
Prof. Maria Conen

Prof. Dr. Max Maurer

Prof. Dr. Guillaume Habert

Chair for Architecture & Housing

Chair for Urban Water Systems

Chair for Sustainable Construction

ADAPTIVE SPACES



Adaptive Spaces

In 1743, Laugier published 'Essay on Architecture', in which he explored the anthropological origin of architecture in the relationship between human beings and nature. Beyond the idea of shelter that the primitive hut embodies, we are interested in Laugier's vision of architecture as a mediator between human life, nature, and biodiversity.

While the necessity of shielding ourselves from natural forces remains, nature and its elements are vital for human sustenance. Water, the heat of the sun, air, and earth are the basic components of life. Understanding the interdependence of all natural elements leads us to new ways of looking at the concept of the primitive hut and questioning our relationship with nature and its forces.

Thinking about cycles and ecosystems that foster diversity on so many levels seems fruitful for addressing contemporary challenges in urbanization.

In our diploma studio, we aim to address the housing crisis through a multifaceted architectural approach. While accommodating a growing population is crucial, equal emphasis must be placed on sustainability and biodiversity support within urban environments. The relentless densification of urban areas has

frequently resulted in significant habitat destruction. It is now abundantly clear that there is an urgent need to incorporate consideration for the various species and natural elements that surround us into the design of our living spaces. As Donna Haraway writes in *Staying with the Trouble*, „We are all responsible to and for shaping conditions for multispecies flourishing in precarious times.“

Can an economy of means entail prioritizing a spectrum of solutions addressing various challenges? The archaic notion of cities dominated by concrete and asphalt must be challenged. Instead, the landscape should serve not merely as a background but as a foundational element, crucial for urban functionality and enhancing the quality of life for all inhabitants.

Guided by these principles, we will begin by reimagining existing structures, stretching their potential beyond conventional limits. We will explore communal living models and rethink resource management within housing, fostering cyclical systems for water, food, energy, and more. These dimensions are not impediments but opportunities for innovative design and spatial exploration. Moreover, students are encouraged to propose complementary programs to enrich the housing and its habitats.

Key-Words

Forms of Living
Typology
Cycles
Water
Sustainability
Re-use
Working with the Existing
Elaboration of Drawings
Synthesis Drawing
Photo Essay
Model Making
Storytelling
Calculations

Ratio Grading

Preparation phase:	30%
<i>Chair Maria Conen</i>	50%
<i>Chair Max Maurer</i>	25%
<i>Chair Guillaume Habert</i>	25%

Elaboration phase:	70%
<i>Chair Maria Conen</i>	70%
<i>Chair Max Maurer</i>	15%
<i>Chair Guillaume Habert</i>	15%

Preparation Phase

In the preparation phase, students will conduct extensive research on specific structures and their surroundings. This will involve discovering and mapping existing cycles and illustrating them through various means of expression.

The work will range from a broader understanding of the site and its context to a detailed analysis of its components, providing a strong foundation for the elaboration phase. Also, an analysis of the building components of the given structures will be a fundamental part of the first phase.

Students will examine the given case study and produce an in-depth investigation, examining its history, material qualities, typology, construction, and social dimension. This research will be presented through drawings, including plans, sections, and facades, along with a synthesis drawing, a photographic essay, and text.

At the beginning, we will produce calculations that show the water behavior at the sites and an analysis of the building components, creating a catalog out of it. We will use these elements as a starting point and try to improve the site conditions through the work of the students.

Max Maurer

Professor for Urban Water Systems
ETH Zürich
Dep. of Civil, Env. and Geomatic Eng.
sww.ifu.ethz.ch

Guillaume Habert

Professor for Sustainable Construction
ETH Zürich
Dep. of Civil, Env. and Geomatic Eng.
ibi.ethz.ch

Elaboration Phase

The projects developed by students should engage with social, political, and sustainable visions. The architect's role is to create spaces for humans and other species while taking care of the urban fabric and nature. Students will work around forms of living, but complementary programs can be added according to the story of each project using the knowledge acquired in the preparation phase. The work will embrace the formidable challenge of fostering residential density in a sustainable manner. Utilizing extant structures as foundational elements for extension and/or as sources of construction materials, the objective is to engender increased inhabitation amidst the multifaceted exigencies of contemporary circumstances: re-use, re-form, re-think, re-habit, re-house.

To develop their projects, students will build study models using „found materials“ to investigate proposals and prove design decisions - Re-use is encouraged!

In addition to model-making, students will use hand drawings to verify and develop their designs. As structures are dismantled and destroyed every day, materials and resources can find new life and purpose in architectural projects, prolonging their cycle. Developing a narrative to guide the project is essential to its success!

Maria Conen

Professor for Architecture and Housing
ETH Zürich
Department of Architecture
conen.arch.ethz.ch