INSTRUCTION BOOKLET REHABILITATION OF THE ORPHANAGE ELISA ANDREOLI, ORURO

ARCò - Architettura e Cooperazione Società Cooperativa

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Object

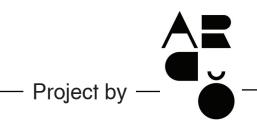
December 2014

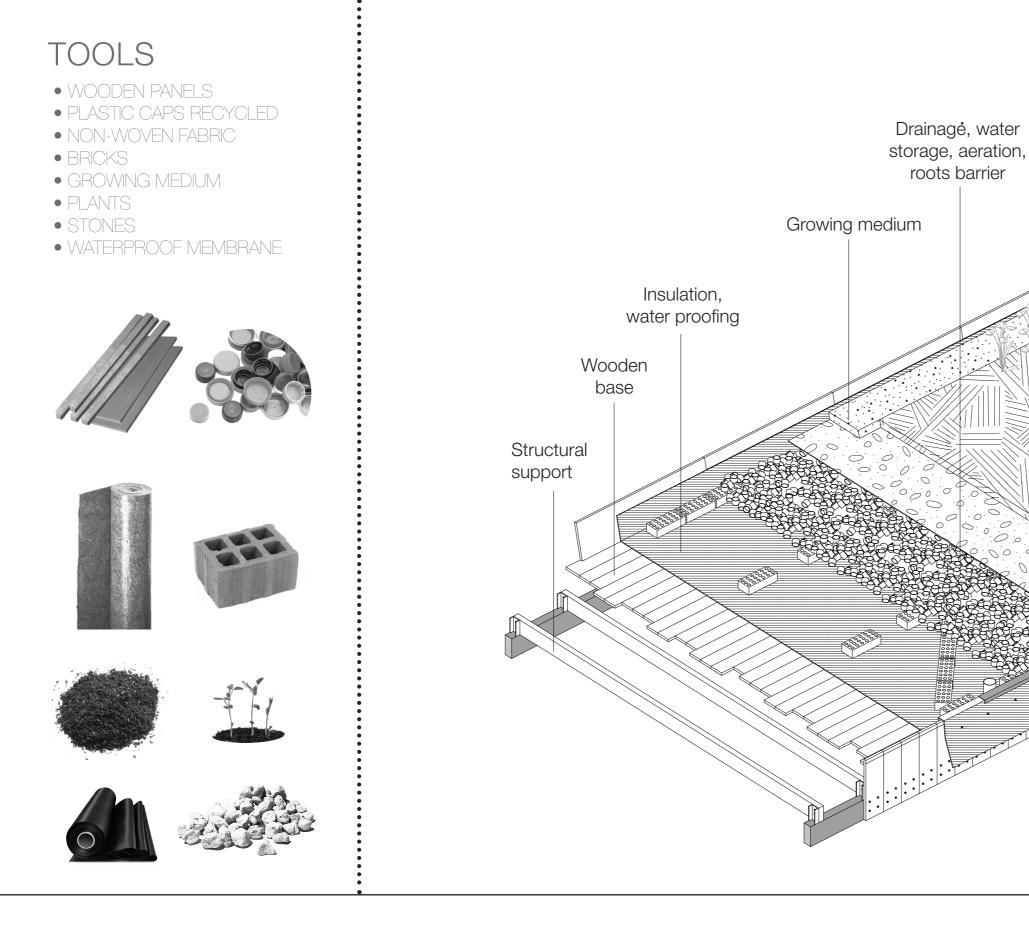
Architectural Design



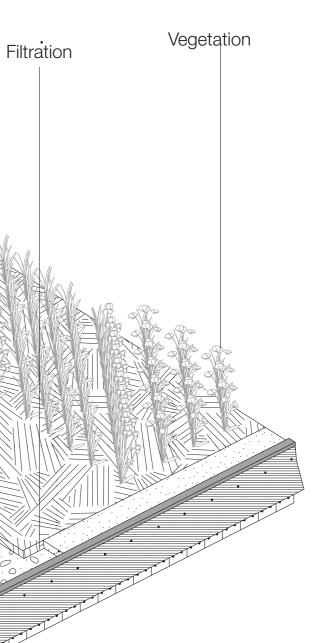


GREEN ROOF



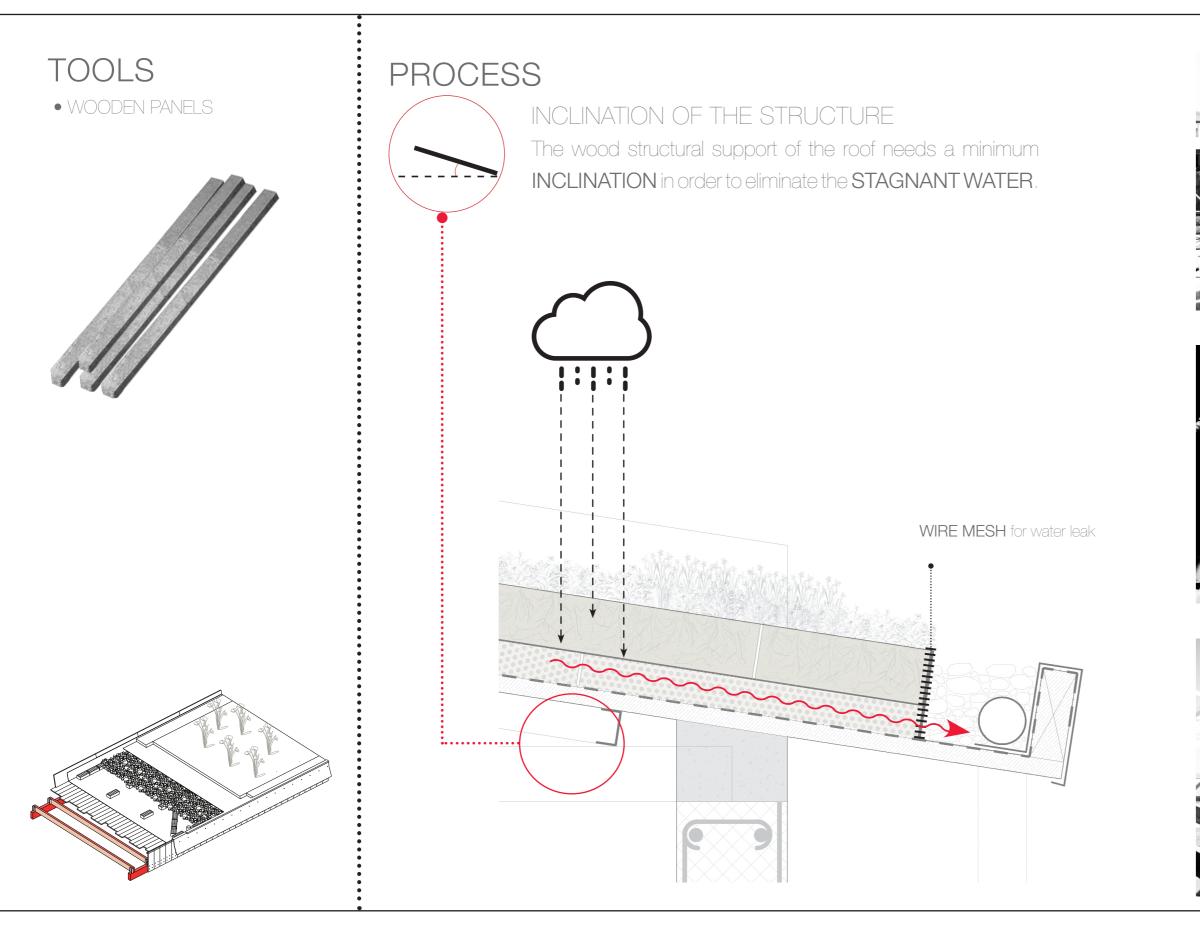


TOOLS STEP 0



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CREATION OF THE STRUCTURE STEP 1



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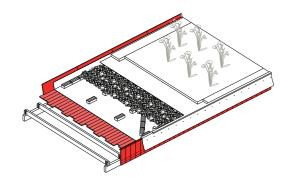
CREATION OF THE WOODEN BASE STEP 2

TOOLSWOODEN PANELS



PROCESS

WOODEN BASE 15/20 cm high used to level the roof and to contain the differents layers that will be posed over it.



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WATERPROOF MEMBRANE STEP 3

TOOLS

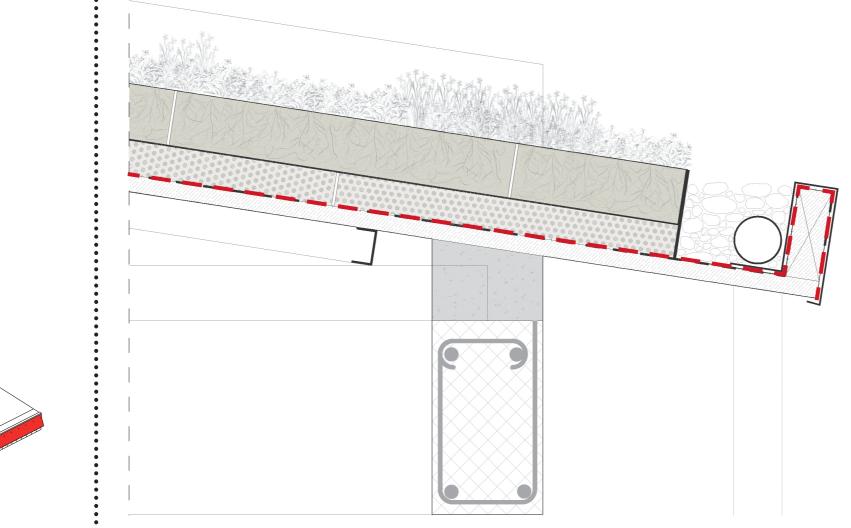
• WATERPROOF MEMBRANE

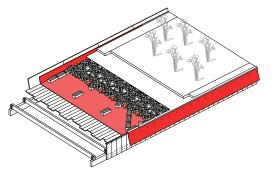


PROCESS

WATERPROOF MEMBRANE

used to protect the wooden base from the water, in order to have a more durable structure





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PLASTIC CAPS AS DRAINING LAYER STEP 4

TOOLS

- BRICKS
- PLASTIC CAPS RECYCLED

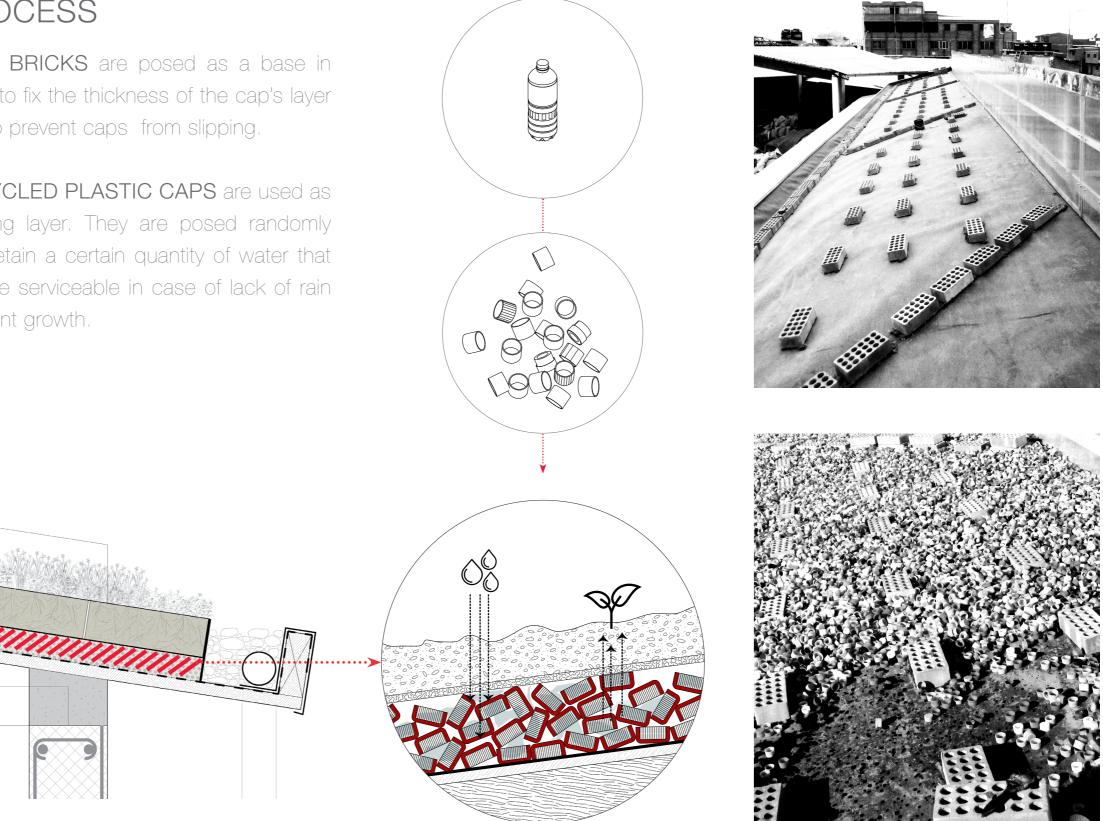


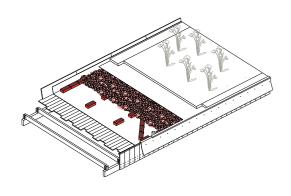


PROCESS

Some BRICKS are posed as a base in order to fix the thickness of the cap's layer and to prevent caps from slipping.

RECYCLED PLASTIC CAPS are used as draining layer. They are posed randomly and retain a certain quantity of water that can be serviceable in case of lack of rain for plant growth.





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NON-WOVEN FABRIC STEP 5

TOOLS • NON-WOVEN FABRIC

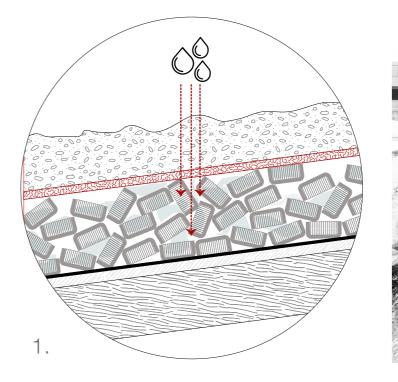


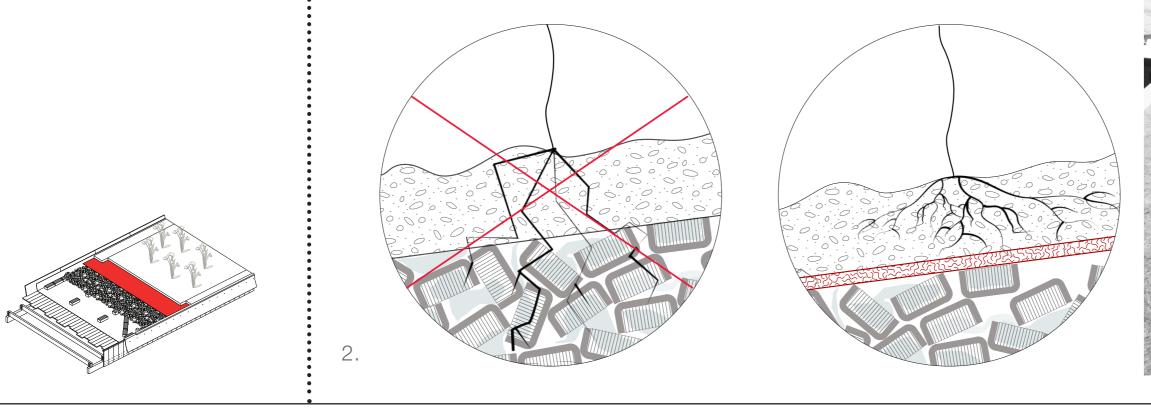
PROCESS

A NON-WOVEN FABRIC is posed to separate the caps from the earth above. It has two properties:

1. it FILTERS the rain water to reach the cap's layer;

2. is an ANTI-WAR barrier.







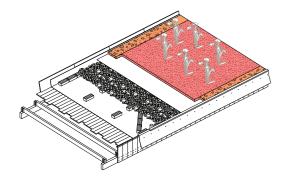
TOOLS

- PLANTS
- GROWING MEDIUM
- STONES









PROCESS

1. STONES AND EARTH

Put first a strip of STONES on the higher and lower part of the inclined roof. This area will serve to collect the water in excess that will be reused. The EARTH will fill the rest of the roof homogeneously.



2. PLANTATION : Features of the EXTENSIVE GARDEN:

- Native plants;
- Plants resistant to dryness (less water needed for irrigation);
- Plants with shallow roots;
- Dense plants for a better thermal insulation.



PLANTATION STEP 6





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THE END

