



Restoration of the feudal castle of Ventimiglia family in Castelbuono (Pa)

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Abstract

This paper concerns the restoration of the castle of Ventimiglia family in Castelbuono; the initial part, come from the medieval period (XIVth century), underwent considerable transformations in the XVth century by Giovanni Ventimiglia, Count of Geraci. He transformed the old castle, which is primarily defensive, in their own home and restored the chapel dedicated to S. Anna, then reconfigured in 1683. Since the XIXth century the castle had a progressive deterioration and in 1920 it was purchased by the Municipality of Castelbuono. The postwar years were characterized of a further deterioration of the castle; it was remedied with partial actions since 1978. These interventions have been coordinated by the State Department for environment and historical buildings and by the architect Rodolfo Santoro.

A significant intervention involved the consolidation of the foundations through the creation of micro poles and execution of archaeological excavations. Then, using a research agreement with the University of Palermo, the surveys, structural and geotechnical investigations were completed. In 1994 the opportunity of draw up a plan gave it a designation for exhibitions and conferences.

The works of monumental restoration, aimed mainly at the *Palatium*, concerned:

- The static restoration through the consolidation of the foundations, the walls, floors and roofs;
- The architectural restoration;
- The reuse of the complex with the outfitting of the interiors.

Keywords: architectural restoration, architectural history, construction techniques.

1. The castle over the centuries

The castle of Castelbuono enjoys an elevated position on top of the hill called San Pietro, at the foot of which lies the town. On the basis of archival sources its foundation, by count Francesco I Ventimiglia, dates back to 1317, as demonstrated by a document with which the bishop of Patti grants in exchange for the count the hill of San Pietro belonging to the Church in exchange for a certain area of land in the territory of Castelbuono [1].

Its construction, according to tradition, was linked to the desire of the noble Ventimiglia's family to adopt a feudal residence alternative than that of the highest and cold Geraci, capital of the feudal state [2]. More recent studies [3], however, have reduced the residential role of the castle, also in view of the existence of other dwellings owned by the Ventimiglia's (as the *Domus Magna* of Cefalù), rather than tying the construction of the building to the role of homeland defense. The castle, in fact, due to its strategic location, not only was a safe protection and a refuge for the population of the neighboring houses, but closed the access road to the Madonie.

Between 1454 and 1456 Giovanni Ventimiglia did perform works likely to make the castle more comfortable and suitable for residential functions and in the same year moved from the chapel of the castle of Geraci, where he had previously kept, the skull of St. Anna, that become subsequently the patron of Castelbuono. Probably this date can be traced back the first reconfiguration of the chapel, presumably dating from the early XIVth century.

In the XVIIth century further processes were performed, which gave the castle its final form. In particular, in 1683, Francesco Rodrigo Ventimiglia did reconfigure the old chapel which at that time was fully covered with a magnificent decoration in *stucco*, by brothers Giuseppe and Giacomo Serpotta. At the same time can be traced restructuring of many interiors and the realization of the internal staircase to the court, to replace the old medieval scale, traces of which can be detected in the presence of two pointed arch doorways currently bricked, and which thresholds do not coincide with the landings of the staircase. Were opened large balconies on the northern elevation of the building and was made the painted wooden ceiling that covers the main hall of the castle. Finally, in the inner court was built a theater later transformed.

The castle remained in use throughout the 1700s and early 1800s, receiving some damages from the earthquakes of 1818, 1819 and 1823, which caused the collapse of some of the battlements and roofs, initiating the process of degradation of the product.

The northern slope of the hill on which the castle stands has been subject to landslides which resulted in years of instability phenomena, together with the seismic events. In particular, the earthquakes of 1693 (Val di Noto), 1818, 1819, 1823 (with an epicenter between Cefalù and Pollina) produced many damages.

Purchased in 1920 by the town of Castelbuono was subject to a first restoration and was allocated a school inside the castle. In the 70's were made partial actions: the town restored the "great room" and the tower of the south-east, while the Superintendent of Monuments intervened in the roofs and in the chapel of St. Anna.

A global project for the restoration of the castle was drafted in 1980 by the architect Rodolfo Santoro, whose works were concerned essentially the realization of some archaeological essays and restoration of the static foundations through the injection of micropoles depth of 15 m along the north and west sides. In fact, the castle had a large crack pattern that affected most of the exterior and interior walls. The wall of the west elevation was characterized by a high spin that had required the construction of buttresses. The vaults had diffuse small lesions and the wooden decks were characterized by significant depressions. Having to complete the interventions of consolidation was drafted a comprehensive restoration in 1994, extended to these structures, drawn up by the aforementioned architect Santoro.

During the course of the works, carried out between 1996 and 1999, it was necessary to prepare a variation to the original project. In particular, in April 1996, during the leveling of the cordoned ramp to the allocation of the premises intended for technical installations, were found some human skeletons and architectural wrecks, causing the suspension of works, waiting to develop a special expertise to start their continuation. In May of the same year, during the tests for the assessment of the plans of laying the foundations of the cellar floors called "formaggiere", came to light the great defensive archers. Following this discovery the State Department for environment and historical buildings annulled the creation of local technical services under the cordoned ramp and prescribed the execution of essays with stratigraphically at the premises called "formaggiere". At that point, it required the drafting of a new project that would address the above issues, that was approved in 1997.

2. The architectural configuration

The monumental complex consist in the *Palatium* (that represent the castle) and the surrounding area defined by the wall circuit around that.

The layout of the castle consists of a quadrangular body with five square corner towers, four of which are square and the fifth cylinder combined with the square tower of the north-east. The building is spread over three floors above ground and a basement. Inside the castle there is a small open-air courtyard with a staircase connecting the floors.

The construction is characterized by massive limestone walls on the ground floor with thicknesses between 1,5 and 2 m. The load-bearing walls are made of quarzarenitic stone having different sizes and different degrees of squaring bound with lime mortar. In some parts of the castle, the stonework is made of large blocks of stone arranged in parallel horizontal rows, while in others it is characterized by grossly blank and shapeless stone and has many fragments of stone and brick in the interstices. The roofs of the rooms of the ground floor are made of real barrel vaults and cross vaults, made of stone and lime mortar, while the first floor is covered mostly by wood floors, with the exception of a few areas where remain vaults. The roofs are made of trusses and wooden beams.

Originally the castle consisted of a series of squares, and accessory units, enclosed by walls, which the Arch of St. Anna opened towards the city, which was the main entrance to the castle.



Fig. 1: South side of the castle.

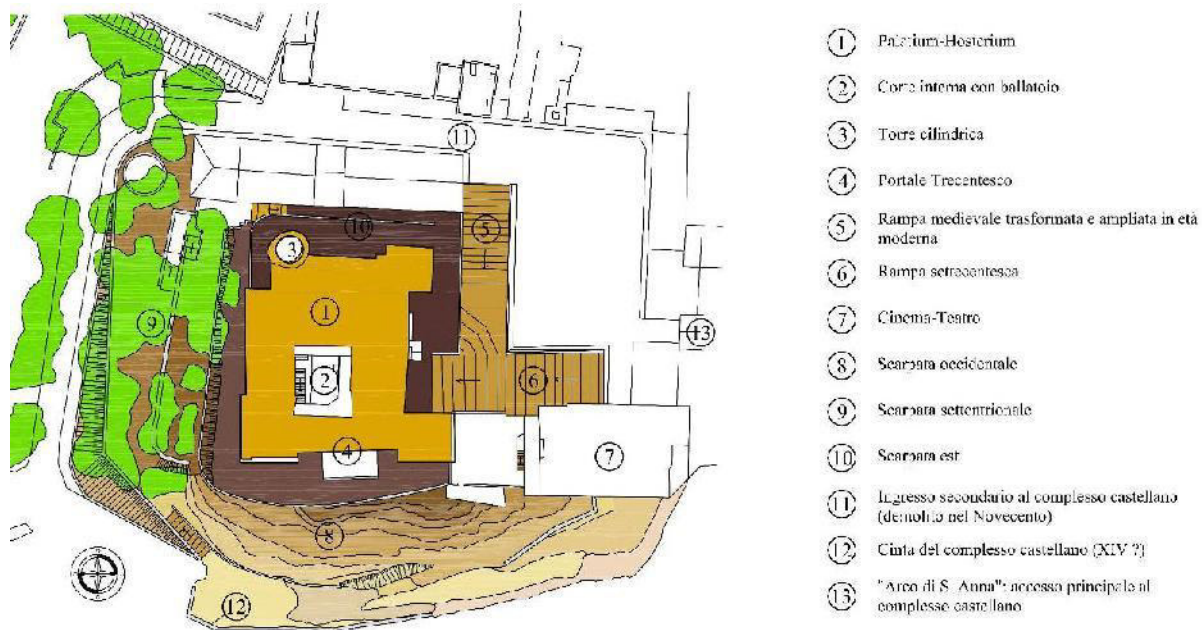


Fig. 2: Planimetry of the castle from the original project.

2.1 The great scarp accommodation

This is basically an extended sloping scarp on earth and rubble covering the artificial "Motta". This in ballast stones of varying size mixed with earth and well tamped has an extraordinary importance both for the era in which it is supposed was made, both for its presumed functions (static and defensive) and for its uniqueness in the almost feudal castles in Sicily. The hypothesis on the dating system of the great scarp should be assumed to date back to the late XIIIth century. The scarp should be dated to a period that could coincide with the confiscation directed this feudal territory (1269-1282) because only the royal "protomasters" knew and applied the scarp as other defensive devices introduced after the trip to Sicily of Federico II in the Holy Land (1230).

2.2 External sides

Currently there is a considerable stretch of the outer curtain wall stationed at the foot of the West great scarp, but it is lined on the outside by a wall built behind in the '60s. The throw light on this part of the wall was crucial for defining the outer perimeter of the castle and also for the dating of the curtain wall itself estimated by the early XIVth century.

Until about thirty years ago, on the western side, was still visible a large portion of the upper surface of the medieval scarp, later covered by natural vegetation. It was a wall of blocks of stones in various sizes linked by residues of lime mortar covered at the top by a gray gradient that defined a smooth

surface with constant incline. Before the restoring works the soil and vegetation had covered everything. Weeding and the cut have returned the physical evidence of the old scarp.

Then was expected an excavation to 2 m depth where was accumulated by gravity the greatest amount of land also carried by the wind over the centuries. Quantity that weighs statically on old wall, especially when it soaks water due to the rains.

The accommodation on the northern scarp of a "public garden", made a few decades ago, was a solution that unfortunately was planted on a medieval defensive item valuable from the point of view of history, then completely unknown to the medievalist culture. Walls, stairways, masonry benches were constructed and trees were planted. The latter, of no value, grew up in the decades after finishing to create a thick curtain of branches and foliage that completely hides from view the prospectus north of the building of the castle, the statement that it is the least known.

The eastern side (especially at the corner of SE) is presumably the point of arrival of the oldest access ramp, the one linked to the first implant of the castle dating from the late XIIIth and early XIVth century. The previous medieval configuration, however, was partially devastated by the earth and the masonry of the following centuries.

On the southern side there is the most important entrance of the castle. Assuming that the current curbs ramps are works from the XVth to the XVIIIth0 century, these have shattered the previous medieval arrangement referred to a planivolumetric trend of the palatial building that is completely different from the current one.

3. The restoration of the castle

The interventions carried out between 1996 and 1998, were made on the basis of the draft prepared in 1994 by the architect Santoro, who was also director of the works [4].

They were mainly in reference to the so-called *Palatium* and consisted of:

- the static restoration of the building through the consolidation of the foundations, walls, vaults, floors and roofs;
- the architectural restoration (cornices, pilasters, balustrades, exposed brickwork, plastering, fixtures, etc.) that aims to restore figurative dignity to the building;
- the reuse of the complex through the layout of the building interiors for effective allocation of the new functions.

The restorations of the artistic decorations (plasters, carved wood and painted murals) were instead carried out between 1998 and 1999.

The actions planned, thanks to a research agreement signed with the University of Palermo, were preceded by a campaign of surveys and investigations carried out by the consultants that were part of the Department of Representation, the Department of Structural and Geotechnical Engineering and the Department of Project and Building Construction, as well as the Institute of Archaeology, which made the archaeological excavations.

Surveys "in situ" and laboratory tests were carried out in order to evaluate the chemical and mechanical characteristics of the building and of the foundation soils, as well as endoscopic and thermographic investigations.

These interventions have been inspired by conservation, reversibility and compatibility policies in compliance with the applicable technical standards [5].

3.1 The static restoration

Structural interventions carried out on the castle were inspired by reversibility policies and guaranteeing the minimal alteration of the original static behavior.

The static restoration of the building has involved the consolidation of the walls in elevation, of the vaults, of the wooden floors and roofs.

The walls in elevation have been consolidated by injecting lime mortar in order to fill all the voids that existed within the wall structure. As regards the toothings, were performed crossed perforations with hot galvanized steel bars with improved adherence. To achieve a greater constraint between the walls, and in particular to stabilize the northern outer facing, were arranged tie rods consist of both bars with threaded ends, both strands in harmonic steel sheathed in graphite grease.

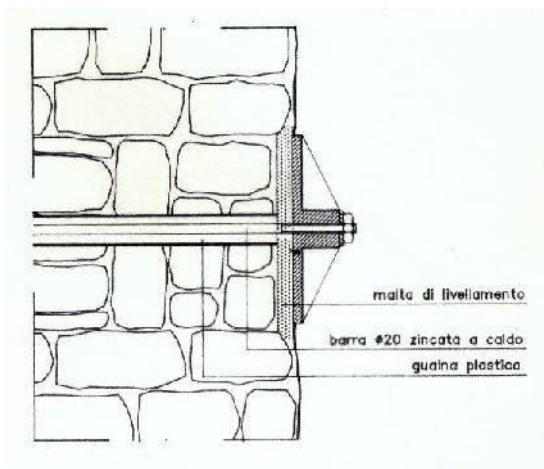


Fig. 3: Detail of tie bars.

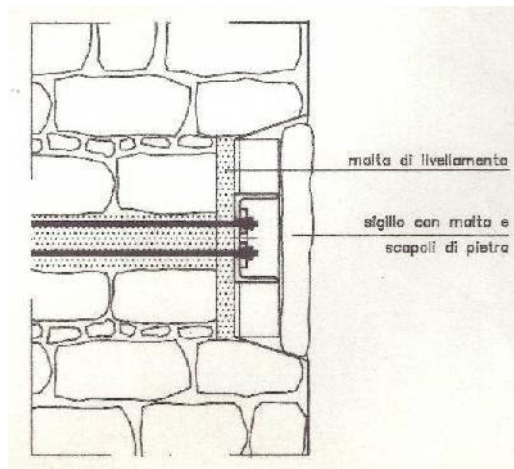


Fig. 4: Detail of harmonic steel rods.

For the damaged vaults was performed the disposal of the upper pavement and emptying of the material until the structural extrados of the vault; later was provided for the sealing of the lesions, the insertion of the connectors and to the jet of a thin backvault thick 5 cm in concrete with non-shrink additive, reinforced with mesh. Finally the whole thing was filled with a lightweight inert material (expanded clay), reconstituting the screed and the floor.



Fig. 5-6: Interventions on the vaults.

In two specific cases, the advanced state of instability of the vaults involved the disposal and subsequent reassembly:

- the cross vault that covered the vestry, for which it was decided, by mounting a special bending wood, the disassembly of the upper part, the numbering of all segments shaped, and the subsequent replacement;
- the cross brick vaults, that covered the landing of the middle floor, for which was carried out the reconstruction.

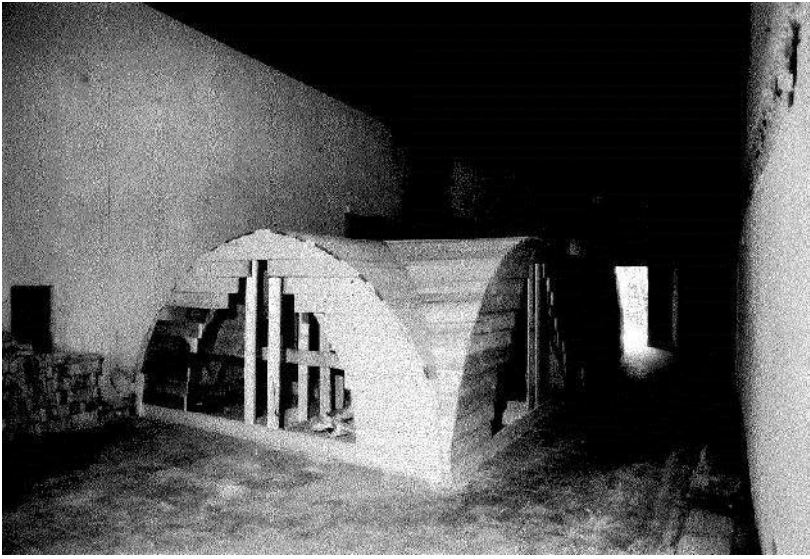


Fig. 7: Preparation of the cross vault ribs.

For wooden floors, was proceeded to the disposal of the flooring above and dismantling of the plateau and the wooden structure in load-bearing beams. Then the main beams found in good condition were relocated and it was decided to replace the deteriorated with new beams of the same size. The new plank made of boards with a thickness of 4 cm was placed, above which was made a reinforced concrete slab, after construction of a steel structure having the function of connection of the perimeter walls, together with the above slab constrained to the walls with dovetail joints, completing the work with the screed and flooring.



Fig. 8: Detail of the painted wooden ceiling.

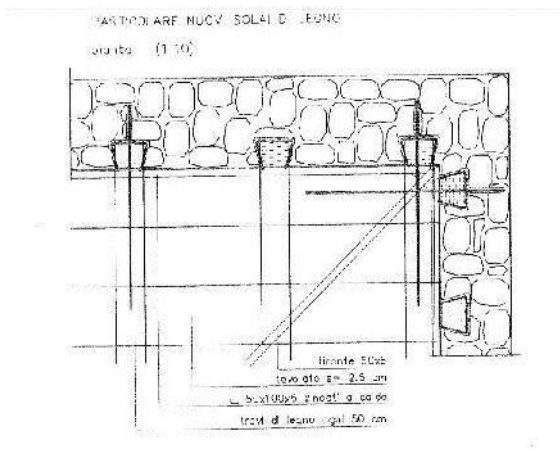


Fig. 9: Plan of the new wooden floors.

During the disposal of hedges have been avoided damages to the wooden trusses still in good condition, presenting in remaking the original typology, paying particular attention to gutters and downspouts, the first made of copper driving rainwater in to descendants in terracotta (*catusi*).

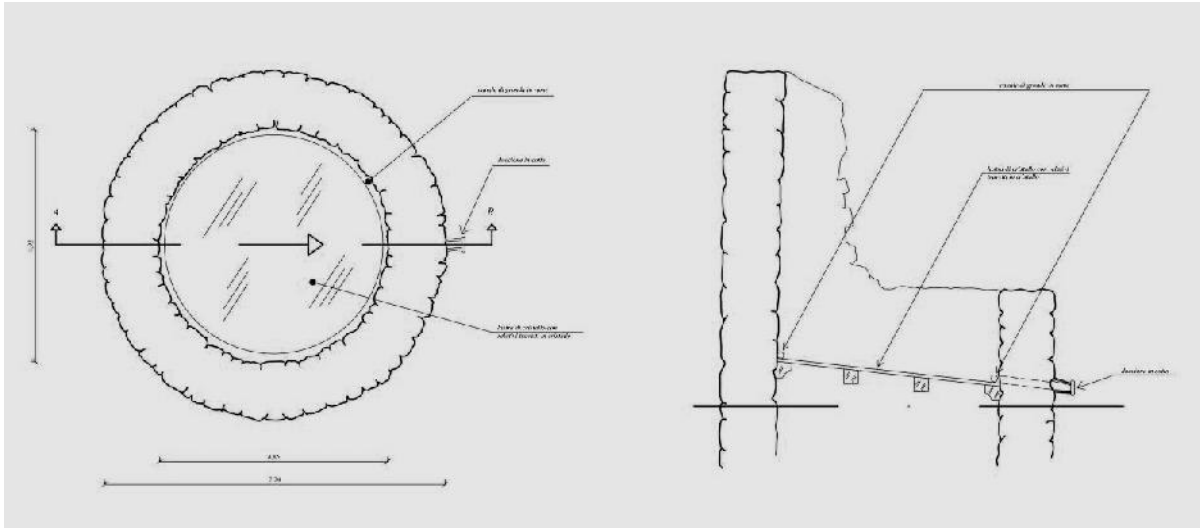


Fig. 12: The new coverage of the cylindrical tower.

3.2 The architectural restoration

The architectural restoration was conducted with the aim of respecting the historicity of the building, allowing the reading of the castle as it stands the XVIIth century, when the artifact received his final and most lasting configuration.

Was proceeded to the disposal of plaster of recent bill, which had concealed some rooms, highlighting the original wall hangings and the loopholes, buffered ports, dials arches, yet guessed thanks to the presence of the characteristic splays. The realization of the new plaster was performed proposing the types of the original ones (earthenware, tufopesto), the composition of which has been developed through specific laboratory analysis.

Were then consolidated the upper battlements of the walls drowned in the subsequent masonry highlighting with appropriate scrapes.

Another intervention involved the divestment of most of the floors, some of which are of recent construction, not congruent with the history of the building, using bricks and terracotta flagstones.

The realization of new partitions, in order to limit as much as possible the alteration of the original distribution, only involved toilets.

For the realization of some elements, such as doors and windows, railings of the balconies and the closing railings of the windows of the ground floor, as well as some works in stone (shelves balconies, cornices, pilasters, bases) has been followed the principle of stylistic restoration, through the repetition of elements executed in imitation of the original ones.

The restoration also covered operations on elements in wood, restoration of fresco paintings and restoration of stucco elements.



Fig. 13: Intervention to restore a wooden floor.

3.3 The reuse of the complex

The reuse of the complex provides for the placement inside of the museum of Castelbuono, assigning the castle to museological activities and conferences, functions that have been found to be compatible with the reconfiguration, the number and capacity of indoor spaces that characterize the castle.

The principle that has guided this intervention was the enhancement of the building, while preserving as much as possible its original configuration compatible with the new features provided.

In this sense, the intervention tried not to alter the distribution structure of the building, limiting the construction of new masonry partitions to only necessary, for example, the creation of new toilets.

The general objective that was tried to achieve was to make the castle a point of reference for the social and cultural life not only of the town of Castelbuono, but of the entire area of the Madonie, placing it at the center of a series of museum and cultural activities, and conferences. In order to the social use of the complex, moreover, was considered not only the *Palatium* itself, but also the area of the outer court, that, especially in the summer, was the place chosen for the realization of outdoor cultural events, such as plays and concerts .

Bibliographical References

[1] CANCELILA, Orazio. *Castelbuono medievale e i Ventimiglia*. Palermo: Associazione Mediterranea, 2010. Mediterranea: ricerche storiche n°12. ISBN 9788-8902-39311.

[2] SANTORO, Rodolfo, GOVERNALI, Silvio. *La contea dei Ventimiglia: il castello di Castelbuono*. Palermo: Officina di studi medievali, 1984. Il Teatro del sole n°4.

MAGNANO DI SAN LIO, Eugenio, *Castelbuono capitale dei Ventimiglia*. Catania: Maimone, 1996.

[3] CANCELILA, Orazio. *Castelbuono medievale e i Ventimiglia...*, cit.

[4] SANTORO, Rodolfo. *Progetto di restauro del castello feudale dei Ventimiglia*. Relazione tecnica, 1994.

[5] D.M. 24/01/86 *Norme tecniche relative alle costruzioni sismiche*; D.M. 09/01/87 *Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento* e D.M. 14/02/92 *Norme tecniche riguardanti le opere in c.a. e a strutture metalliche*.