

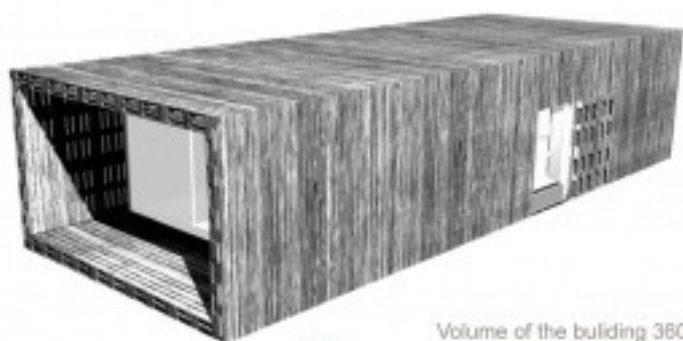


- ecological, sustainable material wood
- cost per pallet about 5 euro
- worldwide standardized (optimized for transport)
- dimension 120/80/14,5 centimetre

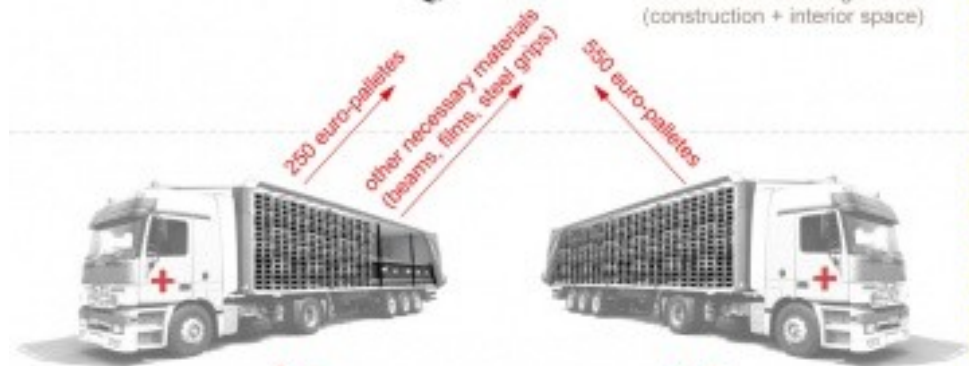


Siteplan 1:1000

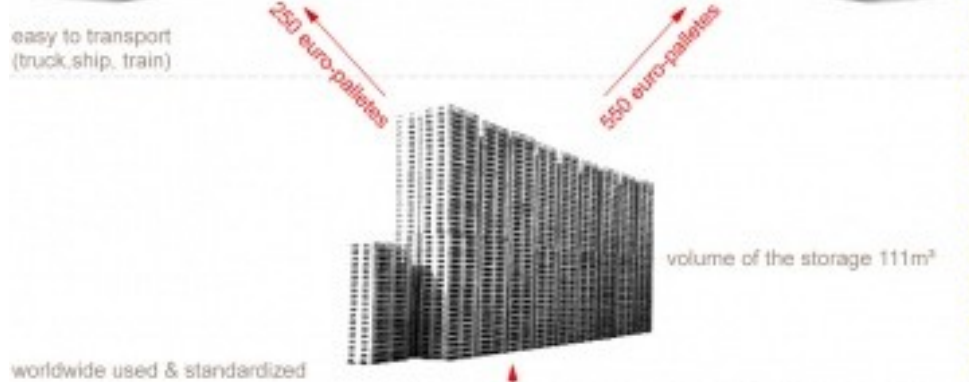
Flexible house which is made of 800 euro-palletes. The building is insulated by ecological material cellulose.



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



easy to transport (truck, ship, train)

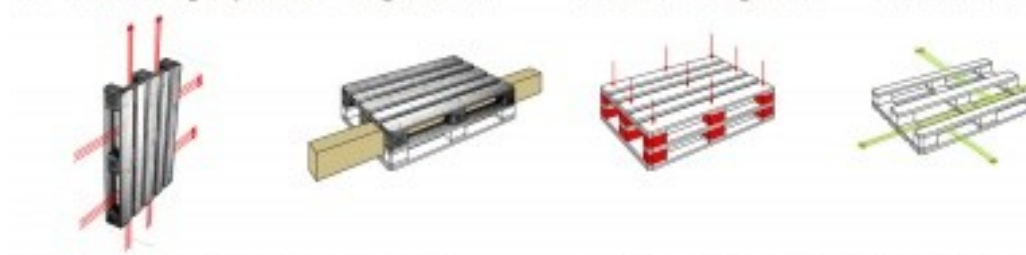


worldwide used & standardized

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

low cost building

- rear-ventilated & light up facade
- integrated beam
- load transfer ceiling & floor
- installation-level

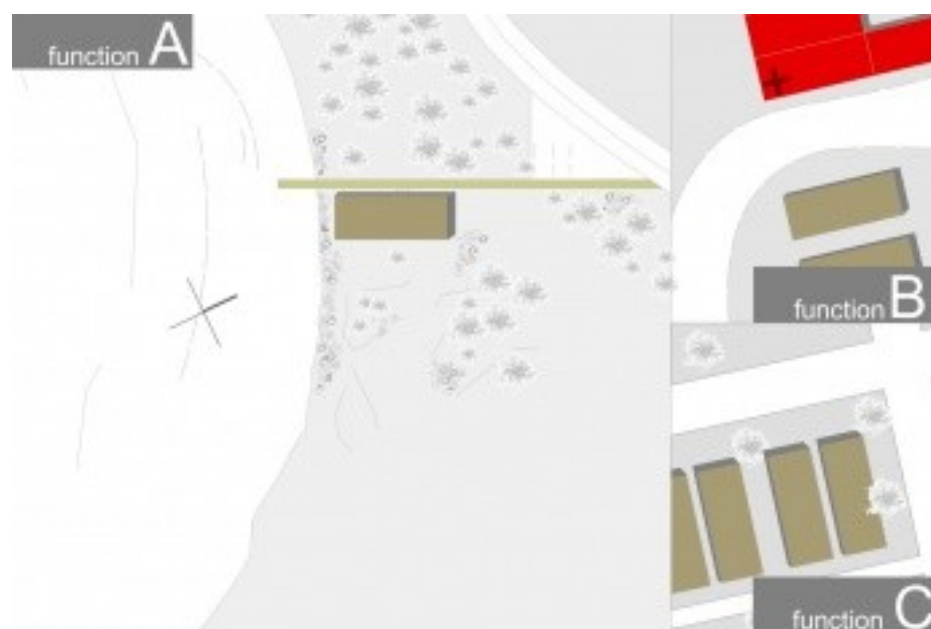


- diffuse light up interior space
- installation level
- insulation level (cellulose)
- load transfer wall



Prospective view

LOW ENERGY HOUSE 25kWh/m²/year
TRANSPORT
STORAGE
PRICE
800 EURO-PALLETES 800 EURO-PALLETES 800 EURO-PALLETES



siteplan 1:500



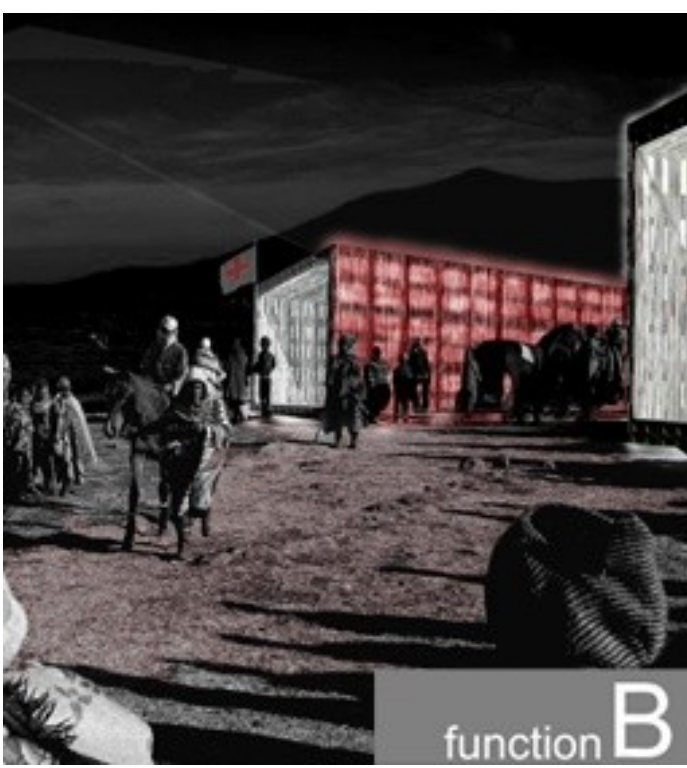
View 1 - 2



View 3



View 4



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

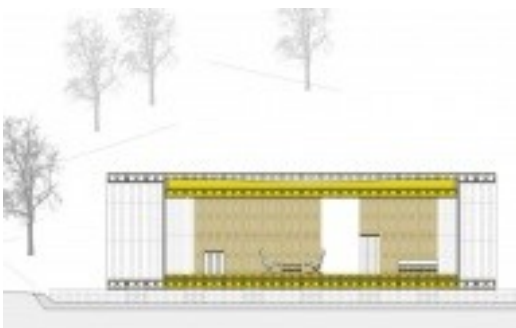
As you recycle 800 pallets for the basic structure and cellulose as heat isolation, the building is very ecological and sustainable. The use of additional material is reduced to a minimum. The euro-pallet construction material acts as support structure and front. A further advantage is that pallets are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

Energy choices

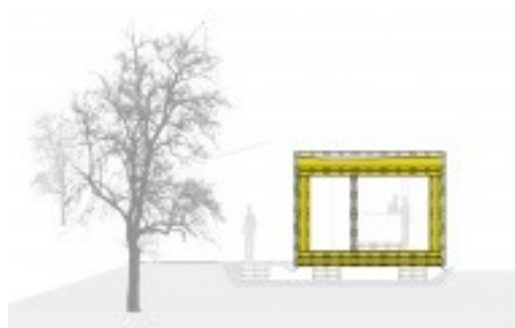
As the space between the pallets is isolated, you need very low energy for heating, namely 25 kWh/m².a. These low figures can be reached with the help of a ventilation appliance, which is a heater in winter and an air conditioning in summer.

Water system

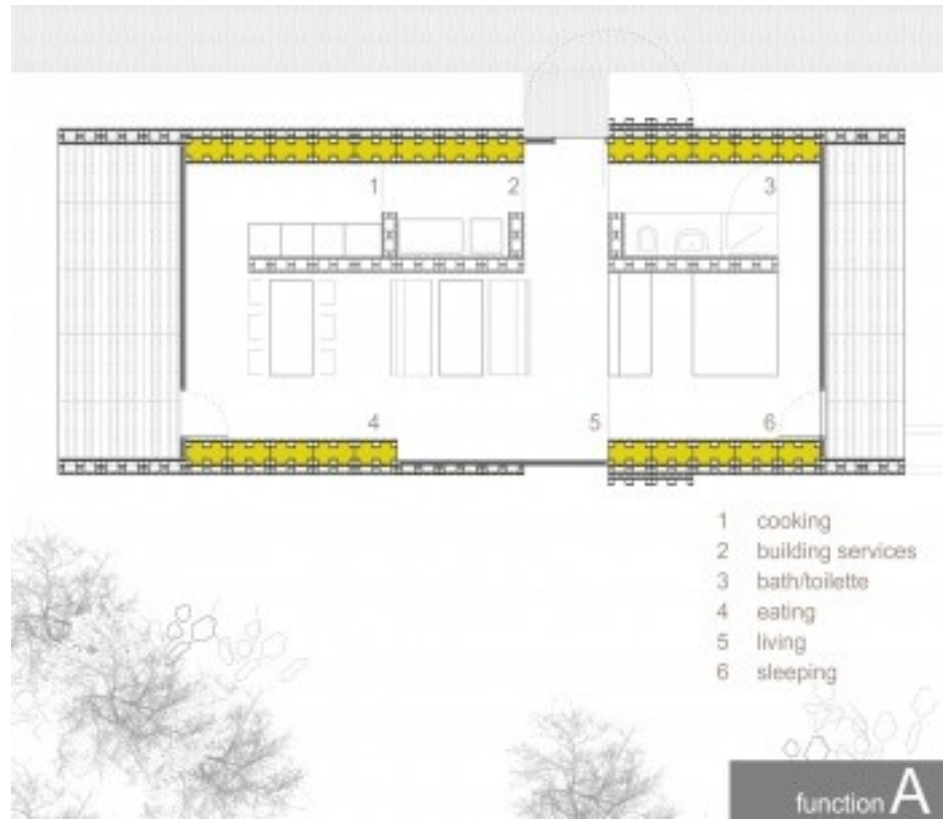
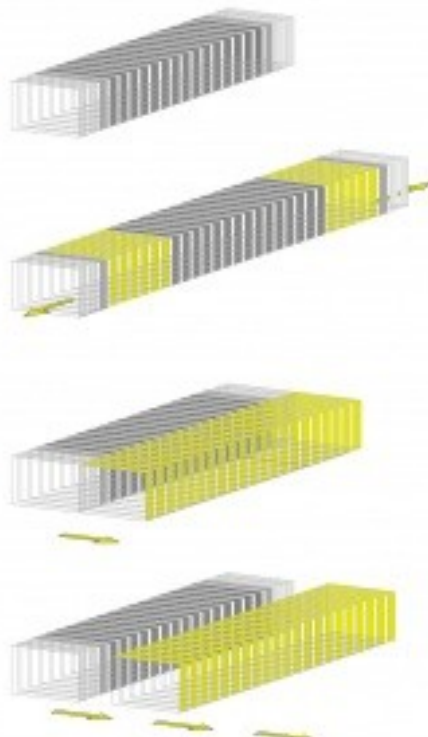
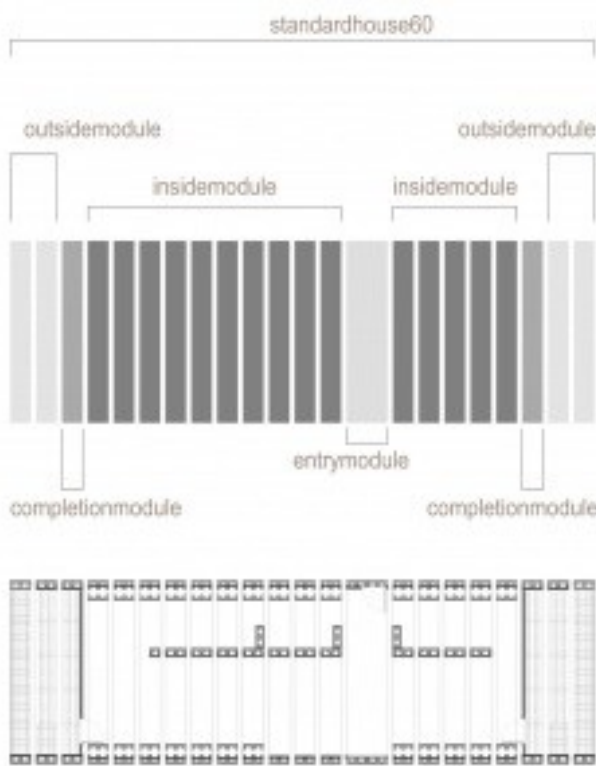
The rain water is collected on one point of the roof, from where it is drained into a cistern. This bulk water is used for the toilets.



Longitudinal section 1:200



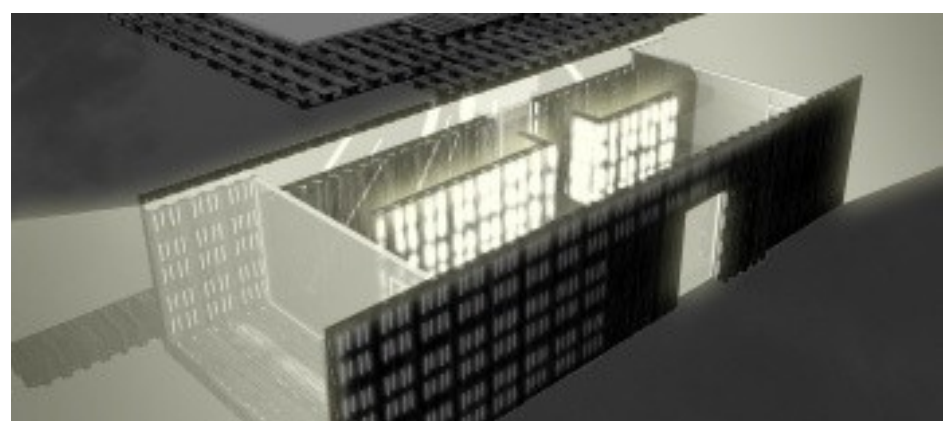
Cross section 1:200

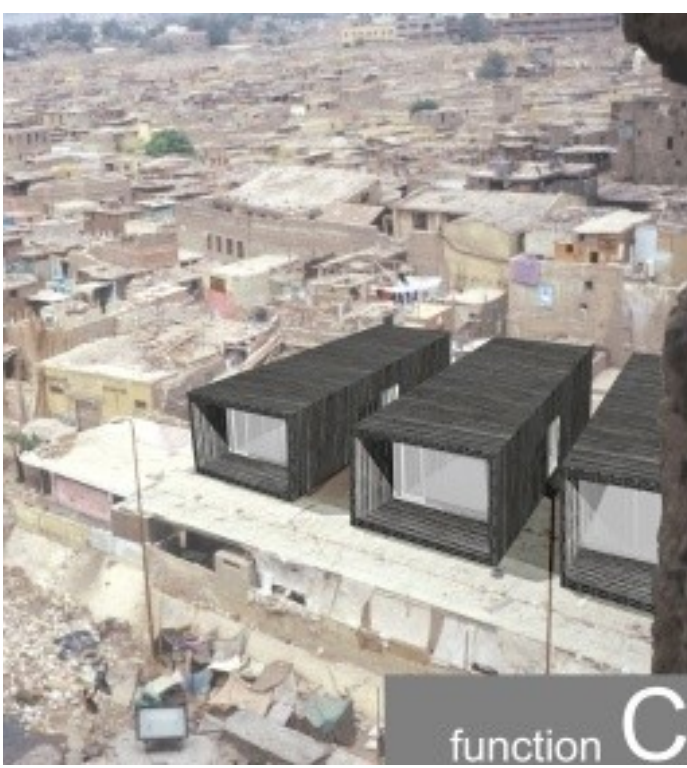


Layout plan (1 floor) 1:200



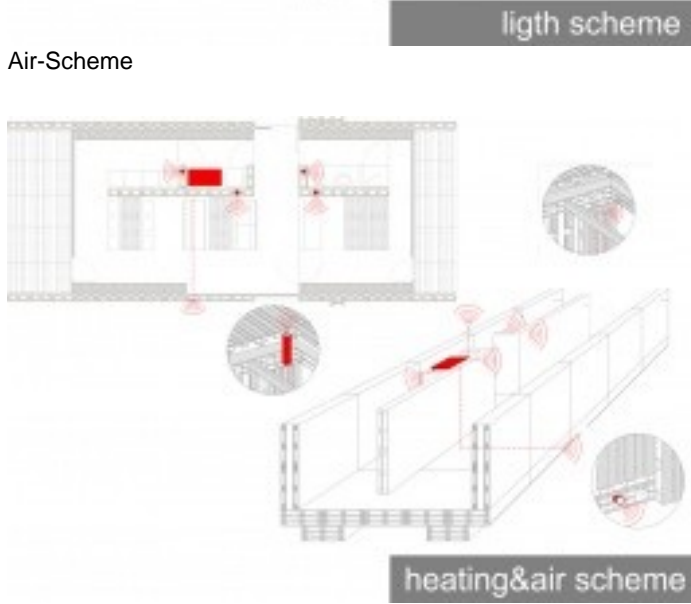
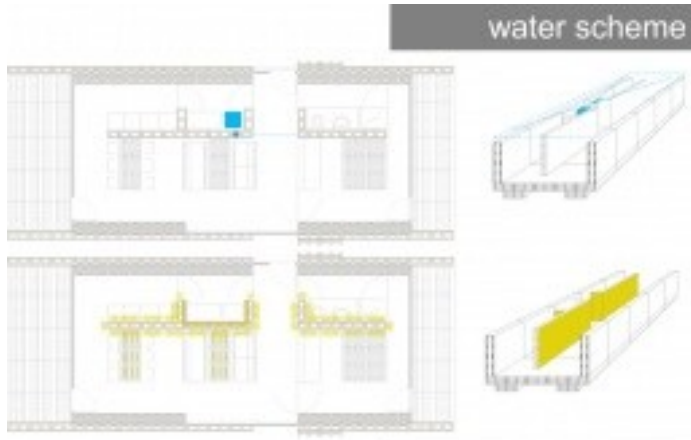
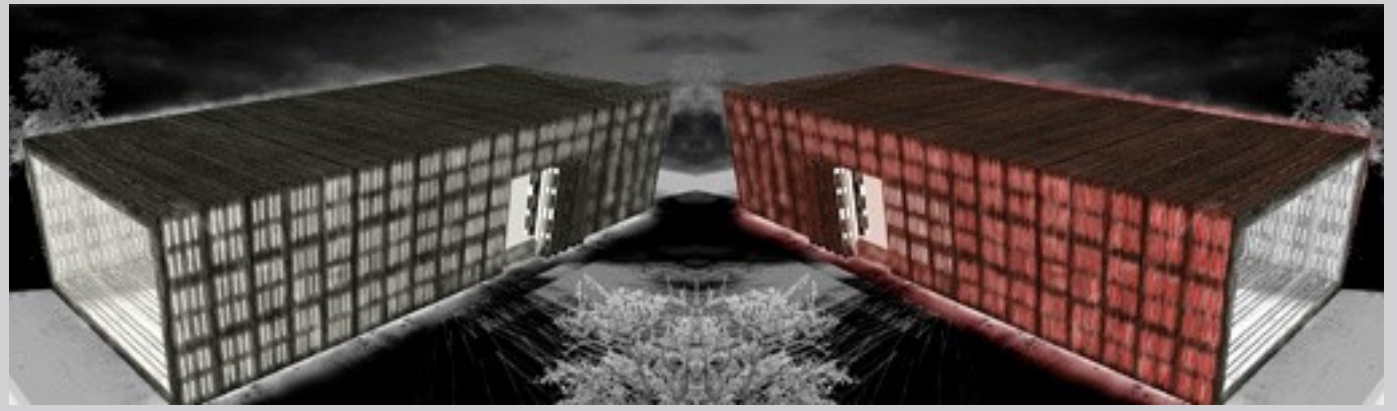
Layout plan (ground floor) 1:200



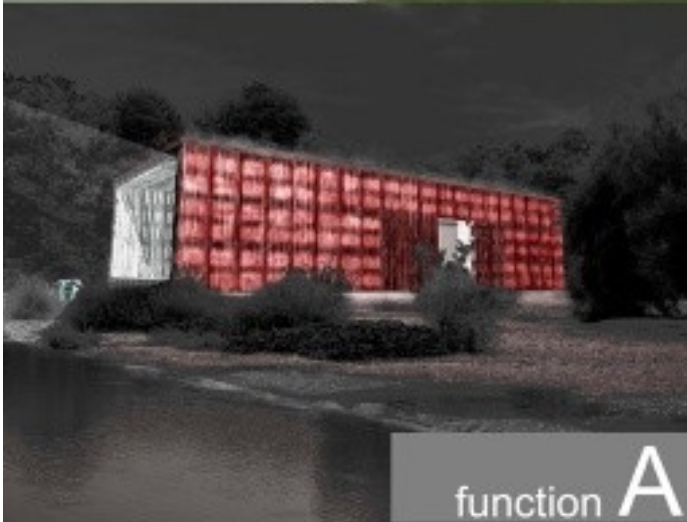


function C

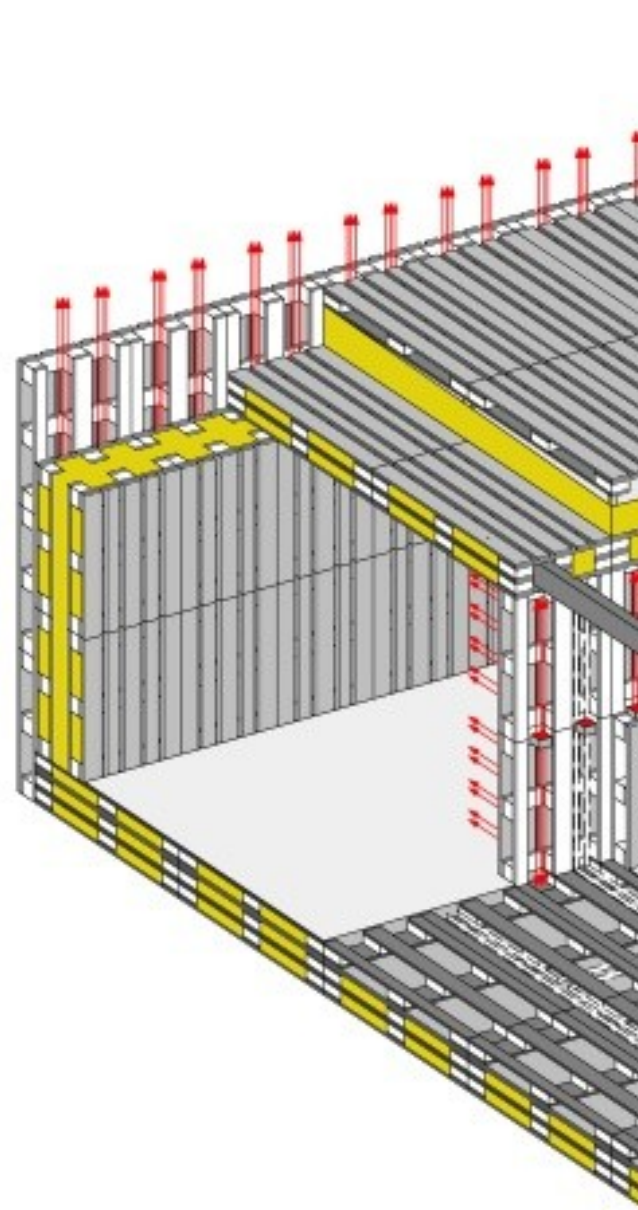
palleteshouse.....www.palettenhaus.extremdenker.at
Vienna / Austria



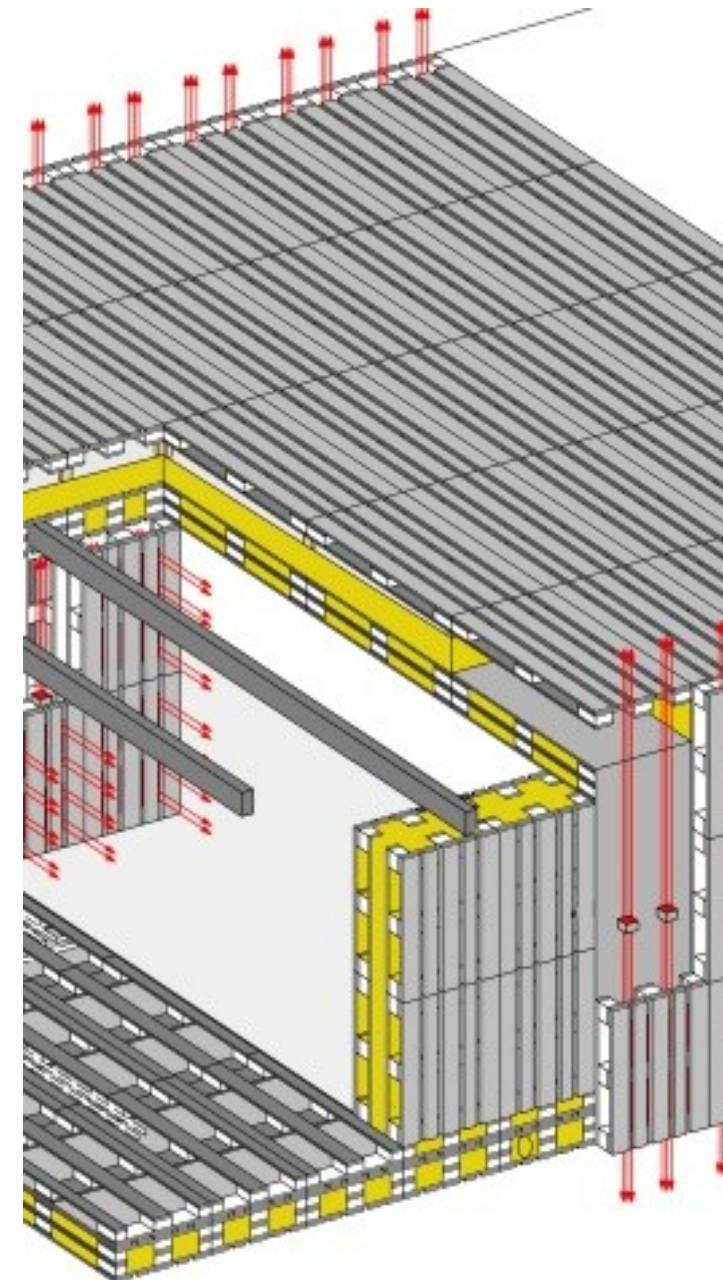
Heating-scheme



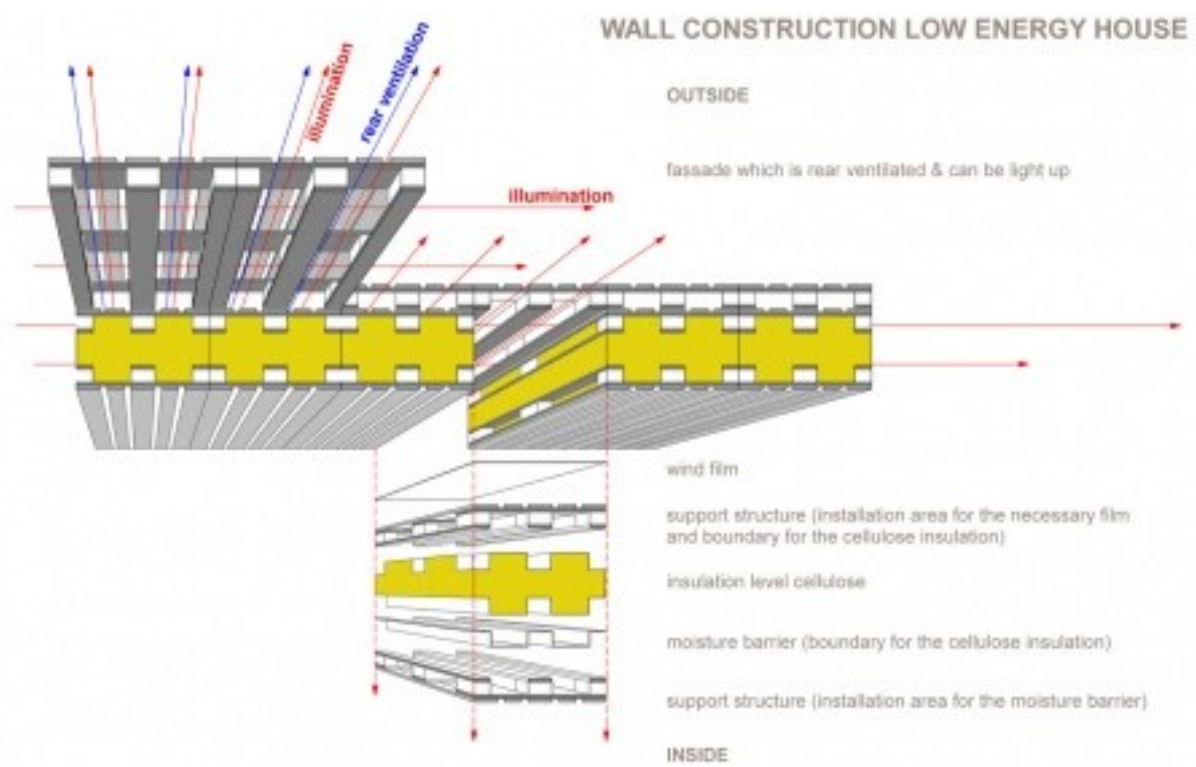
function A



Detail drawing 1:50



Detail drawing 1:50



Axonometric structure scheme