

Algae as Building Blocks

Algae as Building Blocks by Claudia Bumb was developed and supported at Hafven. The project is located on the intersection of design, biology and material science. After her Bachelor's degree in Fashion Design, Claudia continued her studies in Eco-Social Design. She collaborated with the Hafven community to develop her Master's project.

An investigation into the potentials of algae as a future building material: Construction industries represent the most resource-intensive industrial sector, with sand being ranked as the second most consumed resource – after water.

“Building Blocks” is a speculative design research, bringing the potentialities of algae as a rapidly regrowing material into focus. Not only do algae feed from components, which we perceive as waste, – such as substances from domestic sewage, agricultural run-off or nutrient surplus from fish farms, the organism also captures crucial amounts of CO₂ inside its biomass. This capacity to store CO₂ could be used as one among other possible strategies in combating climate change.

The installation creates a dialogue between the vibrant living being and the manually converted material “algaecrete” linked through steel bars, commonly used in concrete processing. Consisting of two widely distributed types of algae, a green microalga *Chlorella vulgaris*, and a macroalga *Cladophora*, the lime-enriched material becomes a solid foundation of the displayed objects.