



Casino Cappuccilli



Operazione co-finanziata dall'Unione Europea, Fondo Europeo di Sviluppo Regionale, dallo Stato Italiano, dalla Confederazione elvetica e dai Cantoni nell'ambito del Programma di Cooperazione Interreg V-A Italia-Svizzera. (Codice progetto 603882)

Introduzione

province of Campobasso, the Casino Cappuccilli is one of the most important expressions of rural Molise architecture. The original building dates back to the 18th century, with an extension from between the end of the 19th century and the beginning of the 20th century, a period which saw the creation of the neoclassical facade that currently characterises the building's architecture. Casino Cappuccilli is comprised of a habitation and garden and is thus of extraordinary value as an authentic expression of local culture. There is a wooden photovoltaic canopy erected in the garden.

Sources: Arch. Patrizia Trivisonno

Approccio progettuale

Casino Cappuccilli has undergone conservative restoration works, the aim of which was to restore the building and the drystone garden walls to their original state. All the procedures necessary to reinforce the structure and preserve the architectural configuration of the building were carried out. The stone and roof tiles were cleaned, and the late-19th century plasterwork and door- and window-frames were restored. At the same time, the building was also updated in terms of power supply through a number of interventions that included the addition of a photovoltaic system.

Integrazione estetica

The photovoltaic modules were integrated into a section of the garden adjacent to Casino Cappuccilli, in accordance with the guidelines and good practices set out by the authorities. The installation does not dominate the historical building

Integrazione energetica

The photovoltaic system provides the energy consumed by the electrical equipment in Casino Cappuccilli. Heating for the building is provided by a biomass boiler. From an energy point of view, the modernisation of the systems also included the conversion of an existing basin for the collection and storage of water.

Integrazione tecnologica

The photovoltaic modules were integrated into a wooden canopy that is well exposed to sunlight.

Processo decisionale

Due to its past central role in the management of the Cappuccilli family's estate, the building had been originally designed to be as self-sufficient as possible. There were fireplaces and stoves inside, as well as a basin for the collection of rainwater, and drystone terracing for the cultivation of vegetables for the family. The conversion of the property saw the introduction of modern solutions, which included the installation of the photovoltaic system in line with the surrounding area and aimed at energy autonomy.

Lessons learnt

The restoration of Casino Cappuccilli was funded by the 2007-2013 Rural Development Programme, measure 3.2.3, Protection and refurbishment of rural heritage - Restoration works for prestigious historical-cultural heritage. The programme allowed for the use of technical solutions for energy saving. This clause was seen by the client and the technicians involved as an opportunity, which guided the design choices and the technical solutions applied. It should be highlighted that this process was conditioned by the environmental setting, in particular the Torrezeppa forest and, more generally, the Basso Molise landscape.

The Casino Cappuccilli project demonstrated that:

- the integration of modern technology aimed at energy saving with conservative restoration methods is possible and delivers excellent results.
- the procedures for obtaining approval and permission are in line with the standard timing of Italian bureaucracy and can therefore be considered as acceptable.
- the installation of these technological solutions can also be carried out by artisan companies, which are particularly skilled in identifying the relative requirements and offering quality services.
- the Molise area welcomes changes that combine requirements for energy savings with local traditions.
- the landscape is particularly characteristic and is suited to the addition of technology aimed at energy savings (Architect Patrizia Trivisonno).

DATI EDIFICIO

Tipologia progetto	Riqualificazione
Destinazione d'uso	Residenziale
Vincolo	Edificio vincolato
Tecnica di costruzione edificio	Preindustriale
Indirizzo edificio	Località Torrezepa, Ripabottoni (CB), Italy

Sistemi BIPV

DATI SISTEMA BIPV

Sistema architettonico	Opaque roof
Anno integrazione BIPV	2014
Active material	Monocrystalline silicon
Trasparenza modulo	Opaco
Tecnologia modulo	Strati di vetro, FV riconoscibile, moduli standard
Potenza sistema [kWp]	6
Orientamento moduli	South
Inclinazione moduli [°]	30

COSTI SISTEMA BIPV

Costo totale [€]	19300
€/kWp	3216

Stakeholders

Progettista principale

Arch. Patrizia Trivisonno

Collaboratori

Ing. Carlo Romano



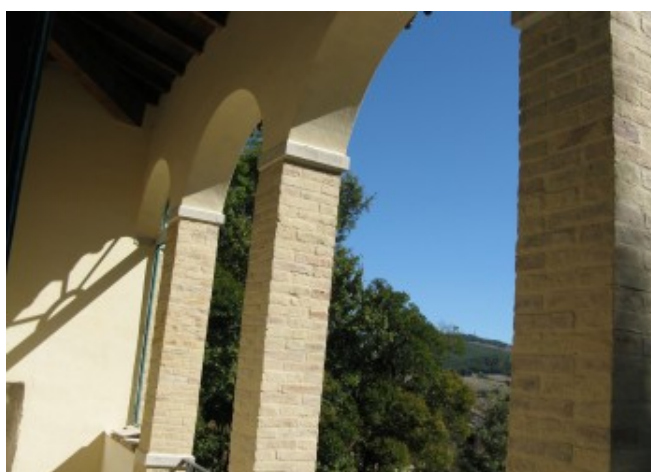
Historical villa and photovoltaic canopy © Arch. Patrizia Trivisonno



Detail of the mounting system for the photovoltaic modules © Arch. Patrizia Trivisonno



State of conservation of the south-south-east façade before the intervention © Arch. Patrizia Trivisonno



Arcade © Arch. Patrizia Trivisonno

Autore caso studio:

Eurac Research