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## Tectonic Thinking

*A Critical Strategy for a Responsive and Adaptive Architecture*

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# TECTONIC THINKING

- A Critical Strategy for a Responsive and Adaptive Architecture

ENHSA-EAAE

Rethinking the Human in Technology-Driven Architecture  
Chania 30-31 August 2011

## Questions:

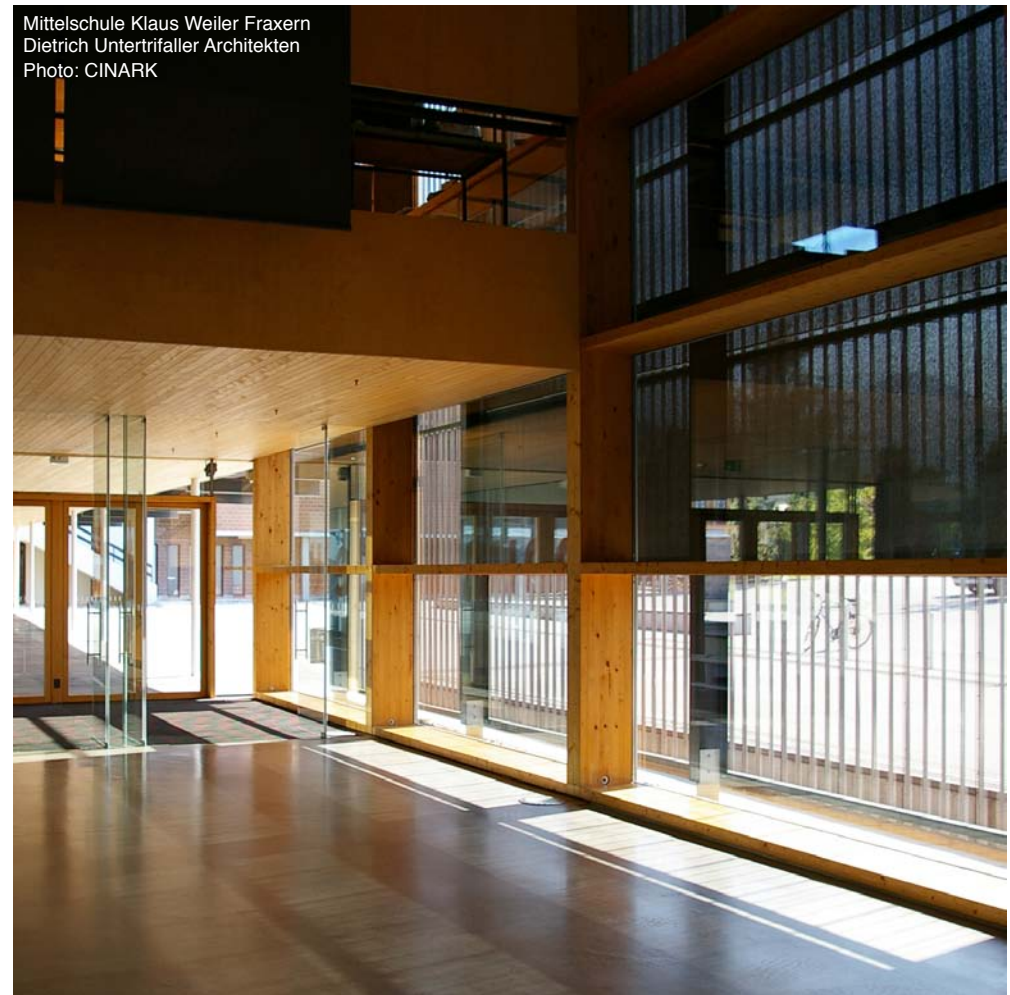
Can a tectonic building practice be strengthened through new creation processes, where resources are used more purposefully, deliberately and systematically?

Which new measures are necessary if we are to develop a strong tectonic building practice with due consideration for increasing climate and environmental problems?

## Objective

The project is to analyse and develop the tectonic practice based on case studies, in relation to:

- Cultural anchoring and identity creation
- Building culture and creative processes
- Sustainability, lifecycle and resource management



# Towards a Tectonic Sustainable Building Practice



**How can tectonic thinking form the basis for critical strategies for improving contemporary building practices and industry to sustain a responsive and adaptive architecture that involves a more sensitive involvement of the human values?**

Housingproject Mulhouse  
LacatonVasal  
Photo: CINARK

## Tectonic Thinking – Research Question

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***‘Tectonic thinking – defined as a central attention towards the nature, the making, and the application of building materials (construction) and how this attention forms a creative force in building constructions, structural features and architectural design (construing) – can be used to identify and refine strategies for improving contemporary building industry.***



## Tectonic Thinking - Hypothesis



Cutter ETH Zürich  
Photo. CAAD

**Contemporary building industry has radically developed in terms of advanced industrialized manufacturing. In particular, digital technologies have provided new and different ways of fabrication through the past couple of decades. These make long series of identical objects unnecessary, industrially manufactured components can now be customized to fit a particular construction design**

## Tectonic Thinking – State of the Art

**Some of the features of contemporary industrialized manufacturing are also comparable to some of the characteristics in tectonic thinking such as the attention to:**

- **The use of resources (material)**
- **The methods of processing (fabrication)**
- **The definition of systems (context)**



## Tectonic Thinking – The Making of Architecture





Cellophane House  
KieranTimberlake  
Photo: CINARK

The interplay of *construction and construing* can be specified as:

- at product level of building components focusing on *assembly* of various elements
- at system level focusing on *integration* of various systems
- at the level of all-encompassing systems focusing on *conceptualizing* of various building constructions/designs

## Tectonic Thinking – A Model of Analysis





Hello World Project  
Ole Egholm Pedersen et al.  
Photo: OEP

[www.tektonik.dk](http://www.tektonik.dk)

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