VerSus International Student Competition

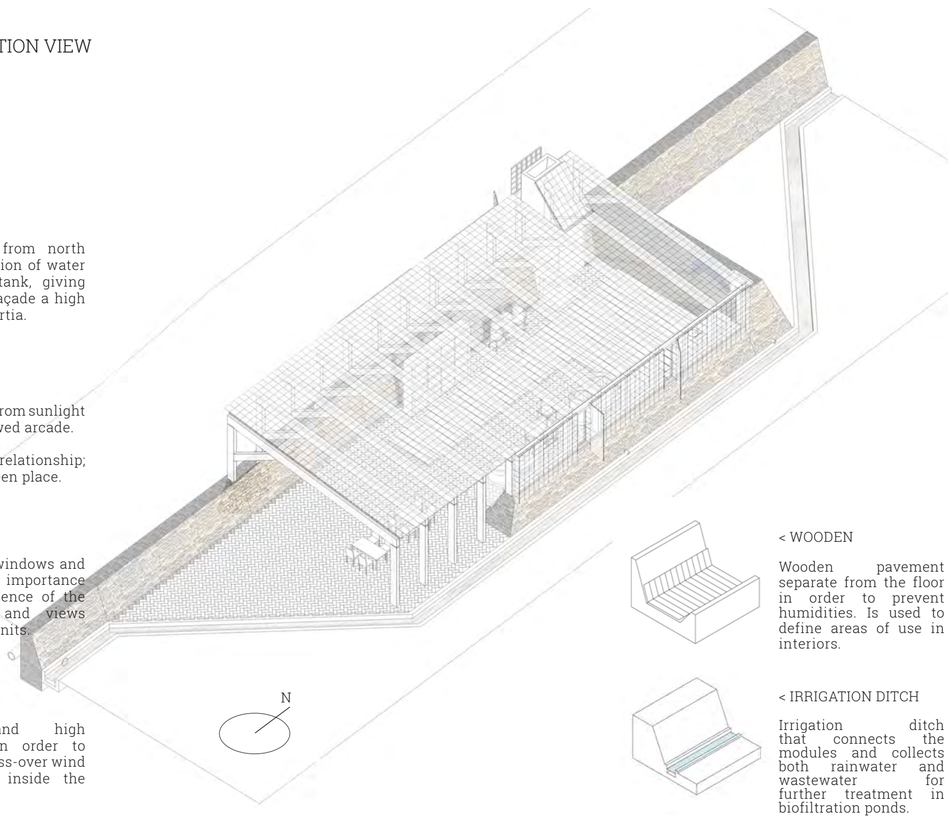
Poster 2: Project and Solutions

Identificative alphanumeric string code:2w2ky2a4

2

CONTEMPORARY RURAL SETTLEMENT IN LOS PEDRONES (VALENCIA)

AXONOMETRIC CONSTRUCTION VIEW



< NORTH

Protection from north wind. Location of water collection tank, giving the north façade a high thermal inertia.

< SOUTH

Protection from sunlight by a shadowed arcade.

A place of relationship; an in-between place.

< EAST

Casement windows and shutters, importance of the presence of the landscape and views inside the units.

< WEST

Small and high windows in order to achieve cross-over wind ventilation inside the units.

< WOODEN

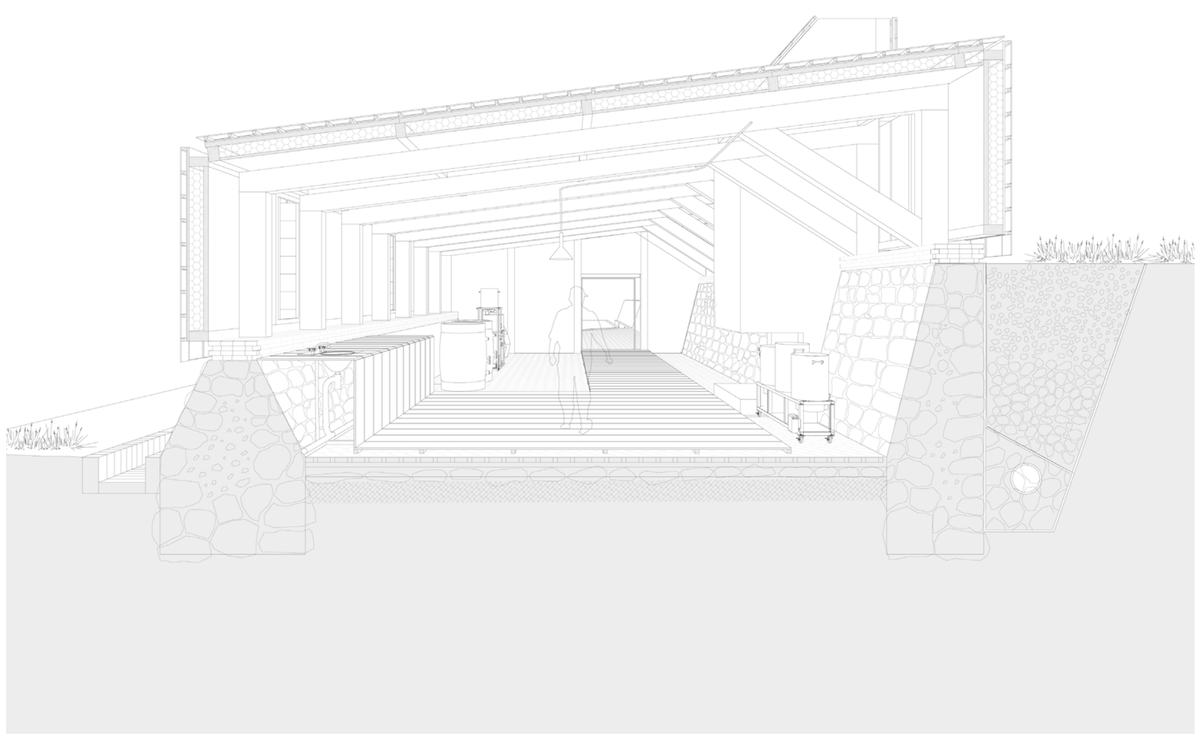
Wooden pavement separate from the floor in order to prevent humidities. Is used to define areas of use in interiors.

< IRRIGATION DITCH

Irrigation ditch that connects the modules and collects both rainwater and wastewater for further treatment in biofiltration ponds.

ENERGY CYCLES

CROSS SECTION MODULE, CONSTRUCTIVE DETAIL scale: 1/30



The new terraces (stone walls) are constructed including waterproofing and insulating surfaces in the backfill of the wall. A wood surface that softens the environment will extend the interior spaces that require more warmth. The installations will run below the floating floor or anchored to the cover. To receive the upper part will be necessary to regularize the surface using CEB (compressed earth block).

The upper part is understood as an element resting on the stone base, on the terraces. The structure is constructed with solid pine wood of the place, sawn a few miles from the site of work. There is a regular modulation of 2,5 meters. The structure supports panels of insulation and waterproofing. The exterior is finished with ceramic tiles.

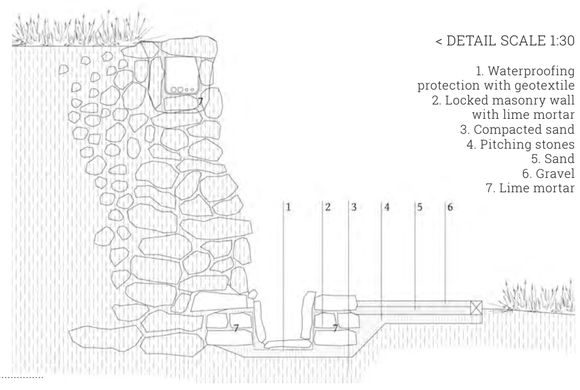
< CONCEPT MODEL

The stone has been removed from the project site.
The wood, polished and treated in a woodworking shop to give it abstract.

IMPLANTATION AND SUSTAINABILITY

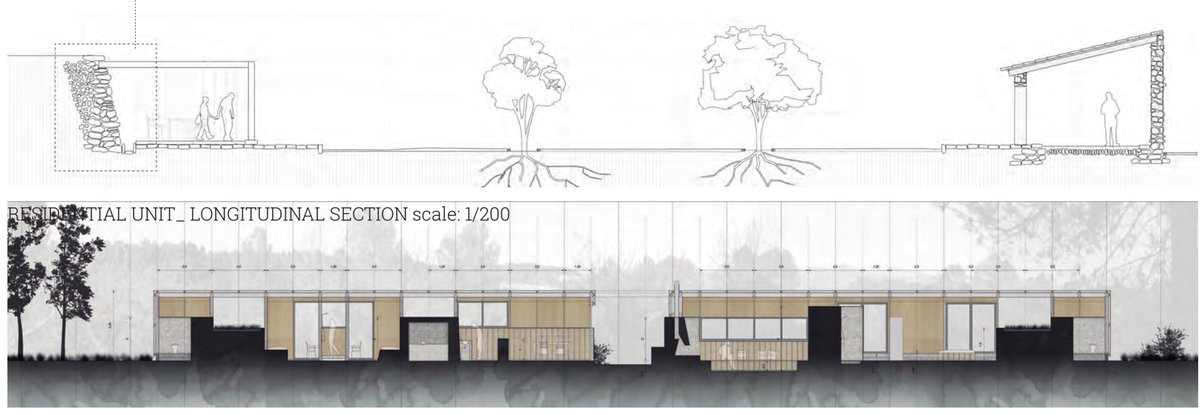
To understand that this place and its strokes are a cultural good, makes sense to use resource and energy supply strategies that do not compromise future generations.
There are use construction materials present on the site, like stone and pine wood.
Industrialized items are selected according to ecological standards, bioconstruction and nearby availability.
The resource network is proposed as a circuit that minimizes waste. There are centralized and distributed installations. To distribute energy and water is used the coping of the new stone walls.
Drinking water is pumped and stored in a reservoir. In addition, each module has its own rainwater tank. The units have solar panels and combined with wind turbines provide enough electricity for the settlement. Water treatment is done by irrigation ditchs that run parallel the walls and units to a biofiltration pond.
Composting toillet are proposed for solid waste treatment and compost making.

DRY STONE WALL



< DETAIL SCALE 1:30

1. Waterproofing protection with geotextile
2. Locked masonry wall with lime mortar
3. Compacted sand
4. Pitching stones
5. Sand
6. Gravel
7. Lime mortar



RESIDENTIAL UNIT_ LONGITUDINAL SECTION scale: 1/200

RESIDENTIAL UNIT_ PLAN scale: 1/200

GENERAL VIEW

INTERIOR VIEW

Project Leader

escola superior gallaecia

Partners

UNESCO Organisation des Nations Unies pour l'éducation, la science et la culture

uniTwin Chaire UNESCO Architecture de terre

CRAterre ENSAG école nationale supérieure architecture grenoble

UNIVERSITÀ DEGLI STUDI DI CAGLIARI

UNIVERSITÀ DEGLI STUDI FIRENZE

UNIVERSITAT POLITÈCNICA DE VALÈNCIA

versus Vernacular Heritage Sustainable Architecture

European Research Project

With the support of the Culture Programme of the European Union

Culture