

#### Elma Durmisevic (Netherlands)

#### CIB W115 "Construction Materials Stewardship"

**Second Business Meeting** 

Subtheme: Transformable and adaptable buildings, building systems and components



Activities 2008 per country



Conference in Twente

#### **Outline for a publishable report:**



New educational projects



Research projects



From theory to practice projects



#### **Activities 2008 Netherland**



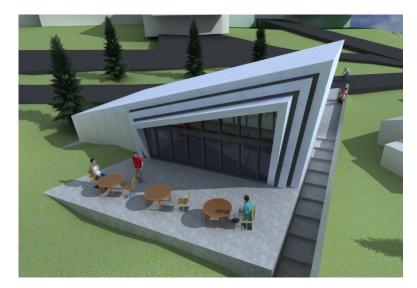
### New educational projects

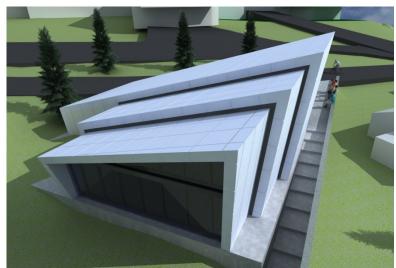
Msc2: International design studio (TU Delft) " Design and construction of a transformable polyvalent pavilion"

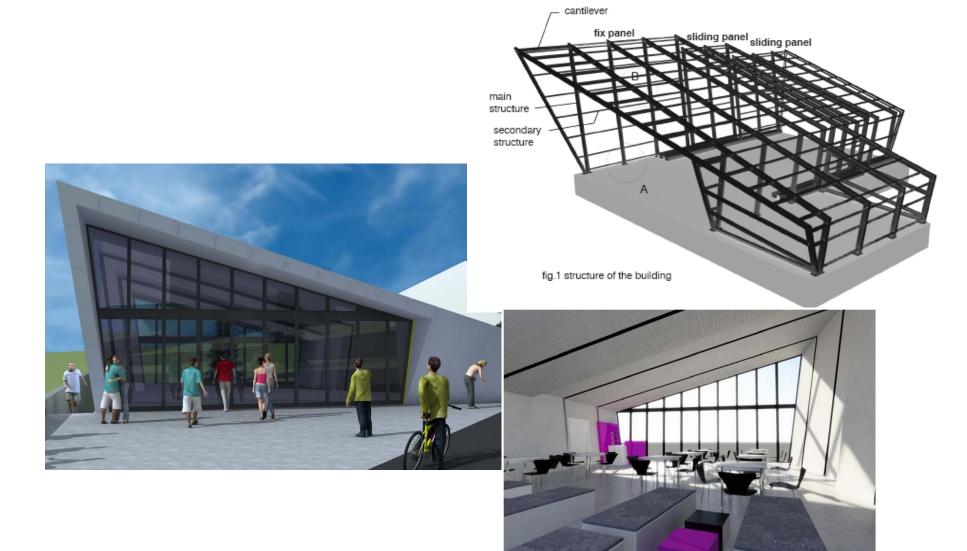
New Master Track at the University Twente "Building systems design" focus on green design and Engineering of building systems and compor

Msc2: TEMPUS project Msc2: TEMPUS project



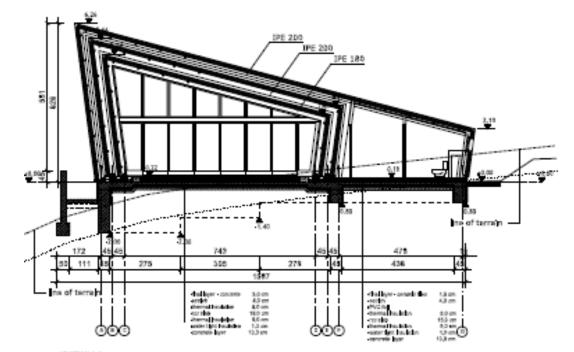












SECTION 2-2













# Delft / Sarajevo / Istanbul 2008

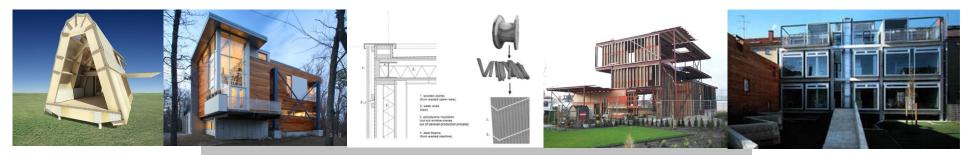




# Delft / Sarajevo / Istanbul 2008







# New master track abcde

Architectural Building Systems Design & Engineering



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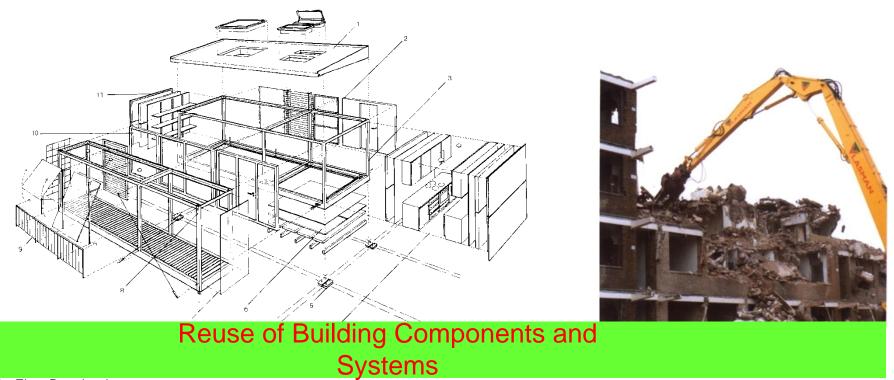


#### Bridging the gap between industrial design and architecture





Towards Green deslgn And Engineering Of buildings and its components



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Master Track deals with design and development of industrialized buildings

#### Focus on:

- □ Flexibility
- New and sustainable Materials
- □ Energy
- Demountable techniques
- □ Integrated solutions
- □ Reuse and Reconfiguration
- Customization of Industrial production

Towards new architecture - industrialisation of construction

# New master track **ABCDE**

#### Students will be involved in :

Design of flexible buildings and systems

Study of building and systems configurations and interfaces

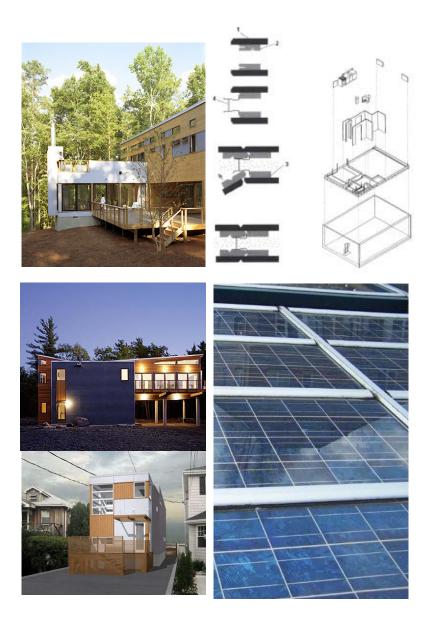
Study of Different load-bearing systems
in different materials

Study and analyses of Climate and Installation concepts

Life cycle assessments

Product design for buildings

Integrated design of systems and



# New master track abcde

Students will design and develop their own systems and will work together with the industry on development of a flexible, energy effective and multipurpose

Locatie voor het opzetten van het tijdelijk proefterrein

2008 Google

Eye alt 2197 ft

( )

© 2008 Tele Atlas Image © 2008 Aerodata International Surveys elev. 101 ft

#### **Activities 2008 Netherland**



Research projects

-PhD research "interfaces for open systems " Focus on design for disassembly, interface typologies, systems and components compatibility through interface rules

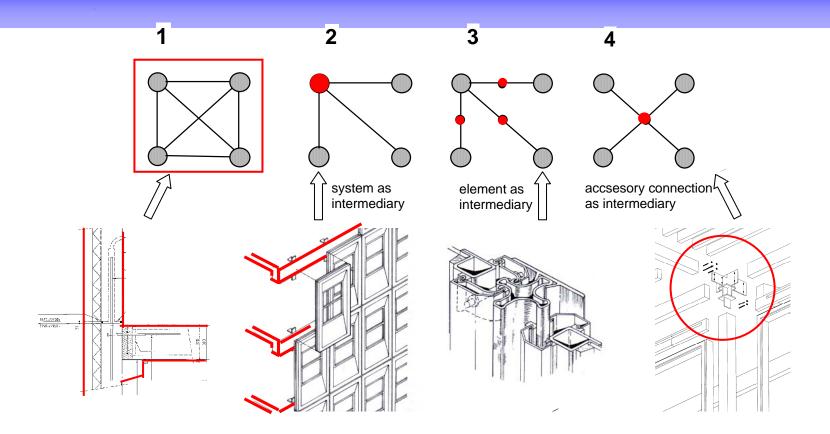
-PhD research "Transformable building systems for adoptable hospitals

-PhD subjects at University Sarajevo

- -Setting up of a 3TU research group
- -collaboration with the research group at the University Brussels on number of PhD topics

Environmental en eco costs assemsents

#### BASE ELEMENT SPECIFICATION on different building levels



#### **Activities 2008 Netherland**

From theory to practice projects

-Innovation Platform

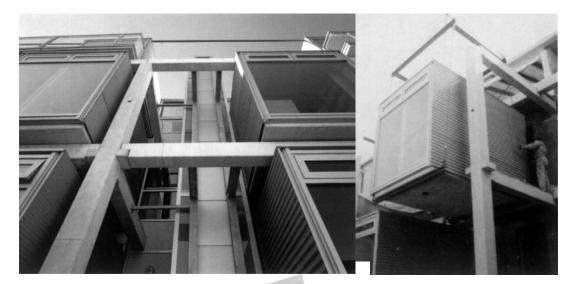
Development of flexible and dismountable systems with the industry

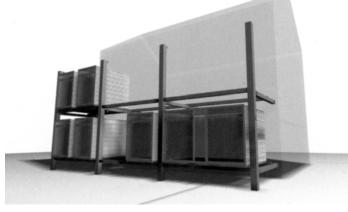
- 1. Development of Extension modules
- 2. Flexible systems combination housing- health
- 3. Development of new transformable/adaptable construction concept
- 4. Life cycle costing models (renting vrs selling of the components and systems)
- 5. Indicators of transformability / adaptability

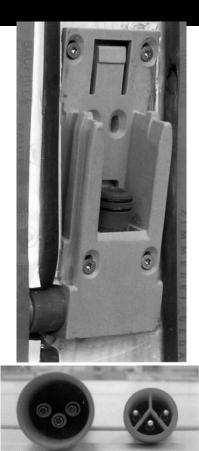




#### Design of industrially produced individual building









Elma Durmisevic 4D Architects

#### Design of industrially produced individual building



Elma Durmisevic 4D Architects

### **IPT /IDF** / uitbreidingsmodule

## TRENDS

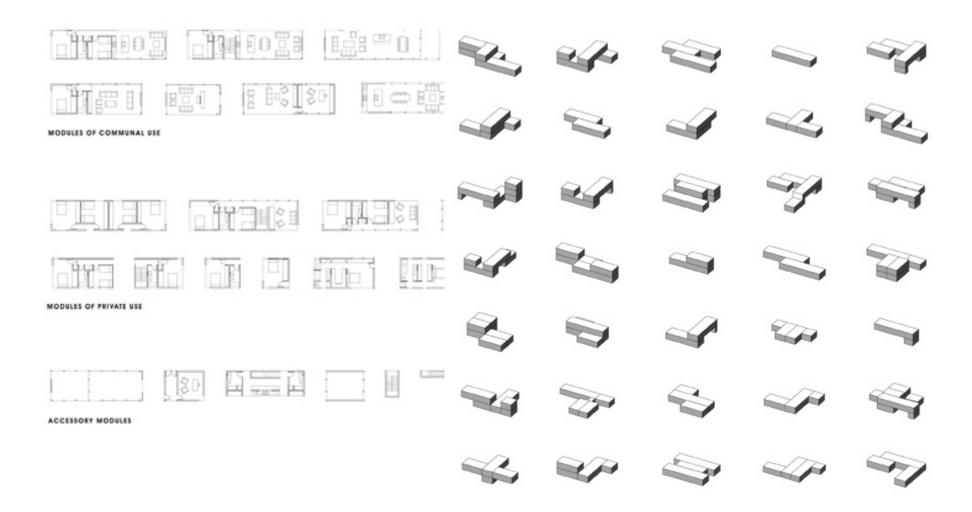




Elma Durmisevic 4D ARCHITECTS



### **IPT /IDF** / uitbreidingsmodule



#### Activities 2008 Sweden

- New educational projects
  - Number of lectures
  - An information lecture on DfD in building construction is also given to great number of communities.



investigate and analyse some DfD building projects, mainly in Europe.



From theory to practice projects DfD for building construction in Sweden

Regulations

#### Activities 2008 UK



# Research projects

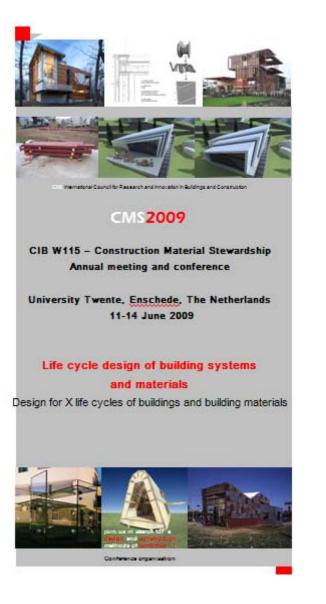
1. Viability of leasing systems/financial models

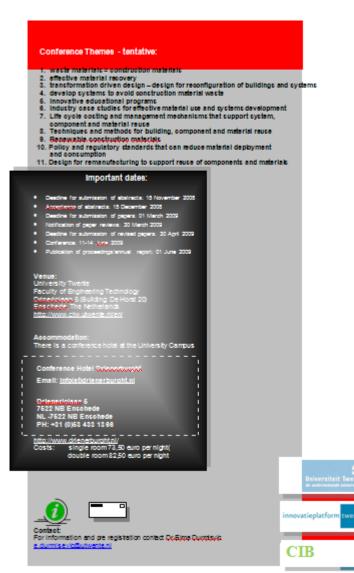
2. Environmental benefits of adaptable buildings (i.e. benefits and methodology);

3. Material/product usage related to adaptability - link to Green Guide, multifunctional, durability etc

- 4. Indicator of adaptability (link to GreenPrint)
- 5. MMC and adaptability
- 6. Link to climate change issues (Roadmap development undertaken with Lougnhoro?

#### CIB W115 Conference in Twente





Dr. Elma Durmisevic University Twente