



- ecological, sustainable material wood
- cost per pallet about 5 euro
- worldwide standardized ( optimized for transport)
- dimension 120/80/14,5 centimetre

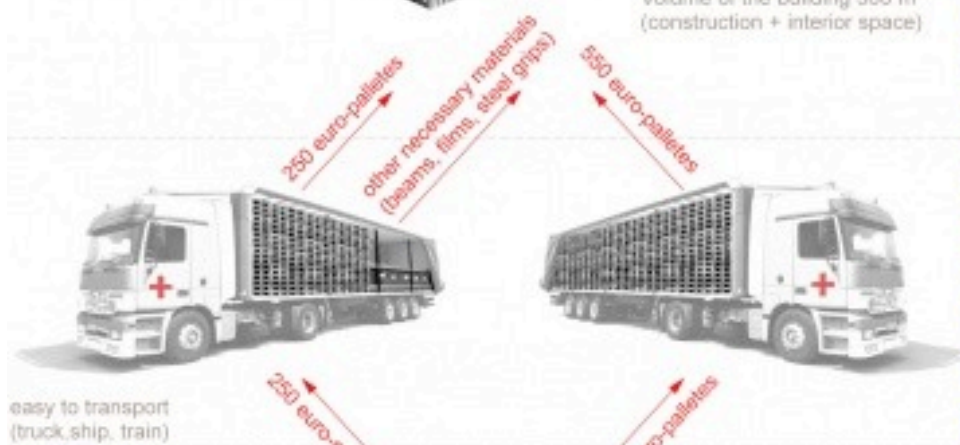


Siteplan 1:1000

Flexible house which is made of 800 euro-palletes. The building is insulated by ecological material cellulose.



Volume of the building 360 m³ (construction + interior space)



easy to transport (truck, ship, train)



worldwide used & standardized

volume of the storage 111m³

5 euro reconditioned  $\times$  800 palletes = 4.000 euro price for one building 25kWh/m²

800 EURO-PALLETES 800 EURO-PALLETES 800 EURO-PALLETES 800 EURO-PALLETES

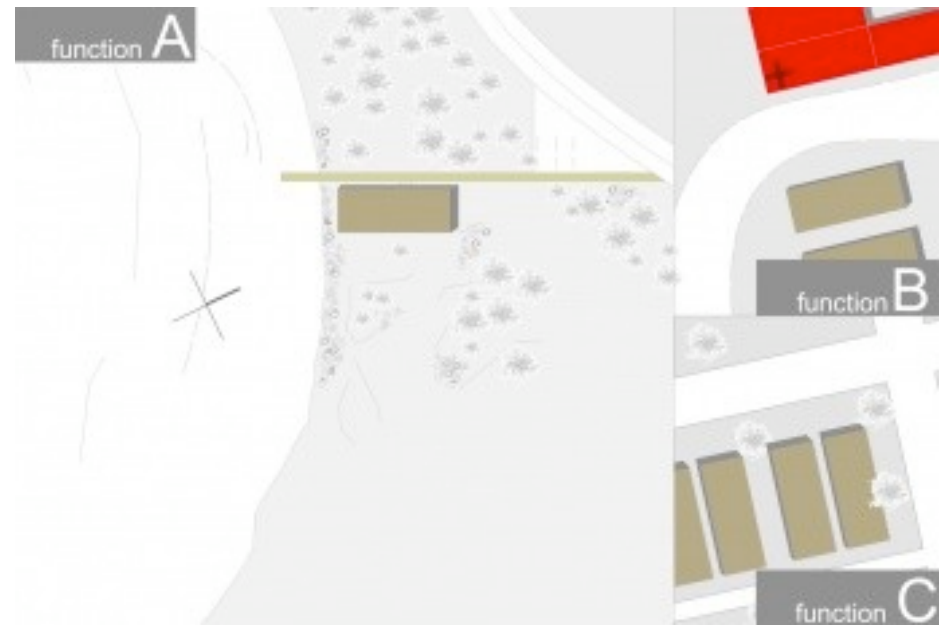
low cost building

LOW ENERGY HOUSE 25kWh/m²/year

TRANSPORT

STORAGE

PRICE



siteplan 1:500



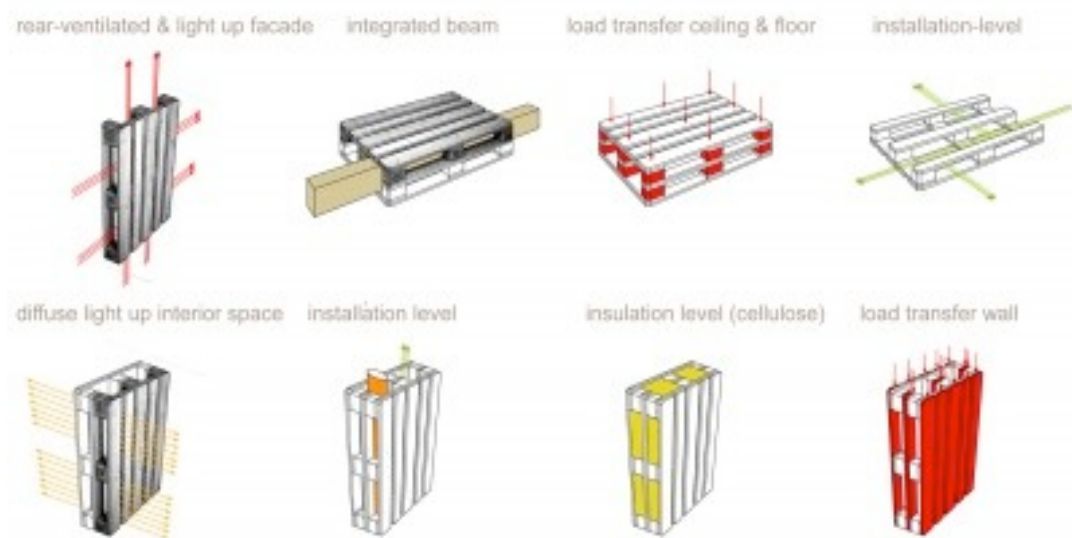
View 1 - 2



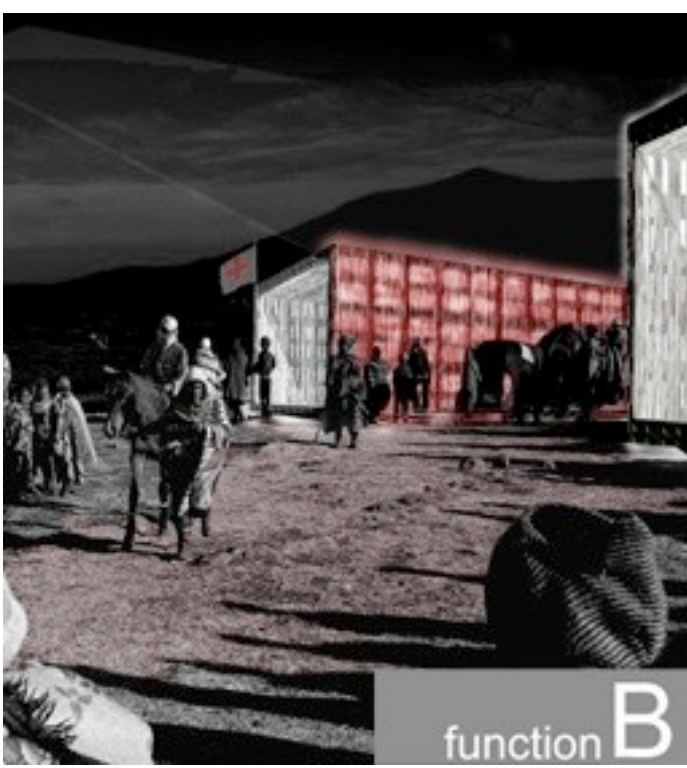
View 3



View 4



Prospective view



|  |   |                                    |  |
|--|---|------------------------------------|--|
| <b>student</b><br>Pils Gregor &<br>Schnetzler Andreas<br>Claus | <b>Year</b><br>2007   | <b>Country</b><br>Austria          | <b>city</b><br>Vienna                          |
| <b>setup</b><br>Others   | <b>structure</b><br>Wood  | <b>Materials</b><br>euro-pallettes | <b>heating</b><br>Air energy                   |
| <b>U-Value floor</b><br>0.17 Wm <sup>2</sup> K                 | <b>U-Value ceiling/roof structure</b><br>0.00 Wm <sup>2</sup> K |                                    | <b>Energy rate</b><br>25 kWh/m <sup>2</sup> .a |
| <b>U-Value wall</b><br>0.11 Wm <sup>2</sup> K                  |   |                                    | <b>Heating energy quantity</b><br>1500 kWh     |

function B

**Program**

Pallets are a standardized means of transportation. Worldwide they have the same size, and you can buy them all over the world. The size of pallets is optimal for different means of transportation, like railway cars, ship containers and trucks. The basic material of a house being 800 pallets, you can build it everywhere. You do not have a long route of transport, because pallets are produced and sold in many countries.

**Sustainability**

**Site and infrastructure**

The simple structure of the building, based on the standardized size of the pallets, allows different uses. You can adapt the building to various conditions by changing the footprint very easily. The pallet house is a low cost building which can be used not only as a weekend home but also in refugee camps and slums.

**Materials**

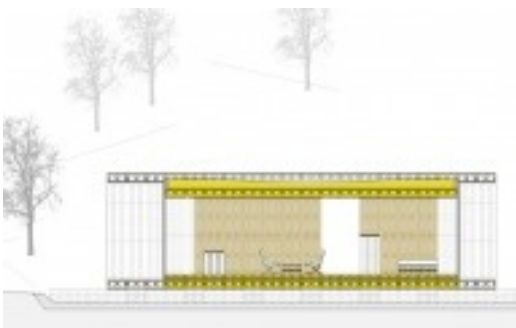
As you recycle 800 pallets for the basic structure and cellulose as heat isolation, the building is very ecological and sustainable. The use of additional material is reduced to a minimum. The euro-pallet construction material acts as support structure and front. A further advantage is that pallets are used as blinds and sunscreen as well. The space between the pallets is used for the installation of cables and lightning.

**Energy choices**

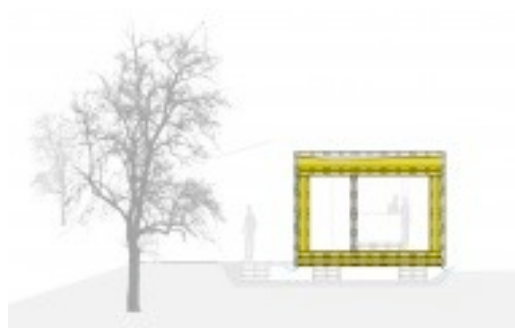
As the space between the pallets is isolated, you need very low energy for heating, namely 25 kWh/m<sup>2</sup>.a. These low figures can be reached with the help of a ventilation appliance, which is a heater in winter and an air conditioning in summer.

**Water system**

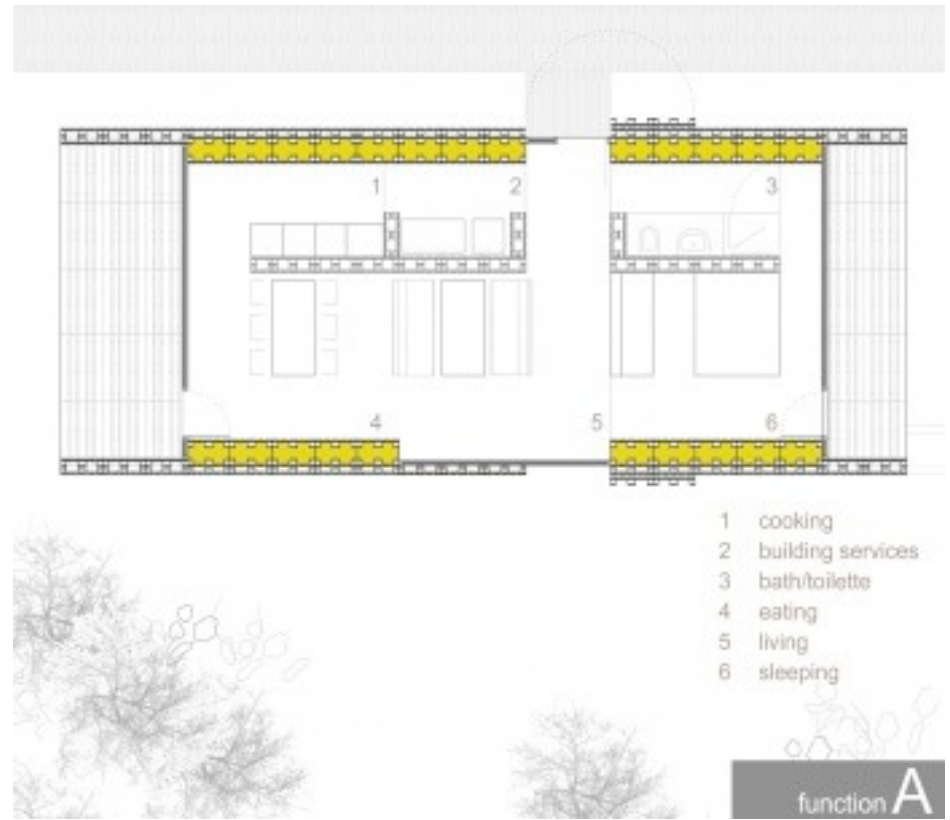
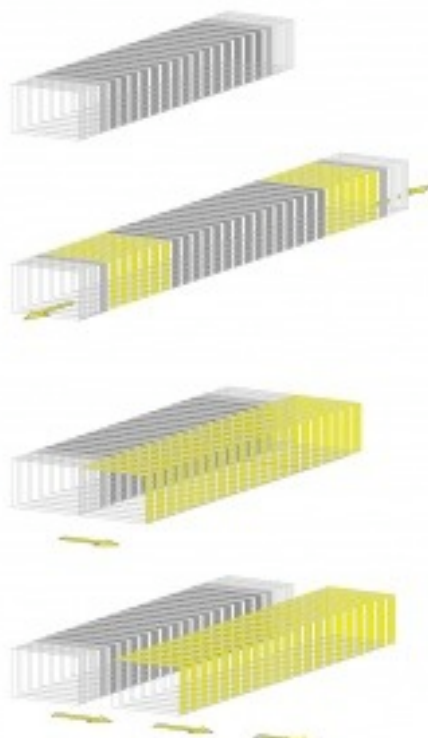
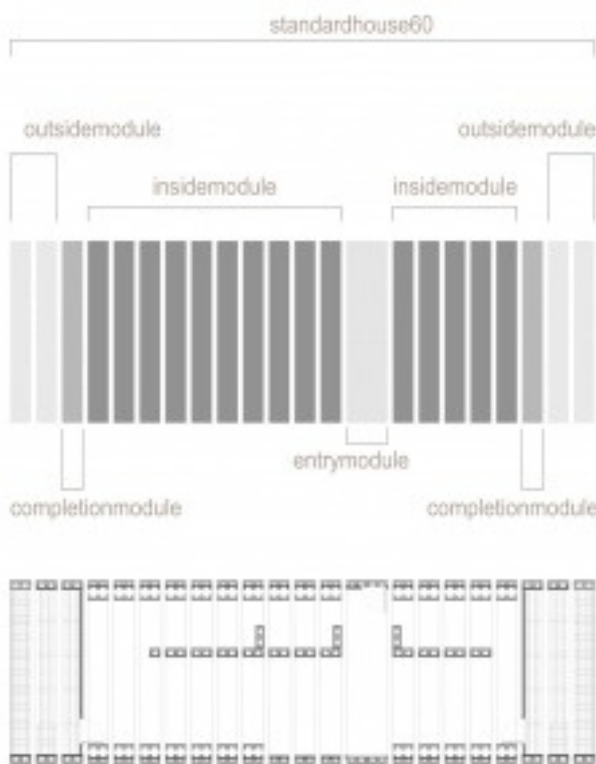
The rain water is collected on one point of the roof, from where it is drained into a cistern. This bulk water is used for the toilets.



Longitudinal section 1:200



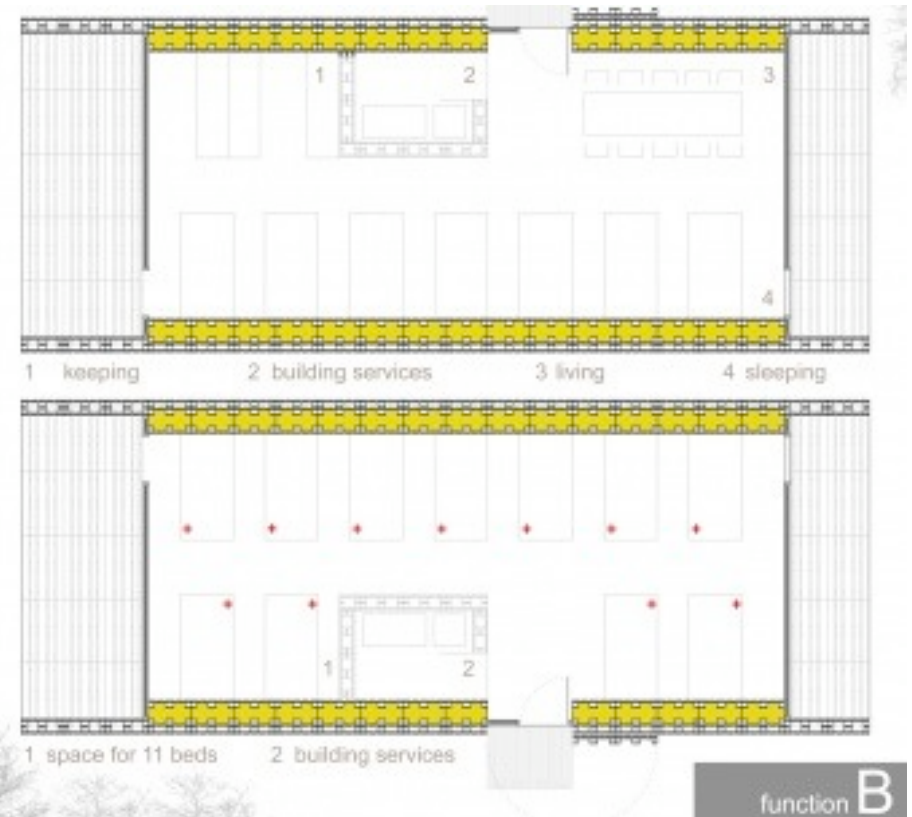
Cross section 1:200



Layout plan (1 floor) 1:200

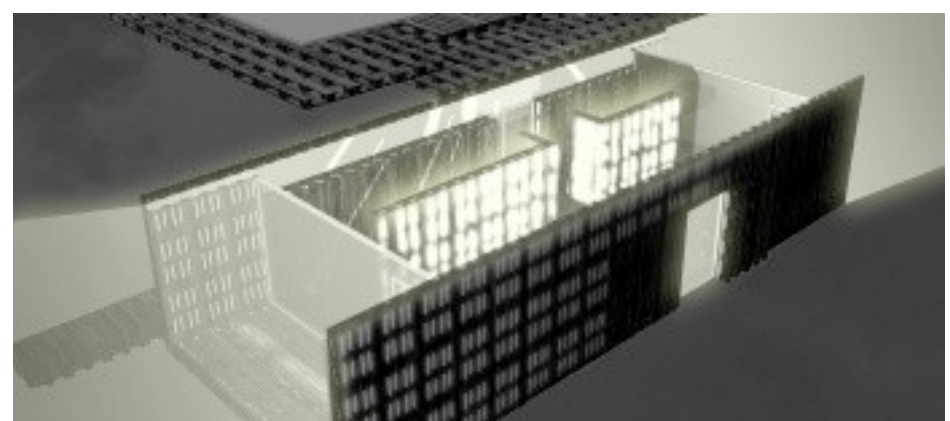
- 1 cooking
- 2 building services
- 3 bath/toilette
- 4 eating
- 5 living
- 6 sleeping

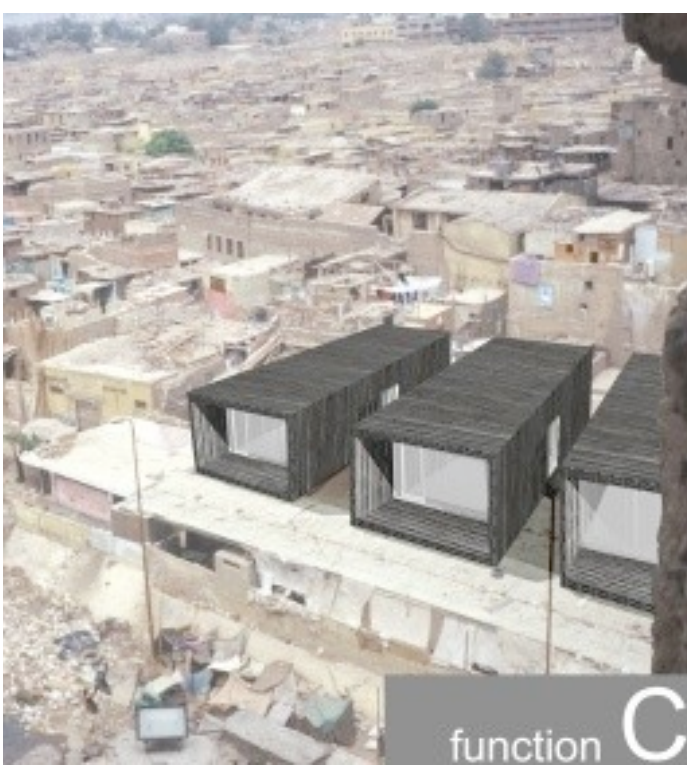
function A



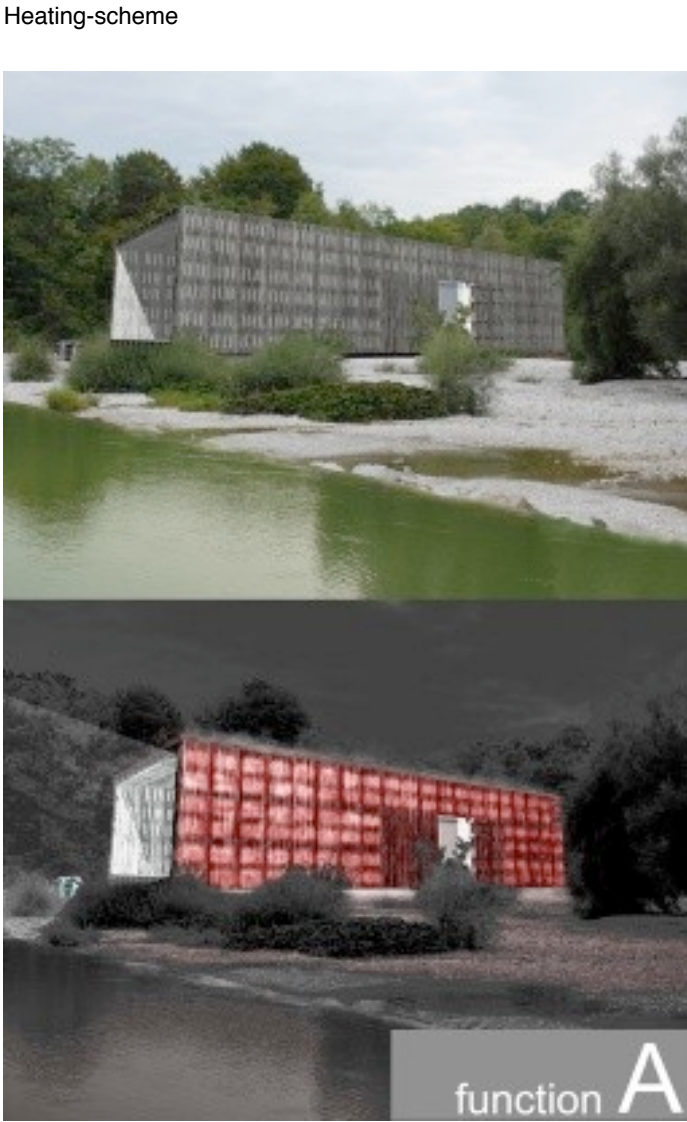
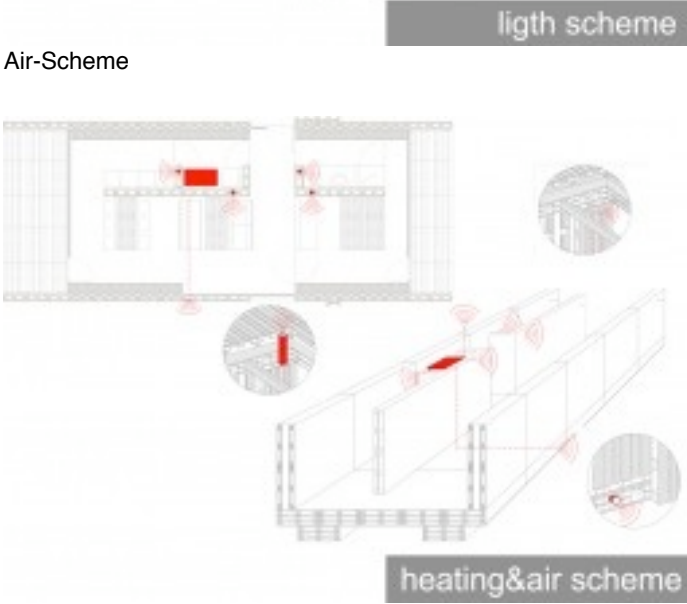
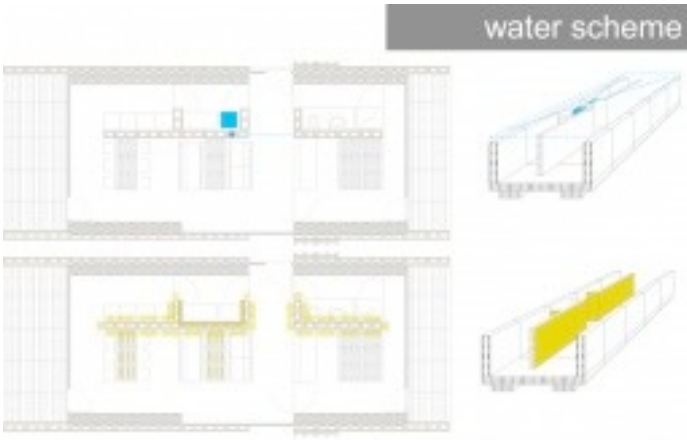
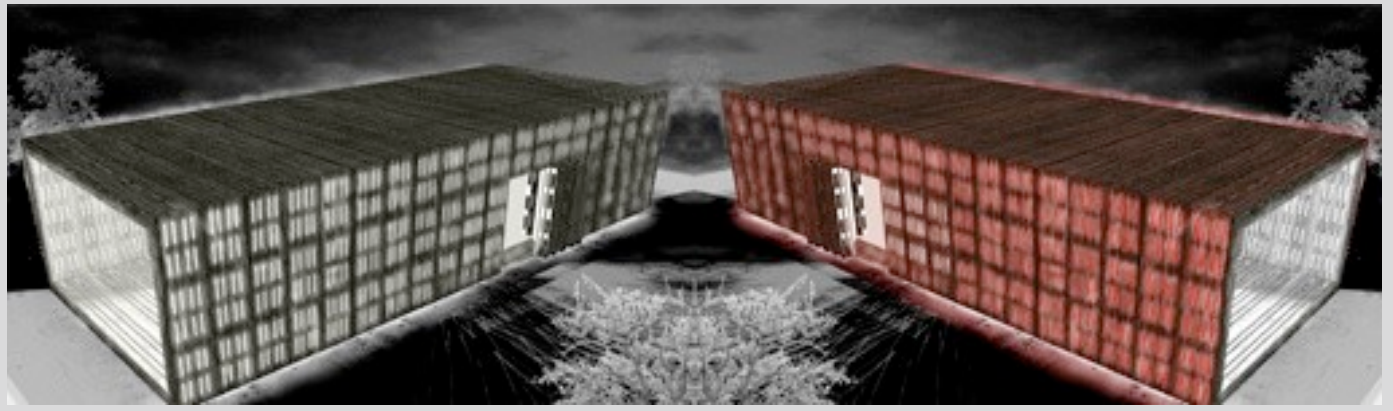
Layout plan (ground floor) 1:200

function B

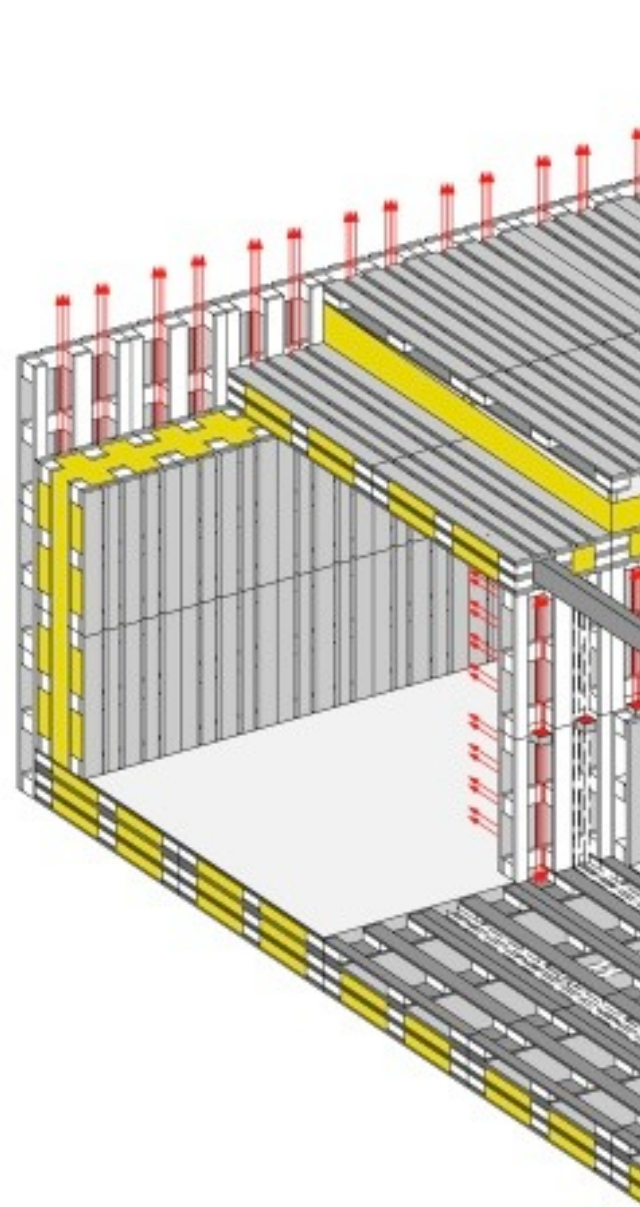




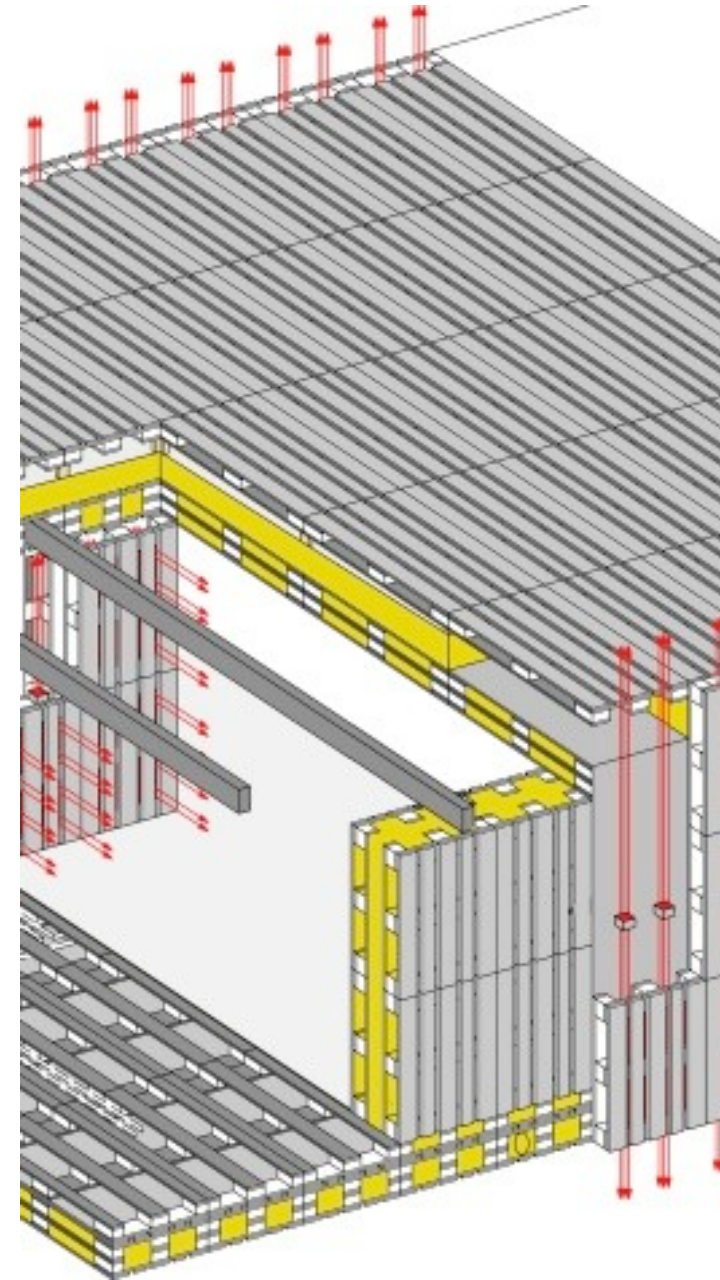
function C



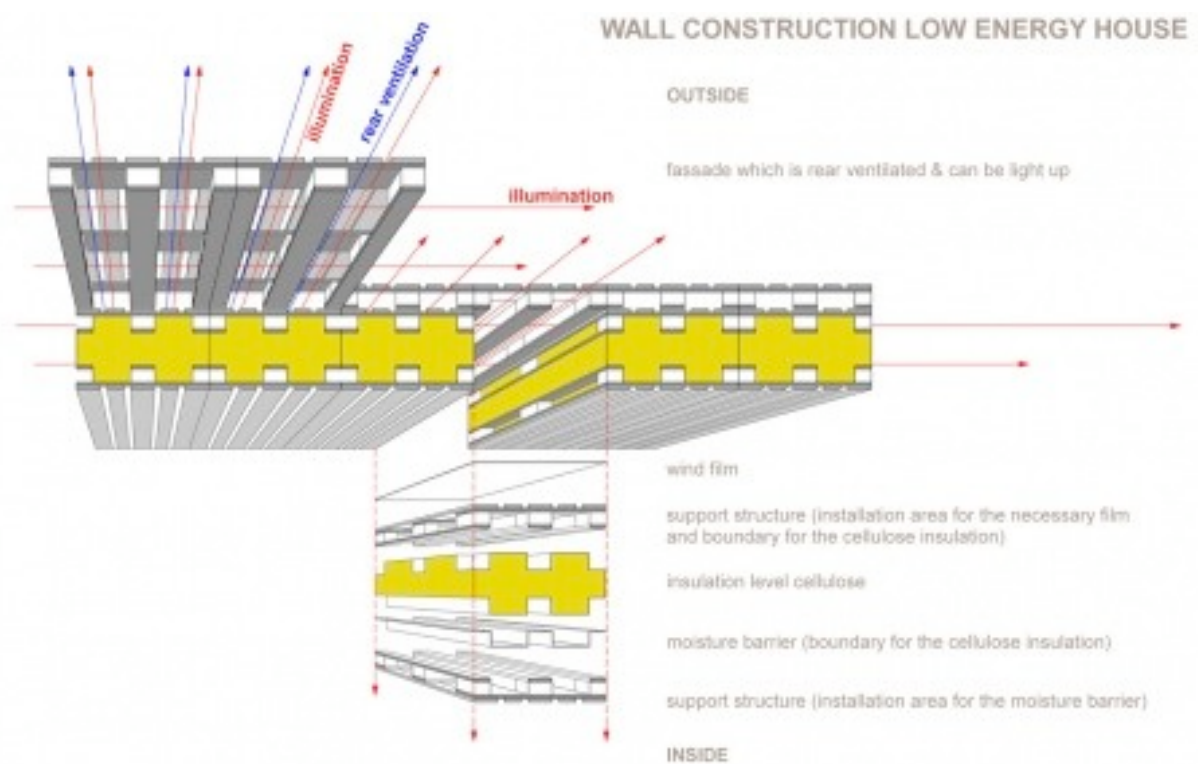
function A



Detail drawing 1:50



Detail drawing 1:50



Axonometric structure scheme