POLITECNICO DI TORINO SECOND SCHOOL OF ARCHITECTURE Master of Science in Architecture (Environment and Land) *Honors theses*

A echo-compatible shelter in the Natural Park of the Alpi Marittime Vernasca shelter project

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The topic developed in the Thesis constitutes the attempt to demostrate that new technologies in architecture can be applied in a simple way, respecting the principles of the sustainability. This new way of approaching architecture, in our opinion, will become the architectural language of the XXI century, because can improve living conditions of people, without weighing too much on the environment.



Environment refuge render

The project regards the renovation of the refuge Vernasca, old military barrak situated in the Natural Park of the "Alpi Marittime", at 2536 metres above the sea level.

The Park of the "Alpi Marittime" is situated in the western alpine arc, in the southern part of Piedmont, Italy.

The project has been thought on the real needs of the Park to build in this alpin area, a place for mountain excursionist.

The first thing was to define a build strategy that doesn't use montar, witch can let to realize most of all the elements not on the site, but to bring it in quote already assemblated, so to limit difficulty and building times.



North view of the building

For this reason, all the building has been thought in a simple and modular way. The refuge has been planned with particular attention on the materials, especially for the main structures and the covering of building. The structure, entirely realised in wood; even for the main structure (parting walls, pillars and beams) that for the interiors. The covering has been chosen in zinc-titanium, a durable and ecological material. The refuge adopts solar-technologies, like fotovoltaic and solar thermic panels, to produce electricity and hot water that can let people use this place from May to September; even though a part of the building is destinated to bivouac and it is always open.



Render of the refuge Main entrance

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