PROJECT TITLE:
The umbilical cord

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We are a group composed by teachers and students from the Barcelona Shool of Architecture, in the Technical University of Catalunya.
THE CONCEPT

The idea
We start from a linear element that contains the installations and serves the different areas, like the umbilical cord.

Facing with this unchangeable and permanent wall, dance a variable and lighter line, consisting of wooden frameworks, which enclose the space generating the "Melle".

The program
The program is divided in two parts:

) The garden, which begins to grow from one end of the wall
) The house, which begins from the other extreme

Flexibility
The construction has great growth potential. It is very versatile and can be easily adapted to user needs, both the number of occupants and the economic capacity of the household.

THE SYSTEM

Parts of the system:

) Double concrete block wall
) Wooden frames (floor, roof, facade)
) Filling/insulating

Features:

) Dry construction
) Interchangeable and recyclable pieces
) Simple and easy to manipulate

WHAT WE OFFER

We deliver the end user a customizable house, which may be built using the pieces of the system. The aim is to use the local materials and knowledge, promoting an "industry of artisans" making unnecessary importation.
PLOT CHARACTERISTICS
- Plot dimensions: 12 x 30 m
- Maximum build area: 65% of total plot size.
- Distances: The house has been designed to fulfill the established distances to the borders (2.5 meters from the front edge and 4.5 meters from the street) however, we propose to move the umbilical cord and give more space to the daily garden side.

HOUSE FLEXIBILITY
The project has a high level of flexibility. It can grow following the walkline, and fulfill the needs of the family group.
The house have more than 35 m² of habitable area.

The program of the house is:
- 1 living room
- 2-3 sleeping rooms
- Bath and toilet (in the biggest house is possible two baths)
- 1 kitchen
- Storage space
EPOCH OF RAINS

The elevation of the platform from the floor guarantees that being the ground flooded, the house remains dry.

The sewers prevent the rain water entrance from the outside.

The rain water is collected in a tank placed inside the central wall (the embodiment's cord) to be used in different tasks, as irrigation.

EPOCH OF SUN

Solar protection is achieved by the sewers, which depending on the material used can filter the sun rays and, sometimes, reflect them.

The thermal stability of the environment is achieved thanks to the possibility of fresh air circulation through the house.
01  LOCALLY EMBEDDED

The local craftwork shapes the house.

02  LOCALLY EMBEDDED

The whole house uses local materials and knowledge. It is a closed life-cycle.

03  CLIMATE

The house is the result of the local climate.

04  SIZE

You can transport and re-use the pieces of your house.

05  STRUCTURE

Facade and structure, two different elements.

06  CONNECTIONS

You can do it yourself.

07  INSTALLATIONS: the umbilical cord

All can be placed inside the umbilical cord.

08  OPEN SOURCE SHARE

Little pieces of Ghana make my house.