

HISTORICAL RESTORATION AND CONSOLIDATION

DESIGNER
Annalisa Barbieri



FASSA BORTOLO SYSTEMS AND PRODUCTS

Dehumidifying System

- S 650
- S 639
- S 605

Brick and Block Work System

- MB 60

FASSA S.r.l.
Via Lazzaris, 3 - 31027 Spresiano (TV)
tel. +39 0422 7222 - fax +39 0422 887509
www.fassabortolo.com - fassa@fassabortolo.com

**FASSA
BORTOLO**
QUALITÀ PER L'EDILIZIA

TYPE OF WORK

Renovation and restoration
of façades and hallway



Santa Giustina Church, located in Piazza Duomo, Ravenna, was built in 1747 to plans by Gian Francesco Buonamici, one of the leading architects of the eighteenth century.

The current church was built on behalf of the Confraternity of the Blessed Sacrament of the community of Ravenna.

The structure, with a circular floor plan, has a diameter of around 13 metres and features beautiful eighteenth-century lines and facing bricks on the exterior shell.

The interior of the church, completed in 1750, sees a central section adjoined to the apse, following a layout that was widely used in the Baroque and late Baroque periods.

The central hall has a polygonal shape, and is dominated by high walls that, using double pilasters interspersed with niches, support the beam structure where the drum and dome rest.

The dome is divided into twelve unequal segments that are connected to the centre so as to form a polygonal medallion, the result of work carried out in the 1800s to replace the original lantern tower.



View from the outside



Confessional

After the Second World War, Santa Giustina hosted the city's diocesan celebrations and religious functions.

Subsequently, with the passing of the last brothers, the running of the church was taken over by Ravenna's Archiepiscopal Curia.

When the original construction work concluded (mid 1700s), the church was still rough and unadorned externally: embellishment of the façade began in 1856.

Alongside the church are two twin houses, built at the same time to accommodate the clergy: on the right the chaplain, on the left the prior (now office of the diocesan Caritas charity).

The work

Initially, surveys were carried out to assess the building's state of conservation and stability, resistance of the structural elements, dampness of the masonry, degradation of the plaster work and of the interior and exterior surfaces.

The work was carried out respectfully and thoughtfully, bringing the building back to life and the complex back to its original splendour, as well as guaranteeing full usability.

The particularly slender structure of the bell tower had been ruined by several collapses and widespread cracking, highlighting the need for consolidation of both the weave and the walls. In addition, the surface finish of the exterior wall was considerably deteriorated and required restoration.

The work on the roof of the church was the longest and most expensive stage of the entire project: the building was in fact opening up at the top, as could be seen from the numerous cracks and damaged areas. In addition, the arches of the apse had collapsed, allowing rainwater to penetrate. To restore the roof, carbon fibre curbing was made.



Presbytery

After removing the roof, it was possible to verify the conditions of the structural apparatus and the vault of the apse. The structure had been built by constructing a wooden centre supporting structure, with double and triple rows, with woven reed mats secured by nailing and cords, which needed replacement. Subsequently the arch was consolidated using carbon sheets.

The **FASSA BORTOLO DEHUMIDIFICATION SYSTEM** products, certified for Green Building (ANAB-ICEA) and compliant with European Union regulations, were used to restore the interior plinth of the church, the outer walls of the twin houses and the rear of the sacristy. The same cycle was also applied for some of the work inside the church, where the masonry was replaced piece-by-piece at heights up to 3 metres (e.g. choir area) and on the inside walls of the sacristy, largely affected by rising damp.

In the first stage, **S 650** bio undercoat was applied, followed by layer of **S 639** porous restoration plaster. **S 605** bio finish coat was used for all the finishes.

For consolidation of the arch in the central hall, the bell tower and the carbon curbing on the roof of the apse, **MB 60** mortar was used, part of the **FASSA BORTOLO BIO-ARCHITECTURE System**.

This product was used as the base for applying the carbon sheets, and, in the bell tower, for fixing all of the steel anchors placed in the corners on the top of the belfry.



Presbytery

FASSA BORTOLO PRODUCTS



S 650
Bio white undercoat for the restoration of damp masonry, for interiors and exteriors



S 639
White bio plaster for the restoration of damp masonry, with marmorino effect, for interiors and exteriors



S 605
White bio finish coat plaster for the restoration of damp masonry, with marmorino effect, for interiors and exteriors



MB 60
White bio mortar for facing brick walls, for interiors and exteriors