



Fourth Edition

**“NATURAL HAZARDS AND CULTURAL
HERITAGE”**

PRESERVATION STRATEGIES

19 - 26 July 2026



Special Laws for Todi and Orvieto, and Cultural Heritage

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ORVIETO

HEADQUARTERS OF ALTA SCUOLA

CHURCH SANTA MARIA DEL VELO

23 July 2026, 3:00 PM



Acknowledgements

My heartfelt thanks go to Mister President of Alta Scuola, Prof. Giovanni Selli and especially to Dr. Endro Martini, who involved me in this exhibition on the restoration of the historical and artistic heritage of Todi and Orvieto, carried out under various Special Laws.

For more than 20 years, from the initial studies in 1981 until 2015, I was directly involved as an architect for the Superintendence of Umbria, responsible for the territories of Todi and Orvieto.

But perhaps my closest relationship with Endro Martini was after the earthquake of September 26, 1997: we were both members of the Joint Operations Center (COM) of Nocera Umbra. The city was one of the hardest hit by the earthquake, and I undertook many challenging emergency interventions, and then the final restorations, on several particularly damaged monuments in the historic center: the Civic Tower, the Cathedral, the Town Hall, and the Church of San Francesco.

1978: *annus horribilis* – Terrible year

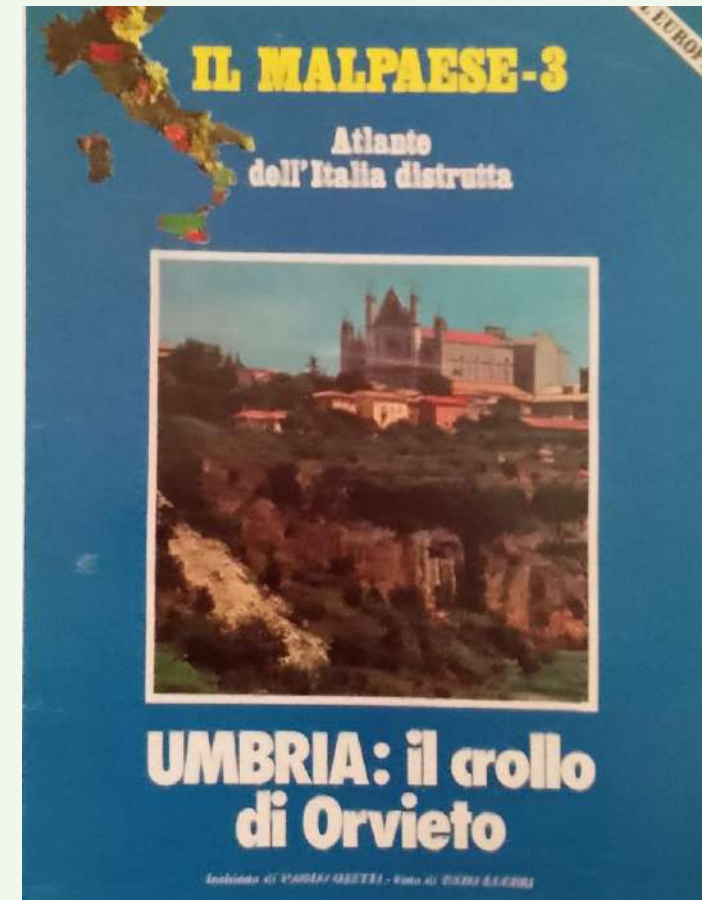
May 9: death of Aldo Moro

May 25, 1978: Urgent measures to consolidate the Orvieto cliff and the Todi hill
to safeguard the landscape, historical, archaeological and artistic heritage of the two cities

L. n. 230 del 25 maggio 1978

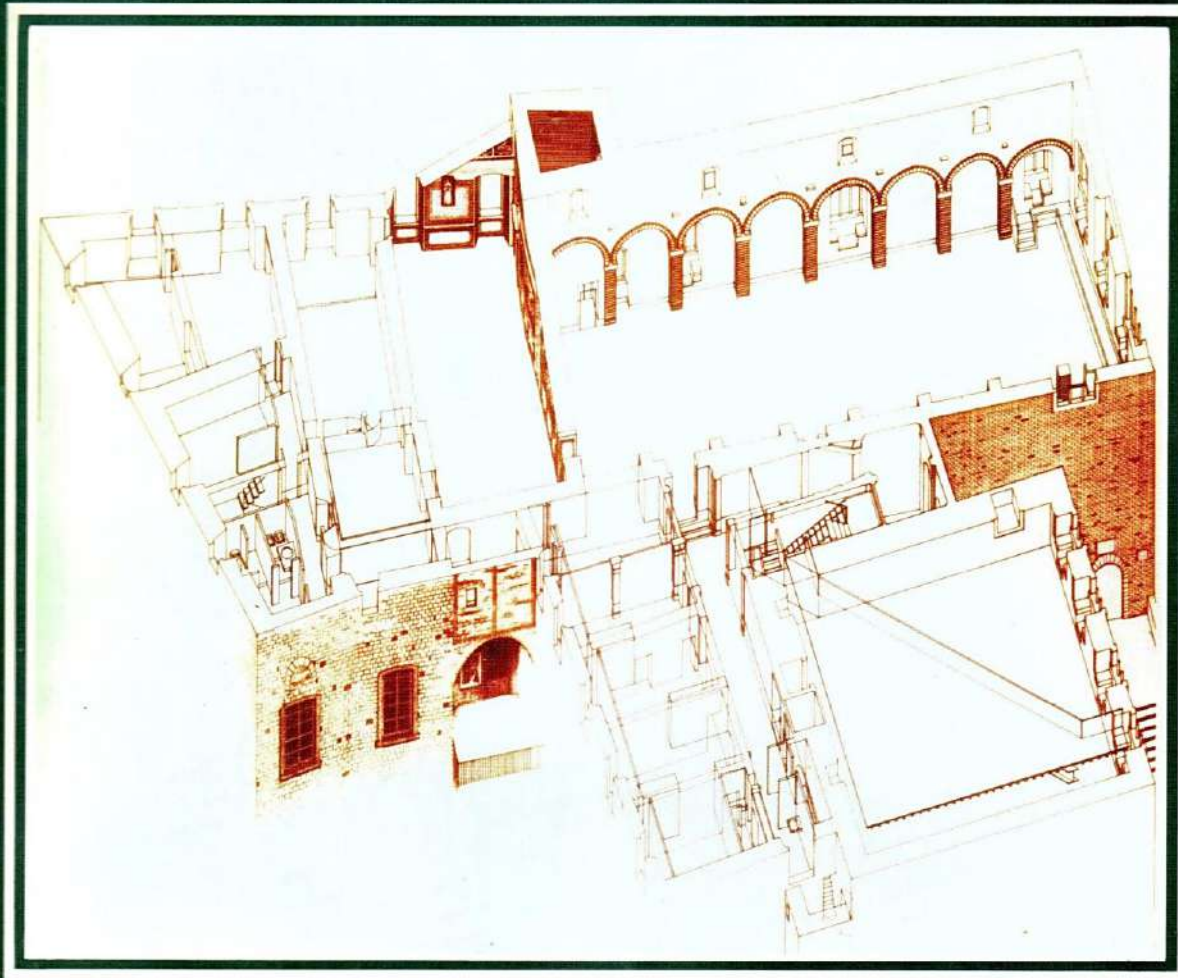
Provvedimenti urgenti per il consolidamento della rupe di Orvieto e del colle di Todi a salvaguardia del patrimonio paesistico, storico, archeologico ed artistico delle due città.

(Gazzetta Ufficiale n.155 del 06.06.1978)



Preservation of the cultural heritage was decided from the first legislative provision

VERSO UN MUSEO DELLA CITTA'



CATALOGO DELLA MOSTRA PROGETTO
TODI SALA DELLE PIETRE

The cultural debate: 1981 *The Places of culture*

*Mostra degli interventi sul patrimonio archeologico,
storico, artistico di Todi.*

Todi, Sala delle Pietre, 8 agosto, 31 dicembre 1981



Orvieto, Teatro Mancinelli

The cultural debate: 1981
The Places of culture

Two leading Ideas: The City Museum and the Archaeological Park.

The role of the museum in how the maintenance and conservation of the past can consolidate and transmit historical memory while simultaneously making it a resource for planning the future.

An Archaeological Park stems from a broad movement of ideas linking an archaeological site with a green belt, which, thanks also to the associated educational activities, should create a unique cultural landscape.



The City Museum

Moving away from the traditional concept of the museum as a place that preserves works intended for specialists and scholars, that is, as a place of pure and simple preservation. The City Museum must be a highly flexible tool, as it must be the place where everything the city preserves from its history is communicated, so that all the testimonies are still legible and relatable. It must be a moment of preparation for the actual visit; with just a few exhibits, the city's history can be reconstructed, offering visitors a good level of preparation.

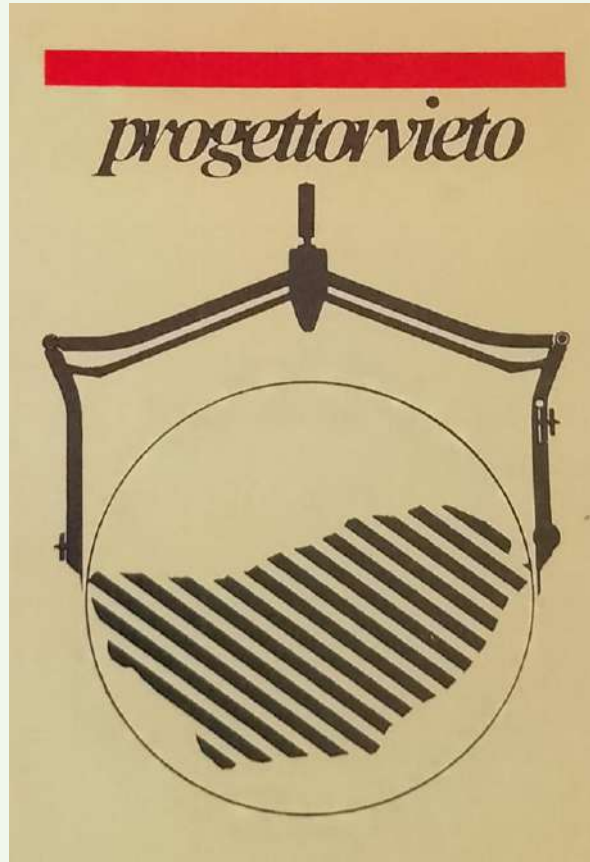
It is the exact opposite of the concept of a museum where valuable objects are preserved: rather, it is the premise for a city where objects are preserved in their authentic environment.

The city can thus fully showcase its past as a place of culture.

The results of scientific research must be the subject of content communication, so as to provide visitors with an ideal vision of an ancient civilization alongside the excavation material.



The *Progetto Orvieto*

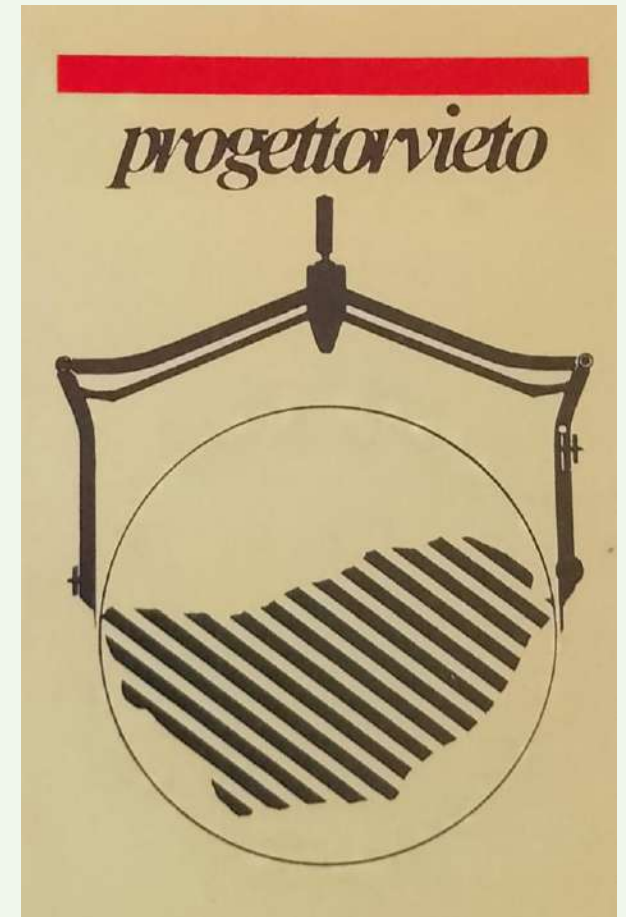


The *Progetto Orvieto*

The Orvieto Project was the sum of all the interventions planned for the rehabilitation of the cliff (la Rupe), with consolidation measures aimed at eliminating the causes of landslides, the restoration and enhancement of much of the historic center's historical and artistic heritage, and the implementation of an alternative transportation system.

The Orvieto Project represented a complex redevelopment and enhancement project, becoming a model for other Italian cities due to its coherence, its ability to simultaneously protect and enhance the urban environment: to socially experience the urban environment and carve out spaces that are materially productive from a cultural perspective. The objective: a comprehensive reconsideration of its history also by the Orvieto community. This would directly engage the citizens in a shared vision.

The Orvieto Project was therefore based on a unified cultural vision of nature & history and environment & culture. The aim was to preserve and enhance the heritage of the cliff and the historic center: that is, the cultural sites as an integrated cultural asset.



This was the logo of the Orvieto Project: the silhouette of the city framed by an open compass, and a circle symbolizing the project's comprehensiveness.

The new laws for the preservation of the cultural heritage in Orvieto and Todi

LEGGE 12 giugno 1984, n. 227. *Rifinanziamento della legge 25 maggio 1978, n. 230, riguardante il consolidamento della Rupe di Orvieto e del Colle di Todi.* Per studi, progettazioni e primi interventi atti ad affrontare la situazione di grave dissesto strutturale del Duomo di Orvieto e di altri edifici storici ed artistici nonché delle mura di cinta di Orvieto e di Todi, è autorizzata la spesa di lire 1 miliardo, per ciascuno degli anni 1984 e 1985,

LEGGE 29 dicembre 1987, n. 545. *Disposizioni per il definitivo consolidamento della Rupe di Orvieto e del Colle di Todi.* È autorizzata la spesa di lire 120 miliardi negli anni 1987-1992 per interventi, di competenza del Ministero dei Beni Culturali e Ambientali, di recupero, restauro, conservazione, valorizzazione ed utilizzazione degli edifici, nonché dei beni e delle opere di pertinenza degli stessi.

The Refinancing of law 230/1978.

For studies, planning and initial interventions aimed at addressing the serious structural damage of the Orvieto Cathedral and other historic and artistic buildings.

It was also planned to draft an economic plan that would include all the works on the monuments of the two cities. Preliminary projects were studied for each building, in order to guarantee an economic basis for the subsequent law.

For interventions, under the jurisdiction of the Ministry of Cultural and Environmental Heritage, for the recovery, restoration, conservation, enhancement and use of buildings, as well as the assets and works pertaining to them.



The importance of Law 545/'89

Law 545/'89 was an important and far-sighted law not only because it addressed the issue of the deterioration of the historical and artistic heritage of two important centers of national and international interest, but also because it was one of the rare examples of public administration intervention aimed at a comprehensive solution for the area, understood as a combination of social and cultural factors.

Strategic reasons induced the Ministry to appoint a general contractor: was chosen the *Bonifica* company, part of the IRI (Istituto Ricostruzione Industriale), although this was its first time working on cultural heritage.

The restoration works was awarded to the company under a concession, along with operational coordination. A work plan was thus developed based on the forecasts of the Soprintendenze, as preliminary projects, in accordance with Law 227 of 1984. The Bonifica company therefore handled the executive design, contracting, and management of the works, but always in close collaboration with the Soprintendenze.

DIRETTORI DEI LAVORI

Anni 1991-1996 Arch. Giovanni Venturini

Anni 1997-1999 Arch. Raffaele Davanzo

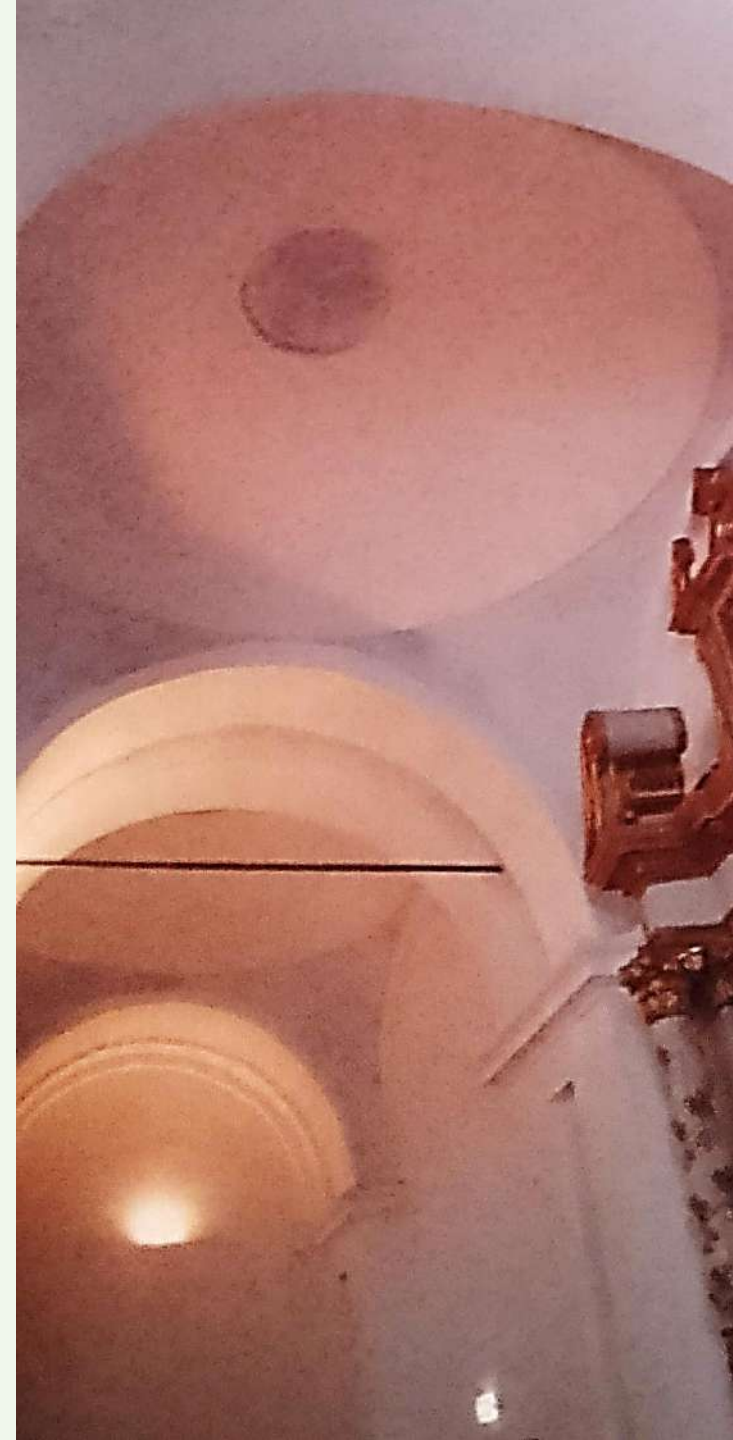
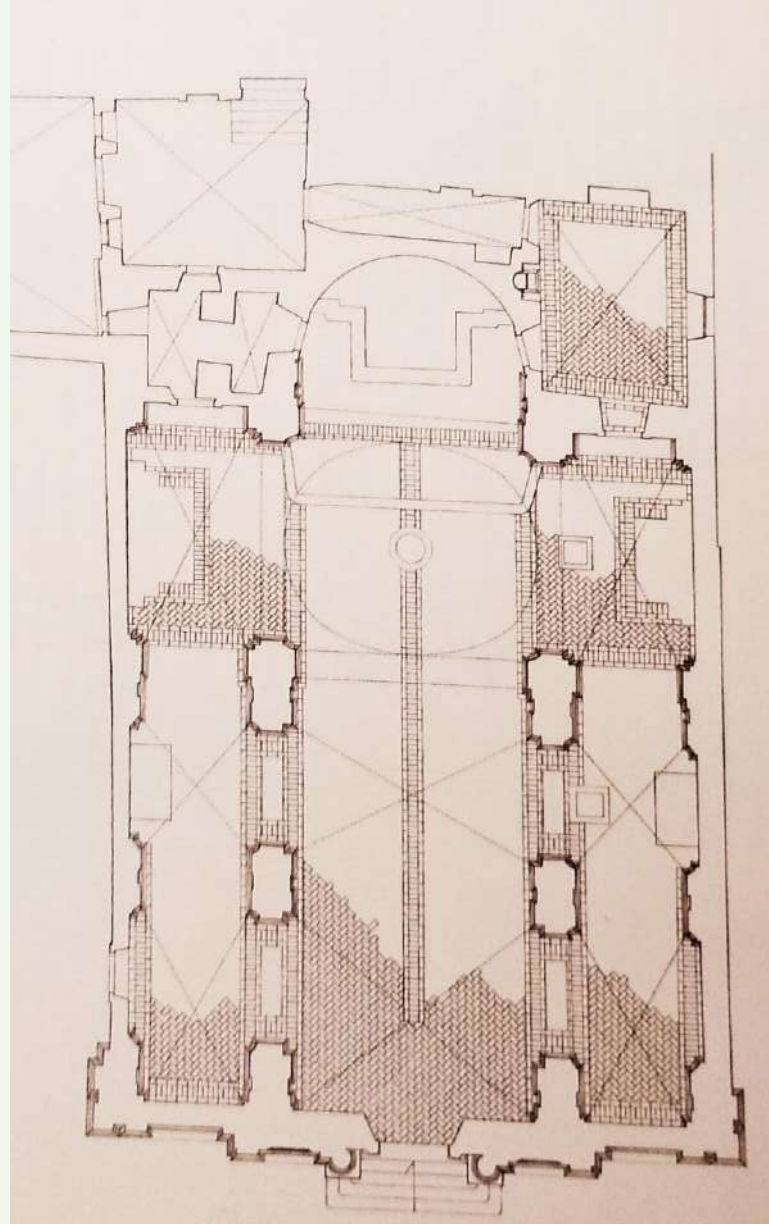
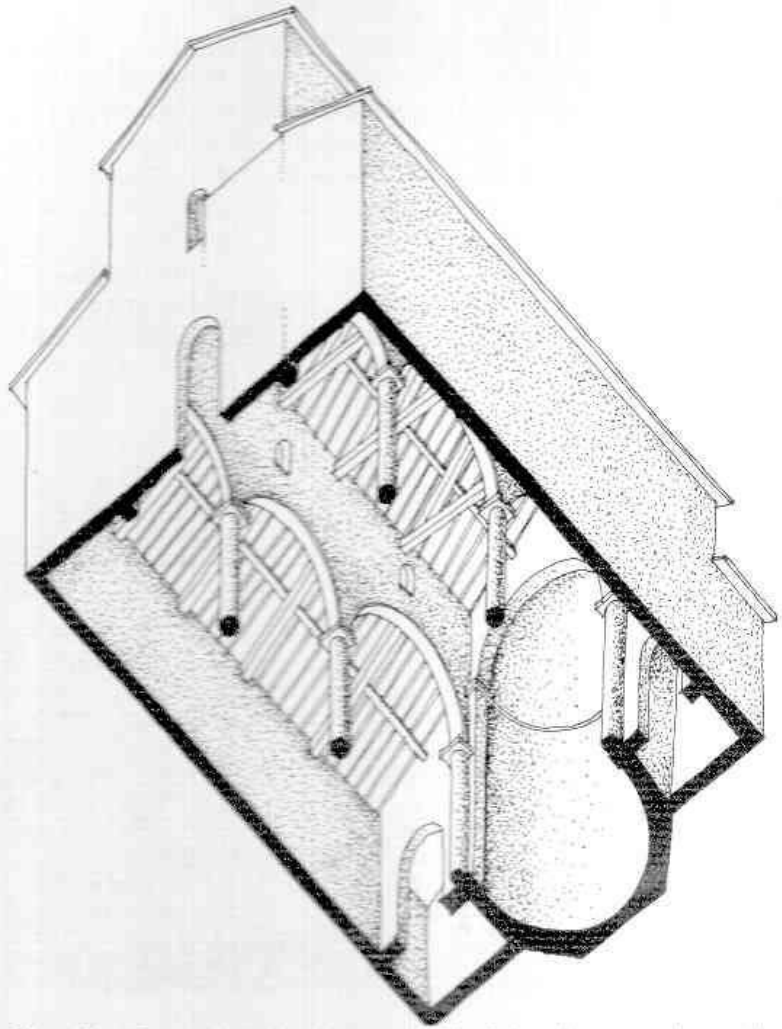
Restorations carried out in Orvieto with funding from Law 545

HOLY APOSTLES CHURCH

The original medieval church had three naves, traces of which remain on the right exterior. It was completely renovated at the end of the 16th century, when it became part of the Society of Jesus. The Jesuits initially built in Orvieto the church of the Gesù, but it proved too small, and was later used by the Clarisse, Franciscan Poor Clares. The late 16th-century plan follows the medieval one, incorporating the individual medieval columns into composite pillars; the vaulted roof like false domes, was a direct reference to the church of Sant'Ignazio church in Rome, the second Jesuit church after the Gesù. An elliptical dome was built in place of the medieval church's transept.

The building was in a state of total abandonment. To consolidate the dome, multiple rings were created; and to support the new lead sheets, an aluminum structure was created. A new laminated wood roof was installed above the consolidated vaults. The building has regained its appearance as a simple and dignified baroque-style hall, with perfect acoustics for preaching and religious music.





On the left, the original medieval layout;
in the center, the current plan;
on the right, the small, dome-shaped aisle vaults.





The unfinished façade from the early 17th century



The bell tower and the dome

Restorations carried out in Orvieto with funding from Law 545

CARMINE CHURCH

The Carmelites were the last mendicant order to settle in the city of Orvieto: this occurred in 1308, when the friars occupied the end of the Loggia dei Mercanti, filling in the arches and inserting a pointed portal.

It was conceived as a single hall divided into two bays separated by a transverse arch. From 1580, in the church underwent various decorative works, with stucco and frescoes.

It was reduced to a state of ruin, without the roof.

Complete restoration was carried out, and the decision was made to adapt the hall into a multipurpose cultural center for theatrical and musical performances. The walls were consolidated while still in ruins, and the roof was designed to accommodate technological systems.

Outside, the remains of the Fontana del Carmine, by Ippolito Scalza.





The façade and the stage of the hall



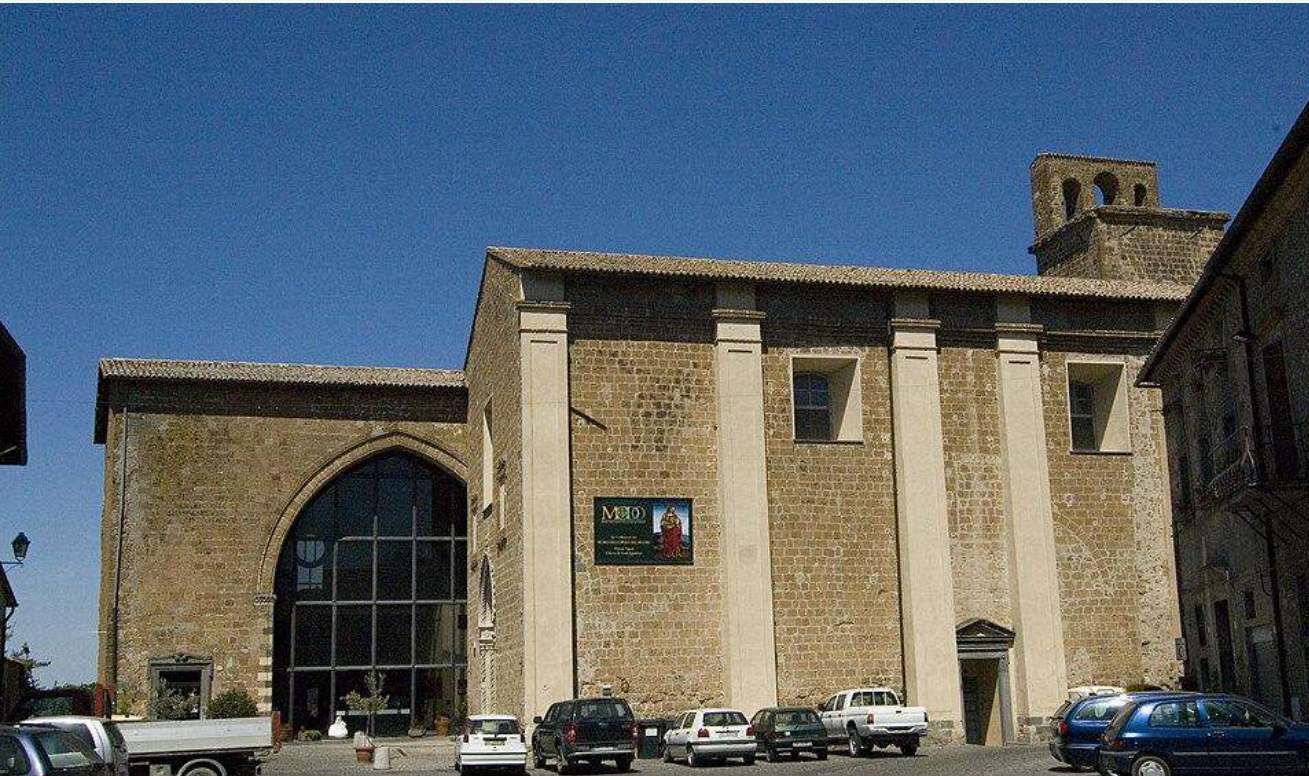
CHURCH OF SANT' AGOSTINO

In the mid-13th century, the Augustinians settled on the Rupe, occupying the church of Santa Lucia, which had belonged to the Abbey of SS. Severo and Martirio. It was a single-nave church with side altars and a rectilinear apse with a large *bifora*, a mullioned window in the center.

The Augustinians decided to enlarge their site, essentially building another church at a 90° angle, so that the old church would become the transept of the new large complex.

But they only completed the construction of the presbytery of the new church, which is now used as a restaurant. Thus, they remained in the church of Santa Lucia, which was modified in the early 18th century, taking on a late Baroque and Neoclassical appearance. The church had been used as a garage for vehicles from the nearby Air Force barracks, which had occupied the entire convent.





The church façade, dating from the 13th century;
on the left, the large triumphal arch of the new church,
the construction of which remained unfinished.



The 18th-century interior reflects a style bridging Late Baroque and Neoclassicism. This photograph was taken while the statues of the Apostles—later reinstalled in the cathedral—were being temporarily stored there.

SAINT FRANCIS CHURCH

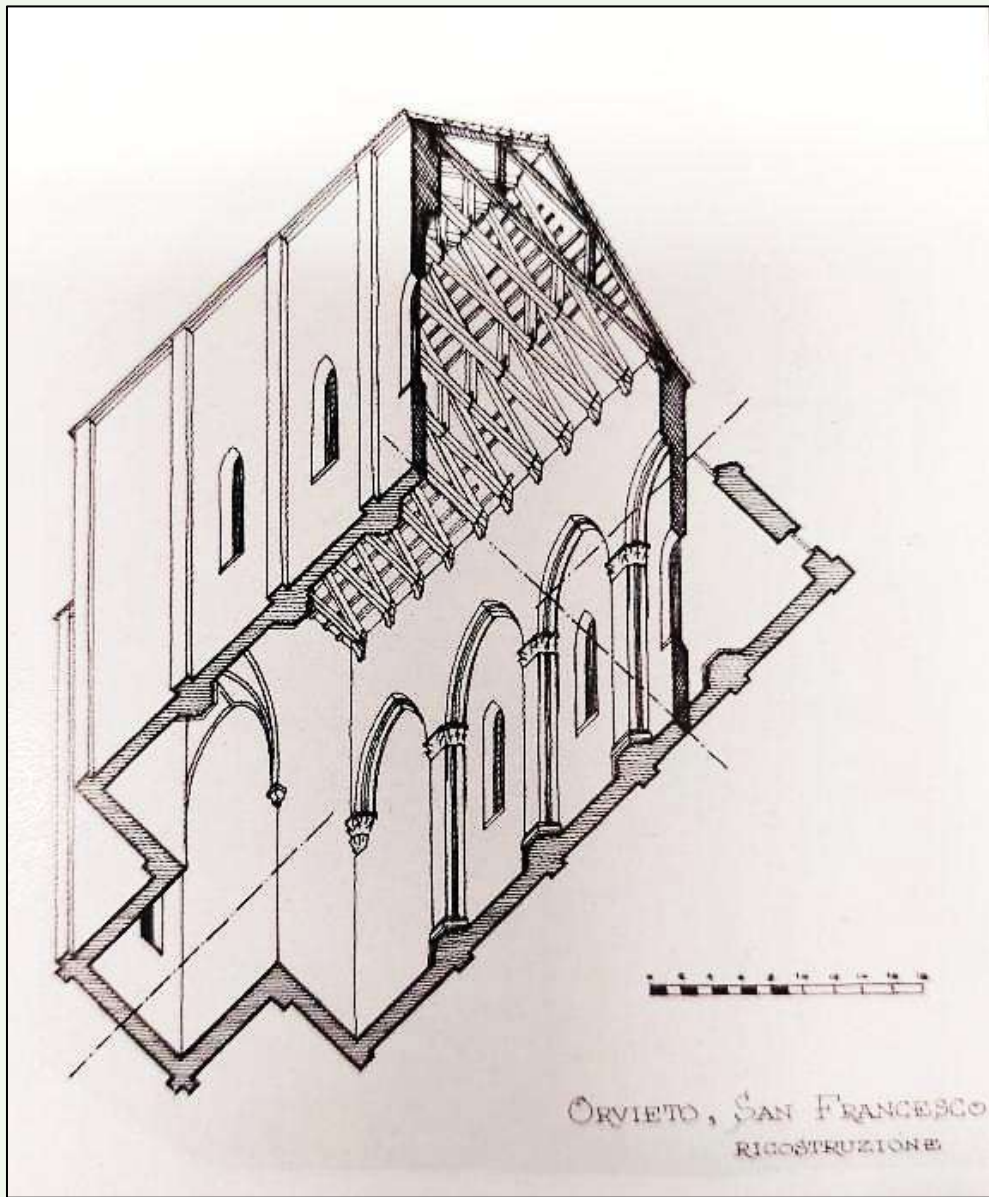
Dates back to around 1265. Like many other mendicant churches, it was designed as a large hall covered by a roof supported by wooden trusses, and a square presbytery. The great width of the nave, 22 meters, the widest of all the churches of the mendicant orders, caused serious problems with the stability of the trusses, because the tie beam, or chain, due to its considerable weight, was subjected to more bending than tensile stress.

It was replaced many times until, at the end of the 18th century, it was decided to reduce the width of the church, essentially transforming it from a single nave to three, making the central nave much narrower. The church took on an appearance somewhere between late Baroque and Neoclassical.

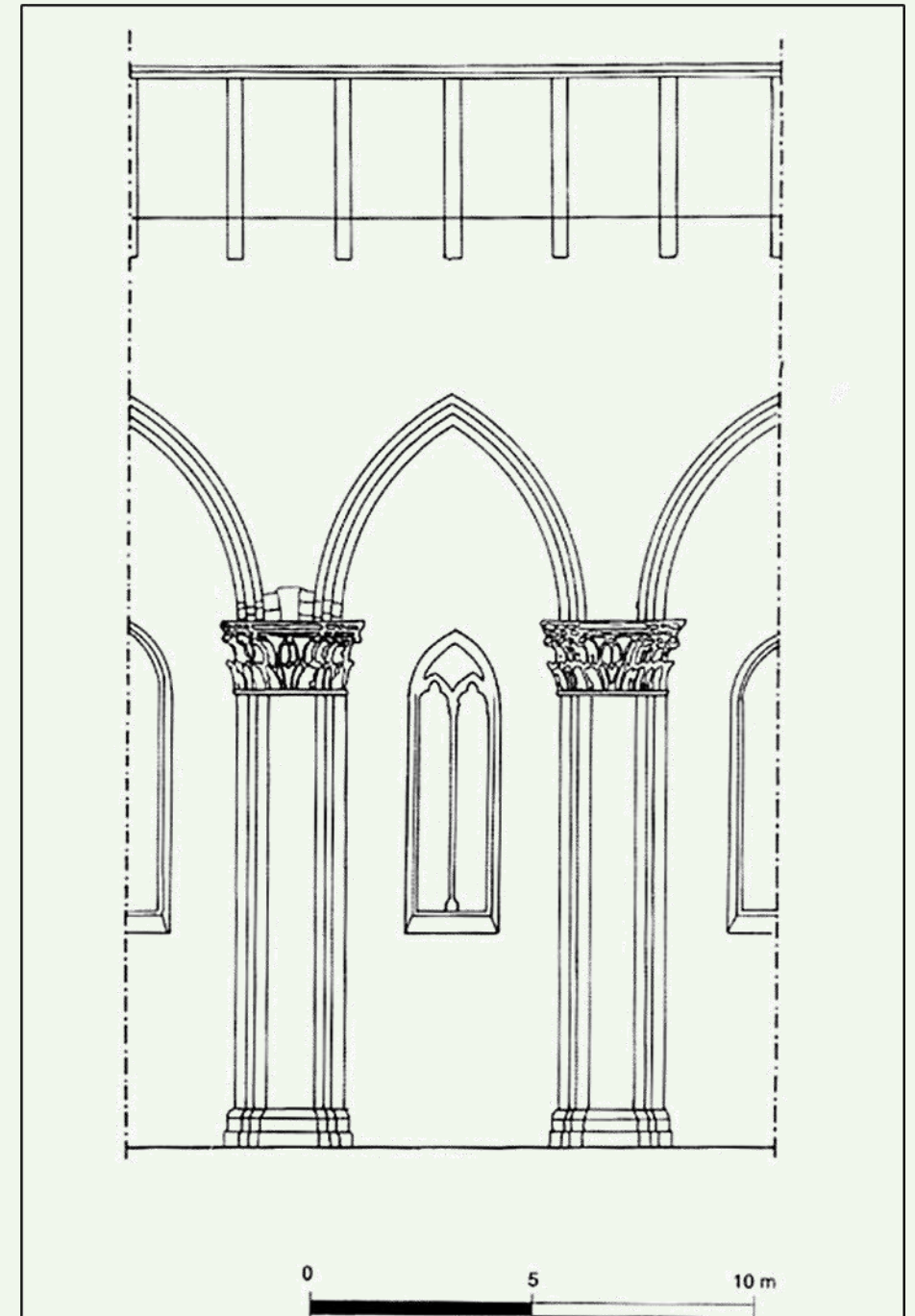
The work involved the roofing, which was made of laminated wood with metal chains, and the roof slab of corrugated sheet metal. But the slope of the roof was very steep, which caused the tiles to slip and thus allowed numerous rainwater to enter.

The church has been closed for about twenty years, and its state of preservation today is very worrying.





An axonometric view of the church as it appeared in the 13th century, and the pointed arches of the longitudinal walls.







Note that the slope of the roof was very steep, which led to the tiles slipping.



The slipping of the tiles created many cracks, resulting in the entry of rainwater



Rainwater infiltrations and cracking of stuccos





Birds of all kinds enter through the now glassesless windows, and the entire floor is covered in their droppings. A toad even!



The circular truss that supports the roof above the dome: very dangerous situation especially due to the limited size of the wooden elements



The chapel of San Matteo, with frescoes of the stories of the saint, by Piero di Puccio, 14th century. Never restored

THE PALACE OF THE SEVEN LORDS (DEI SIGNORI SETTE) AND THE TOWER CALLED *DEL MORO*

It was built at the heart of the city, at the intersection of the main streets of the *Crux Viarum*, the street-corner cross: namely the Mercanzia, now Corso Cavour, and the other axis of the Via del Duomo and Via della Costituente.

It was the seat of the Signori Sette, the consuls of the guilds: in practice, it was the place where executive power was exercised, that is, the governance of the city, especially with regard to public works. The palace has an L-shaped plan, with the Torre del Moro as the hinge on both sides. The palace was completed in 1319, but with the end of municipal liberties resulting from the governorship of Cardinal Albornoz, after 1364 the palace, like the Palazzo del Popolo, was abandoned, no longer having a civic function.

At the end of the 19th century, designed by Paolo Zampi, the post office was organized on the ground floor.

The current project has made all the spaces functional, creating spaces for exhibitions and other cultural events: but which, unfortunately, have long since ceased to host the events for which they were intended. On the ground floor, along Via della Costituente, a structure has been created that exploits the medieval modular spaces for a library. The lower section of the Torre del Moro has been equipped with an elevator; the route then continues



The covered courtyard, which was originally a post and telegraph office



An exterior view
of the late 19th-century structure
covering the courtyard.





The tower called del Moro

On the right, the Church of San Rocco (dating from the 16th century but renovated in 1928), which has been abandoned for many years and is awaiting restoration.



MANCINELLI THEATER

It was designed by architect Virginio Vespignani, who had just completed the Teatro dell'Unione in the nearby city of Viterbo. The rich decorative works, carried out by a team of artists led by Angelini and Fracassini, were significant: grotesques, landscapes, gilded stucco, and a large elliptical vaulted ceiling. A perfect theatrical machine, inaugurated in 1866.

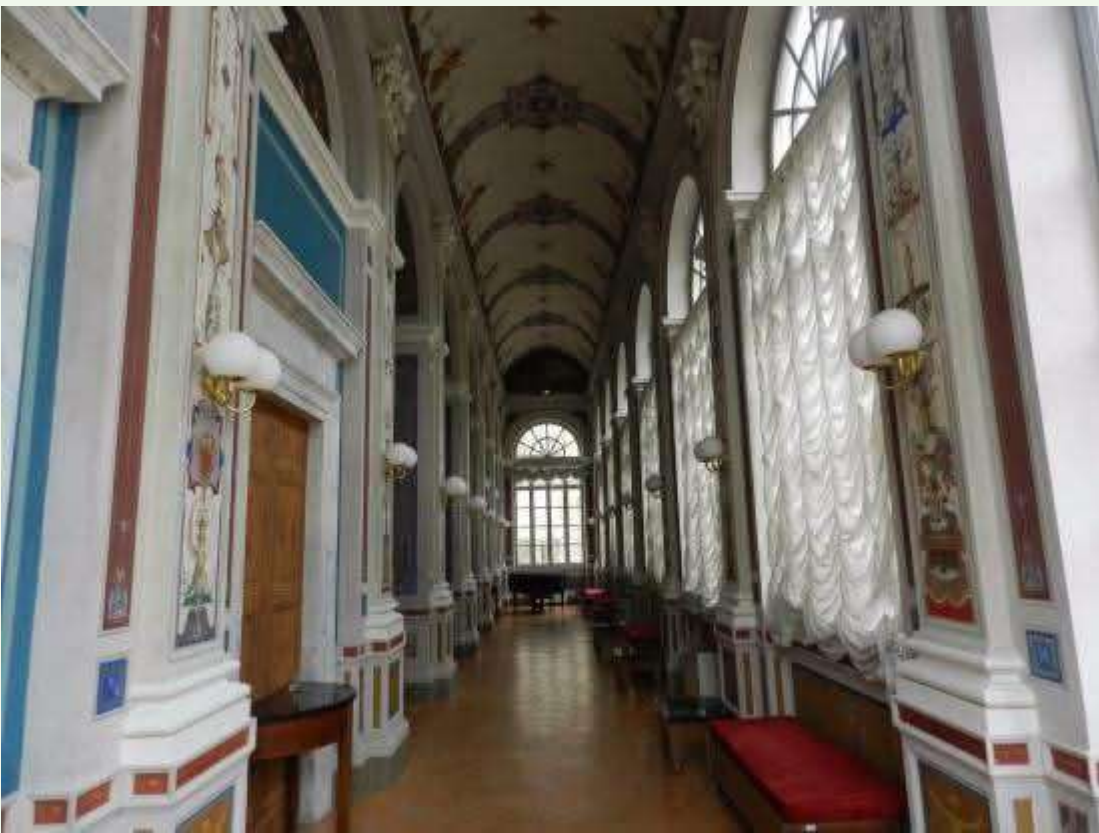




In addition to restoring a natural sounding board that had been ignorantly abolished after the Second World War, the restoration involved all the fresco and stucco decorations; all the upholstery was renewed with modern and fireproof fabrics, and all the systems, including the safety ones, were installed.







The *Ridotto* of The Mancinelli Theatre (the *Smaller Hall*) is a prized feature; its decoration, the product of prodigious imagination, combines figures inspired by Pompeian painting with a richly ornamental, eclectic style.



MONALDESCHI PALACE

The Monaldeschi family has always been one of the most important in Orvieto, along with the Filippeschi and the Simoncelli families, and also controlled a large portion of the territory nominally belonging to the municipality. In the mid-16th century, Sforza Monaldeschi entrusted the design for his new, large palace to Simone Mosca, a Florentine architect who had been commissioned to design the Cathedral Factory. The most interesting area is the corner, where inside is the so-called Sala della Caminata, or fireplace room, featuring a series of frescoes depicting Sforza's military exploits in Flanders. They were completed in 1584, with Cesare Nebbia as artistic director, but several other artists also contributed. In addition to the interior decorations, all the exterior plasterwork and the 16th-century portal have been restored.

Unfortunately, the palace, which housed the State School of Art, later renamed the Liceo Artistico, has been unused for nearly twenty years. This has led to a serious deterioration of the complex, as has also occurred with the church of San Francesco. Indeed, the failure to use these structures always leads to serious conservation risks.



The Sala de la Caminata (The Great Fireplace Hall) and the palace portal, the work of Simone Mosca, who drew inspiration from Michelangelo's motifs: like the double volutes that serve as brackets for the balcony.



FAINA PALACE

The palace dates back to the mid-19th century: it was built on pre-existing 17th-century structures, with a neo-16th-century layout.

The work focused on the museum layout; in terms of masonry work, the entire second floor and the entire roof were renovated, including the replacement of the original roof terrace. Two museums; on the ground floor, the Civic Museum, spread across three large rooms, houses the antiquities collected during the 19th century by the municipality of Orvieto. It displays the most significant Etruscan artifacts from Orvieto's archaeological heritage, including many Etruscan sarcophagi. Among other Etruscan relics, noteworthy are the Venus of Cannicella, the Cippus with a Warrior's Head, the Pietra Campana sarcophagus, and the pedimental decoration of the Tempio del Belvedere.





The upper floors display pieces from the Faina Collection, and the rooms have retained their original noble palace appearance, with display cases housing archaeological collections. The exhibition begins with a rich coin cabinet and continues with artifacts characteristic of Chiusi and Attic black-figure and red-figure vases. Among the former, three exceptionally valuable amphorae attributed to Exekias, the greatest Attic black-figure ceramicist, stand out.

On the second floor, the antiquities are arranged typologically and chronologically: prehistoric and protohistoric materials precede bucchero, Attic black-figure and red-figure pottery, and Etruscan bronzes; three rooms are dedicated to Etruscan ceramics.

A feature of the second floor is a gallery that offers a unique view of Orvieto Cathedral.





The arrangement of the artworks across the building's three levels



The cippus from the Crocifisso del Tufo necropolis. An onomastic inscription is engraved on the left cheek-piece of the helmet: *Larth Cupures Aranthia* (Larth Cupures, son of Aranth). Likely a native of Veii, he was a military leader or a mercenary, and is known as *L'Intrepido Larth* (*The brave Larth*)



A sarcophagus featuring an emblematic scene: the killing of Trojan prisoners by Achilles. The Etruscans identified with the Trojans because they, too, were victims of the Romans!



The collections of Attic vases, precious objects from Greece that wealthy Etruscan families had no difficulty acquiring.



The so-called Orvieto heist (lo scippo di Orvieto): the removal of the restoration work on the Cathedral in order to award it to an engineering firm!

Opposition to the awarding of the works on the Orvieto Cathedral to the Concessionaria Bonifica sparked a massive mobilization among intellectuals and artists.

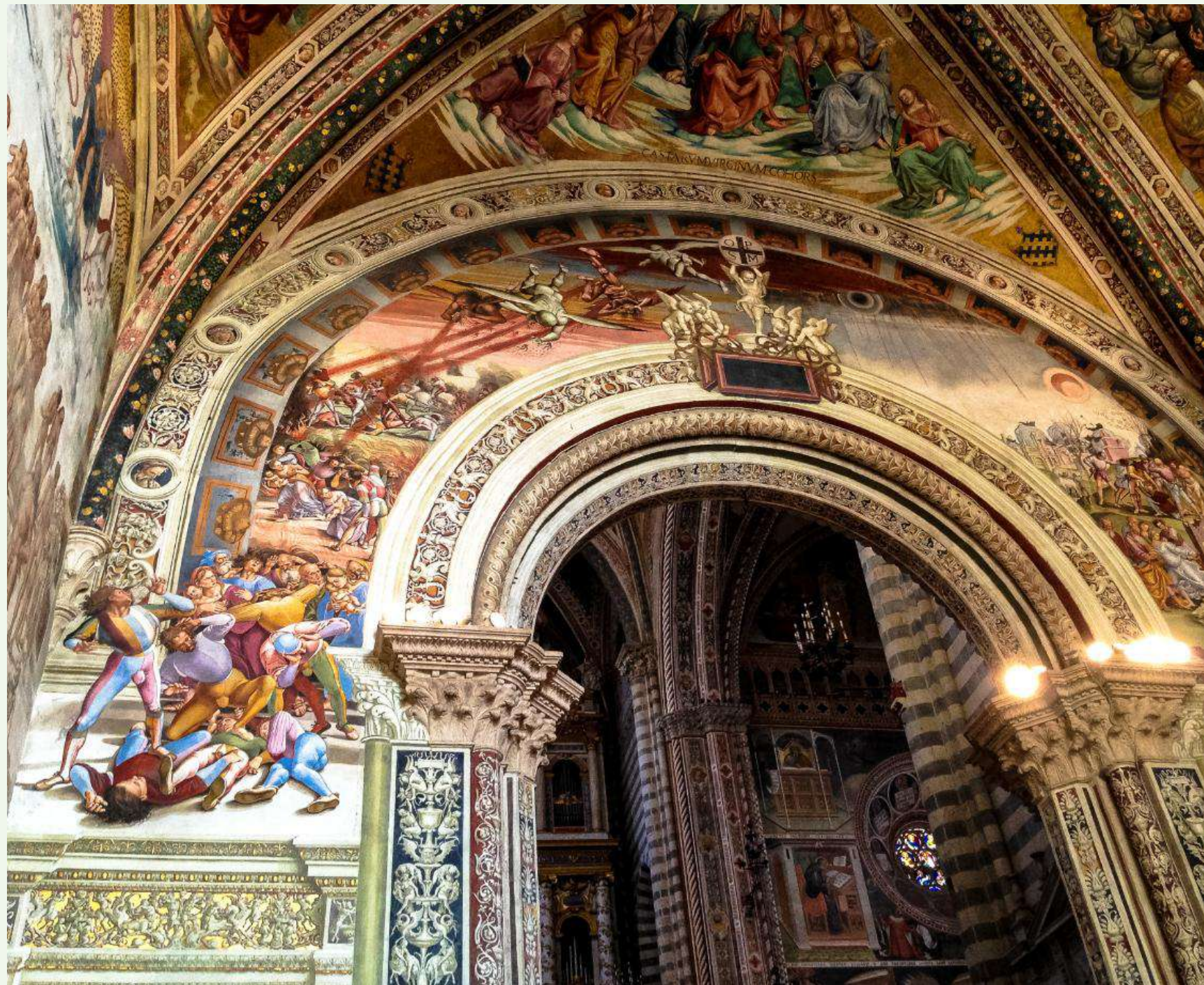
Faced with this opposition, the Ministry chose to remove from the works awarded to Bonifica a series of grants in cathedral, that had managed by the Soprintendenza dell'Umbria.

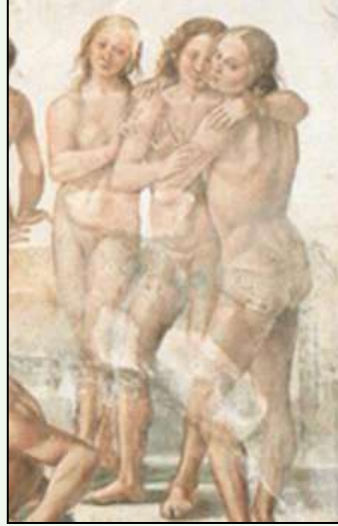
LEGGE 20 giugno 1991, n. 193 *Provvidenze per i restauri del Duomo di Orvieto e a favore dell'Opera del Duomo di Orvieto.* (Gazzetta Ufficiale n.153 del 02-07-1991)

3.494 milioni annui per il triennio 1991-1993, utilizzando parzialmente le disponibilità di cui al capitolo 8113 dello stato di previsione del Ministero per i Beni Culturali e Ambientali.

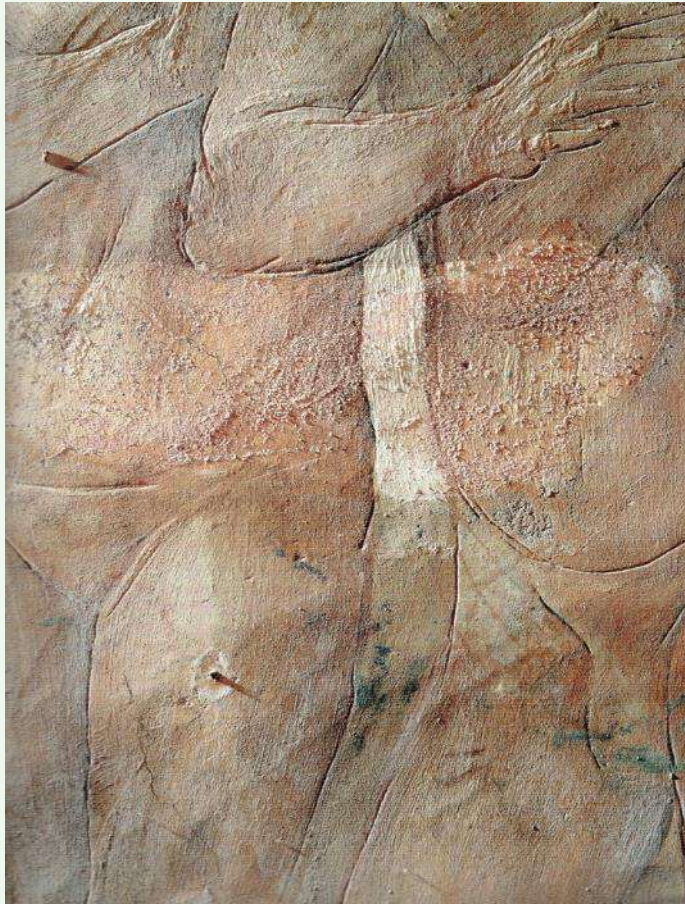


The complete restoration
of the Chapel of San Brizio, with the
frescoes on the *Last Judgment* begun
by Fra Angelico and completed by
Luca Signorelli





Biological attacks by microorganisms (pink algae *Cyanophyta Sarcina*), whose roots were crumbling away at the frescoed plaster. The cause was the complete soaking of the right wall, a full three meters wide.

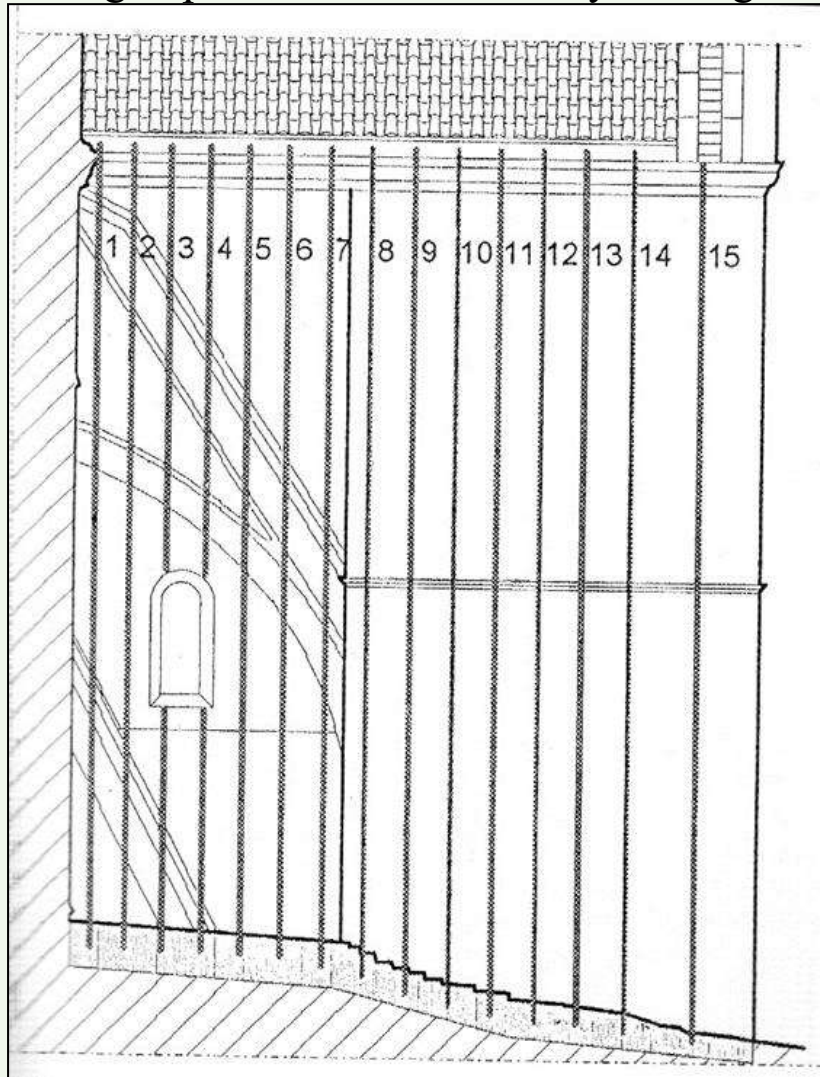


The creation of ventilation chimneys

15 VENTILATION CHIMNEYS

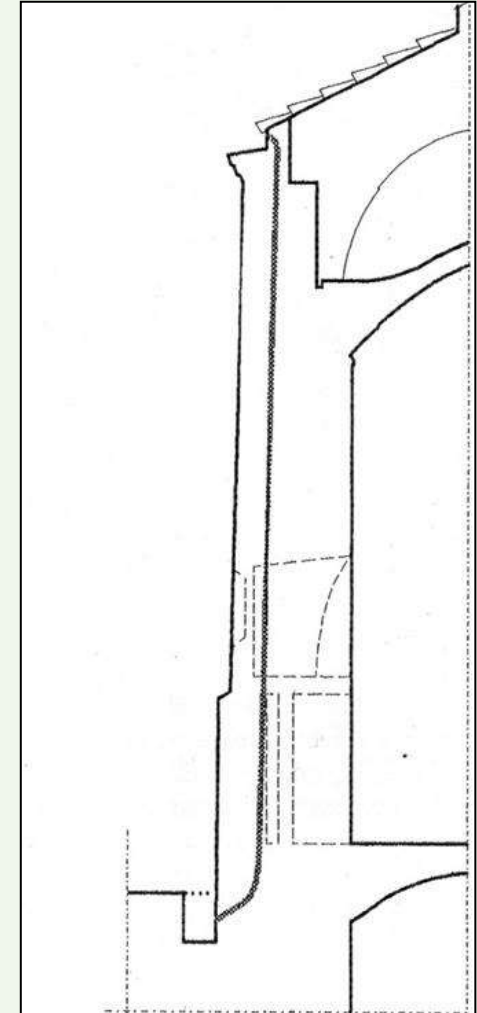
200mm diameter

High-speed, vibration-free dry drilling

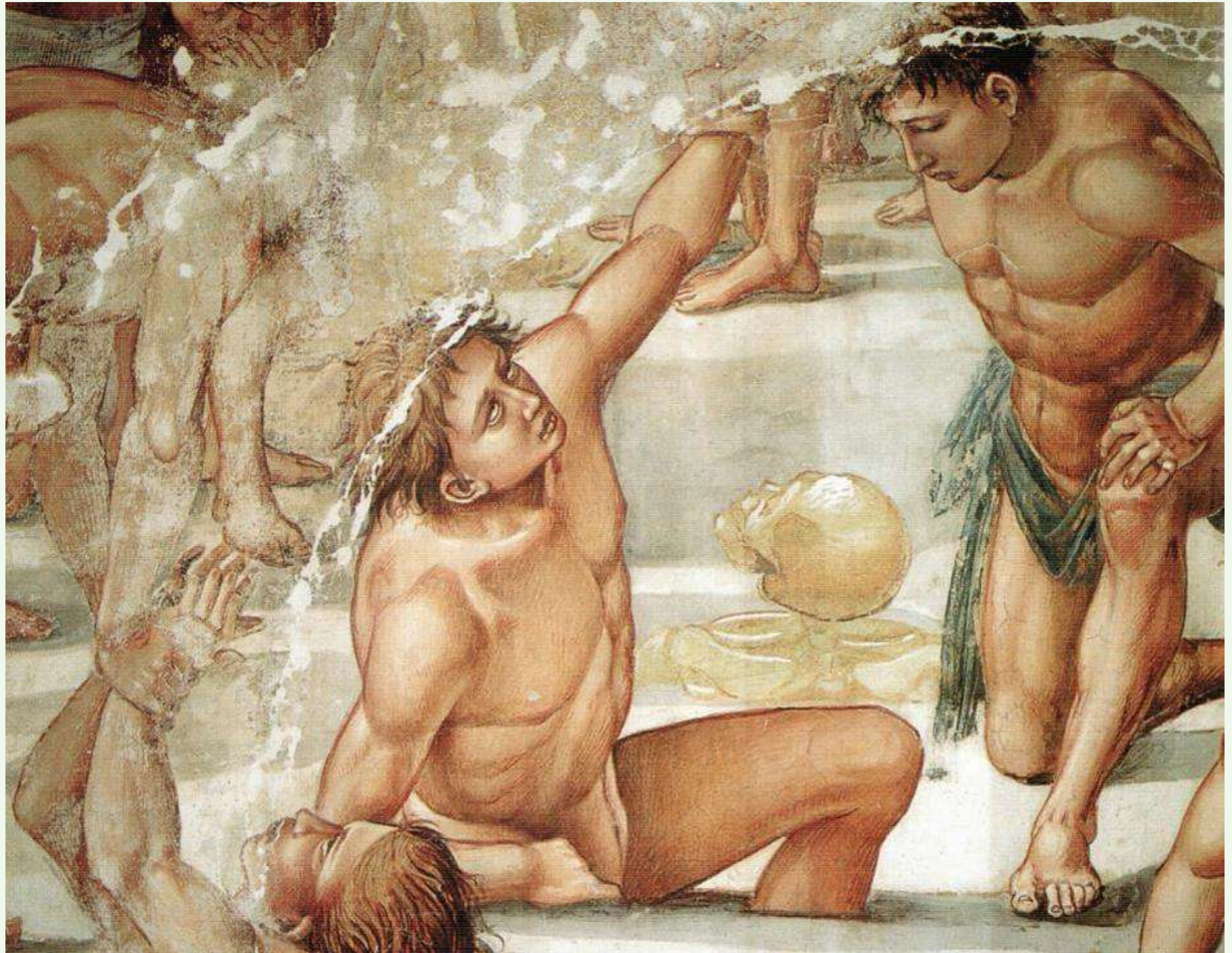


Expected steam release: 3.5 g/m³/h

Expected year for reaching
an acceptable value (10%): 2030



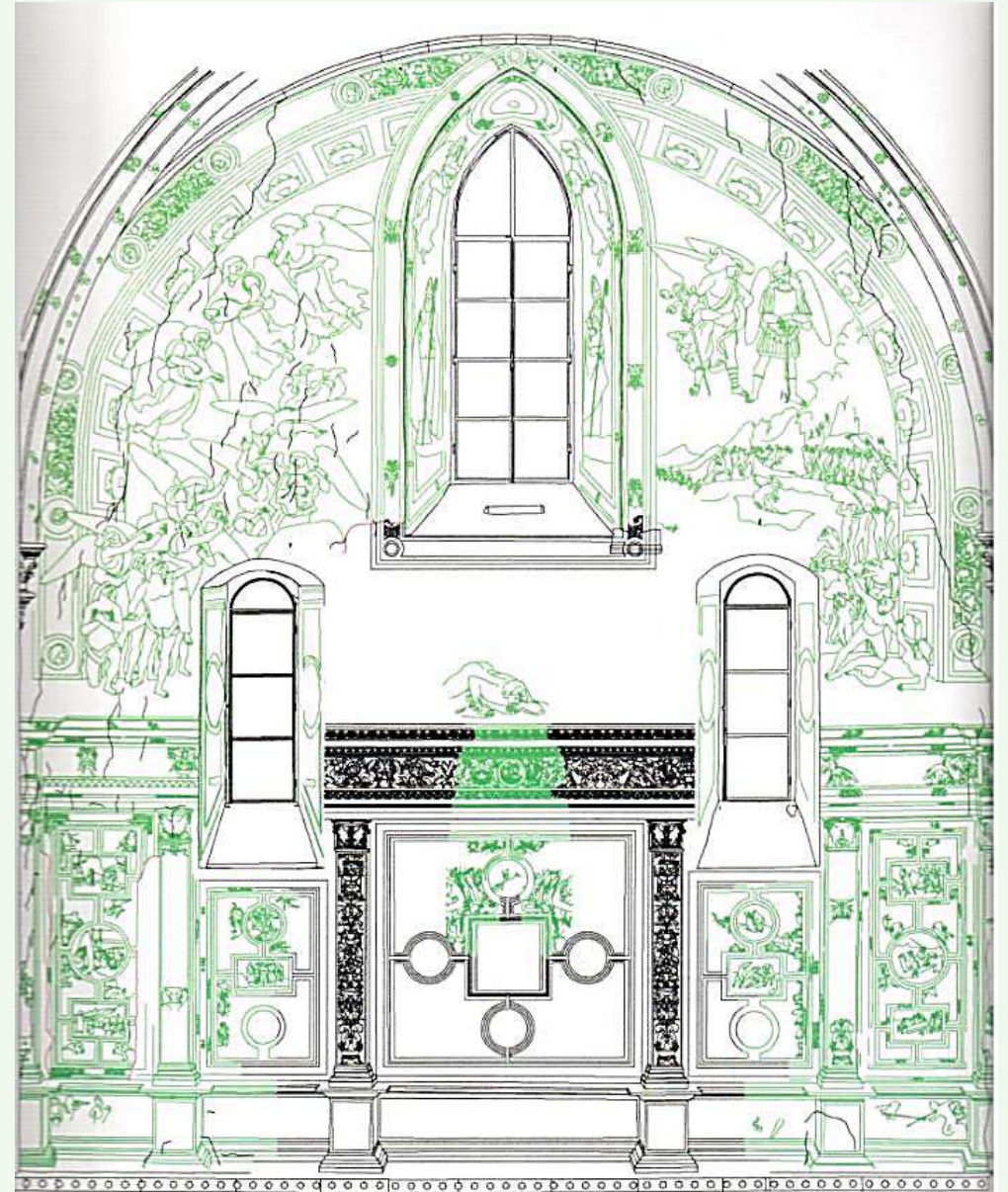
Before the restoration:
the circular white mark was
caused by the presence of a
former window, where the
brickwork led to a significant
accumulation of water.





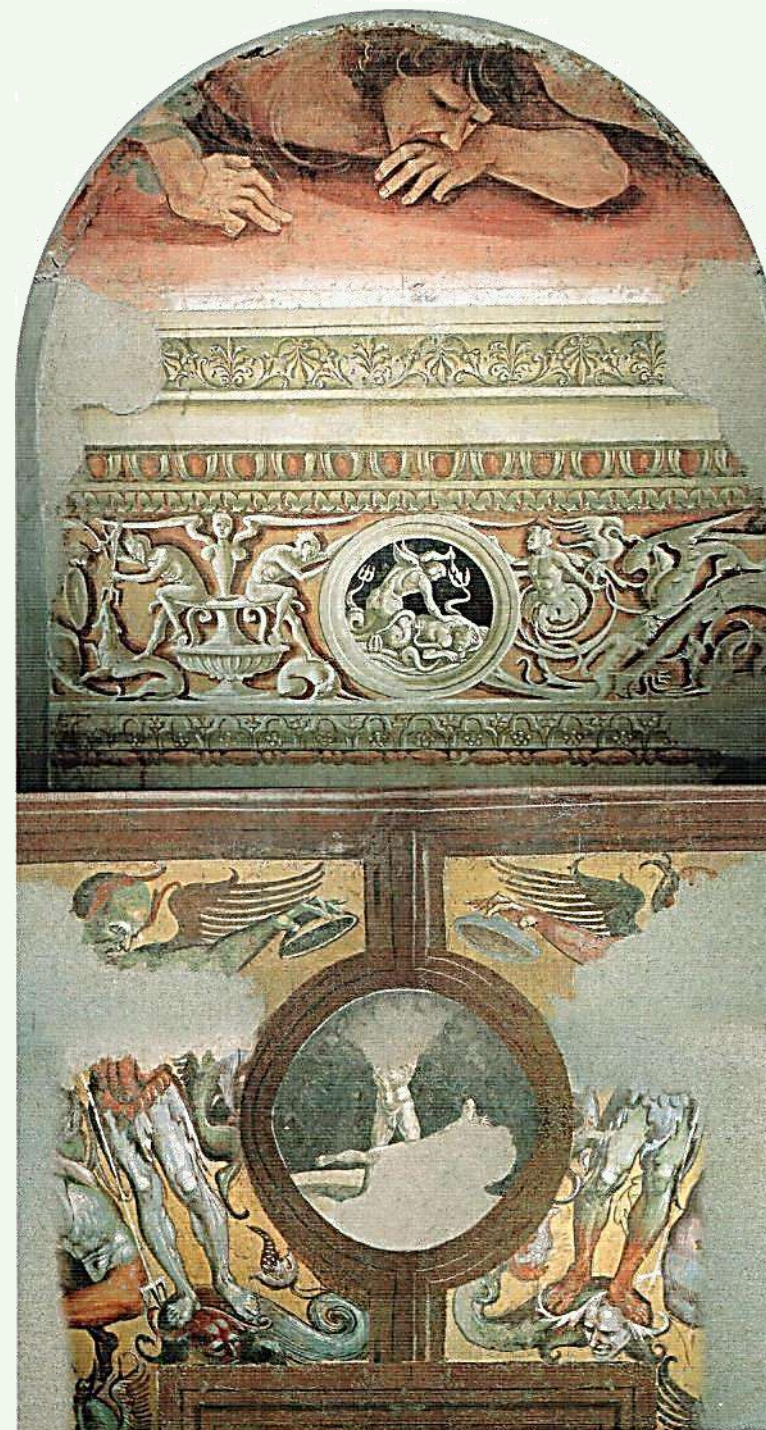


The discovery of new pictorial scenes
by Signorelli, hidden behind the 18th century altar



The section of the frescoes revealed behind the Baroque altar harmonizes perfectly with the rest of the central decoration on the end wall. Visible here is a square frame—which once housed a poet's bust, echoing other elements of the chapel—surmounted by a scene of a murder; higher up still, in the band dedicated to mythological references, a triton is depicted killing another triton.

The prevailing interpretation is that this represents fratricide, a theme echoing one of the chapel's central concerns: the quest for unity among the people of Orvieto, who had been divided into rival factions since the early 14th century.



According to the Scriptures, the most famous fratricide was **Cain**. This is the most logical interpretation of this figure, depicted biting his hand in remorse.



The restoration of Gentile da Fabriano's Maestà

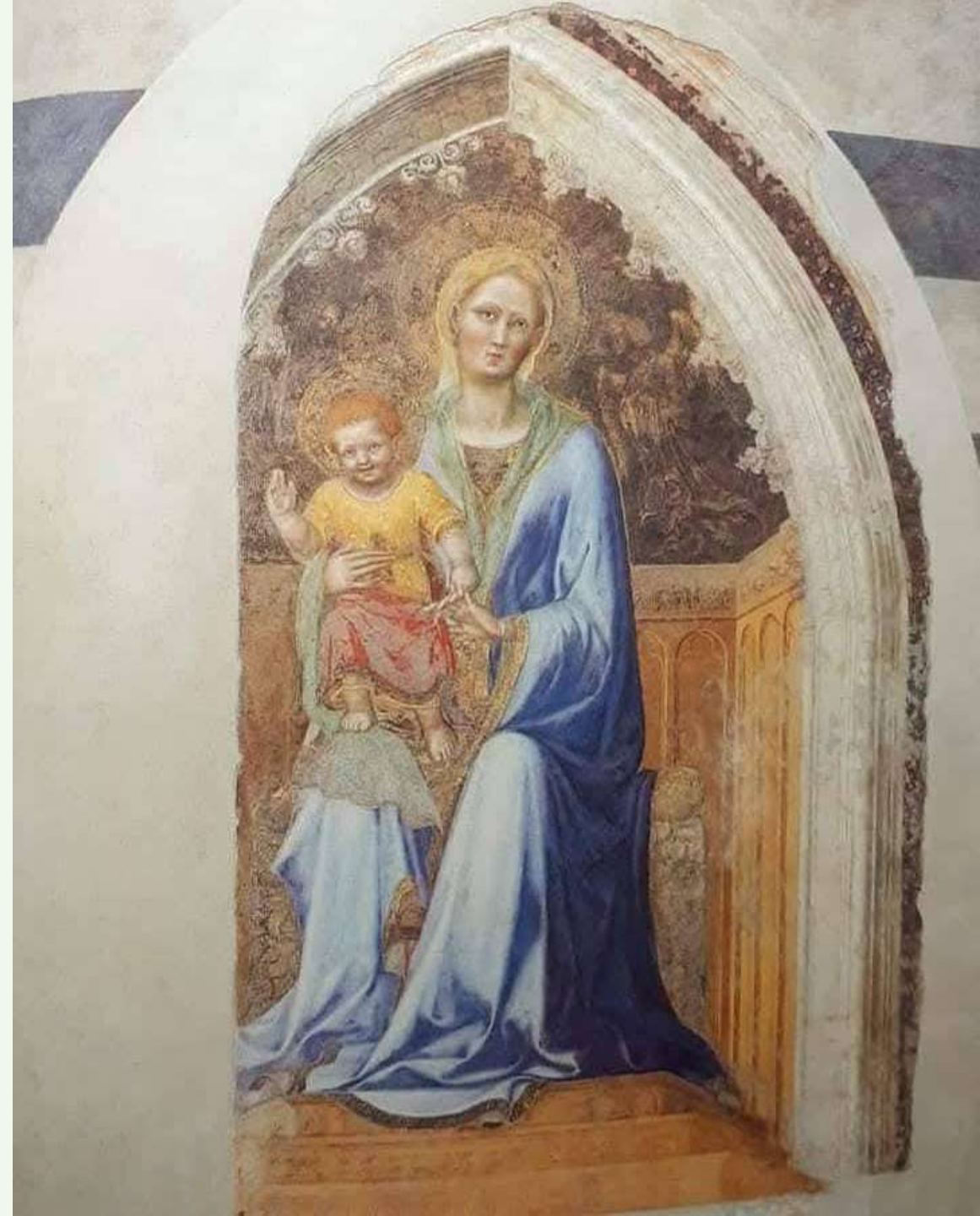
Among its distinctive features, Gentile da Fabriano's fresco is notable for being the only known work of this kind by the artist.

It had been altered in the late 16th century by the addition of a figure of Saint Catherine painted in tempera, intended to change the work's theme to depict the saint's mystical marriage.



The Gentile da Fabriano's Maestà, after its restoration

Once the figure of Saint Caterina was removed, it became possible to restore the precise outline of the fresco's pointed arch and to appreciate the great refinement of the original work, particularly through the use of transparent glazes to render ethereal angels.



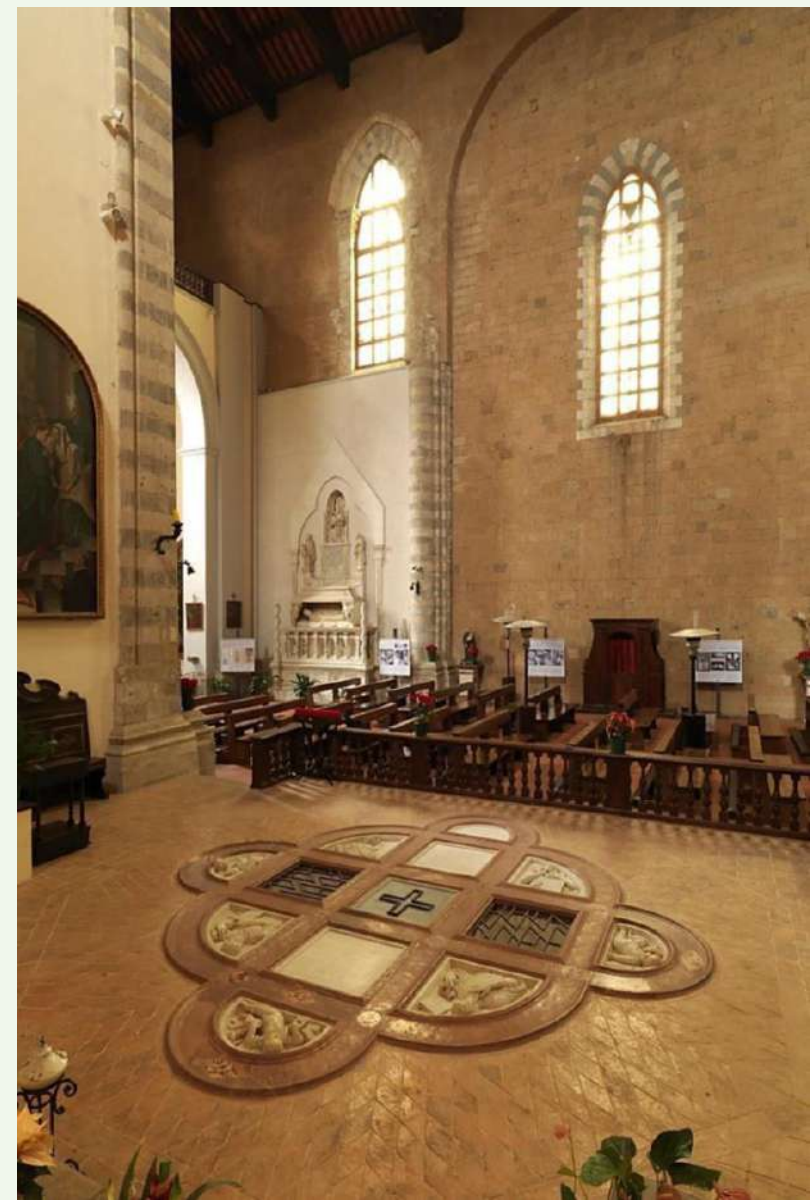
The last law

LEGGE 23 luglio 1997, n. 242
Rifinanziamento della legge 29 dicembre 1987, n. 545,
per il consolidamento della Rupe di Orvieto e del Colle di Todi.

Restoration work on artistic and cultural heritage assets, with
priority given to completing projects already underway and to
be completed

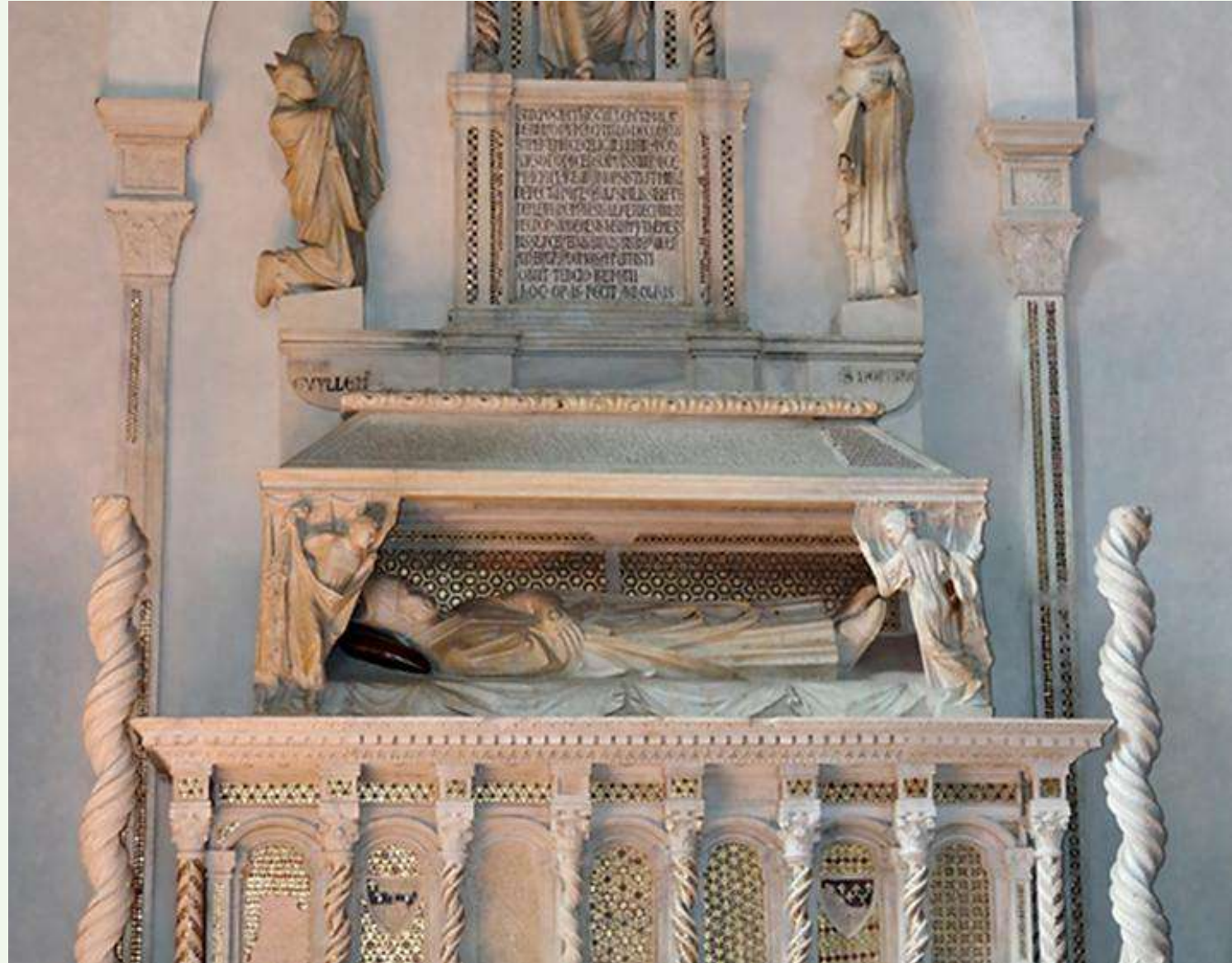


Orvieto, Church of San Domenico



Orvieto, Church of San Domenico.
Funerary monument of Cardinal De Bray.
Arnolfo di Cambio, 1284

The De Bray monument is a piece of micro-architecture structured across four levels, combining architectural and sculptural elements. The recovery of architectural components preserved elsewhere has made it possible to understand the work's initial configuration; despite various subsequent alterations, Arnolfo di Cambio's original design has thus been scientifically reconstructed.



Orvieto, Convent of San Francesco.
Restoration and renovation of the
new Orvieto Public Library, named
after Luigi Fumi





Public Library reading room







THE FUTURE

How many more pearls need we add to complete the precious necklace of restoration work on Orvieto's historic and artistic heritage buildings?

Perhaps just three would be enough:

- **the church of San Francesco;**
- **the Monaldeschi Palace;**
- **the Piave Barracks.**

The Church of Saint Francis





The Monaldeschi Palace



La Caserma Piave - The Piave Barracks

The Piave Barracks were originally an Air Force facility; its founder, and the head of the relevant ministry, was the Fascist leader Italo Balbo.

The complex was built between 1929 and 1934 and was linked to a modern airfield located near the village of Castel Viscardo, featuring reinforced concrete hangars designed by the renowned structural engineer Pierluigi Nervi.

After World War II, the site was transferred to military corps of the Granatieri di Sardegna (Grenadiers of Sardinia), and subsequently served as a recruit training center.



The Ministry of Defence decommissioned the Piave Barracks in 2002, and the site has since been fully available to its owner, the Municipality of Orvieto, but it is completely abandoned.

The restoration and adaptive reuse of the Piave Barracks for a meaningful purpose could mark one of the final stages of the long process initiated in 1978 with the original legislation regarding the stabilization of the Orvieto Rupe.

It would indeed mark the final milestone of the *Progetto Orvieto*, which aimed to identify specific sites and define criteria for the restoration and enhancement of the city's cultural heritage.



The MOST

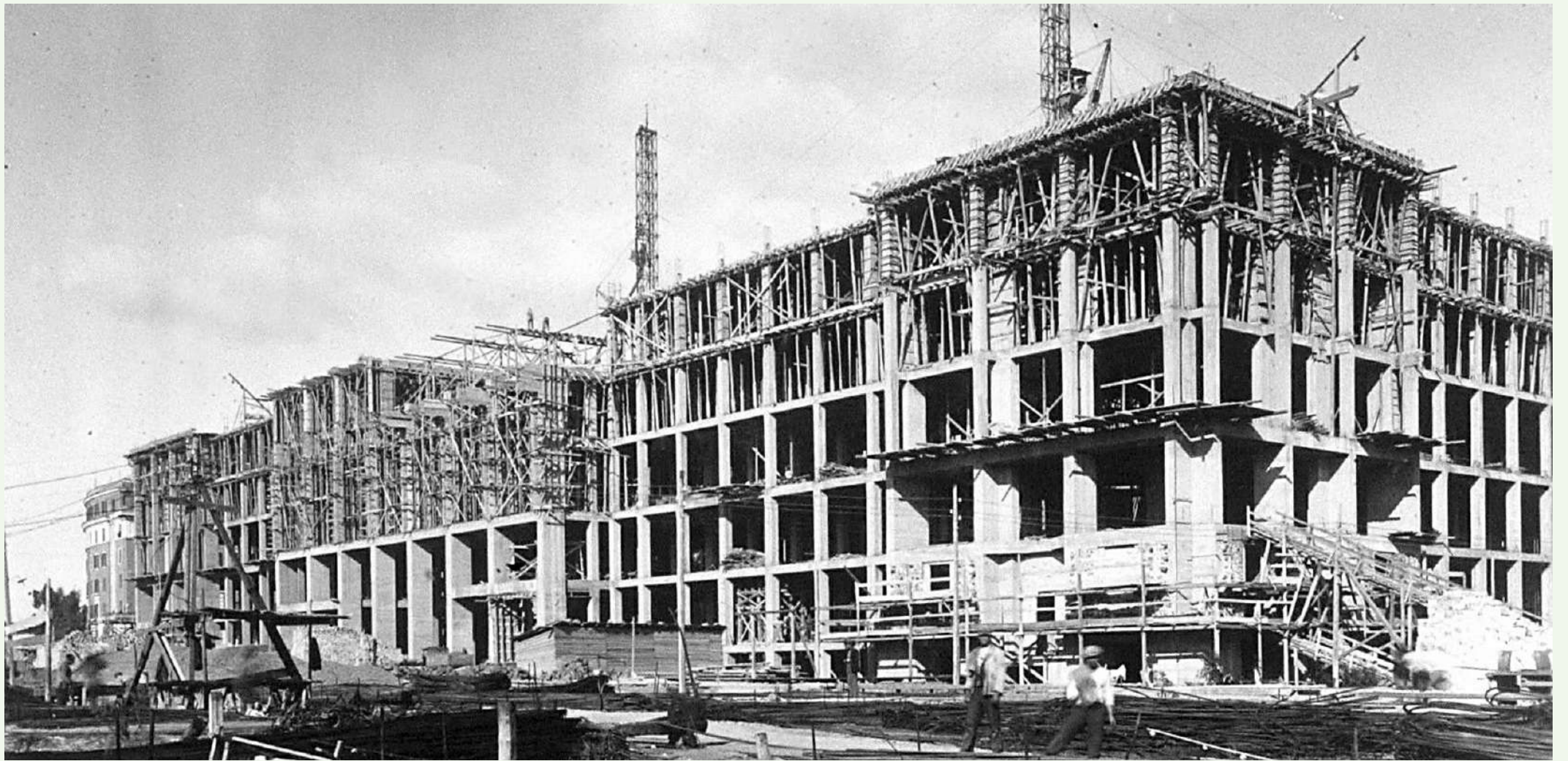
Assigning a new role to the barracks would effectively complete the *Orvieto Project*, the site could serve as a cultural hub capable of coordinating the city's other cultural offerings.

The concept involves hosting major themed events within the Piave Barracks, showcasing artworks that rather than being displayed in Italy's main museums, are currently relegated to storage.

This idea emerged in 2022 as a way to bring visibility to these virtually hidden assets through the **MOST** initiative (Museum in Orvieto of Secret Treasures) or, more simply, the **Museum of Museums**.

The goal is to bring to light a heritage that is essentially a treasure held in reserve, while harmonizing diverse yet complementary functions within the concept of a vast public art atelier—showcasing the very best of what Italian culture has to offer.





The main building reserved for the soldiers (l'*Edificio Truppa*) was constructed in the years 1929-34 using a series of continuous reinforced concrete frames. This fluid layout offers, then as now, the advantage of great modular flexibility, allowing for the use of movable walls to create open spaces and fluid circulation paths.



The Piave Barracks while under construction



The fluid layout of series of continuous reinforced concrete frames offers the advantage of a great modular flexibility

Two examples of spaces featuring steel and concrete structural frameworks being transformed into cultural venues are the Fondation Cartier pour l'Art Contemporain and the Palais de Tokyo, both in Paris.

Very recent projects completed on these two buildings offer solutions to challenges similar to those anticipated for the adaptive reuse of the Piave barracks.

La Fondation Cartier pour l'Art Contemporain

Le Palais de Tokio



The vast *Piazza d'Armi*, covering nearly a hectare, will continue to serve as a hub for strategic connections; the arcades surrounding most of the square will provide sheltered outdoor walkways, which could be complemented by underground passages and parking areas.

This layout might recall that of the Louvre, which is organized around the Cour Napoléon (two and a half times the size of our Piazza d'Armi!); the design, similar to the Parisian model, will guide visitors toward the museum's three main wings and create circulation flows traversing the entire complex.



Opening up to the city

From an urban planning perspective, the barracks' distinct sense of enclosure vis-à-vis the city, which was necessitated by its original function, must be broken by opening up the ground floor toward Via Roma and, by extension, the rest of the city.





**Thank you all for your attention
and goodbye to Orvieto**