

ELIN LIDÉN, MARTIN LINDHOLM

## VERNACULAR: REINTERPRETED

- Low-tech dwelling in Johanneberg



### BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: Walter Unterrainer  
Examiner: Krystyna Pietrzyk  
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During the 20th century, dwelling architecture in Sweden has changed from being a product of a local building tradition, local materials and a local climate, to become a complex machinery of high-tech, high processed components, standardized for a globalized world.

In this transition, the professions of architects and engineers have developed and become increasingly divided, resulting in a separation between building systems, building materials and the architectural space. At the same time, the indoors has become the dominating human environment, greatly affecting our health and our relation to the outdoors.

This thesis aims to take critical inspiration from and reinterpret vernacular principles in a low-tech design proposal for a multi-family dwelling in the area of Johanneberg in Gothenburg. The aim is a design where the composition of material and space in relation to the local situation and climate, can provide comfort and well-being for its inhabitants, with a minimal environmental impact.

This thesis also explores how architecture can not only protect but also connect human dwellers to the outdoor climate, linking seasonal change to the everyday life. We believe that with a low-tech approach, sustainability can be addressed in a more holistic view.

This thesis has a research by design approach, where the local situation and vernacular reference projects are studied along the design iterations. The main design tools are physical modelling and climatic design principles, in order to find a close relationship between the local situation and climate, the materials used and the spaces they create.

Keywords: vernacular, low-tech, multi-family dwelling, well-being, site specific, seasonal living.