

Restructuring the former rural building

Daniele BRANCATO, Italy

Key words: Restructuring, rural building, project, Italy.

SUMMARY

This document discusses the restructuring of a rural building located in Sicily, into a house. The rural buildings, which are typical on the Sicilian territory, are often implemented in a state of total abandonment, unused and left to deteriorate. In recent years, however, there was a tendency on the part of entrepreneurs and the citizens to purchase and renovate these buildings and turn them into private houses, hotels or B & Bs.

There will be analyzed and discussed the variety of works under which the building has been submitted, and moreover there will be pointed out that the same improvement was achieved through the replacement of materials and the internal modification of the building without damaging the original structure.

Therefore, this document emphasizes the opportunity to work on buildings which are a precious heritage for the Sicilian territory, without changing the priceless aesthetic value and increasing the economic value and usability.

(IT) Questo paper tratta la ristrutturazione di un fabbricato rurale in Sicilia per adibirlo a civile abitazione. I fabbricati rurali, costruzioni tipiche del territorio Siciliano, si trovano in atto spesso in stato di totale abbandono, inutilizzati e lasciati a deteriorarsi. Negli ultimi anni c'è stata la tendenza da parte d'imprenditori e di cittadini, di comprare e rinnovare questi fabbricati e adibirli o a civile abitazione o a hotel o B&B.

Verranno analizzati e discussi i differenti interventi cui il fabbricato in esame è stato sottoposto e verrà messo in evidenza il miglioramento che lo stesso ha ottenuto grazie alla sostituzione di materiali e alla modificazione interna dello stabile senza intaccarne l'originaria struttura.

Tale paper sottolinea, dunque, la possibilità di intervenire su edifici che rappresentano un patrimonio preziosissimo per il territorio siciliano senza mutarne l'inestimabile valore estetico ed incrementandone il valore economico e la fruibilità.

Restructuring the former rural building

Daniele BRANCATO, Italy

1. INTRODUCTIONS

Most of the former rural buildings in the Province of Ragusa were built at the end of 1800; the year of construction is in fact present in many buildings entrance architraves. They often have a good internal and external structure that consists of hard limestone rock typical of the area, and in most cases, the stonework is in a good preservation state. The walls are about 50 cm thick and the wooden roofs are covered with typical light colored Sicilian clay tiles, which have high thermal isolation. This last element is the most damaged due to abandonment of the buildings and due to atmospheric agents' action. In these buildings are almost always present an oven room, stables and one or more residential rooms. The size of the building was an indication of the wealth of the family and the same house could be occupied simultaneously by several families. Today many of these buildings are in a state of total abandonment, unused and left to deteriorate. The owners are often deceased and no one cultivates the surrounding land, while others are still being used for conducting business or farm dwellings. In many cases the buildings are located away from population centers by 15-20 km, far from basic services and also the roads to reach the above mentioned properties, in some cases, are not entirely favorable. In recent years, however, there was a tendency on the part of entrepreneurs and citizens to purchase and renovate these buildings and turn them into private houses, hotels or B & Bs, but always maintaining unchanged the features of the buildings.

2. THE FEATURES OF OUR PROPERTY

The project presents the renovation of a building stated as a former rural-residential in order to transform it into a house. The renovation primary objective was to maintain the existing structure, keeping in view the stone walls for only a few rooms like the kitchen, living room and some bedroom walls, reusing the existing tiles that were still in good condition and rebuilding and keeping in view the roof wooden beams.

The building was built in 1928 had an excellent external e internal structure, a roof in decent conditions with just slight signs of wearing effects of the weather, while the interior flooring and interstory were worn and deformed, the internal floor consisted of hard limestone rocks, although aging, was in a good state of preservation, however unfit for reuse.

The building was originally divided into three parts, two houses and a local bakery. From the size of the building it is assumed that it was inhabited by several families. It presents construction details typical of the area like the stone staircase and pitch black brick paving of the upper chamber.

3. THE PROJECT

3.1 Object of the project:

The goal of our project, takes into consideration the requests of the owner, which were to repair the building with the purpose of residential usage, and to organize the layout of the rooms and bathrooms on the upper deck in a manner that ensures the owner the opportunity to transform the building in the future into a B&B. A key factor was to maintain the characteristics of the building trying to reuse, where possible, the original items found on the site, or replaces them with more efficient materials that still maintain similar characteristics to the existing ones.

3.2 Work:

During the early stages of restoration the presence of a 50 cm deep and 30 cm. wide cavity wall was noticed at the base of our building, on the outer side of the perimeter walls, excluding the main one. In the past, this element was used to isolate the building from rising damp from the ground, but due to the abandonment of the building, it was entirely covered with soil and leaves. The decision by mutual agreement with the owner was to clean up the cavity wall to allow again the isolation of the building from moisture that would rise from the soil. The work began with the demolition and tearing up the inside flooring, the external facades renovation and cleaning, the construction of new external doors, usage of stones similar to those already existing in the building and the interstory renovation consisting in a single reinforced concrete block used for different rooms. In order to build this element, a connection between the new floor and the existing structure was provided, avoiding to completely demolish the original frame by eliminating some stones from the perimeter walls and from the main central wall, allowing the creation of a single frame for the new concrete structure.

It is planned, moreover, to redesign the internal staircase to access the upper floor, maintaining the uniqueness of a typical stone staircase, but much more convenient and accessible, and trace the electrical circuit and sewerage pipelines. The construction of power lines and sewage, has been one of the most difficult elements of the project, because it had to provide for the insertion of the pipes in a way not to affect or alter the building. Another difficulty encountered was inherent in the former local bakery. In fact as a result of its use in the past, it was in a bad state, its walls were impregnated with smoke (arising from the oven) and they were black. So the decision, in agreement with the owner was to plaster the walls of this room.

The roof coverage has been maintained with the already existing Sicilian clay tiles, while on the wooden structure, was completely replaced always keeping the previous characteristic, that is a visible wooden roof beams and new openings in the ceiling have been developed. Important element that was taken into consideration was to provide a well-insulated cover; therefore 8 cm panels were inserted between the roofing tiles and the wooden elements to ensure adequate roof insulation and also the preservation of

wooden elements. At the end of the restructuring process, the building was divided into ground floor living area composed by a kitchen, bathroom, living-dining room, utility room and two bedrooms, while the upper level consists of four bedrooms with bathrooms. In all rooms were used typical, ceramic bricks, similar to those already existing.. The result obtained was satisfactory, during processing there were no problems derived from the structure's failure. The total of the renovation work summed up approximately to 250,000 euros.

REFERENCES

BIOGRAPHICAL NOTES

Geom. Daniele Brancato is a young Italian Surveyor. He's a freelance surveyor, He participated in the Working Week of Marrachesch May 2011. He participated at the III° International Training Course Of Topography for Young Surveyor, Athens 3-14/10/2011
Member in the Provincial College of Surveyors of Ragusa and Consiglio Nazionale Geometri (National Council of Surveyors – Italy)

CONTACTS

Geom. Daniele Brancato
Consiglio Nazionale Geometri
Via Augusto Murri 12
Ragusa (Rg)
Italy
Tel. +39 329/0805477
email: daniele.brancato@inwind.it
daniele.brancato@geopec.it