

## **THE ORGANIC SYSTEM**

This project is a study of mass construction in the cities – a phenomenon that can be seen as a result of the increasing urbanization. During the last decade, the construction of housing has dominated the urban development in Copenhagen. Residential complexes raised, shoulder to shoulder, increase the density of the city.

To counter the housing shortage the ability to build fast with minimal expense has become essential. The construction of newer residential buildings is characterized by effective building systems based on prefabricated elements. However, the housing construction faces future issues such as indoor climate, durability and CO2 emission.

Our project is an experiment. We intend to respond to the climate related problems existing in the construction industry. Our interest lies in the tectonic potential of sustainable development in modern construction systems.

We attempt to challenge the streamlined construction systems by implementing bio-based materials and, simultaneously, explore the following impact on the architectural design in an urban context.

It is our hypothesis that implementation of bio-based materials will draw attention to form and tactility – in contrast to the rigorous and standardized design typical to modern construction systems, often based on concrete elements.

Our central research question is therefore:

*How is it possible to implement bio-based materials in an urban context based on modern construction systems, and what impact will it have on the architectural design – spatially and sensually?*

The project emerges from an interest in the material **reed**, which we have been studying for half a year. The study focused on advantages and challenges of the material in relation to modern aesthetics and streamlining. In this project, our goal is to bring the traditional skills and understandings of bio based construction into a large scale, urban housing context.

Our case is a housing project located on Østre Gasværk Teatergrund, an open field between the quarter of late 19<sup>th</sup> century Østerbro, the newer urban area of Nordhavn and the scattered and mixed residential area Svanemøllen.

The location is a good example of an urban wasteland, caught by the expansion of the city as new local planning for the area introduces urban densification. Thus, the site is still under transformation, and seen from our perspective, open for experiments as well as for an introduction of new knowledge.

Julie Hvid & Anna Nicolaysen

FINAL THESIS, ARCHITECT  
MASTER'S PROGRAMME: SETTLEMENT, ECOLOGY & TECTONICS  
INSTITUTE OF ARCHITECTURE AND TECHNOLOGY

THE ROYAL DANISH ACADEMY OF FINE ARTS  
SCHOOLS OF ARCHITECTURE, DESIGN AND CONSERVATION

