about the dynamic and unpredictable nature of growing plants that I think today's construction industry could benefit from? I arrived at the idea of surrendering control. In the current building industry, we want to plan everything, and if nature is integrated, it's done in a controlled way. The boundary between nature and humans doesn't seem to be resolved in projects like Bosco Verticale, where residents aren't even allowed to take care of or access the plants on their balconies. What does a project need in order to truly allow people to form a relationship with the growing nature that we are all part of and which we need to survive on this planet?

The project thus became more human-focused. I began with a case study analysis of projects where people collaborated with nature. I did this by making a comic strip, which allowed me to zoom in on the relationship between people, nature, and architecture. This led to a set of rules or principles that can be applied in a design. It became about much more than just integrating natural elements into a construction—it was about participation, community, systems, and much more. It ended up being a very broad study, which made the design process quite challenging for me. But this is also why I found the year incredibly enjoyable and diverse. My research led to conversations with landscape architects, participatory architects, high-rise architects, self-build organizations, elementary school children—and I discovered an entire world within architecture that I hadn't known existed before this year.

About my design

I felt like there was a choice between two projects. The first was to create an extremely radical project in a new development in nature, where I could completely co-create a new type of architecture with nature. The second option was to take on the challenge in an urban environment where nature is currently not being lived with at all, and to make an intervention to soften that boundary. I chose the second option. Sometimes I've looked back and questioned if that was the right decision—mainly because the design is trying to break open a concrete colossus, and of course, you'll never recreate the atmosphere of a treehouse in the middle of nowhere. Still, I'm happy with the choice. In a world that is becoming more and more urban, it feels more relevant not to fill the remaining bits of nature with architecture, but rather to make the city more natural again.

The chosen building —Blakeburg office building in Rotterdam—came to me by chance during a tour in Rotterdam. My goal was to get a better sense of the city and choose a street for my design, but when I saw this abandoned giant, it sparked inspiration. After I saw a concrete vase with a plant growing out of it, my choice was set. If that can happen on a small scale with a concrete vase, it can happen on a large scale with a concrete building too.

I had already been thinking from the start about turning it into a school. This is a younger generation that can learn so much and potentially pass on knowledge about nature. I decided to combine this with senior housing—this is a growing need and also aligns well with some functions shared with children. The balance in this project lies in designing a building for people who don't want to devote their entire lives to nature. So, you have to design a well-functioning building where people are still invited to collaborate with nature. I found this the most complex aspect of my design. Is there too much nature so that it's hard to learn? Too little and it's just another concrete building? Am I greenwashing?

In the end, I found the balance by turning the main circulation route into the main nature route. This way, children (and seniors) are confronted with nature multiple times a day, but can also withdraw from it when they want. The facade was broken open at points where nature enters the building and a staircase was designed made from various natural blocks—so it's more like a landscape leading you upwards than a traditional staircase.

Through my visits to elementary schools, I gained a better understanding of what a school needs and what children want in a school. A two-day participatory workshop was given where children designed a school where nature, learning, and play come together. I saw a lot of movement and learned especially about the joy and enthusiasm of children, which is hopefully reflected in my design.

About what's next

The aim is to bring together the various studies, conversations, and topics into a design where all these elements are strong individually and also interconnected. I also want to zoom in further on what it's like to go to school in this building and how the architectural interventions affect your daily experience. The comic strip method, previously used during the case study, will be used as a tool for reflection. I want to test whether the building meets the criteria I developed through my research.