



## Restoring a wine architecture in Sicily.

***A pilot site for the rediscovery and revival of historical construction techniques for the creation of a museum center of the agricultural tradition and cultural events.***

### Type of intervention

Restoration  Rehabilitation / Renovation

### Concerned elements on the intervention project

- 1. Foundations and underground structures
- 2. Vertical structures
- 3. Horizontal structures and vertical connections
- 4. Roof and terraces
- 5. Façade and building envelope
- 6. Finishes and completion elements
- 7. Integrate services
- 8. General strategies for building recovery

**Site** Royal Bourbon cellar, Partinico (PA), Italy

**Objectives** Works of restoration and conversion into museum of the historical, cultural, and agriculture traditions of the complex of the bourbon cellar. Conference rooms, cultural events, and marionette museum.

**Property** Public: Municipality of Partinico

**Designer** Procedure: Arch. Vincenza Quartuccio (Mun. Partinico)  
Designer & Director: Arch. Diana Latona,  
Arch. Filippo Terranova  
Safety Coordinator: Eng. Giuseppe Fiore  
Collaborator to CSE: Eng. Marinella Fiore  
Contractor: Consortile Borbonica s.r.l.

**Date**



## Background to the intervention

Fig.1: View of the main courtyard from the entrance gate - @ Eng. Marinella Fiore

Partinico is a small town of the Metropolitan City of Palermo. It is located about 30 Km from the city of Palermo and 71 Km from Trapani. The area of Partinico has been inhabited since prehistoric times and numerous pieces of evidence were found and displayed in the Civic Museum of the Town. Following the history of Sicily, it was ruled by the Romans, by the Arabs. From the times of the Arab domination (IX-XI century) some ancient toponyms are still preserved in the territory and the name of Partinico seems to be originated by "B.RT.NIQ", or rather the "Land which had once belonged to the Inico capital". Al Muquaddasi in his manuscript of 988 a.C., entitled "Ahan 'at Tagasim", talk about Partinico as the town that "does not lie on the sea, and produces a lot of hinna". So an ancient territory rich of history and culture. After the Middle Age, a real urbanistic development began in the second half of the XVI century, when numerous churches were built.

It was under the Borbon domination that, at the beginning of the XIX century, Partinico underwent notable changes especially in the social, political and economic fields. Moreover, the occasional residence of King Ferdinand yielded the local autonomy and the title of "city", the construction of the cellar, object of this sheet, and royal house, and the abolition of the last feudal abuses.

In the last decades, after a long time of decadence and a lot of problems with local crime, the Town council started a series of public work, building rehabilitation, and monumental restoration trying to give a new life to the town. In this context, the Bourbon cellar was restored and given back to the Community for public and cultural events.

## Description of the building

The Royal Bourbon Cellar, located in Partinico (PA), is a unique construction of this kind, built in the XIX century under Ferdinand III, King of Sicily (who became, after the restoration, Ferdinand I King of the Two Sicilies) for the production and sale of wines and oils produced from the Royal Company itself.

The project was entrusted to the famous Royal Architect Carlo Chenchi who was helped by a local architect Giuseppe Patti, while the Knight Felice Lioj, Intendant of the Real Commenda della Magione (trad. Royal Community of the Magione church), was in charge with the acquisition of the lands close to the new company. Thus, born what was called "Cellar of wine, liqueurs and oils" with the adjoining "warehouse and inn". It represented a real industry in which raw agricultural products, both grown on the Royal Farms and also from other sources, were transformed and prepared for marketing.

In 1803 the company was completed by spending a total amount of about 18,000 scudi (an old Sicilian coin). It is known that about twenty people worked there including farmers, land surveyors, skilled workers, and common workers, master coopers and others who led this company to become a reference point for agriculture throughout the whole territory.

The complex of the Bourbon Cellar, both in its architectural development and in its entrepreneurial activity, has no equal in the whole southern Italy and can be compared only to similar buildings in Holland, France and Great Britain where a deep agricultural revolution had modified the production with the help of new techniques and tools.

When finished, it is recorded that about eight thousand barrels of white wine were produced yearly. Moreover, the Company could also count on a vast production of wheat, figs, fruit and vegetables, almonds, barley, broad beans, broad beans, grapes, lentils, oats, Moorish beans, majorca wheat, hay, oil,

maize, cocuzze, sumac that they gave an income equal to that of 2,000 hectares of good land. In total, In total, the Real Estate had 227,748 plants, including 33,847 fruit trees, 6,009 fruit trees, 44,725 shrubs, and 143,527 vines, as well as 69 medicinal plants (already tested in the botanical garden of Palermo).

The Complex is quite big with a length of 36.50 m, while in the sense of the width the distance between the pillars is 8.70 m. The main entrance overlooks the provincial road to San Cipirrello and after a gate there is a large court, divided into three parts of about 1,350 square meters. The complex develops with various constructions, around an ancient watchtower (dated XIV-XV century), which is located in the center of the court. That tower was used as dwelling for the cellar superintendents. The tower is located in the central position of the court and, on the façade, there is a machicolation that is a typical defensive characteristic of towers, and an architrave in Catalan style with two volutes connected in a central point. The cellar itself was built next to that tower, covered by a pitched roof with tiles, with a rectangular plan, with the entire body divided into three main naves supported by pillars and arches. The right and center naved are completely free, while the left one has wall cellars to store cereals, and a higher elevation.

To the left of the entrance there are some low-height buildings including a chapel, small warehouses and accommodations for workers equipped with a kitchen. In front of the entrance, and close to the cellar, there is a loggia with arches used for the shelter of carriages; to the right of the entrance other buildings were used as warehouses. At the end of the nave there is an area used as millstone. Under the right span of the cellar there is an illuminated and ventilated basement with lintel openings with wall vats for storing wines in a much cooler environment - than on the surface - and therefore much more suitable for

storing wines. Outside the long side of the cellar there is a ramp, called the „Grape Ramp“, which leads to the upper floor of the left nave. At the end-top of the ramp there is a covered loggia with direct access to the vats and a cruise cover. Under the ramp there are other warehouses.



Fig.2: Planimetry of the area. @ Eng. Marinella Fiore

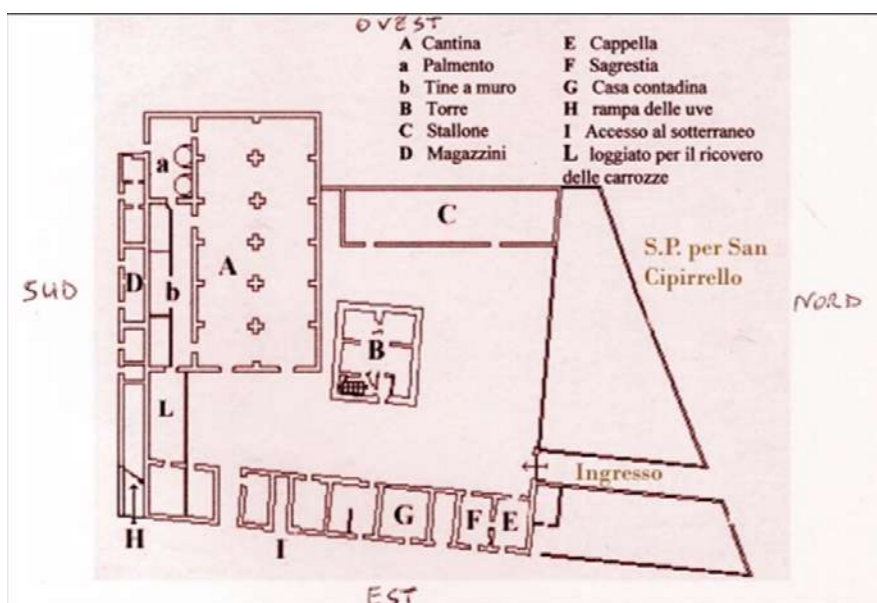


Fig.3: Ground floor plan of the complex. @ Eng. Marinella Fiore



Fig.4: View of the underground level under the right nave, with masonry wine containers, after the restoration works - @ Eng. Marinella Fiore



Fig.5: Main façade of the cellar building, after the restoration works. @ Eng. Marinella Fiore



Fig.6: View of the inner spaces (passage between the cellar, the tower and the stable) and external treatment, after the restoration works. @ Eng. Marinella Fiore



Fig.7: Architrave is adorned in Catalan style with two volutes connected in a central point. An interesting element in an industrial building, after the restoration works. @ Eng. Marinella Fiore

## The Diagnosis of the building (values and state)

The building, as received by the Municipality of Partinico, was in an extreme state of abandonment. After the end of the wine activity, the complex was completely left in a state of degradation and improper uses. For instance, it was at a different time occupied by the homeless, used as a stable, as a warehouse. The masonry was in a critical state of maintenance, with many parts collapsed; some vaults were completely or partially collapsed and all the wooden frames were in a terrible state for the presence of water, and the biological attack. Finally, all the finishing was completely degraded.

On the other hand, the preservation of this monumental complex was fundamental for the municipality. Firstly, because of the cultural and monumental value of the site. In fact, the Bourbon Cellar has no equals in the whole of southern Italy, both in its architectural development and in its entrepreneurial activity. In particular, the last was a fundamental part of the history of the territory, giving work to many local workers and becoming a reference point for agriculture throughout the whole territory. Thirdly, the wine production was characterized by a really good quality and exportations, managed by the Bourbon House, arrived to all the parts of Europe. Finally, the reappropriation of this monumental site was also important for a social and cultural aspect, in a period of the history of Sicily, when the criminality used to rule the territory. Hence, a deep valence had the restoration works with the aim of preserving an important monumental building, reframe the image of the town of Partinico, and give to the people a space for meetings, cultural events, conferences, concerts, and so on.



Fig.8: State of maintenance of the vaults, with diffuse collapses. @ Eng. Marinella Fiore



Fig.9: State of maintenance of a brick-made vault, with partial structural failure and diffuse degradation. @ Eng. Marinella Fiore



Fig.10: A propped-up vault to avoid further collapses waiting for the restoration work. @ Eng. Marinella Fiore



Fig.11: State of maintenance of the wooden roofs, with diffuse collapses, lack of material, degradation of the heads of the beams, bird nests and vegetation. @ Eng. Marinella Fiore



Fig.12: State of maintenance of the inner plaster and the stucco decoration of the spaces, in the picture the friezes of the chapel before the restoration works. @ Eng. Marinella Fiore

## Restoration works

The restoration works intended to give a new life and use to the Bourbon Cellar complex gave back to the territory a place of identity and a point of reference in the history of the city. The Royal Bourbon Cellar complex has thus become a container for many cultural activities, from exhibitions, conferences to concerts, because of its extreme versatility and is home to a small museum section dedicated to Sicilian puppets.

In particular, the works have seen the complete recovery of the masonry structures, through cracks repair, injections of low-pressure hydraulic lime mortar, relocation of stone ashlar where missing, partial reconstructions of the collapsed areas, improvement of the connections between the central supporting walls, construction of curbs at the top of the walls to ensure the

box-like behavior of the wall sections and avoid detachments, or even collapses, in the event of seismic events.

The vaults, where present, have been completely consolidated by stripping the structures (extrados, counter-vaults, etc.), tacking of eventual cracks and detachments using hydraulic lime mortar both on the extrados and the intrados, the reconstitution of the abutments, the verification of the solidity, the reconstruction of the missing parts, the whole consolidation by means of carbon fiber tapes, stringing of the chains, and all the accessory and finishing works.

Reconstruction, even total due to the advanced state of decay, of the wooden roof floors was made by wooden beams as the main framework, above which smaller half beams (half “ginelli”) were placed. Finishing was made of the traditional Sicilian brick tiles (Sicilian “coppo”) according to the traditional constructive technique. The rainwater disposal system was completely rebuilt as it was originally, using “gargoyles” and the free-fall system directly from tiles.

Where present, the original plasters have been consolidated or completely reconstructed using the original techniques. The finishes were all made with traditional lime mortar.

The floors have been restored using the ancient limestone blocks, along the entrance paths, and using pebbles in the internal areas, as it was in ancient times.

The building was finally equipped with a water, electrical, safety and fire systems.



Fig.13: The inner nave with the scaffold, during the restoration works. @ Eng. Marinella Fiore



Fig.14: Restoration of the load-bearing masonry and verification of its structural integrity, during the restoration works. @ Eng. Marinella Fiore



Fig.15: Construction of curbs, made of reinforced concrete, located at the walls' top to ensure a box-like behavior and avoid future collapse, during the restoration works. @ Eng. Marinella Fiore



Fig.16: Reconstruction of stone vaults with carbon fibres reinforcement (FRP), view of the intrados. @ Eng. Marinella Fiore



Fig.17: Reconstruction of stone vaults, view of the just finished extrados, during the restoration works. @ Eng. Marinella Fiore



Fig.18: Reconstruction of the roofs through the installation of main wooden beams, surmounted by half smaller wooden beams, during the restoration works. @ Eng. Marinella Fiore



Fig.19: Reconstruction of the roofs, installation of half smaller wooden beams on the main wooden ones, surmounted by corrugated plank, during the restoration works. @ Eng. Marinella Fiore



## Assessment of the results

The Royal Bourbon Cellar, located in the town of Partinico, is an enormous industrial complex and unique construction of this kind, built in the XIX century under the King of Sicily Ferdinand III for the production and sale of wines and oils produced in this Royal Estate and in the neighboring lands. It was a very famous cellar whose products were sold throughout Europe. After the end of its productive activity, the complex was abandoned and in a terrible state of degradation. During the 2000s, più precisamente nel 2008, the Municipality acquista il complesso monumentale e viene dato il via ad un lungo processo che porterà al finanziamento ...financed a deep work of restoration of the entire complex to give it back to the community with a new life intended for cultural activities. The designed new compatible destination was a museum with multi-functional spaces and conference area.

The restoration project saw the complete recovery of the Bourbon Winery complex by:

- structural interventions aimed at recovering the existing materials and the construction systems;
- complete rehabilitation of the masonry, of the stone vaults, and of the wooden roofs;
- complete reconstruction of finishing and restoration of the winery equipment;
- plant implementation for safety and fire prevention, electrical, lighting, etc.
- museum set-up with movable furniture for multi-functional spaces.

Today, the building is used for cultural activities and is open to guided visits to the museum of Sicilian puppets (for free), with



Fig.20: Reconstruction of the roofs, installation of traditional terracotta tiles (Sicilian coppo), during the restoration works. @ Eng. Marinella Fiore



Fig.21: Reconstruction of the roofs, top view after the end of the reconstruction. @ Eng. Marinella Fiore



Fig.22: Reconstruction of the traditional cobblestone paving, during the restoration works. @ Eng. Marinella Fiore

the possibility of taking a leap into the past of the most consolidated and ancient traditions of the local territory.

## References

The information contained in this sheet, taken from technical documents, was provided by the kind collaboration of Eng. Marinella Fiore, who is acknowledged for her precious collaboration. We would also thank the Arch. Diana Latona and Arch. Filippo Terranova.

Some information could be found in:

[https://www.comune.partinico.pa.it/?page\\_id=1713](https://www.comune.partinico.pa.it/?page_id=1713)

[www.realcantinaborbonica.it](http://www.realcantinaborbonica.it)

<https://www.blogsicilia.it/palermo/partinico-cantina-borbonica-sospeso-ticket-comune/705436>



Fig.23: View of the main nave during the inauguration of the restored space. @ Eng. Marinella Fiore



Fig.24: View of the complex during the restoration works. @ Eng. Marinella Fiore