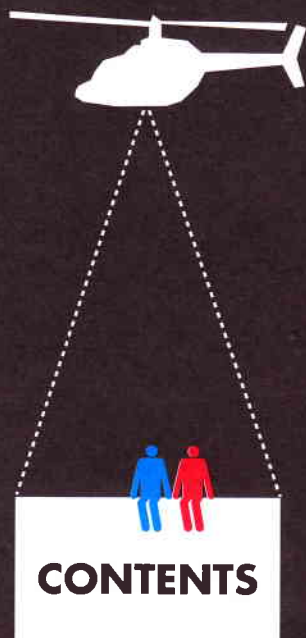


Construction and Design Manual Mobile Architecture

Kim Seonwook / Pyo Miyoung



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ROOM-ROOM

Architect: Nirmala Devi (India)
 Designer: Nirmala Devi (India)
 Project: Disaster Relief / Mobile
 Location: India / Material:
 Steel, Plywood, Canvas, Rubber
 Dimensions: 1.2m x 0.8m x 0.8m
 Year: 2008 / Prototype



The increase of natural and climatic disasters creates social disasters with more and more homeless and migrants. Room-room is a project with two purposes: to live and to move. Our aim is to produce the largest of the smallest berth as well as the first room of the future dwelling. Room-room is light to carry, strong and safe, affordable, mobile, ergonomic, thermally efficient, easily transportable. Room-Room wants to make people move and people think.

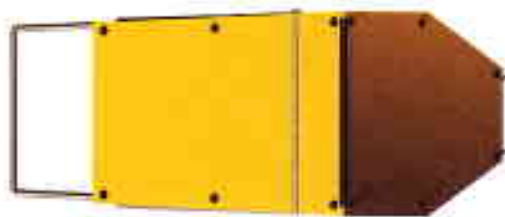




MOVE

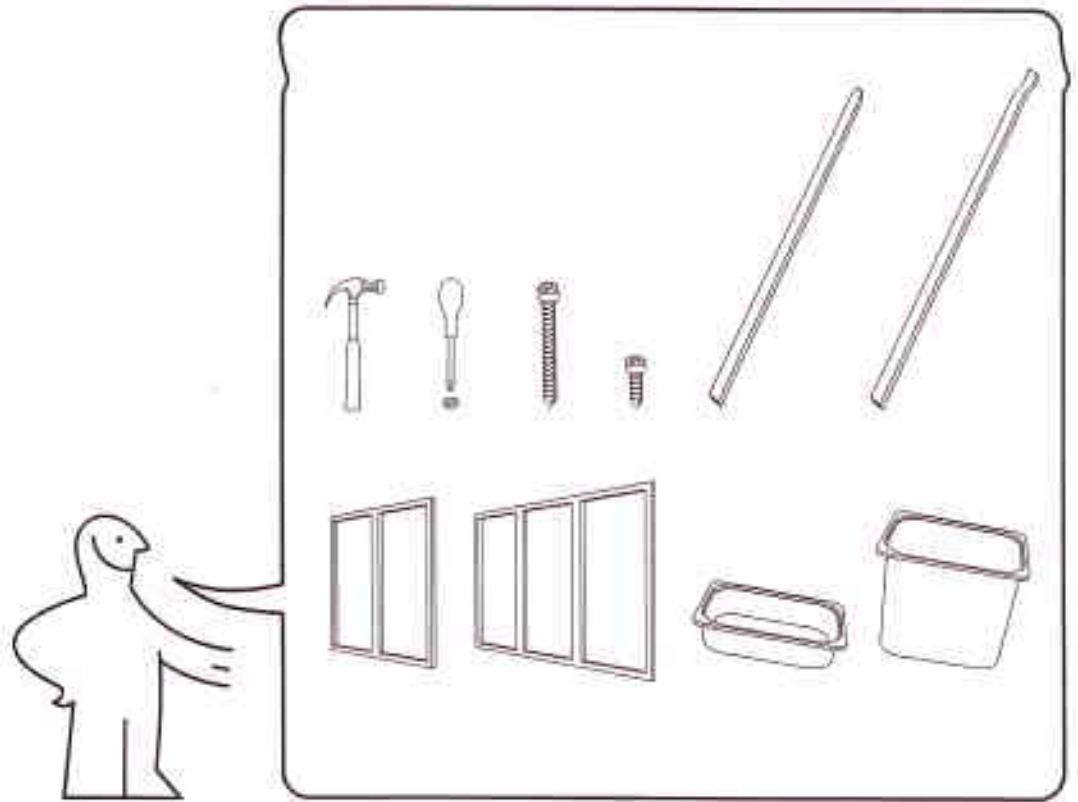
SLEEP

STAY

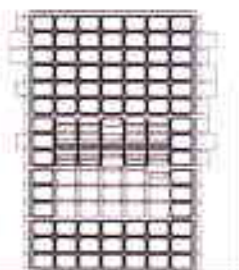
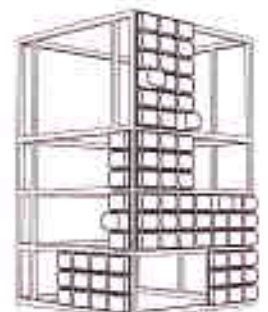
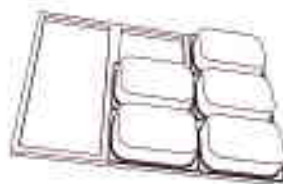
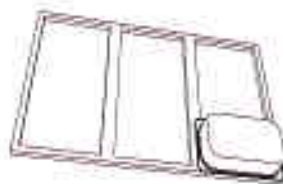


TEMPORARY BAR

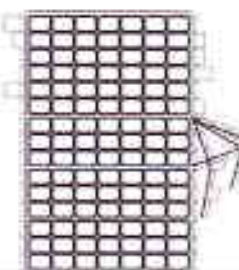
Architect: Sérgio Aguiar, Inês de
Oliveira | Structure and other
Specialty: Architects F.L.S.
Ideas: Francisco, Henrique e
Soraia, with the collaboration of
members of ALFADP | Client:
Associação dos Estudantes da
Faculdade de Arquitectura
[FEFAA] | Location: Parque
da Cidade, Porto, Portugal |
Material: | Dimensions: 4m x
3m x 2m (L x W x H) | Website:
Alfa23 | Design Month:
2008 | Completion: May
2008 | Photographer: Sandra
Melo, Sérgio Aguiar



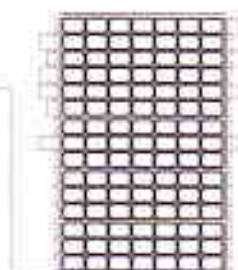
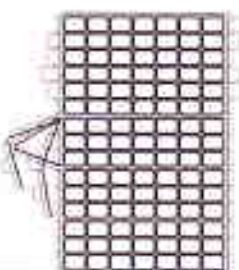
Construction diagram



Front elevation



Side elevation



Rear elevation

This bar was a result of a competition aiming to represent the Faculty of Architecture in Porto. The given implantation, the fast construction and the low budget were some of the premises which had to be considered for designing this temporary structure that should be built in just one week with the help of students. Departing from IKEA's concept "build-by-your-own", the project is a parallelepiped made out of different depth storage boxes resulting in a modular building with a textured skin, standing as a visual reference.

The dimensions of the applied storage box (300 x 420mm) are the structural module of the entire project. In addition to the fact of its evident compositional qualities, the boxes, made of a resistant polypropylene translucent plastic, serve as well as basis of the structural logic of the project, therefore assuming as structural membrane.

It is a process that departs from assembling units in order to reach the whole. The project is divided in four types

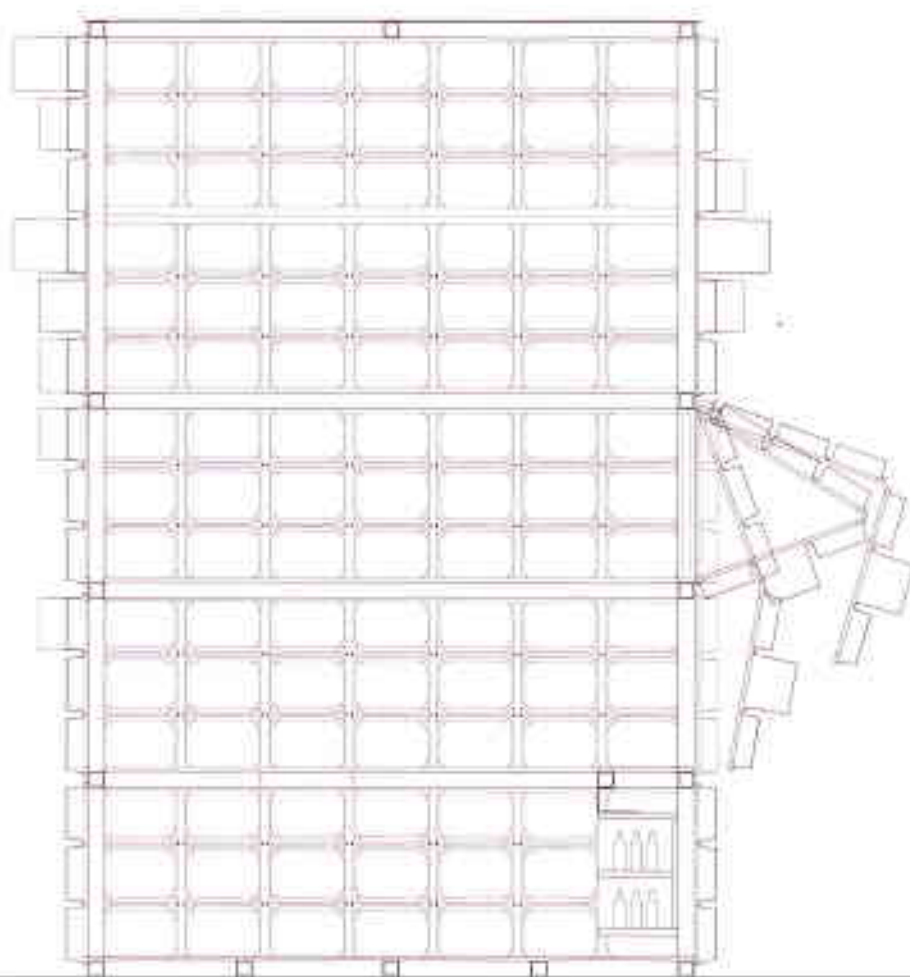
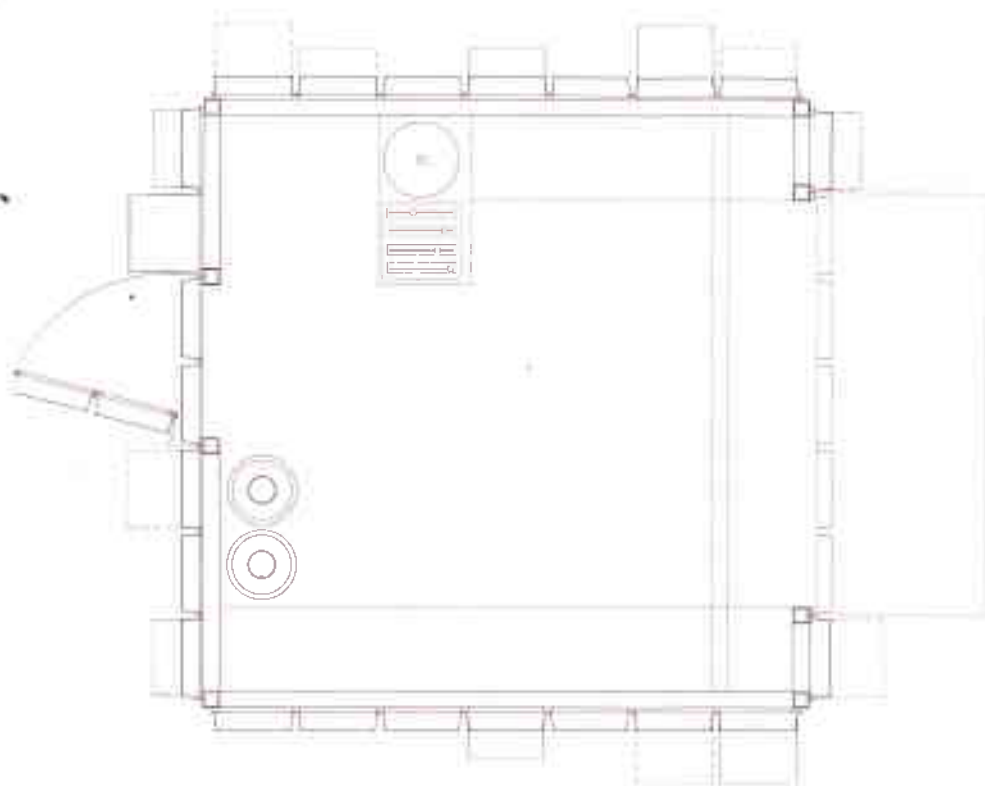
of modules (groups of boxes fixed to wooden structural frames) applied in workshops and then transported to the implantation site. Thus, the 420 boxes are organized in a total of 46 modules with considerably reduced weight and size: 16 modules of 4x3 boxes (168cm x 90cm); 20 modules of 3x3 boxes (126cm x 90cm); 6 modules of 2x3 boxes (84cm x 90cm) and 4 modules of 1x3 boxes (42cm x 90cm). The boxes were applied to the primary steel frame structure (302cm x 302cm x 480cm) already implanted on the site.

The convex shape of the boxes and therefore of the modules, plus the aim to maintain the interior space completely empty, obliged a custom detail of the "stretched" hinges.

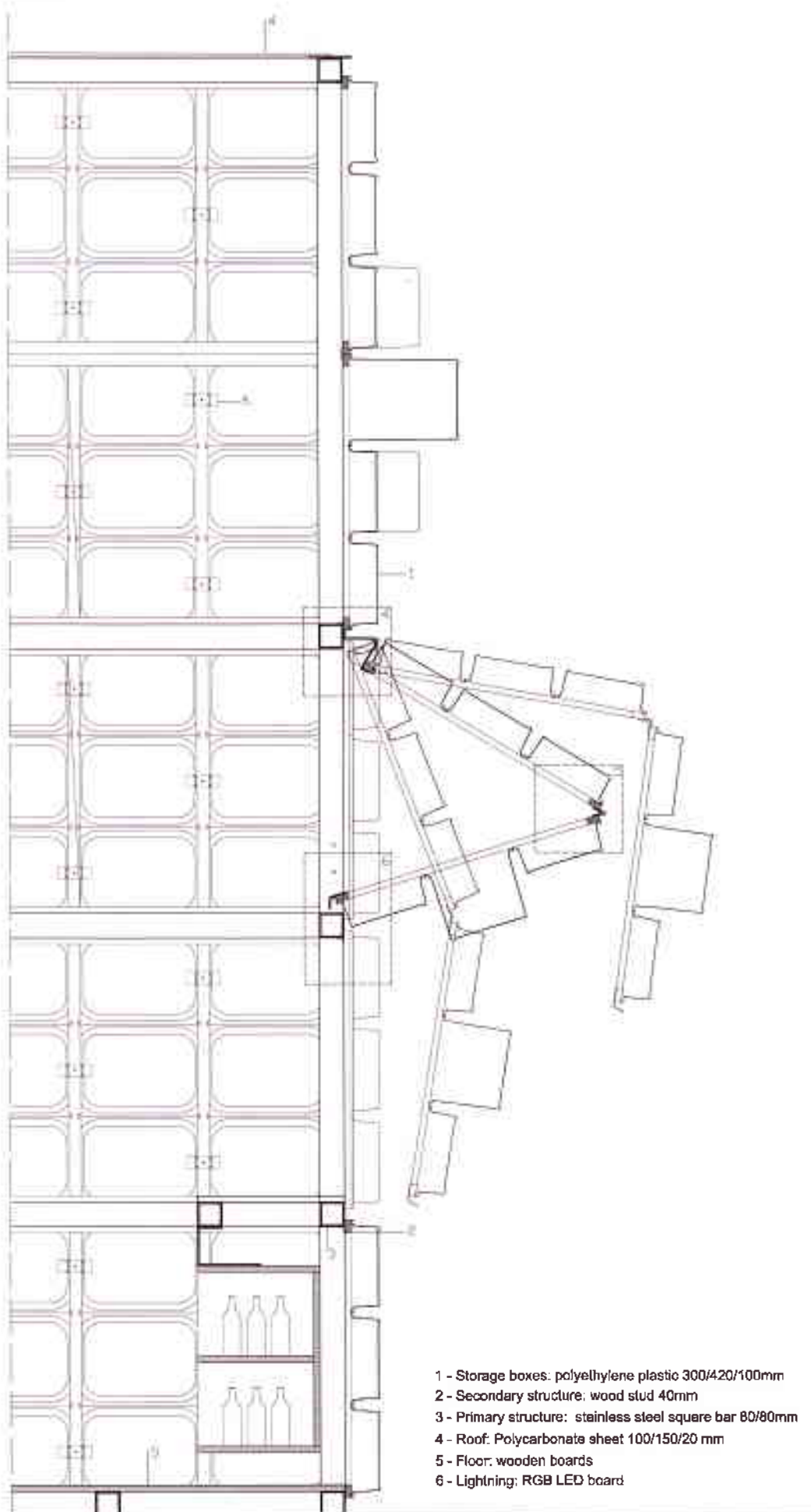
The LED network in the concave interior spaces results in an exterior pattern of light, dramatically changing the bar appearance: by day a white abstract and closed volume; and by night a box of changing light following the DJ set. Night over night, drinks were sold out.

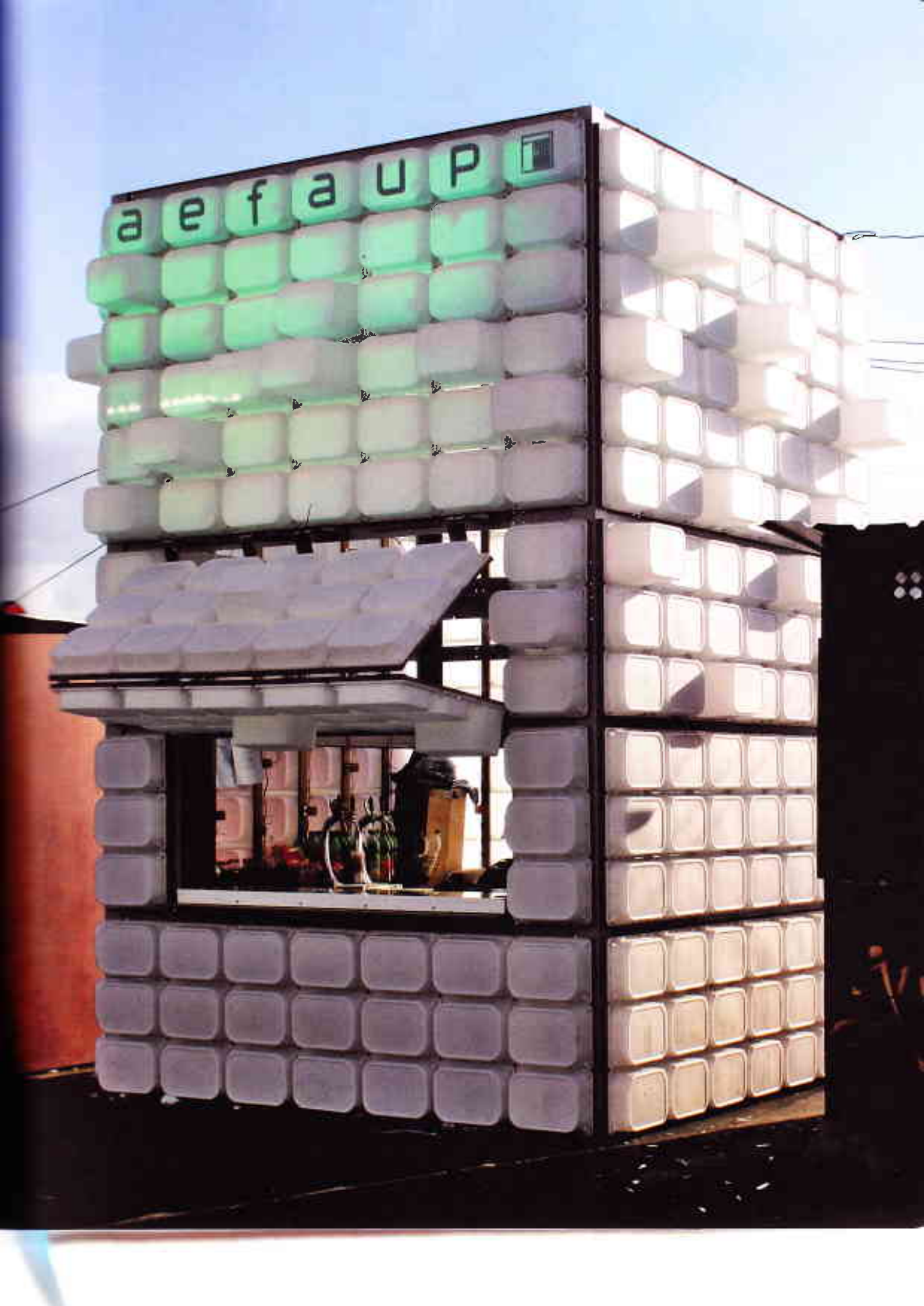
Site





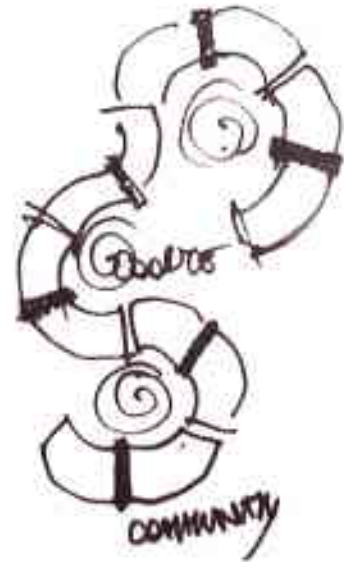
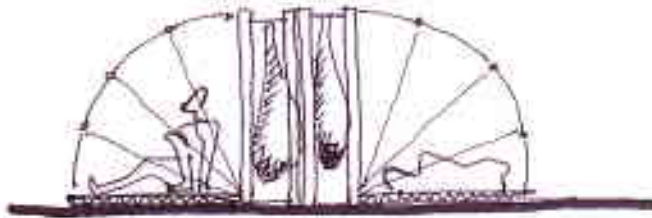






WHEELLY

Architect: Anshu Gargoli
 (Near India Bulls)
 Francisco Fontana, Cristian
 Collati | Collaborator: CDIA
 et. Ingegnieri, Officine
 Riforma | Use: portable
 shelter | Dimensions: 1.45m
 (H) x 40cm (D) x 40cm (W)
 1.45m x 1.45m | Material:
 aluminum, painted paper,
 rubber, mixed polystyrene,
 neoprene | Design: 2008
 Completion: 2009



Formal and functional aspects: Wheelly is using a wheel as mobility and a city language. Its thickness of 40 cm allows the cart even to pass every door. When needed thanks to two folding tents the cart become a protected and intimate shelter with an insulated sleeping space and a collecting one where keeping stuff or recovering your pet. Tents are designed to let people sleep both lying down or huddled up. Wheelly is designed to colonize and live all urban reality on its own or connected to other identities to create multiple living shelter and unexpected colored allocations. Logos show

the companies who helped into the production of the cart and give the opportunity to bring messages. During the day Wheelly can even be easily converted into a seat or a stall helping homeless in basking by giving them a comfortable seat with a protection from the sun.

Problems solved by innovation: The project, following urban languages (ads, mobility, billboards) try to reintegrate the homeless into the social-economics context of the city, logos makes the cart to be less expensive or free. Its technology is designed to give a total flexibility in usage.



1. Cloth bag 250 l
2. Reflecting colored rubber rim
3. Folding polyester resin lens weight 160g/m²
4. Rubber tire
5. Aluminum frame
6. Pressed paper rollers
7. Sponsored insulating rubber disc





Operation and technology: Wheelly has to solve mobility, protection and transport problems in the same time. For this reason the aluminum frame and the 250 liter cloth bag does not move when the wheel is rolling, thanks to a system based on the roller bearing technology, made by pressed pare rolls. When stopping the handlebar is used to stop the rolling and let the cart be fixed on the ground. The folding polyester resin tents, stored into the frame, have little circular frame too, and can be opened to create the shelter. The sleeping space is insulated by a disc of neoprene.





loft - Inside WheelLY