

KATERINA GUROVA

ELEVATE

- A Proposal For Timber Skyscrapers as a Vertical City



We as humans have reached a time where amazement over our great technological achievements is obscured by the fear of ruining our planet. The building sector is faced with the challenge of building more than ever to sustain population growth, demographic changes and urbanization. It is time to rethink how we build.

This thesis explores the concept of the Vertical City typology as a solution to increased urban density, and aspires to raise awareness of mass timber as a viable and sustainable structural material for tall buildings. The Vertical City is a concept of massive skyscrapers, providing the functions of a city in the sky. As we progress technologically and our cities become denser, we have the tools and motivation to create such typologies in the near future. The challenge we face is not only to increase our cities in height, but also to elevate them into pleasant, humane and sustainable environments. As our cities rise from the ground, the new habitats should be given the same care as the ones in regular urban planning, and be equipped with functions such as outdoor parks, public activities and culture.

This thesis uses a design oriented method and the process is focused primarily on conducting design studies. External knowledge from literature and reference projects is translated into new ideas through iterative design experiments, conducted in themed loops focusing on massing, structure, program and relation to site.

The knowledge gathered in this thesis results in a design proposal of a skyscraper complex using structural timber, located in Frihamnen in the heart of Gothenburg. Since this area is currently growing in rapid speed, the proposal joins the discussion on how to densify. The culturally significant surroundings are a constant reminder of the carefulness needed when designing something of such massive scale. The proposal aspires to offer a valuable Vertical City typology.

Keywords: Vertical City, Skyscraper, Mass Timber, Engineered Wood, Urbanization.

MATERIAL TURN

Supervisor: Jonas Lundberg
Examiner: Kengo Skorick