abstracts

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Some reflections on the restoration of San Giorgio in Velabro

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In praise of renovation

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Some details of the renovation of San Giorgio in Velabro

The authors of the first three papers in the volume tackle the various aspects of the heated debate that followed the terrorist attacks of 1993 and in particular the bomb blast that destroyed the portico and part of the façade of the church of San Giorgio in Velabro in Rome. At the time, discussion revolved round an important problem of restoration, to which diversified solutions were proposed, depending on the theoretical and methodological assumptions that then characterized the culture of conservation. The consequent debate, promoted in particular by the journals of architecture and restoration, spawned a number of interventions by experts, politicians and connoisseurs, all dedicated to finding the right solution to one of the key conceptual problems of architectural restoration: in the case of buildings destroyed by traumatic events, should the aim be conservation or reconstruction? Various proposals were canvassed: from renovation à l'identique *to reconstruction according to the axiom "where it was, as it was", coined in 1902 after the collapse of the bell-tower of San Marco in Venice; from a cautious attitude of "scientific" type to the "critical" approach, intent on rendering visible all the historical traumas suffered by the building.*
The conceptual approach which guided the restoration of San Giorgio was initially conceived as one of integral restitution. But then an intermediate position was assumed; it also responded to a "commemorative" function, i.e. the need to remind the public of the injury inflicted on the artistic and architectural heritage. The aim was to restore to the city the by now well-consolidated image of a monument charged with added significance and historical memories.
The Soprintendenza per i Beni Ambientali e Architettonici, on the conclusion of the restoration, summed up the aims of the intervention as follows: «The image of S. Giorgio in Velbabro, vandalized by a barbaric act, has now been restored. Some details, some signs deliberately left visible in the architectural details that compose the portico, tell us of an event that we do not intend in the least to minimize or suppress, and that has, as a tragic episode, entered into the long history of this monument».

MARIA COSTANZA PIERDOMINICI

The church and convent of San Giorgio in Velabro. Historical notes

Immediately after the terrorist attack on the church of San Giorgio in Velabro, the crucial task of recovering the fragments began, with the aim of restoring one of the city's most ancient monuments, rich in historical and religious associations.

It was in fact on this site, called Velabrum, that the history of Rome symbolically began; for it was here that the "she-wolf", i.e. the shepherd's wife Acca Laurentia, rescued and brought up Romulus and Remus. The origins of the church itself are very ancient: they can be traced back at least to the 7th century, when Pope Leo II (682-683), re-using pre-existing structures that belonged both to a secular building of the Roman period and to a diakonia, *consecrated the church to the memory of the two martyrs St. Sebastian and St. George. In the course of the 9th century, under the pontificate of Gregory IV (827-844), major transformations altered the building's architectural layout. The portico would be added in the 13th century; it was donated by the prior Stefano Stella, as attested by the dedicatory inscription placed on the frieze of the entablature. The interior of the church was remodelled in the 15th and 16th century, while during the pontificate of Clement IX (1667-1669) alterations were made to the portico; the last bay to the right was eliminated and its roofline altered. The later history of the church, in large part unpublished, can now be reconstructed on the basis of an interpretation of the corpus of archival documents recovered during the most recent restoration. It has thus been established that at the beginning of the 17th century the church was assigned to the Congregation of Discalced Augustinians of the Congregation of Genoa (1615); to this phase belongs the construction of the single-storey monastery adjoining the right aisle of the church. At the end of the 18th century the church and its adjoining monastery were abandoned because in a state of complete delapidation. During the 19th century, after a period of neglect, the church was subjected to a number of interventions under the pontificates of Leo XII (1823-1829) and Pius IX (1846-1878), with the aim of recovering a building threatened by serious problems of humidity. But it was especially under Pope Gregory XVI (1831-1846) that the complex was transformed; the façade was raised and modified, and the tympanum built by the architect Giovanni Azzurri. Pope Pius IX's intervention on the complex was also important; it was aimed especially at bringing to light the Roman antiquities surrounding the church, such as the Arco degli Argentari, in part hidden by the structures of the portico and bell-tower; it was in this period in fact that the arch could be fully brought back to light by the removal of part of the pilaster abutting onto the arch. Later, in the years 1923-1926, the Soprintendenza ai Monumenti di Roma, under the direction of Antonio Muñoz (1884-1960), proceeded to a radical recuperation of the church's medieval appearance; the baroque additions by which it was hidden were removed.*

Laura Caterina Cherubini

The recovery of collapsed materials and the choice of reconstruction

The article describes the situation in the immediate wake of the terrorist attack on the church of San Giorgio in Velabro on the night between 27 and 28 July 1993: the phase of general consternation, the prompt presence on the scene of the political and institutional authorities, and the huge pile of rubble to which the portico and a large part of the façade of the church had been reduced.
In the immediately ensuing days, the meticulous task of sifting through the rubble, and recovering and cataloguing the fragments began, with the collaboration of the Soprintendenza and the restorers of the Istituto Centrale per il Restauro. Of the portico, all that was left standing were three columns shorn of their capitals, some fragments of iron railing and the rectangular pilaster to the left, albeit seriously damaged. All the part in brickwork seemed irremediably lost, while the large stone elements seemed more easily recoverable and in good condition. In the church itself a large rent had been opened in the entrance wall, in the part delimiting the right aisle. The detachment of the main elevation from the transverse walls due to the force of the blast was also evident.
Immediate steps were taken to cordon off the monument, organize the restoration site and assemble the recoverable brick and stone materials, following the method of stratigraphic excavation used on archaeological sites; the whole area affected by the collapse was subdivided into a square grid and the material recovered was catalogued and scrupulously preserved in 1050 boxes specifying the number of the square in the grid, and the date and time of recovery; the boxes were kept in the adjoining monastery.

The necessary reconstruction of the portico was also inseparable from the recomposition of the urban context in which the church is situated and its relation both with the Arco di Giano and the Arco degli Argentari. This objective was also assisted by the recovery of extensive documentation of the situation preceding the terrorist attack and the recovery of a large part of the stone materials. The guiding principle was that of permitting visitors to re-acquire an image of the context in its monumental and environmental values, and scholars to have at their disposal, in the archives of the Soprintendenza, all the graphic, photographic and film material that would enable them to retrace all the operations of reconstruction with scientific precision.

Pier Luigi Porzio

The twentieth-century restorations. The recomposition of the image of the church after the terrorist attack of July 1993

The most significant intervention on the basilica in the last century was that of Antonio Muñoz (1884-1960), who restored the church to its "presumed" original state through a thorough-going programme of renovation. Muñoz, Soprintendente ai Monumenti di Roma (1914-1928), at first tried to solve the intractable problem of humidity by the enlargement of the interspace above the wooden ceiling and by the repair of the roofing itself. Later, as part of a programme aimed at the recovery of the "primitive and simple beauty" of the medieval basilica, he re-established the original level of the floor, which had been modified, and successively raised, in the course of the centuries, concealing the bases of the columns dividing the nave from the aisles. He also re-opened, in the clerestory, some blocked-up windows traced during preparatory surveys of the fabric, and substituted them for the larger windows that existed prior to his intervention.
The paper then traces all the phases of the renovation undertaken by Muñoz. To recreate a "medieval" effect in the interior, Muñoz proceeded to the demolition of the «coarse stucco altars of the 19th century» and the 19th century sacristy, which had been created by walling in the first bay of the right aisle. He also modified the sanctuary area by the elimination of the 19th century balustrade and the addition of two steps to the stairway leading up to the high altar. On the exterior Muñoz replaced the terracotta pavement of the portico with a new floor of bricks laid in a herringbone pattern, though leaving visible a stretch of the original paving of white marble.
Later interventions were undertaken by the Soprintendenza ai Monumenti del Lazio: in 1956 (restoration of the apse fresco attributed to Cavallini), in 1962 (restoration of the roofs, consolidation of the ciborium) and in 1993 (restoration of the roof of the right aisle).
The author continues by analyzing the phases that characterized the reconstruction of the portico following the enormous damage caused by the terrorist act of 1993. The Soprintendenza per i Beni Ambientali e Architettonici di Roma, together with the political authorities, then decided on the recomposition of the original image of the portico and of the façade, especially with the aim of furnishing a strong civil "response" to an act of barbaric violence. Reconstruction was also facilitated by the recovery of a large quantity of materials undertaken by the meticulous task of sifting through the rubble, selection and cataloguing.
After the preliminary operation of recovering the fragments, a delicate intervention of consolidating one of the brick lintels of the portico, originally in the frieze, was begun; following the collapse, it was found to be almost entirely intact. It was thus possible to reinstate the architectural fragment, suitably reinforced, in its original position. All the bricks recovered from the collapse were also re-used to reconstruct the wall elements of the portico, more particularly the right pilaster, almost completely destroyed by the blast. On the other hand, new bricks, of a kind wholly similar to the medieval ones, were re-used for the renovation of the internal façade of the portico; in some points they are inscribed with the date in which they were installed (1995). All the stone fragments recovered were also scrupulously preserved and repositioned; they include columns, Ionic capitals, column bases, fragments of the coffering that characterizes the upper part of the pilasters, consoles and lion protomes. The signs left by the bomb blast on the stone fragments were deliberately left visible to testify to the event that had struck the monument. At the same time, the breach in the right part of the façade was repaired, through an operation of reintegration using new bricks similar to the old ones. The interven-

tion was completed by the replastering of the upper part of the façade, the consolidation of the bell-tower and the renovation of the roof. The humidity inside the basilica was treated with the application of a special plaster of osmotic type. All the stone elements, the wooden ceiling and the ancient entrance-door were also restored.

Maria Grazia Turco

Analysis of the church's wall structure: confirmations and new contributions

The paper tackles, through the definition of the building's architectural relief and morphological analysis, the complex historical and architectural stratification of the church. The analysis of building techniques and fabrics has also helped to clarify some doubts about the building phases that characterize a building as structurally complex as that of San Giorgio in Velabro.
The bomb blast in July 1993 caused the almost total destruction of the 13th century portico and opened a large rent in the right side of the façade. The plaster of the façade was pulverized from the ground right up to the top of the portico roof. The false stucco wall of the upper storey (added in the 19th century) was also damaged. But this state of the façade, leaving exposed a large part of the underlying wall, also provided an unique occasion to study the structure of a still little investigated monument, i.e. to examine directly the various fabrics comprised by the basilica façade.
The study focuses in particular on the main elevation - favoured by the collapse of the plaster facing -, on the bell-tower, and on the right lateral elevation, key points for understanding the development of the whole plan. The façade wall presents a great variety of structures, testifying to successive renovations and restorations conducted in various periods: the brick fabric of the 9th century, that characterizes the lateral extremities of the elevation; the wooden architraves of what were probably the original apertures of the secular or diaconal building that preceded the church (6th-7th century); the irregular medieval masonry (13th century) of the left corner of the façade and portico; the 19th century wall structure (rows of irregular tufa blocks interspersed by two courses of bricks) attributable to the last raising of the façade. Direct analysis of the brickwork, architectural survey and archival documentation have permitted the part of the façade above the entrance portal to be securely dated. It is unanimously attributed by the historiography of the basilica to the 7th or 13th century, and to the 19th century phase of restoration and renovation, according to a project promoted and funded by the Adunanza di Santa Maria del Pianto to which the basilica of San Giorgio in Velabro had been granted in 1823. During this phase the façade was also raised in height with the construction of the upper tympanum which echoes constructional and stylistic elements of the medieval portico.
The paper then analyzes the brickwork of the bell-tower (12th century). It consists of four superimposed orders pierced by trifore *which open out into a loggia in the upper storey. The interior of the bell-tower reveals considerable heterogeneity in structure, especially in its lower part, due to the combination of different and chronologically independent wall structures including the stone basement of the adjoining Arco degli Argentari.*
Lastly, the author examines some structural aspects that concern: the right aisle - from the earlier structure to the left of the façade (2nd-3rd century) to the 9th century fabric that distinguishes the rest of the aisle -; the nave in the chronological succession of interventions that especially concerned the blocking up and successive modification of the original windows; the apse that still preserves, in its entirety, its 9th century wall structure and attic cornice supported by re-used Roman marble consoles.

Federica Di Napoli Rampolla

The recovery of the fragments of ninth-century fresco decoration

The subject of the article is a fresco rediscovered by Antonio Muñoz during his campaign of restoration in the 1920s. It was hidden between the wall of the basilica's left aisle and the thickness of the north transverse wall

of the bell-tower. It formed part of the pictorial cycle of the left aisle which is presumed to have depicted episodes from the lives of St. Sebastian and St. George, the two titular saints of the basilica.
Dated to the 9th century, the painting was fortuitously preserved when the bell-tower was built in the 12th century. It remained hidden behind the brickwork of the bell-tower, erected by closing the first bay of the left aisle.
Muñoz, having found this important fragment of fresco, decided that it should remain visible. So he opened a recess or peephole in the wall stretching from the ceiling down to almost two and a half metres above floor level.
Since he was unable to photograph the fresco, given its oblique angle, Muñoz commissioned Maria Barossa, an artist and designer in the employ of the Ministero della Pubblica Istruzione, to reproduce a part of it (the head of a saint) in a watercolour copy. He also left an exhaustive description of it in his restoration report.
Following the bomb blast in 1993, the first and third registers of the surviving fresco collapsed; but the intermediate second register, with the episode of 'St. Sebastian being thrown into the Cloaca Massima', still remained in situ, *albeit in a precarious condition, detached in many places from the wall.*
The work of recovering the fragments, undertaken by the Soprintendenza, was undertaken in collaboration with Marie José Mano of the Istituto Centrale per il Restauro. It consisted in the fixture and successive detachment of some areas of fresco not perfectly fixed to the wall. The intermediate register was then consolidated and cleaned. The disintegrated fragments were recomposed with great difficulty due to their diminutive size (less than one centimetre square) and large number (of the lower register alone there were some 750). They were then consolidated and repositioned on a new layer of mortar reinforced with fibreglass dowels, to create further points of anchorage, and inserted in the gaps in the fresco. In the recomposition of the fragments of the upper register, silicon resins were used to take an impression of the wall and so recreate the form of the gesso on which the portions of fresco that had collapsed could then be repositioned.
The article ends with an extensive corpus of unpublished archival documents on San Giorgio in Valabro; they enabled doubts or perplexities that had emerged during the monument's exploration, study, and restoration to be removed or clarified.

Alberto De Angeli

Restoration of the church's stone materials

The paper retraces the phases that preceded the recomposition of the stone elements recovered following the terrorist attack on the basilica and reconstructs in detail the successive operations of cleaning, consolidation and recomposition of the fragments.
All the operations, preceded by preconsolidation to prevent the further fragmentation and cracking of particular pieces of stone, were conducted not in the restoration laboratory, but directly on site, especially due to the excessive bulk and huge weight of many fragments.
Cleaning was carried out with water and soft brushes to eliminate both the dust accumulated in time and the deposits of black soot caused by the smoke of the explosion. This was followed by consolidation, through metal reinforcements and polyester resin. All the stone parts recovered could then be reinstalled in their original position. At the same time marble fragments of particular thickness were reassembled using a very ancient but still effective technique: the use of stainless steel dowels and clamps fixed with molten lead.
The large holes in the stonework left by the bomb blast were then reintegrated with stucco made of lime and powdered marble, a material more suitable than resins due to its physical and mechanical properties and its stability in time. The small surface abrasions received by the stone fragments during the blast were deliberately left visible to bear witness to the tragic act of vandalism.
The paper then provides a detailed description of the operations conducted on some particular components of the portico which, apart from being the most seriously damaged, were shown to be more interesting than others: in particular, the replacing in situ *of the panel at the top of the right pilaster, the most severely damaged by the explosion; the reintegration of the volutes of two of the four Ionic capitals and the base of the right pilaster. Restoration was also conducted on some* spolia *preserved inside the church and damaged by the blast,*

including the Hymetian marble screen against the end wall of the right aisle in which a large hole was blown by the explosion. One of the frames of the original windows was also restored with a composition of scagliola and ground selenite mixed with water and glue. All these elements were subjected to recomposition and reintegration, in some cases realized with the insertion of dowels, others with stucco a sottosquadro *with the aim of rendering the present intervention visible.*

SABINA RECCHI

Restorations of the architectural surfaces

The author explains the theoretical principle on which the technical solutions adopted were based: the absolute respect for the original surfaces in their state of conservation, with their appearance altered by time. Halting the process of deterioration, and intervening only where necessary to halt the further wear and tear of materials and prevent their future loss, means respecting the process of ageing and the changes suffered by the materials in time. It will thus be possible, at the end of the intervention, to "re-read" the monument, its history and age, simply by looking at it.
The next phase was that of cleaning. It was conducted in a differentiated manner (atomized water, soft brushes and scalpels), with the aim of eliminating only those substances that attack and cause damage to the monument: biological patinas, incrustations of chemically harmful materials, etc. In the case of gaps in the fabric, recourse was had to a diversified technique. Where it was necessary to reintegrate the lacunae because they were too large or too deep, hence liable to compromise the stability of the monument or interrupt the architectural design, reintegration was carried out using mortars that imitated as closely as possible the granulation and coloration of the original ones and with old bricks so as to avoid patination.
The operations of preconsolidation, cleaning, consolidation and protection were completed in the bell-tower - that presented problems of leaching of the bricks and stone elements -; on the 19th century false façade wall above the portico where the plaster had lost both its cohesion and its original coloration; on the apse - where the bricks and mortar had been cracked and lost their cohesion; on the entrance portal (surface deposits and black encrustations); on the internal surfaces of the church (detachment of plasters, rising damp) and on the columns of the nave (greasy deposits, disintegrating particles, cracking and flaking of surfaces).
Traditonal materials chemically and physically compatible with the original ones (lime mortars; lime-wash tints and watercolour retouches for the plasters; lime and ground marble stuccoes for the stone elements, brick dust for the bricks) were always used in these interventions.