Portfolio

Jim van Dongen

2026

Foreword

I decided I wanted to be an architect when I was ten years old, and I always wanted to get there through TU Delft. It took four years of HBO in Amsterdam, half a year of pre-master and two years of a master's degree to actually arrive. This portfolio is what came out of that route.

Three things run through everything in here.

The first is that I design user-driven. The people who will live in, work in or pass through a building deserve a real say in it, rather than an architect deciding from a distance that he knows better. In my graduation project that meant spending a day at an asylum reception centre with twenty-four residents, letting them fill in what was missing from their daily lives, and building the programme of requirements out of their answers instead of my own assumptions.

The second is that I let data steer the drawing. I sketch early and I sketch a lot, but I want those sketches pushed around by something real rather than by taste alone. Twenty years of search data showed me how a village quietly lost its own identity, and Rotterdam's health statistics made an entire studio admit out loud that the city is not a healthy one. Neither of those told me what to draw. Both of them changed what I drew next, which is the whole point: research only counts if it is allowed to move the design.

The third is that I design for change. Buildings outlive the reasons they were built for, so I would rather make something that can be taken apart, rearranged and reprogrammed than something that has to be demolished and replaced. In practice that means permanent structures with adaptable insides, and being able to show, step by step, how the thing is actually assembled.

None of that stays inside architecture. Alongside my studies I run Toerie, build my own AI tools and agents to automate research and daily work, and teach kickboxing to children on Friday evenings. It is the same instinct every time: figure it out myself, build it, and find out whether it holds up.

What follows is my CV, and then three projects. The Spatial Mediator, my graduation project at the future railway station in Ter Apel, comes first. The Vital Mound, a high-rise in Rotterdam's Rijnhaven built around physical movement, comes after it. The Symphony Hill, a music venue in Delft from my pre-master, closes the set.

Each of them is a different answer to the same question: who is this building actually for?

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Curriculum Vitae

Jim van Dongen

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About me

I have wanted to be an architect since I was ten, and I got there the long way round, through four years of HBO and a pre-master before graduating in public building design at TU Delft. How I work has stayed the same throughout. I like figuring things out myself, whether that's a design problem, a piece of software or a business idea, and I'm at my best when I can turn something complicated into a simple explanation. My work is user-driven, because the people who will use a building deserve a real say in it rather than an architect assuming he knows better, and what I design is meant to keep changing long after it's finished. Alongside my studies I build my own AI tools and agents to automate research and daily work, and I bring that same hands-on approach into a project, from first concept through to the details that make it buildable.

Education

MSc Architecture, Urbanism and Building Sciences, TU Delft | Sep 2024 – Jul 2026
Studios in Public Building (my graduation project, a hybrid public building at Ter Apel's future station), High-Rise Culture (a mixed-use tower in Rotterdam's Rijnhaven), Urban Architecture (a neighbourhood library in Gouda) and Healthy Environments and Communities (an AI tool for reporting unsafe places). Electives in Artificial Intelligence in Architectural Design, covering Python and applied AI, and in facade design.

Pre-master, Architecture, TU Delft | Feb 2024 – Jul 2024

An intensive half year of projects in quick succession, retraining myself to TU Delft level. Final project: The Symphony Hill, a music venue in Delft, calculated and climate-designed as well as drawn.

BSc Architecture, Hogeschool van Amsterdam | Sep 2019 – Jul 2023

Followed the architecture track, from concept design through to construction details, alongside urban-scale analysis and design. Also completed a minor in Entrepreneurship (2022–2023), during which I started Toerie.

Work Experience

Founder / Owner, TOERIE | Sep 2022 - Present
Founded and grew a self-guided city tour concept during my entrepreneurship minor and have kept developing it since, doing the product design, the content and everything around it myself.

Assistant Designer, Marc Prosman Architecten | Jul 2022 - Aug 2022
Worked on several live projects in SketchUp, ArchiCAD and Lumion, from early concept through to working out the construction details.

Intern, Marc Prosman Architecten | Feb 2022 - Jul 2022
Followed projects through concept development into their first technical detailing, alongside drawing and presentation work.

Fitness & Kickboxing Instructor, Robey's Gym | Mar 2021 - present
Teaching kickboxing to children aged 9 to 15 every week since March 2021, and general fitness instruction since August 2025.

Assistant Cook, Strand Zomer, Nieuwkoop | Jul 2018 - Apr 2022

Packing Assistant, Omefa, Nieuwkoop | Oct 2019 - Apr 2020

Support Crew, Balvert Betonstaal B.V., Nieuwkoop | Nov 2017 - Jul 2019

Shelf Stocker, Jumbo Supermarkten, Nieuwkoop | Mar 2015 - Oct 2017

Languages

Dutch
Native

English
C1 (Cambridge English Advanced, CAE, Dec 2023)

Recognition

Rijnpark redevelopment | 2025
Invited by the Gemeente Arnhem to present my student design work (The Vital Mound) as input for the Rijnpark redevelopment (2025).

Ricoh Ai Workshop | 2026
Invited by Ricoh Netherlands to speak on applying AI in practice (August 2026).

Software

Rhino
Grasshopper
ArchiCAD
SketchUp
Revit
D5 Render
Lumion
Adobe Illustrator
Adobe Photoshop
Adobe InDesign
Adobe Premiere Pro
Adobe After Effects
CapCut
Blender
Weavy.ai
n8n.ai
Hermes Ai Agent
Openclaw Ai Agent
Claude Code & Cowork
ChatGPT Codex & Work
ChatGPT, Claude, etc.

Skills

Participatory & community-driven research
Designing and running workshops that turn resident input into a concrete programme of requirements.

Visualisation
Ability to quickly create realistic visualisations and handle final post-production.

AI proficiency
Experience creating visualisations and animations with AI, as well as optimising daily workflows.

Data-driven design
Building custom data pipelines and 3D visualisations to turn research into design decisions.

Technical detailing & structural systems
Developing structural and construction logic from concept through to buildable detail.

Physical & parametric modelling
From hand-built models to parametric systems in Grasshopper.

Business development
Comfortable across the full range from product design to cold outreach and business planning, built through running Toerie.

Custom digital tools
Building websites and interactive tools (Shopify, Elementor, AI-assisted development) for data visualisation, interactive surveys and systems like 3D configurators.

The Spatial Mediator

One roof over three groups who never meet anywhere else.

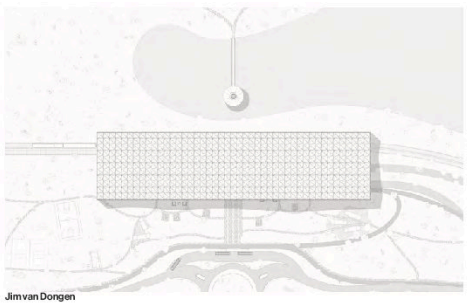
Right now only two groups actually cross paths in Ter Apel: local residents, and asylum seekers at one of the most uncertain moments of their lives. The Nij Begun recovery programme is about to add a third, tourists arriving through a station that doesn't exist yet, and nothing about the village is set up to absorb that. The studio asked for a tourism hub. I expanded it into a town hall as well, after finding that the nearest municipal office is an hour and a half away by bus, three hours there and back to renew a passport in an unfamiliar country and language.

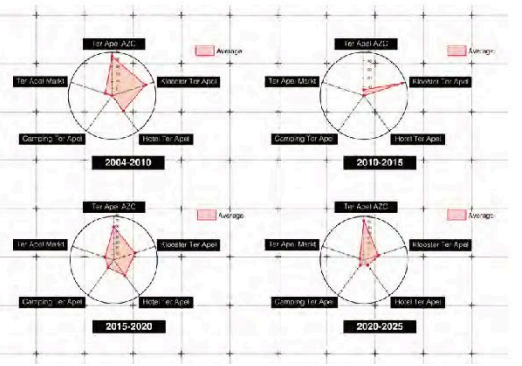
Before designing anything I wanted to know what the name Ter Apel actually means to people. Together with two fellow students I traced twenty years of national search data and media coverage, and watched a village lose its own identity in under a decade. Until roughly 2015 people searched for the medieval monastery, the market, the campsite. After the 2022 reception crisis, one association swallowed all the others. Locally the picture stayed far more layered, which is exactly the gap the building had to work in.

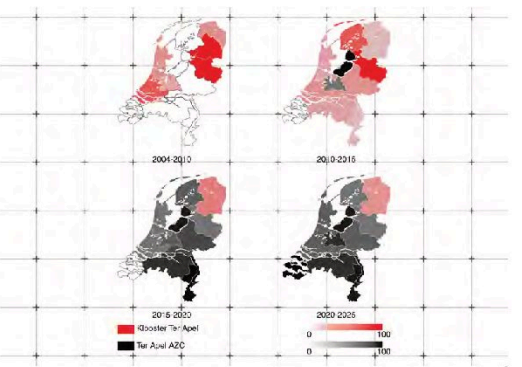
Research told me plenty about what locals and tourists wanted. Refugees were the one group I refused to design for without asking directly, so I ran a workshop at the COA reception centre in Ter Apelervenen. Twenty-four residents took part, from seven countries, with booklets translated into six languages so nobody depended on an interpreter. Each of them filled in their own dream mall: a budget of 64 blocks against a library of 24 functions costing 91 blocks in total, so nothing ever fitted and everyone had to choose. I built the data pipeline and the visualisation myself. A Dutch-language learning space and a barber salon came out on top, appearing in 19 of the 24.

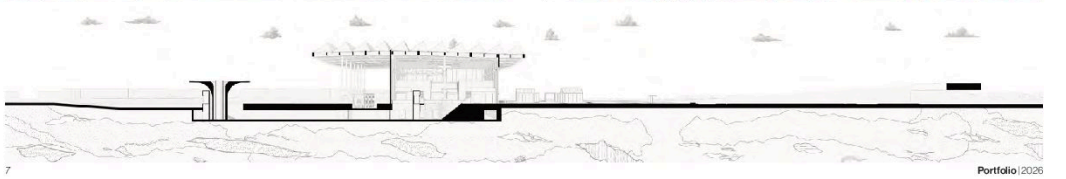
The building takes its shape from that programme rather than from the landscape. It grows block by block: one assembly unit of 14 by 14 metres, three blocks for the studio brief, a doubling for the town hall, the central core everything connects through, three more for reception functions and five for tourism. Two blocks stay deliberately empty, room to grow into later. The station slots in along one side, and only then does one shared roof pull over the whole assembly.

Everything converges on a sunken central courtyard, the one space every group physically crosses, reached through eleven separate openings so each of them gets their own way in rather than one shared front door. Herman Hertzberger's polyvalence sits underneath that, and so does John Habraken's Open Building: a permanent steel-and-timber frame on a 14.4-metre grid, and an overhead crane that lifts 3.6-metre infill modules from bay to bay like an internal assembly line. Some zones can never take a module, the central core above all. Everywhere else, one always can.







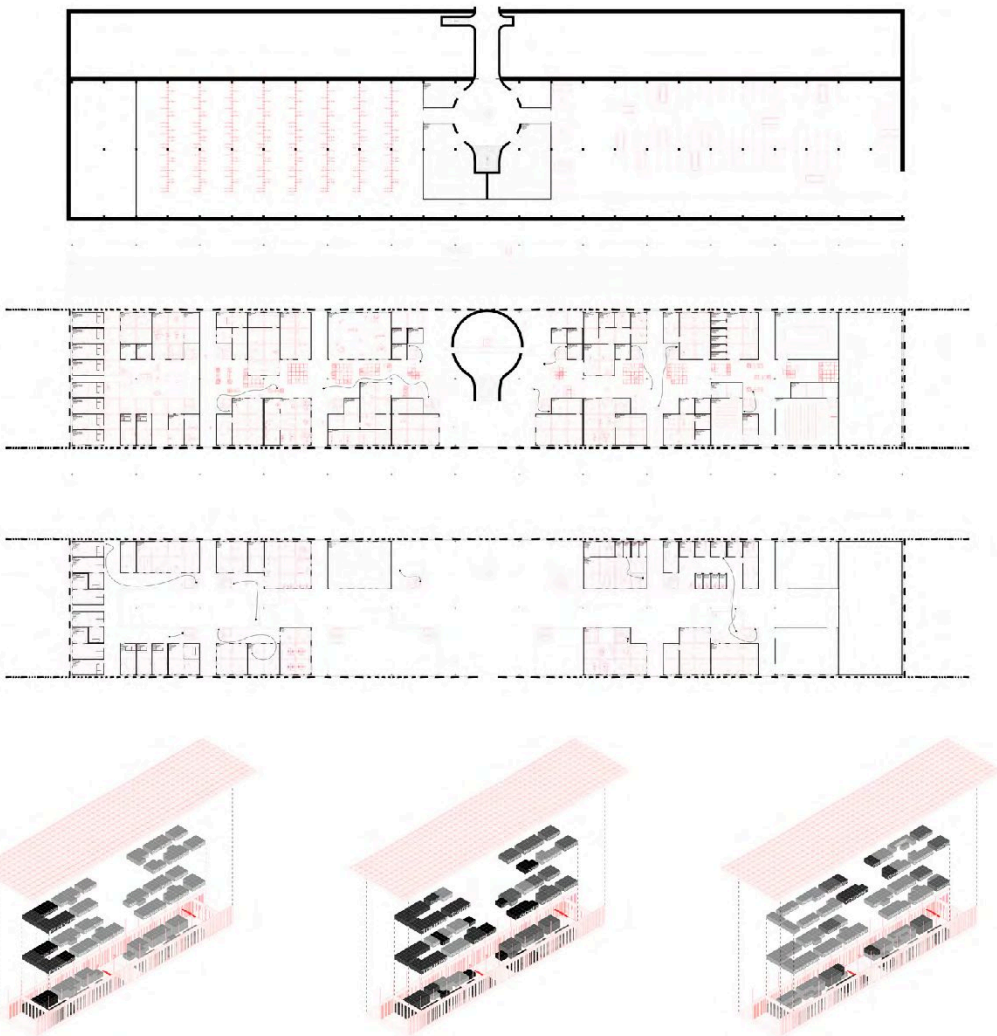


The Spatial Mediator

The modules are framed from reclaimed shipping container corner castings bolted to timber beams, then stacked with the same twistlocks used at sea, with panels clicking in without tools or adhesive. Taking one apart is that sequence in reverse, so every part can be reused somewhere else instead of demolished. I wrote the whole thing up as an illustrated assembly manual, because a support-and-infill claim only means something if you can show someone how to build it and take it down again. Fixed functions like the council chamber use wall-and-floor modules that slide together into a single clear span instead.

That lets the same structure keep changing what it is: municipal and reception functions in 2027, civic programme by 2030, the station itself in 2035, a tourism terminal by 2050, housing by 2075. I worked the design out in full as far as 2035, and argued the later stages as a direction rather than drawing them as finished design. The hotel rooms come from the same modules, two for a compact room and three for a more spacious one, reached along an entrance that runs through restored peat landscape and passes beneath the rail tracks before you arrive.

The facade opens and closes in a gradient that marks every entrance, hand-chiselled Bentheimer sandstone outside and smooth sawn Gildehauser within, like a geode. Each stone panel hangs from a suspension system fixed to the timber frame behind it. The roof is a field of pyramids, three faces of BIPV panels and a north face of operable glass for daylight and natural ventilation, modelled against Ter Apel's own measured weather data. It generates 262 percent of the building's energy demand and takes the design carbon-negative over its full lifecycle.



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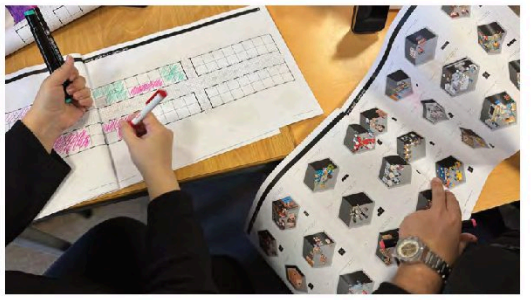

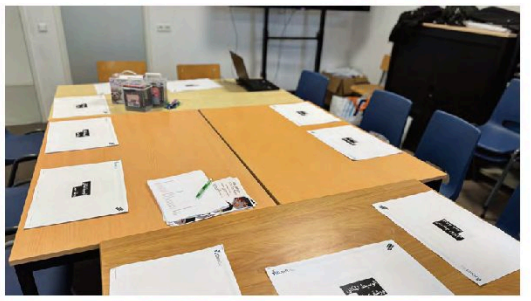

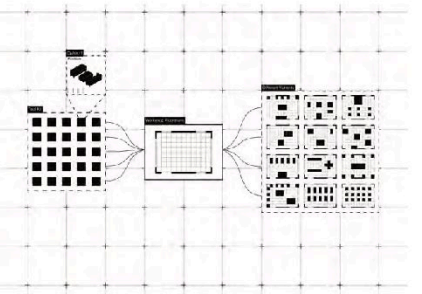

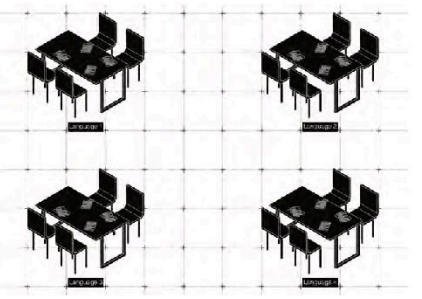

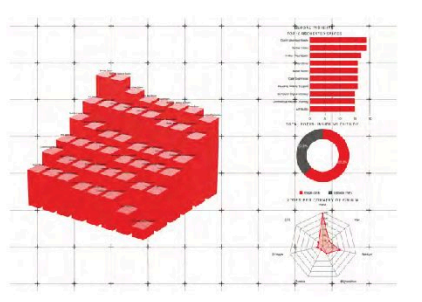

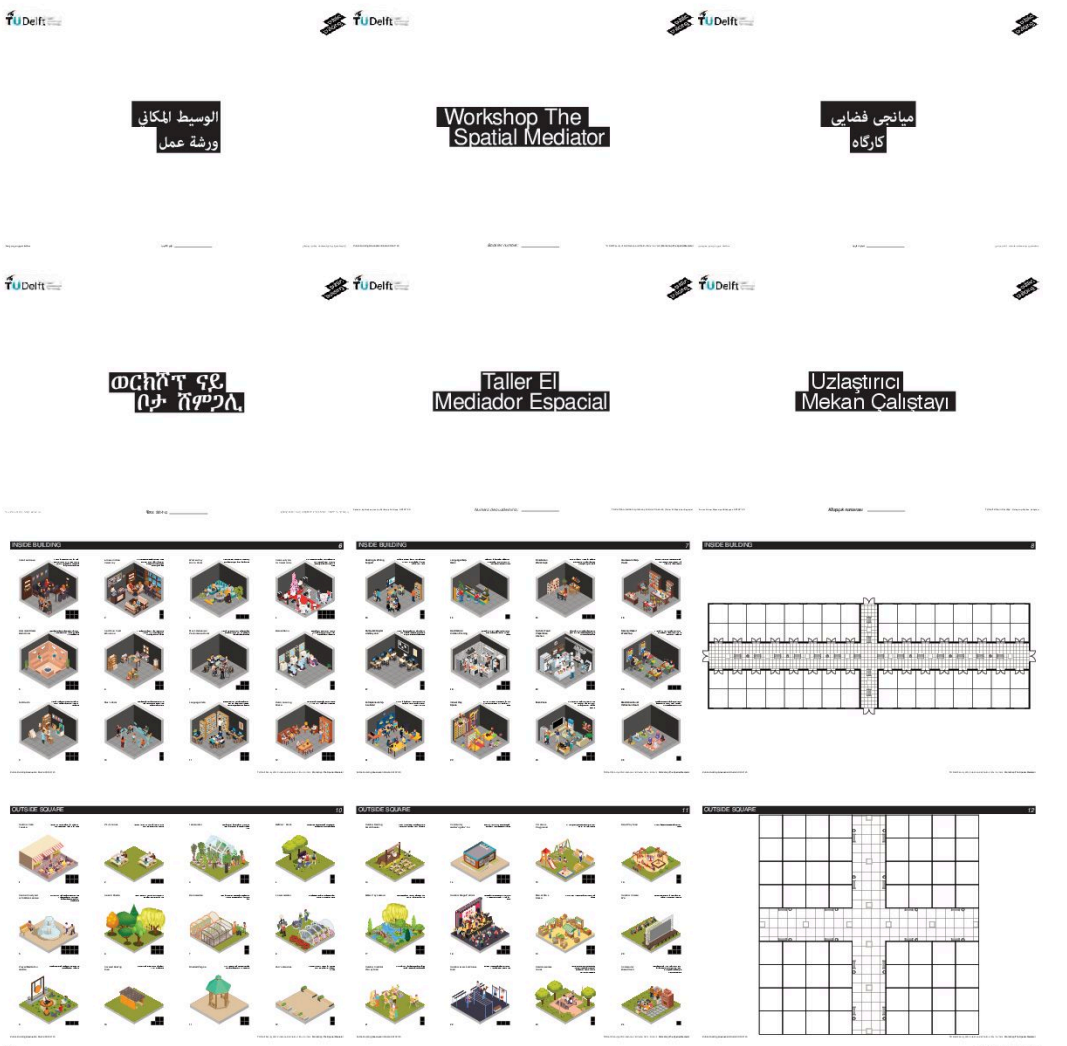

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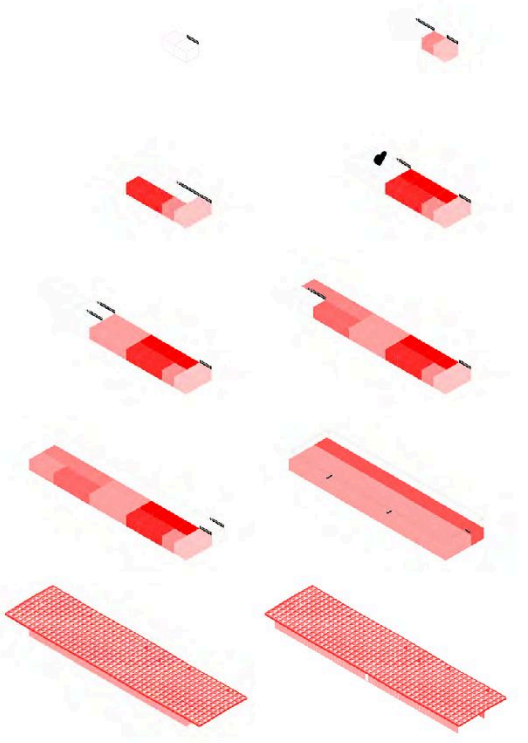

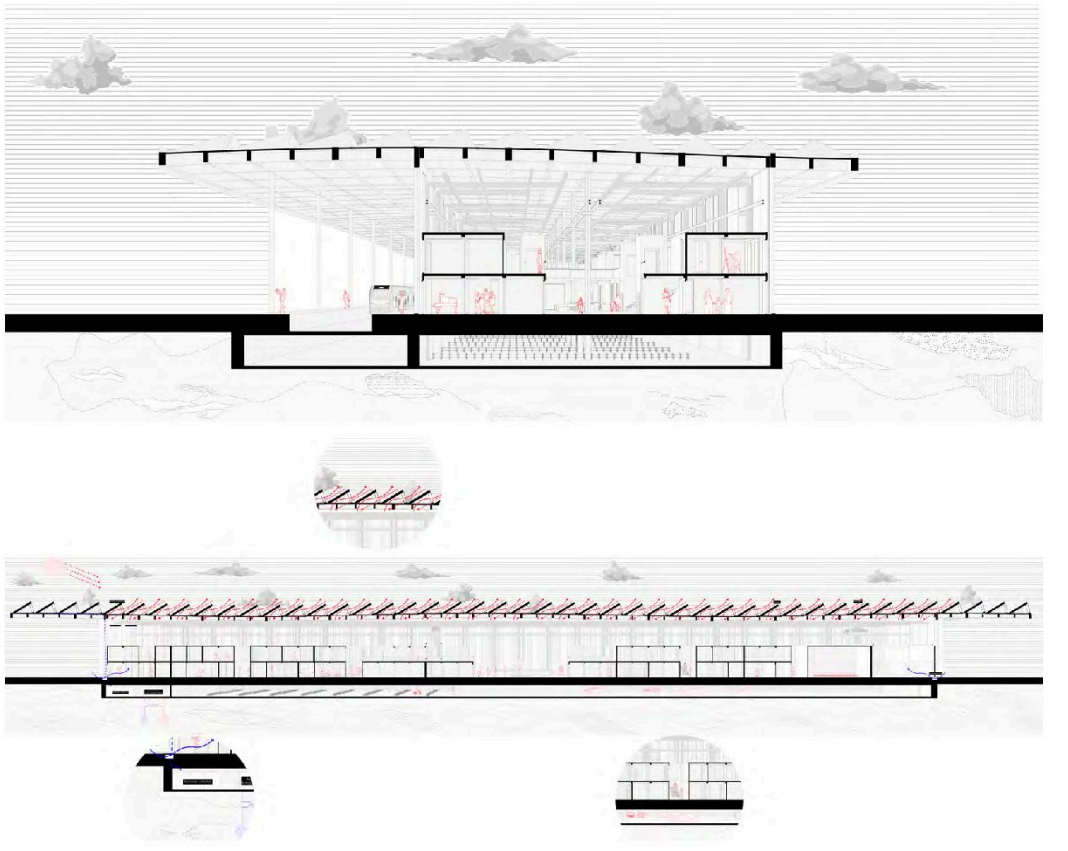

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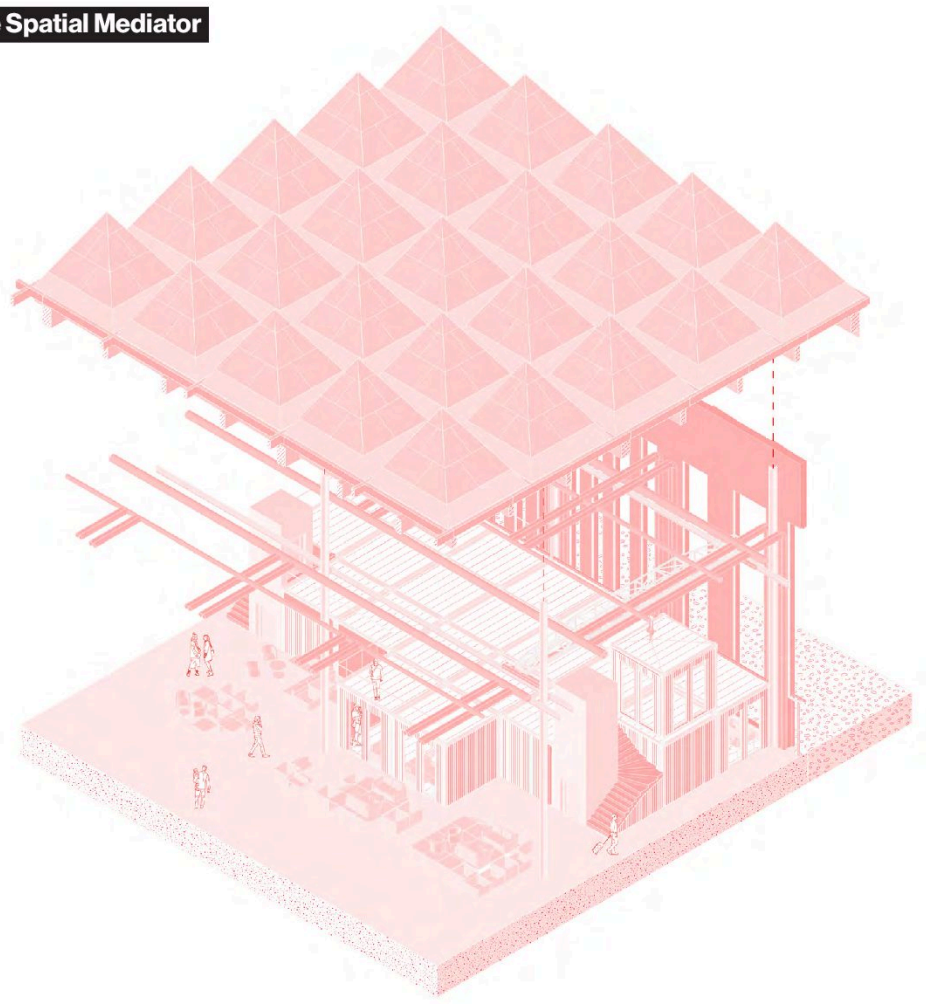

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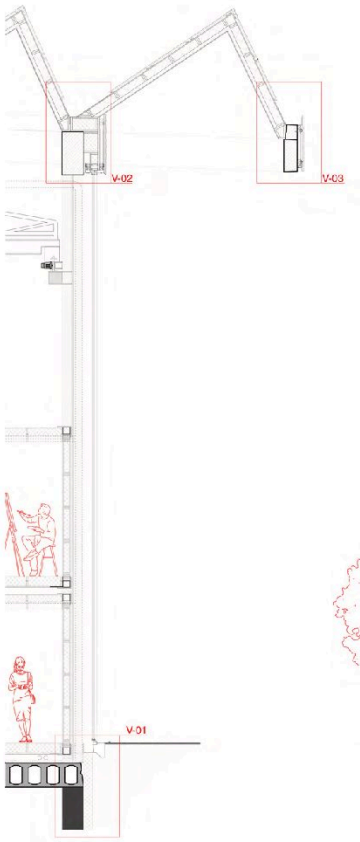
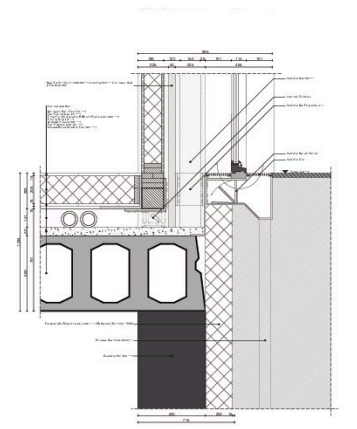
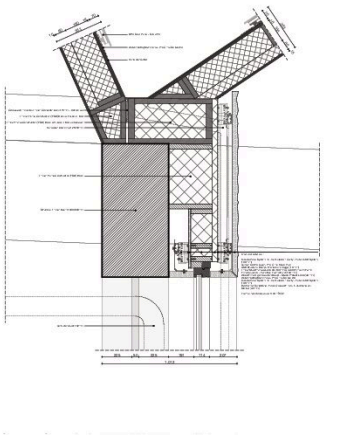
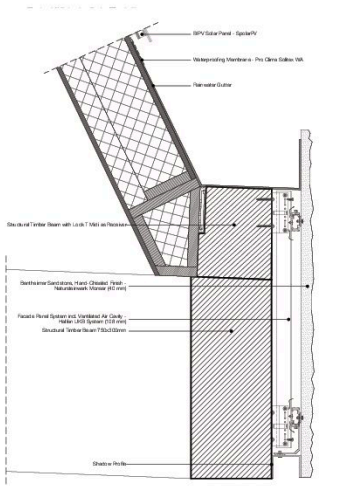
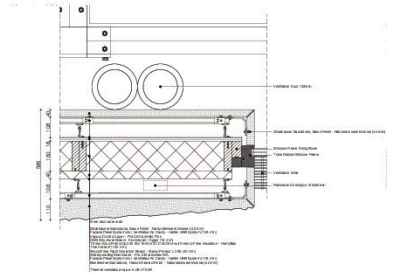










The Vital Mound

Studio 'High-Rise Culture', Rotterdam Netherlands

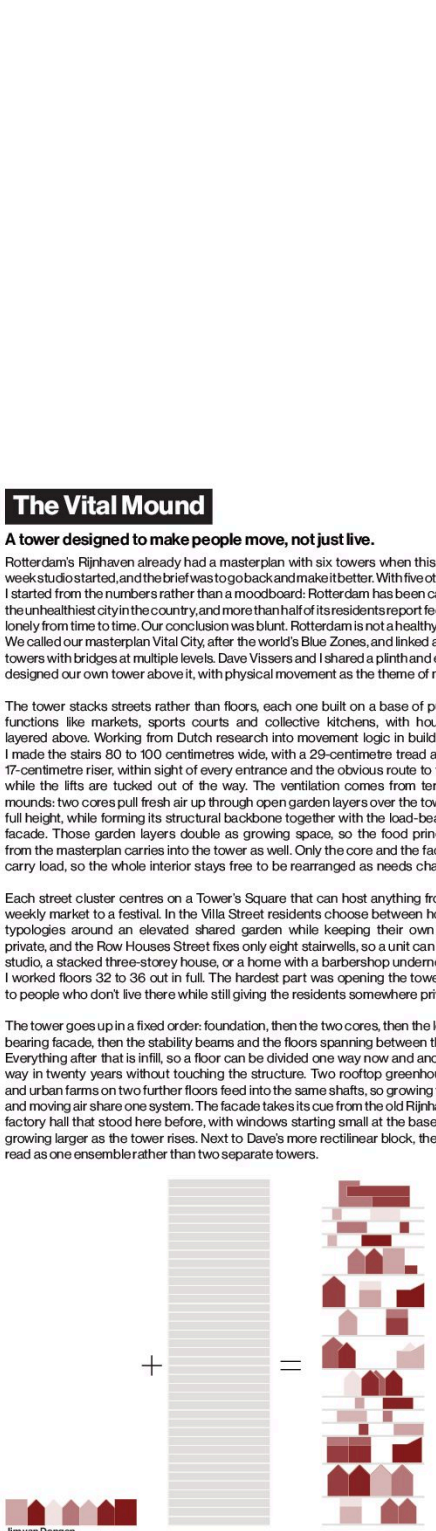
A tower designed to make people move, not just live.

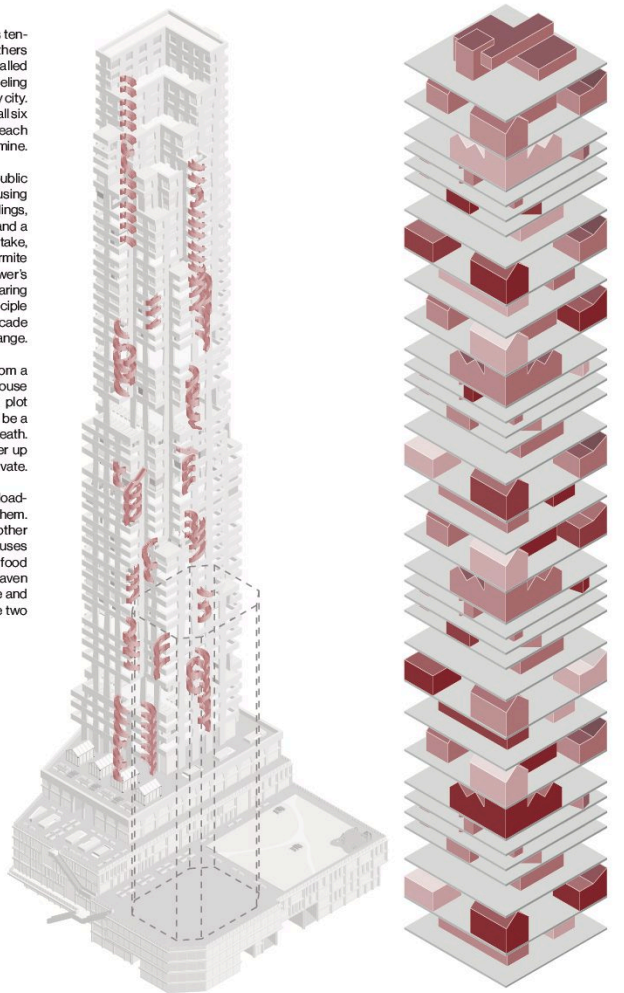
Rotterdam's Rijnhaven already had a masterplan with six towers when this ten-week studio started, and the brief was to go back and make it better. With five others I started from the numbers rather than a moodboard: Rotterdam has been called the unhealthiest city in the country, and more than half of its residents report feeling lonely from time to time. Our conclusion was blunt. Rotterdam is not a healthy city. We called our masterplan Vital City, after the world's Blue Zones, and linked all six towers with bridges at multiple levels. Dave Vissers and I shared a plinth and each designed our own tower above it, with physical movement as the theme of mine.

The tower stacks streets rather than floors, each one built on a base of public functions like markets, sports courts and collective kitchens, with housing layered above. Working from Dutch research into movement logic in buildings, I made the stairs 80 to 100 centimetres wide, with a 29-centimetre tread and a 17-centimetre riser, within sight of every entrance and the obvious route to take, while the lifts are tucked out of the way. The ventilation comes from termite mounds: two cores pull fresh air up through open garden layers over the tower's full height, while forming its structural backbone together with the load-bearing facade. Those garden layers double as growing space, so the food principle from the masterplan carries into the tower as well. Only the core and the facade carry load, so the whole interior stays free to be rearranged as needs change.

Each street cluster centres on a Tower's Square that can host anything from a weekly market to a festival. In the Villa Street residents choose between house typologies around an elevated shared garden while keeping their own plot private, and the Row Houses Street fixes only eight stairwells, so a unit can be a studio, a stacked three-storey house, or a home with a barbershop underneath. I worked floors 32 to 36 out in full. The hardest part was opening the tower up to people who don't live there while still giving the residents somewhere private.

The tower goes up in a fixed order: foundation, then the two cores, then the load-bearing facade, then the stability beams and the floors spanning between them. Everything after that is infill, so a floor can be divided one way now and another way in twenty years without touching the structure. Two rooftop greenhouses and urban farms on two further floors feed into the same shafts, so growing food and moving air share one system. The facade takes its cue from the old Rijnhaven factory hall that stood here before, with windows starting small at the base and growing larger as the tower rises. Next to Dave's more rectilinear block, the two read as one ensemble rather than two separate towers.





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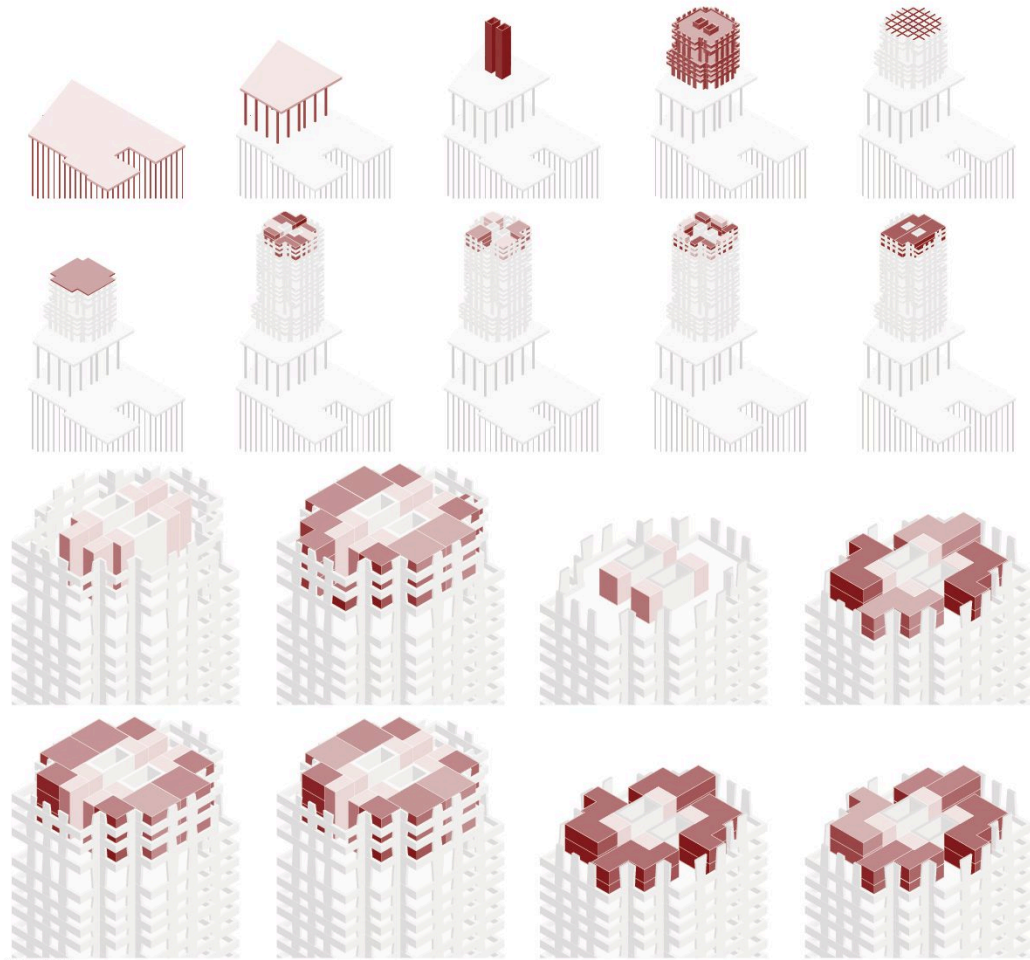
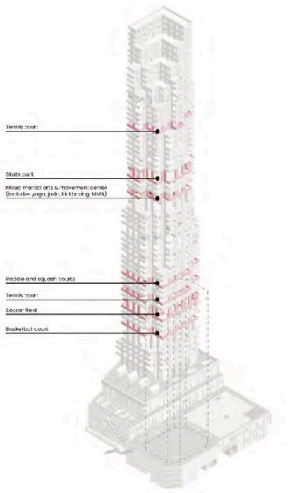
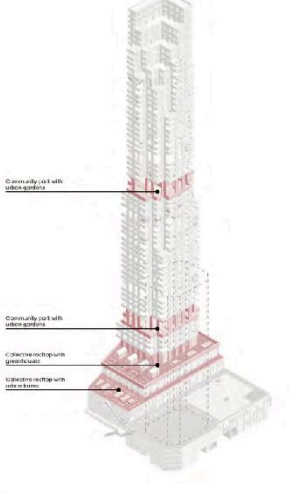
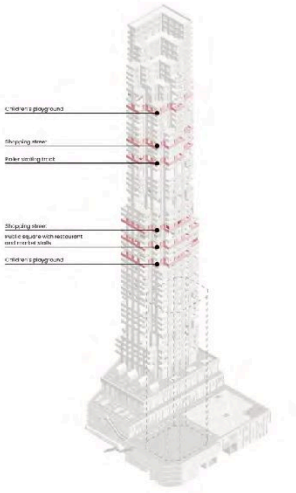
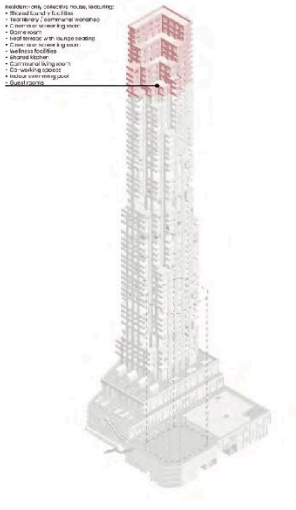
The Vital Mound











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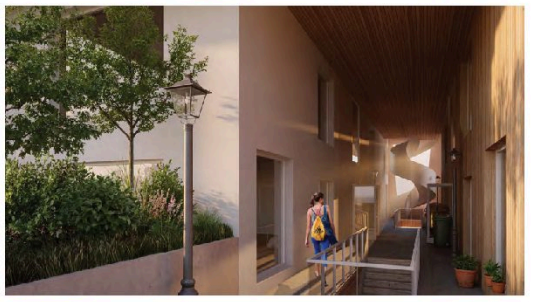

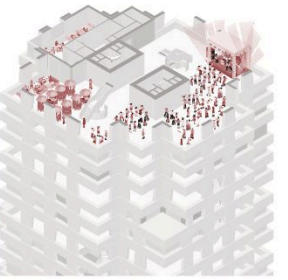

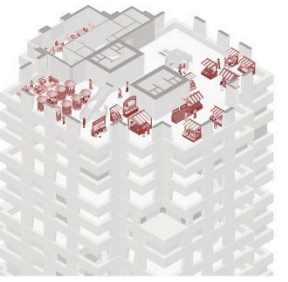

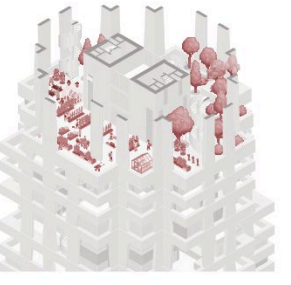

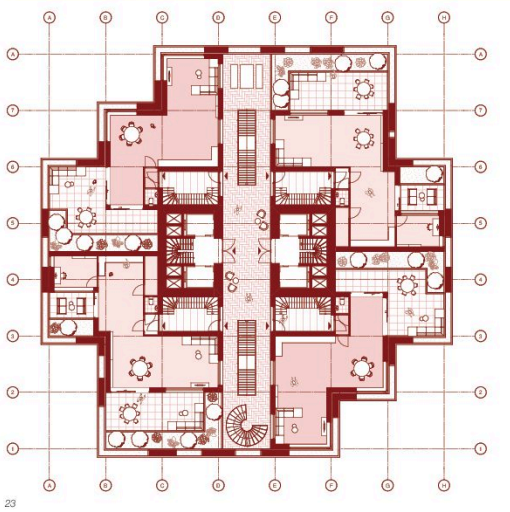

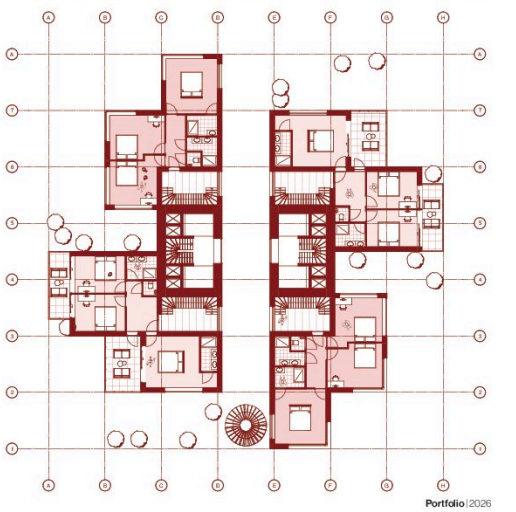

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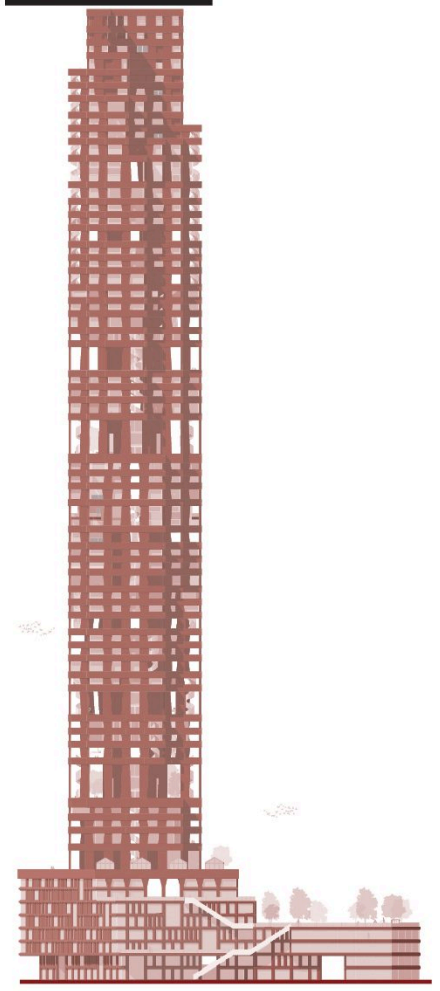
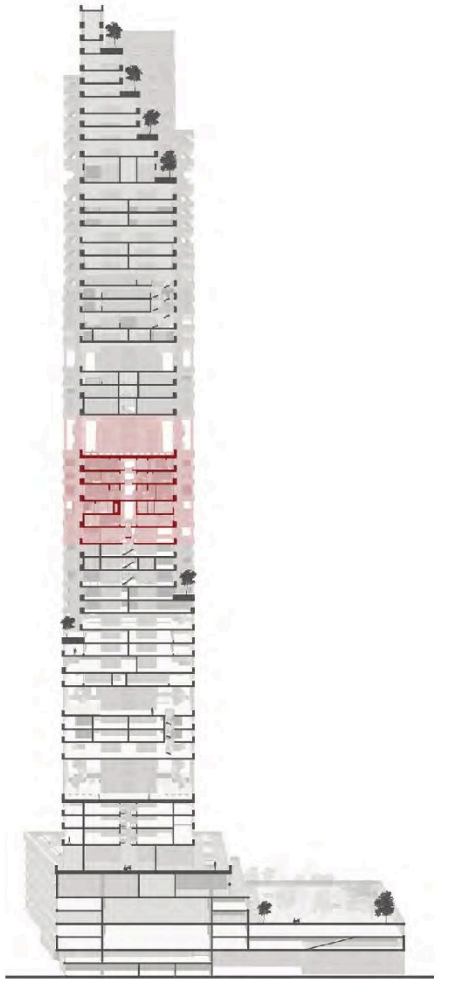
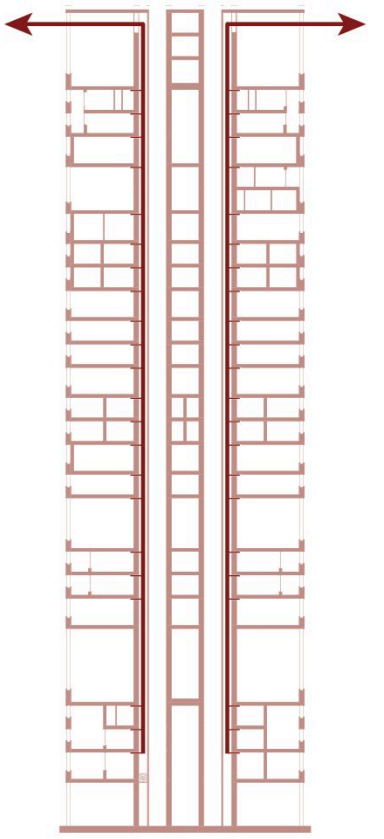
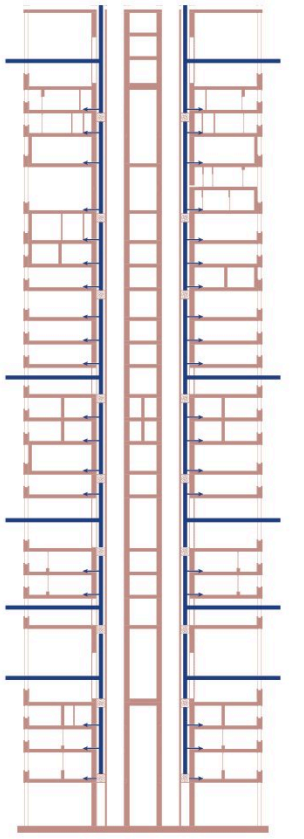
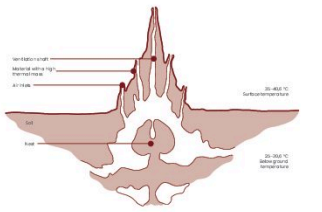
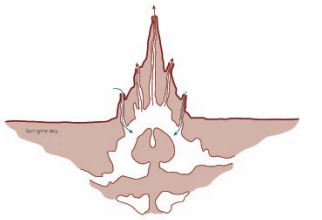


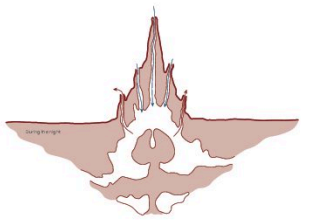


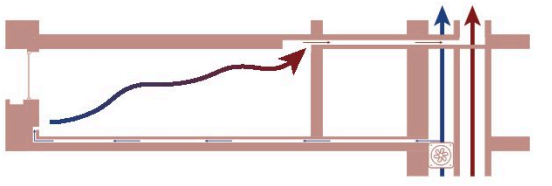




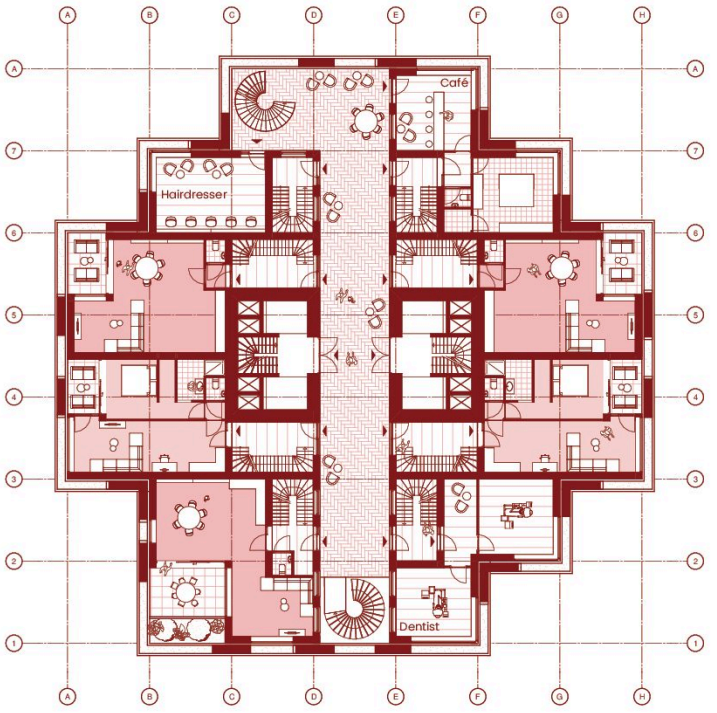


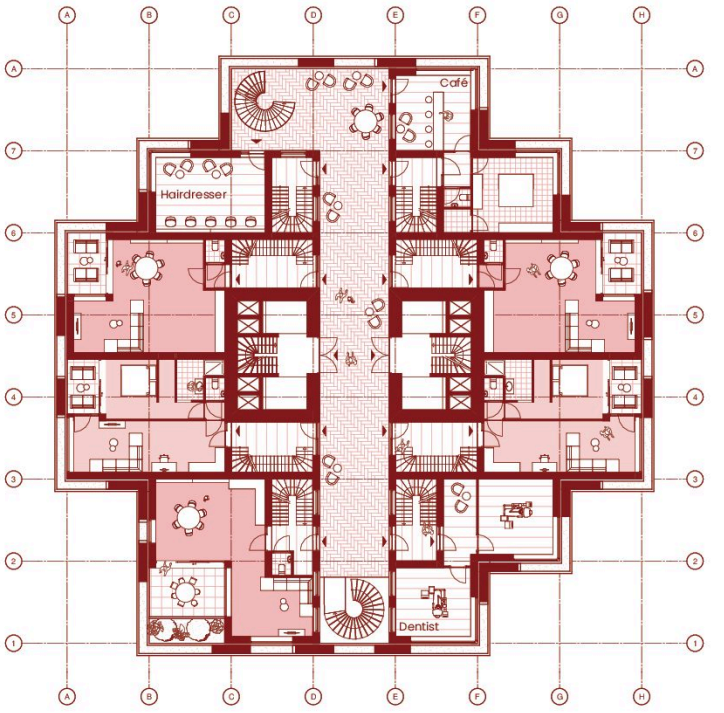


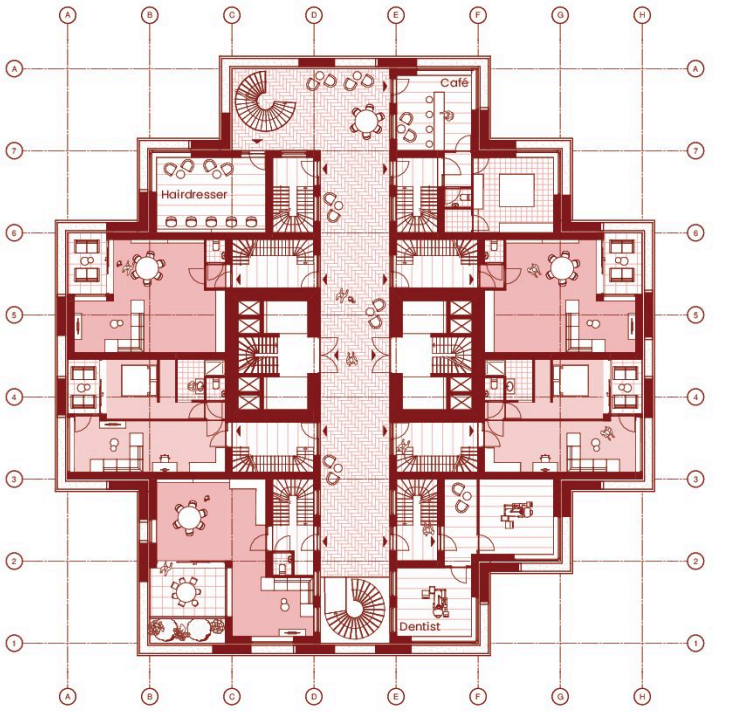




The Vital Mound







The Symphony Hill

A concert hall based on a mushroom

My pre-master ended with a single integrated assignment, effectively its graduation project: design a music venue beside DSM's historic Tap building in Delft, and take responsibility for calculating its structure and proving its climate performance rather than just drawing them.

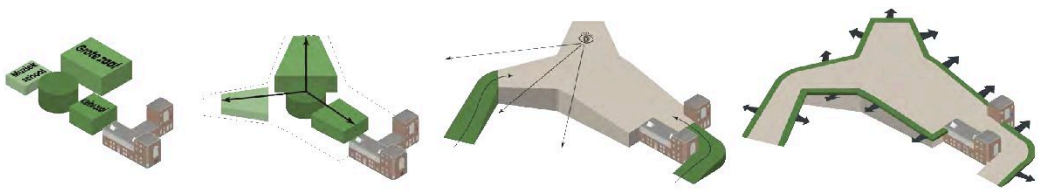
The concept is a mushroom. The main one sits at the centre as the foyer, and the halls, the music school and the cafe are its spores, arranged around it so the plan reads as one organism. The roof falls over the whole thing like a blanket, reaching far enough to embrace the Tap building instead of demolishing it. It is walkable too, so people can cross the building from the outside while a concert is going on underneath them.

The programme is large: 800 people in the main hall, 300 in the small one, 1,100 in the foyer, across just over 5,300 square metres. Two entrances lead in, one of them straight off the cycle path with its own bike storage built into a ramp. I ran the back of house as one unbroken loop from the loading dock to the music school, so staff and deliveries never cross a visitor's sightline, which doubles as an acoustic and climate buffer between the loud spaces and the quiet ones.

Structurally the roof works as one continuous surface, carried by cross-laminated timber columns and beams on a seven-and-a-half-metre grid. Above the halls themselves the spans were too long for timber to carry cleanly, so those switch to a dedicated steel structure, with trusses reaching twenty-six metres across the main hall.

Its glazed top opens to vent the foyer's warm air by stack effect, closes to collect rainwater for the building's own systems, and carries the exhaust of the air handling units, without any of the three compromising the others. Underneath it all sits an aquifer thermal store that heats and cools the building through the seasons.

The rest had to be calculated rather than assumed. The main hall alone needs around 40,000 cubic metres of air an hour for 800 people, which sized back to six ducts of 325 millimetres and a set of air handling units picked off the shelf to match. Reverberation in that hall works out at an average of 0.7 seconds across the octave range. Roof panels and forest-green photovoltaic glass on the west facade together generate about 75,500 kilowatt-hours a year, enough to keep the building inside every BENG threshold. Nest boxes are built directly into the facade's timber battens, so biodiversity sits in the construction detail rather than on top of it.



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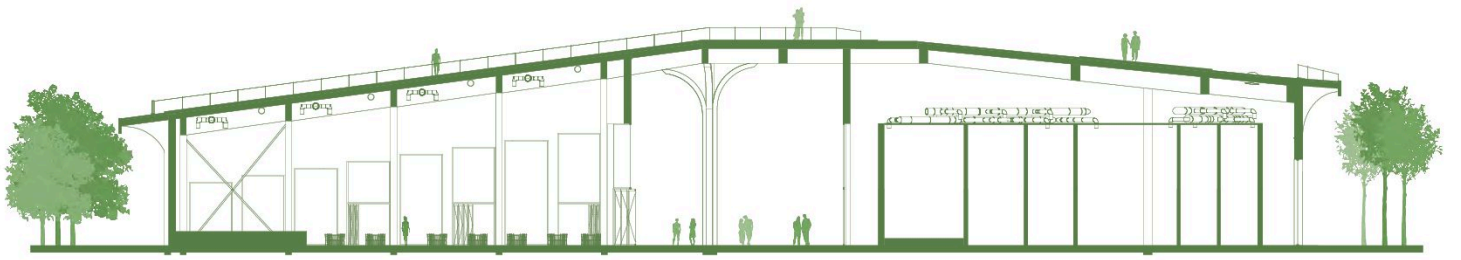

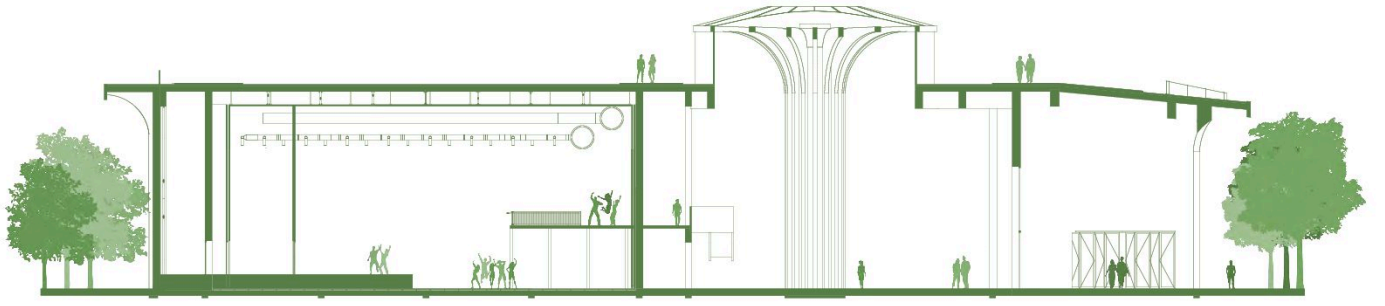

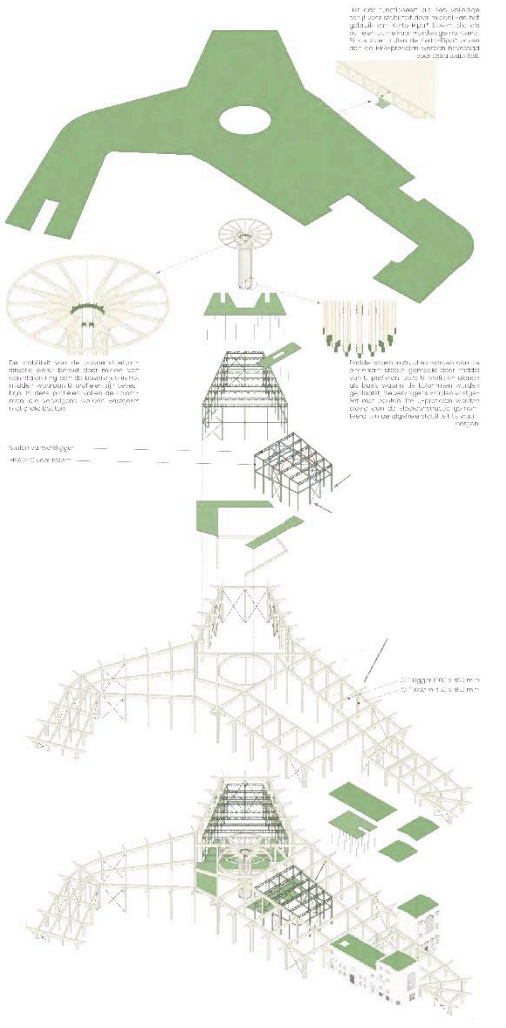

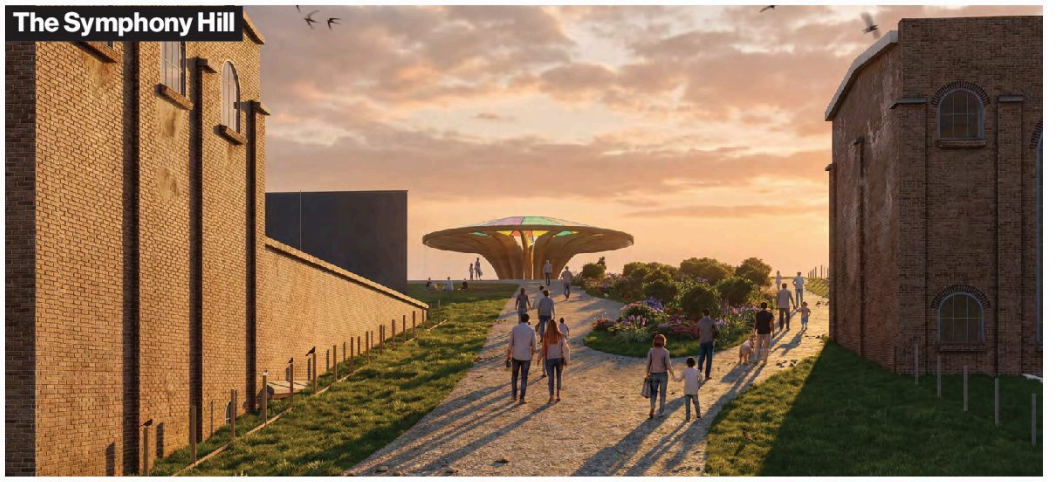
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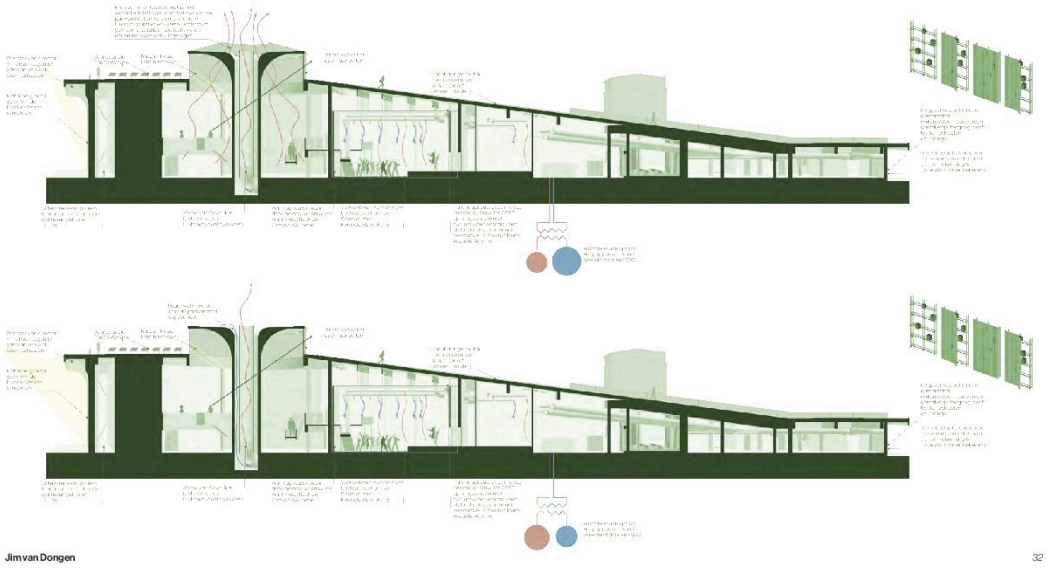

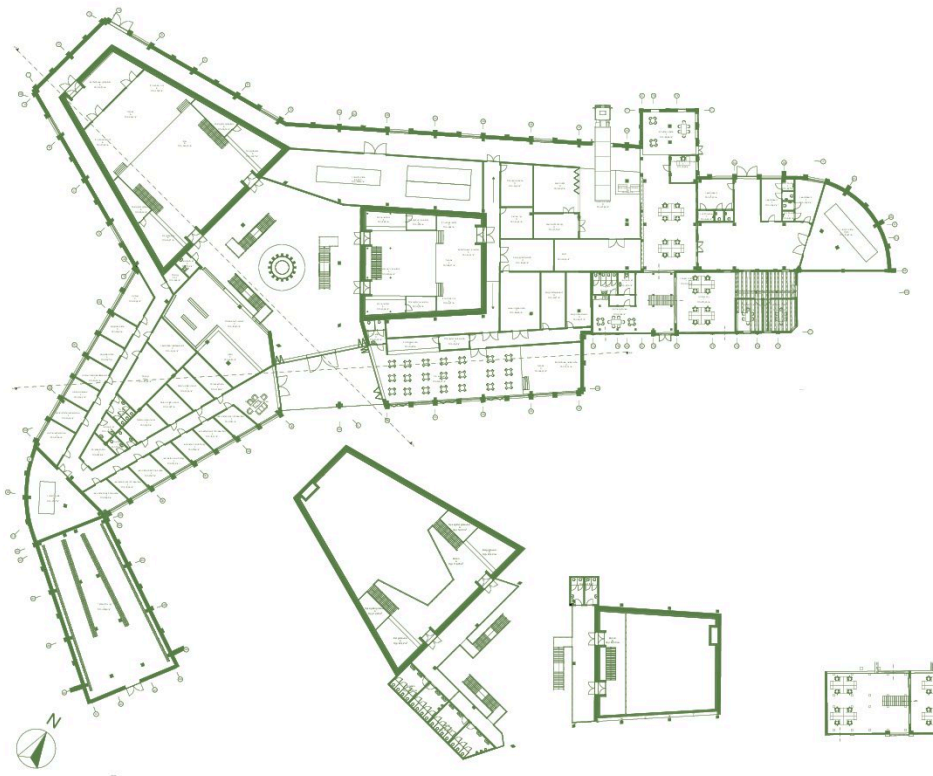

The Symphony Hill