Category: Recovery of listed building in mountain environment
Case Study: Restructuring forestry barracks for tourism

Project cofinanced by
European Regional Development Fund

Lead Partner
Provincia di savona

Sustainable Construction in Rural and Fragile Areas for Energy efficiency

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Hut hiking former barracks forest Mount Penna

Context

The operation concerns the renovation of a barracks situated in the Forest Park Nature Aveto Valley, in the area of Monte Penna, bordering Emilia-Romagna.
The natural environment is characterized by the presence of mountain ranges (M. Penna m. 1735) lakes and forests of beech and conifers. The climate in winter is cold, with substantial snowfalls. The Aveto is equipped for hiking, cycling and winter sports. The park implementing for years a policy aiming at preserving the productive use of the forest, through a variety of actions (proj.RobinWood, cultivation of forests, sawmills and carpentry workshops, training employees, etc..)

Desciption

The expansion project of restructuring is the creation of a tourist accommodation.
The area is not achieved by networks of supply of electricity and gas, so the action becomes independent of the building from the point of view through the implementation of energy - a solar system - a biomass boiler (using the trees of the forest sector activated from the park itself).
The needs have been minimized insulated the building (walls, roof) panels with wood fiber, and using low-emissivity glass.
The expansion is made of wood and green materials and includes a small solar greenhouse.

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the expansion of wood has a solar greenhouse on the first floor

before

after

Plants on the roof:
stand-alone photovoltaic - 36 modules of 220 wp Tot 8kW
solar thermal panels for hot water - 6 panels
Plants in the smaller building:
wood boiler for space heating and domestic hot water production

Evaluation

The redevelopment of the building reduces energy needs and it allows the total satisfaction through the use of renewable sources.
This makes sustainable energy independence the accommodation also in terms of operating costs.
The architectural choices interpret the mountain environment.
The materials used are local, is part of the production chain that promotes the creation of virtuous circles, for a microconomy green.

Potential for trasferibility

General Criteria:
- Reduction of needs (building insulation, low emissivity glasses, efficient plants)
- Development of renewable energy installations that make the building totally isolated from the self-distribution networks
- use of local materials and certified (FSC certified wood for local production)

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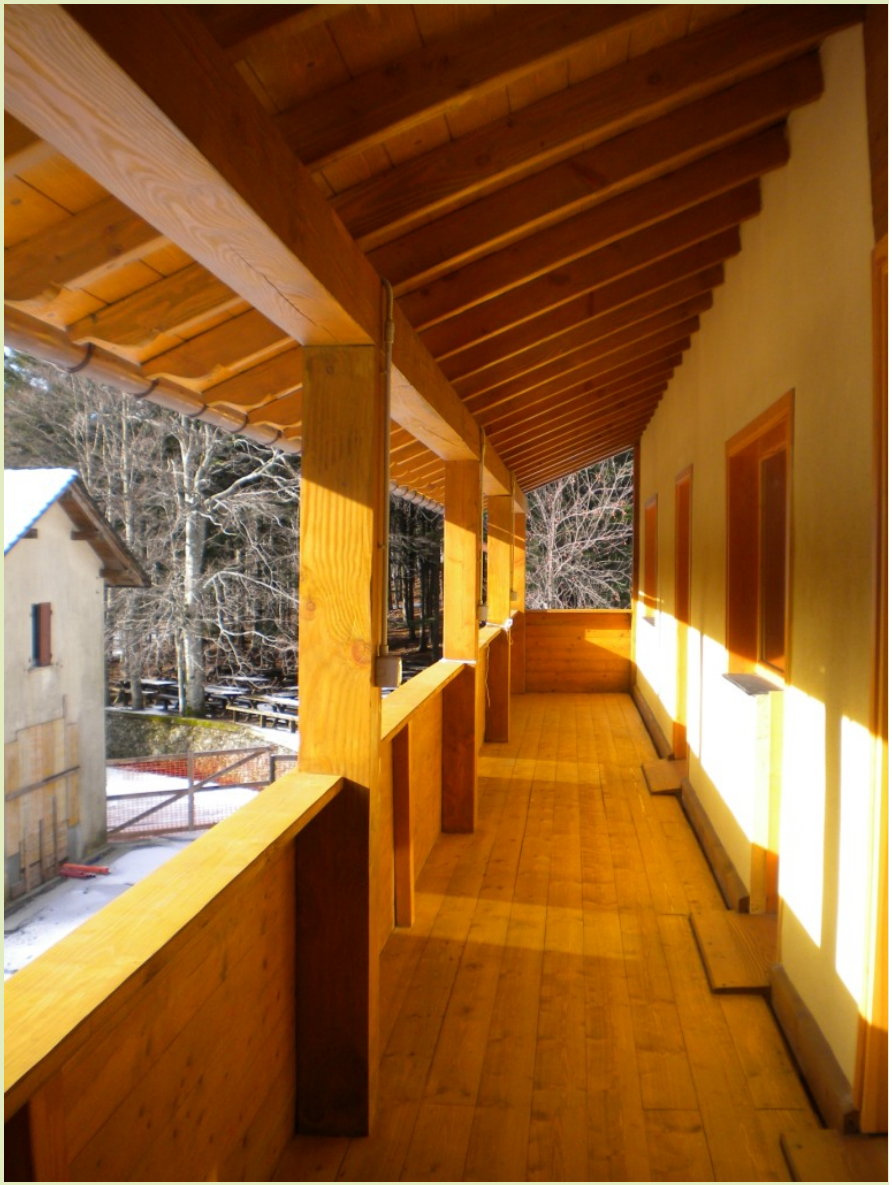
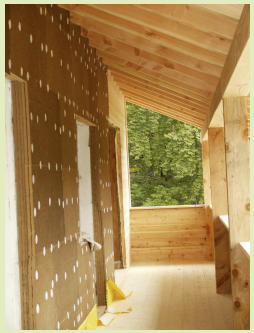


The Aveto Park promotes the productive use of the forest, with the cultivation of FSC certified wood for construction (Douglas)



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SCORE

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