ETH Zürich / Frühlingssemester 2023

Design for Climate

In his seminal book 'Design with Climate', published in 1963, Victor Olgyay introduced the concept of a bioclimatic architecture responsive to its environment. Today, the notion of climate has changed, as climate change is evident. Buildings influence the climate on a global scale through their carbon emisions and on a local scale through the inner and outer microclimates they create. To reduce the impact and adapt to the consequences, we have to change the way we build radically.

Design for Climate means designing the interactions of space, material and energy to reduce the impact of buildings, shaping climate for comfort and well-being while considering the architectural and cultural implications. This is a large and complex task. Knowing what is relevant, a well-defined process and digital toolsets help in grasping this complexity. In this studio, we will learn and apply these techniques, explore and discuss their implications for the retrofit design and extension of a residential building complex in Zurich.

Students will learn about the human side of climate, relevant metrics to judge a design, suitable strategies to reduce energy consumption and emissions, and useable toolsets to be used in design. The aim is to synergetically combine aspects of climate with architectural concept and design, to mutually support each other instead of contradict.

The Studio will be conducted in collaboration with Prof. Emmanuel Christ/ Prof. Christoph Gantenbein and Prof. Elli Mosayebi, together with teaching assistants from the respective chairs.

Assistants
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