The Mutual Towers (Accessibility Maker)
To connect people vertically the way they are horizontal.

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Product, Process and Planning

The relationships between research and design

In the past 10 years, The Why Factory has explored – independently - a multitude of alternative approaches to the construction of the city and developed a wide array of scenarios: Biodiversity (Biodivercity), Permeability (Porocity), Connectivity (4minCity), Automation (Robotic City), Density (Vertical Village), Sustainability (Green Dream), Freedom (Anarcity), Self-Sufficiency (Food City), Flexibility (Barba), Customization (Egocity), Leisure (Absolute Leisure) and Inventions (World Wonders).

This year The Why Factory Graduation Studio focus on the a what if scenario-based research. It explores future scenarios for the cities and how are we live in there. Therefore two questions are explored: The first being what makes a housing block, the second being the implementation of a future scenario.

The research is manifested in the form of **the Blockmaker**, a theoretical software that user could use to design a housing block only by choosing from options and adjusting parameters. The notion behind the Blockmaker is that design is emerging from a step by step decision-making process. For every action, you face choices and parameters that bring different impacts to your design. By making decisions every step while keeping in mind the concept, you would arrive at a housing block optimised for the scenario.

What if we could systematise process and categorise options and parameters into an extensive database? As a group we research into the elements that make a housing block, the ambition is to explore all the options and to rationalise the consequence of each decision. The Blockmaker is open source so that the database is expandable to allow unlimited possibilities of results.
This is, of course, impossible within the time frame of a graduation studio, that is why we develop the Blockmaker as a theoretical software and use our design project as a proof of concept.

In collaboration with the students at the graduation studio, eight future scenarios are explored in the themes of Biodiversity, Food, Hydro energy, Solar energy, Sports, Climate, Access and Infrastructure. These scenarios will be embedded in **a housing block** by using the Blockmaker. As a group, The Blockmaker provides a central starting point for the various topics, creating a common ground for comparing different projects.

HOW?

The relationship between the Blockmaker and the subject - Accessibility

My research design concerns accessibility. It is a crucial component of building design to define who, from where and how to move to, from, between and within buildings. The access network affects space, efficiency, privacy, security, etc. Primarily how our buildings work and look.

The research aim to study and categorise options and parameters in relation to accessibility. Through generating the scenario-based iterations, then quantify, analyse and evaluated the performance. We

could then comparing different blocks, rationalise the impact from such decisions and hence optimise the design by making an informed decision.
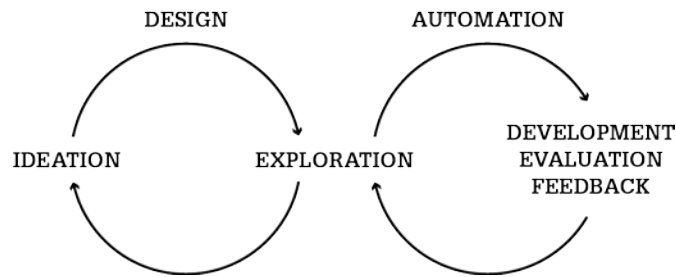
WHY?

The relationships between the methodical line of approach of The Why Factory and the design project

The Why Factory's **scenario-based research** and **research-based design** process. The process explores the possible theoretical **model**, makes counter **proposals** for existing context and stores the knowledge through a **software** program.

Architectural fascinations are often linked with complicated relationships, whether it is between tangible elements (e.g. resources, energy) or intangible qualities (e.g. collectivity, ownership). This needs Architect to design while taking the context and users into account, a combination of Top-down decision making and bottom-up input. That is why Architects need to make their design decision with the backup from research. Otherwise, Architecture would either be detached or become a purely artistic expression.

Through developing seemingly unrealistic scenarios and studying how different architectural elements can adapt, change and aggregate to meet changing societal needs, we can begin to examine manipulating a variety of complex variables. The goal of these explorations is to create a system of conceptual sliders and a vast catalogue of typologies, which other designers within the studio can later draw on to optimise their designs for new scenarios which we have not foreseen.

The relationship between the design project and the wider social context

My research is driven by the interests in the inherent qualities of accessibility in relation to the community life. Access had changed how we live with people. Vertical congestion, a new dimension to cater increasing density at the time, is made possible by the elevators, they had changed our built environment as well as how we are connecting with people ever since. To cater the desire of extreme density and efficiency, we diminish access to the minimum space to travel from A to B efficiently; they hence become some detached and empty "Circulation space" that people passes through repeatedly, mostly without any meaningful experience. This typology optimises density and efficiency while sacrificing some others qualities.

Access is more. Access is what could happen between A and B; access is more view, light, openness, transparencies; access is meeting people, nature and interact with them; access is more flexibility of programme; access is experience and discoveries.

What if we could connect people vertically the way they are horizontal? Can we do this by tilting the towers? Can this re-establish the community life people had before moving into towers? This project explores a future scenario in which access network within a high-rise housing block is organised in a way to maximise encountering and exploration: By adding nodes to the access network, provide alternative paths and create a hierarchy of privacy, encouraging users to interact as well as exploring their housing block.