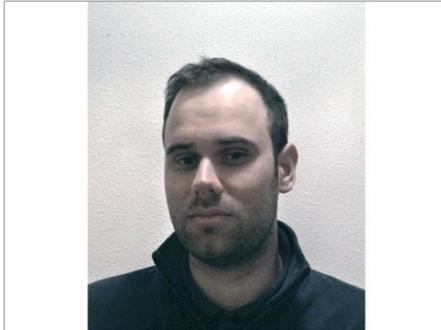


Slow Burn

Fire cistern and forest shelter, Collobrières, France



Main author

Frédéric Bouvier, architect, Renens, Switzerland

Project data

Project group: Architecture, building and civil engineering
Project background: Research project

Summary and appraisal of the project by the jury

Entitled "firebreak", the project proposes a structure that can be put to use when combatting forest fires in the region of Collobrières. Part water tank to extinguish fires and part shelter for hikers, the structure is additionally conceived as a monument to the Algerian volunteers who supported the French army during the Algerian War and were thereafter repatriated to serve as firemen in France. More than just a small intervention, the structure has a territorial dimension insofar as it is imbedded in an elaborate water collection system of ditches that mark the landscape.

Though highly impressed by the young architect's ability to translate a complex set of ideas into a pristine architectural artifact, the jury argued that the project would gain credibility if considered part of a broader "firebreak" infrastructure along anticipated firefighting lines – rather than being treated as a singular and exceptional object. This said, the jury more than appreciated the structure's construction and its representation by means of beautiful drawings. Something as mundane as a tank is here transformed into a poetic artifact in a natural setting, a "machine à émouvoir" that touches the senses, while performing an indispensable function – a "techno-aesthetic" object, so to speak.

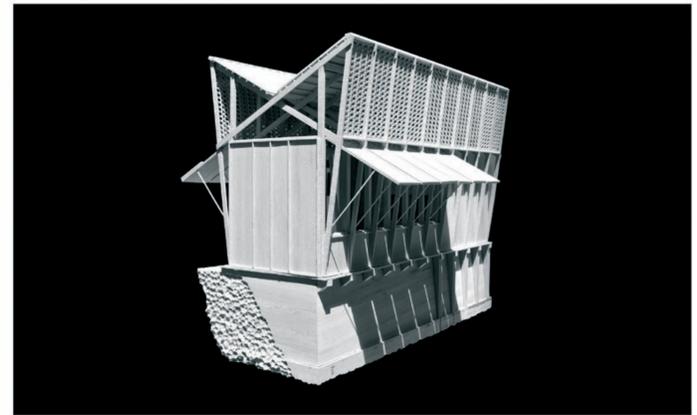


Image 1: Model – Firemen Cistern and Forest Shelter – scale 1:20 (abachi wood). The construction is composed of a concrete firemen cistern casted directly on the rock that will rest in case of fire and a regular wooden structure that is likely to burn. Corbels, placed every meter, get back the verticality of the wall. They support each post of the forest shelter's wooden structure. At the north-east end, the corbels get longer and also become the spillway for the cistern's excess of water.

Statements on the sustainability of the project by the author

Rain water, a common link between a firemen cistern and a test garden to fight fire

The project proposes the construction and the supply of water of a cistern for firemen of 40m³ working by harvesting the upstream water flow of the site thanks to "barradine system" (a kind of ditch constructed on the mountainside in a specific manner in order to collect the rainwater), and on the downstream section of the site by a streams spillway. 10% of the annual rainwater (1344mL in 2014) should be drained in the tanks, which would be full in one semester. During the rest of the year, the collected water would be accumulated in the intermediary tanks, and then distributed on several mountainside terraces where different varieties would be tested. A forest shelter put on the cistern will welcome the hikers of the GR90 that goes from Lavandou to Notre-Dame-des-Anges.

A secular construction that brings us beyond the ordinary

This project creates a place that offers a possible silent mediation and a commemoration for these back-up soldiers who served France, but received until now a little part of the deserved recognition. The big gap between a purely functional building and a place for commemoration is done in a playful manner with a delicate wood construction. A sequence of simple pieces transmits, in a narrow space, spatial perceptions, which gives the soul the freedom of thought

and answers almost fortuitously to the necessary technical requirements with simple planner means. The Harkis' memory is indirectly put in place with an intervention that mixes integration to the landscape, spatio-temporal perception, and constructive formulation.

Create a fertile ground for an eroded firebreak

The ground of the intervention site is a ranker: a type of thin ground with a siliceous underground. The little amount of humus and mulch rests directly on the bedrock. The erosion of the firebreaks ground, void of any plants with deep roots, is blocked by the construction of restanques (a retaining wall made of dry stones). A complete fertile ground is recreated with first, reactive mineral substances, which would come from sediments and any other thin dirt accumulated in the decantation tanks of the cistern or deposited on the terraces during the summer irrigation, and then humic substances that will come from the weeding and the pruning of the mountain's firetrails. Mineral and organic substances will intermingle to create the clay-humic complex: the basis of the ground's fertility.



Image 2: Territorial Model – scale 1:500 (cork 1mm). Thanks to "barradine" system (a kind of ditch constructed on the mountainside in a specific manner in order to collect the rainwater) working by harvesting the upstream water flow of the site, the firemen cistern is full in one semester. During the rest of the year, the collected water would be accumulated in the intermediary tanks, and then distributed on several mountainside terraces where different varieties would be tested.

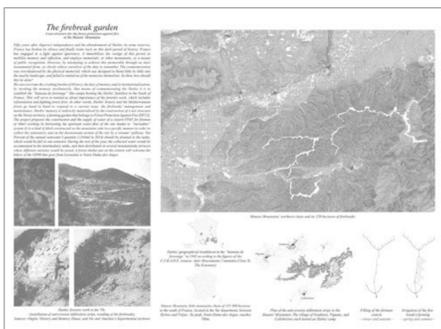


Image 3: Maures Mountains' firebreak and Harkis' history.

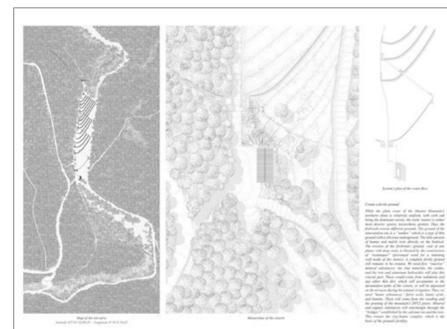


Image 4: Site plan of the intervention.

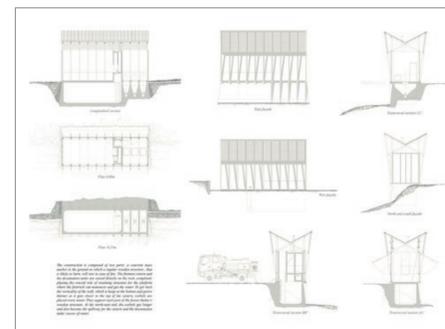


Image 5: Technical drawings of the firemen cistern, plans, sections and elevations.

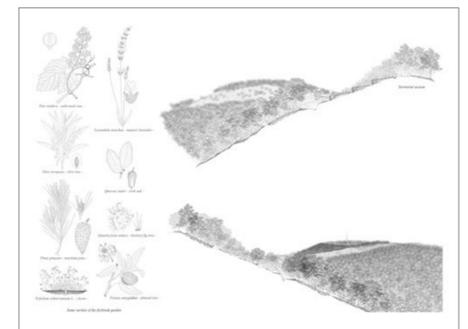


Image 6: Sample of plants of the test garden and territorial sections.



Image 7: Model, scale 1:20, east facade.

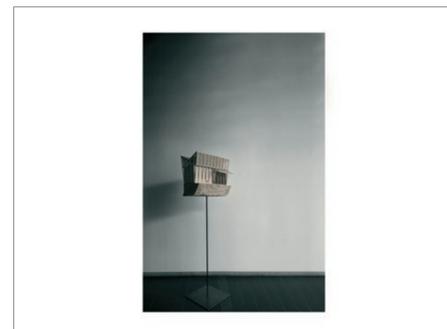


Image 8: Model, scale 1:20, west facade.

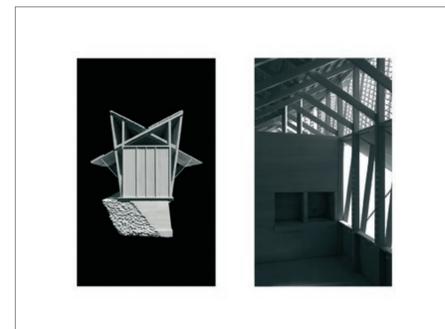


Image 9: Model, scale 1:20, south facade and interior view.

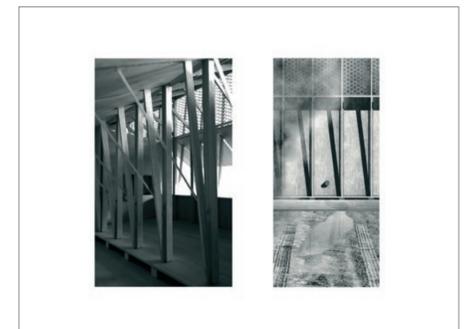


Image 10: Model, scale 1:20, interior view and illustration.