

quaderni di assorestauro



YEAR07NR01  
MARCH2018

# RESTORATION OF CULTURAL HERITAGE: TECHNIQUES AND SUSTAINABILITY

18<sup>TH</sup>-24<sup>TH</sup> MARCH 2018



18  
20 MARCH  
MILANO



21  
22 MARCH  
FERRARA



20 MARCH  
PIACENZA



23 MARCH  
PADOVA



21 MARCH  
MIRANDOLA  
S. BENEDETTO



23  
24 MARCH  
VENEZIA

Project supported by ITA - Italian Trade Agency & Assorestauro

In cooperation with



ITALIAN TRADE AGENCY  
ICE - Agenzia per la promozione all'estero e  
l'internazionalizzazione delle imprese italiane

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POLITECNICO  
MILANO 1863  
DIPARTIMENTO ARCHITETTURA  
E STUDI URBANI



SCUOLA DI SPECIALIZZAZIONE  
IN BENI ARCHITETTONICI E DEL PAESAGGIO



Quaderni di Assorestauro



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MARCH 2018

Edited by  
Andrea Grilletto  
Sonia Vallese

Each article has been edited by  
Federica Alberga - Simona Belmondo  
Silvia Demetri - Tan Rouschuang

Graphic Project



Blumorgana | Viviana Maria Lucia Volpini  
[info@blumorgana.it](mailto:info@blumorgana.it)

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■	SPONSOR PRESENTATION	
_	PRESENTATION OF "ICE AGENCY" .....	4
_	PRESENTATION OF "ASSORESTAURO" .....	5
■	WORKSHOP SESSION	
	<b>MILANO   18-20<sup>TH</sup> MARCH</b>	
_	MILAN AT THE ROMAN TIMES - Soprintendenza Milano .....	6
_	SALA DELLE ASSE - Elen spa .....	14
_	FONDAZIONE PRADA - Fondazione Prada .....	20
_	PALAZZO DELLE SCINTILLE - Studio Berlucchi srl .....	26
	<b>PIACENZA   20<sup>TH</sup> MARCH</b>	
_	CARMINE WORKSITE: AN OPEN-LAB INSIDE THE SPACES OF THE EX-CHURCH OF THE CARMINE - Kairos Restauri snc, Ibix srl .....	30
	<b>MIRANDOLA /SAN BENEDETTO PO   21<sup>TH</sup> MARCH</b>	
_	POST-EARTHQUAKE RESTORATION OF THE CLOISTER OF THE "SECOLARI" IN THE COMPLEX OF SAN BENEDETTO IN POLIRONE - Studio Berlucchi srl .....	34
_	RESTORATION AND SEISMIC IMPROVEMENT OF THE CHURCH OF SANTA MARIA MAGGIORE IN MIRANDOLA - Bottoli Costruzioni .....	40
	<b>FERRARA   21-22<sup>TH</sup> MARCH</b>	
_	THE BASILICA OF SAN FRANCESCO IN FERRARA - Studio Leonardo srl .....	44
	<b>PADOVA   23<sup>RD</sup> MARCH</b>	
_	INTRODUCTION OF THE RECENT INTERVENTION APPLIED TO CAPPELLA DEGLI SCROVEGNI - Kimia spa .....	50
	<b>VENEZIA   24- 23<sup>RD</sup> MARCH   VENEZIA ARCHITETTURE LAGUNARI</b>	
_	THE CONSERVATION OF PONTE DELL'ACCADEMIA IN VENICE - Studio Berlucchi srl - Studio Be.Fa.Na. ....	56
_	A HISTORY OF LA SCUOLA GRANDE MISERICORDIA IN VENICE AND ITS CONSERVATION - Lithos srl - Setten .....	60



**ITALIAN TRADE AGENCY**

**ICE - Agenzia per la promozione all'estero e l'internazionalizzazione delle imprese italiane**

The Italian Trade Agency - ICE is the Government agency that supports the globalization of Italian firms, implementing the strategies of the Ministry of Economic Development.

The Italian Trade Agency - ICE helps to develop, facilitate and promote Italian economic and trade relations with foreign countries, focusing on the needs of SME's, their associations and partnerships.

The Italian Trade Agency - ICE sustains Italian firms in their internationalization processes, in the marketing of Italian goods and services while promoting the "Made In Italy" image around the world, and it is directly involved in attracting foreign direct investments.

The Italian Trade Agency - ICE provides information, support and consultancy to Italian companies on foreign markets, promoting and fostering exports and cooperation in all areas – industry (consumer and capital goods), agricultural technology and agri-food, services, and training - with the aim of increasing and making more effective their presence on international markets.

The Italian Trade Agency - ICE works closely with the Italian Regions, the network of the Italian Chambers of Commerce, business organizations and other public and private entities.

The Italian Trade Agency - ICE headquarters is in Rome and its network of offices around the world act as "Trade Promotion Offices and/or Sections" of the Italian Embassies or Consulates.





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**associazione italiana per il restauro architettonico, artistico, urbano**  
 italian association for architecture, art and urban restoration

*Project coordinator:*  
**Andrea Griletto**

## **WHO IS ASSORESTAURO ?**

Established in 2005 as the first Italian association of manufacturers of materials, equipment and technology, suppliers of services and specialized companies, Assorestauro represents the Italian sector of restoration and conservation of material heritage. To date, it is the sole association and a reference in the domestic and international market for anyone willing to start working in the conservation sector in Italy, to be intended in its broadest sense, that is, as a synthesis of the various disciplines involved, of the professional specialists, of the available technology and of the growing business community. If examined as a whole, the sector accounts for a large market share and has a meaningful impact on tourism, industry and bioconstruction.

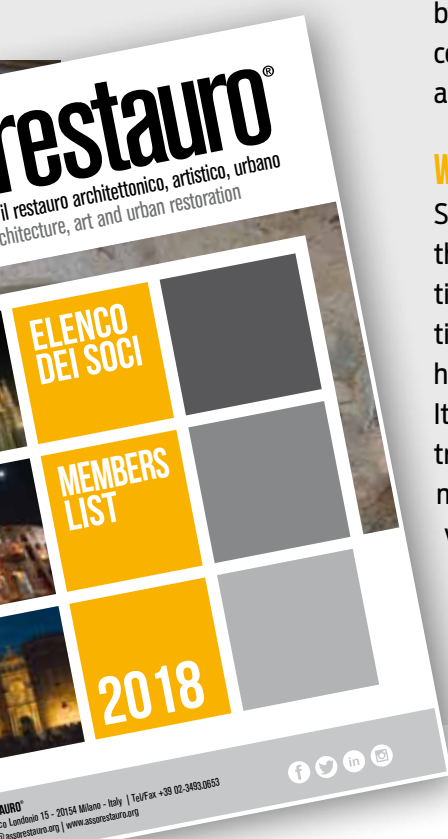
## **WHAT ARE ASSORESTAURO'S GOALS ?**

Assorestauro is the National Trade Association for the Restoration Sector, representing manufacturers of materials, equipment, technology, specialist companies, designers and suppliers of services for analyses, surveys and diffusion. The Association offers its members information, assistance, advice and training both directly and through its partners, with a view to building a consistent and unitary orientation to the different sectors of the restoration industry at national and international level.

As a national association, Assorestauro is aimed at coordinating, protecting and promoting the interests of the restoration sector and it represents before the outer market, in Italy and abroad, the common positions for technical and economic issues, as well as image, by carrying out targeted activities in such relevant fields of the sector as information and communication, protection of common interests (economy, image, standards), research and development, promotion.

## **WHAT DOES ASSORESTAURO DO ?**

Several activities aimed at promoting the professional skills in the restoration sector fall in the scopes of the Association. They include diagnostic analysis, design and on site execution, producing technology and materials, as well as contributing technological innovation, with the support of Institutions, Universities, Agencies for the protection of cultural heritage and ICE, the Agency for the internationalization and the promotion abroad of Italian businesses. This type of action includes both promotion in Italy (conferences and training seminars, trade exhibitions, courses and similar initiatives) and abroad (foreign missions, training, b2b encounters, restoration sites), where member companies are involved and offered the chance to study and penetrate foreign markets through projects co-sponsored by national and international bodies.



**18** MARCH  
**20**  
MILANO

## MILAN AT THE ROMAN TIMES

### Two pilot projects: Amphitheatrum Naturae and the Basilica of S. Lorenzo Maggiore

Federica Alberga

Soprintendenza Milano  
*Head of the Commission  
of Archaeology, Fine Arts  
and Landscape of  
the metropolitan city of Milan*  
Antonella.ranaldi@beniculturali.it  
[www.architettonicimilano.lombardia.beniculturali.it](http://www.architettonicimilano.lombardia.beniculturali.it)

The city of Milan is famous all around : it is one of the C apitals of fashion and design, the main Italian economic centre, headquarter of the Italian Stock Exchange, an important centre in publishing, theatre and music, a melting pot of cultures.

Milan is surely linked to the modernity; its skyline, the modern architectures, the efficiency, but rarely its history is mentioned and, above all, the ancient one.

Founded from a Celtic tribe at the beginning of the VI cen- tury B.C., Milan gained more importance when it became the capital of the Western Roman Empire with the name of Mediolanum. This important past left in the city marks that show the stratification of its magnificent monuments, more or less visible, from the archaeological to the architectonic and artistic ones.

The management of this enormous cultural heritage has followed during the time different steps: from the end of the XIX century when studies, researches and excavations revealed, for the first time, that rests of that Roman monuments survived the spoliations and the construction overlapping; until the post-war period when, during the reconstruction works, a portion of the Imperial Palace, the “Erculee” thermal baths and early Christian episcopal complex, was recovered.

The attitude of the city towards its archaeological heritage was not always finalized to the best conservation and fruition of the assets because the interventions had to adapt to the frenetic rhythms of a city in full economic boom. As Guido Piovene said in his *Viaggio*





01



Fig 1. Map of Roman Milan

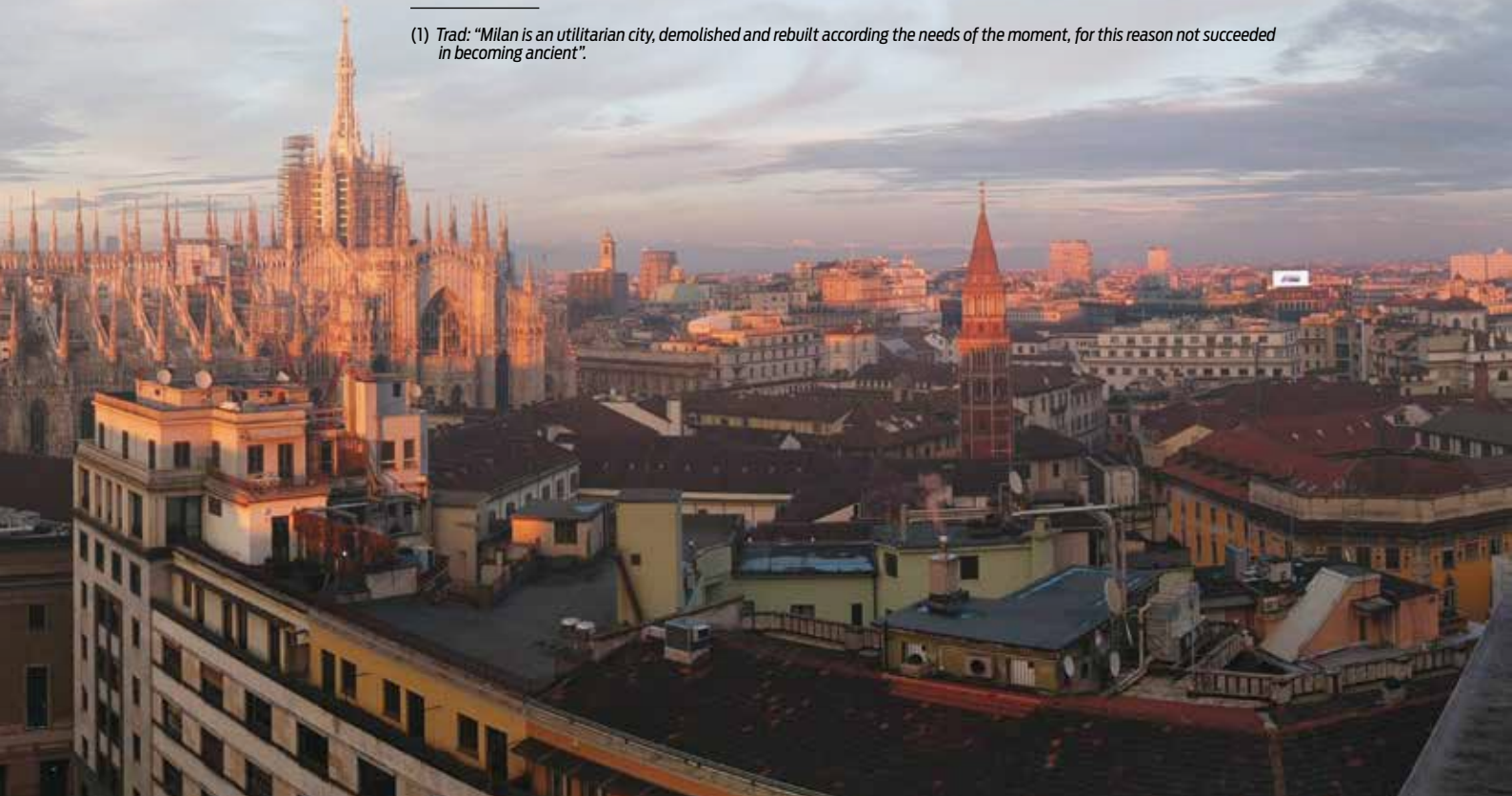
Source: [http://milano.corriere.it/notizie/cronaca/18\\_febbraio\\_25/milano-rinasc-antico-foro-romano-mediolanum-piazza-san-sepolcro-pedonalizzata-auto-parcheggio-leonardo-8b8efaf8-19f8-11e8-abf0-5b17233f1e2b.shtml](http://milano.corriere.it/notizie/cronaca/18_febbraio_25/milano-rinasc-antico-foro-romano-mediolanum-piazza-san-sepolcro-pedonalizzata-auto-parcheggio-leonardo-8b8efaf8-19f8-11e8-abf0-5b17233f1e2b.shtml)

Fonte: <http://milanoarcheologia.beniculturali.it>

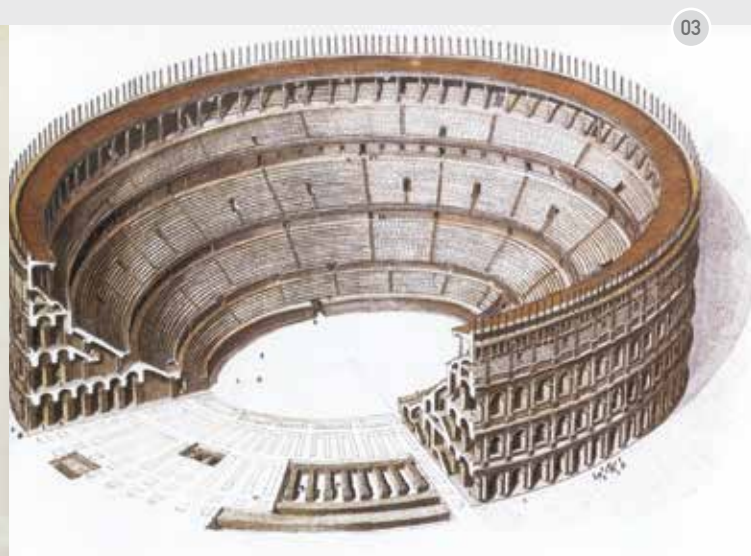
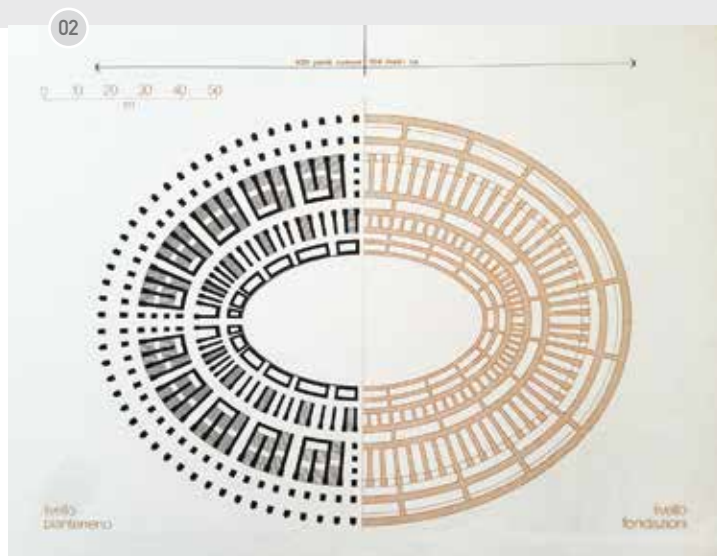
in Italia (1957) “[...] Milano è una città utilitaria, demolita e rifatta secondo le necessità del momento, non riuscendo perciò a diventare antica”.<sup>(1)</sup>

In conclusion, for a long time this heritage was not managed in the proper way or it has just been forgotten.

(1) Trad: “Milan is an utilitarian city, demolished and rebuilt according to the needs of the moment, for this reason not succeeded in becoming ancient”.







**Fig 2. Reconstructive proposal of the Amphitheatre. Axonometry**

Source: <http://milanoarcheologia.beniculturali.it>

**Fig 3. Reconstructive proposal of the Amphitheatre. Plans**

Source: <http://blog.urbanfile.org/2016/05/01/milano-porta-ticinese-se-si-ricostruisce-lanfiteatro/>

Nowadays Milan is living another season, characterized by the rediscovery of its historical treasures, the so-called “Milano Romana”, thanks to the collaboration of different public and private entities coordinated by “Soprintendenza Archeologia, Belle Arti e Paesaggio per la città metropolitana di Milano” and by the Superintendent, architect Antonella Ranaldi.

This ambitious project is composed by some initiatives such as “Milano archeologia per Expo 2015. Verso una valorizzazione del patrimonio Archeologico della città di Milano” following by “Mediolanum MMXV”.<sup>(2)</sup>

The aims of these projects are linked to the study, the relief, the conservation and the development of some Roman monuments or Archaeological rests such as S. Eustorgio, S. Lorenzo Maggiore, the Imperial Palace, the Roman Theatre, the Roman Forum, the Circus the Amphitheatre, and how to make in communication these places.

### FINANCIAL SOURCES

It is important to make a focus about the kind of financing of these activities, represented by the sponsorship.

The new Italian “Codice dei Contratti Pubblici”<sup>(3)</sup> improve the public/private partnerships, also for the protection and valorisation of cultural assets. The article 19, establish the threshold value of 40.000 euros as the limit, below which no specific formalities are required for awarding the sponsorship. Over the limit value, the procedures for accepting a private sponsorship are simplified. The Public Administration needs to give evidence of a proposed sponsorship or to the sponsorship search notice, through its official website, for a period of thirty days.

The partnership with the financial operator can be agreed after this period of time, due the financial and moral requirements given by the Law.

The article 115 of the Code refers specifically to the Cultural Assets, confirming the validity

<sup>(2)</sup> For further information about these and other project it refers to website [www.milanoarcheologia.beniculturali.it](http://www.milanoarcheologia.beniculturali.it)

<sup>(3)</sup> D.Lgs 50/2016.



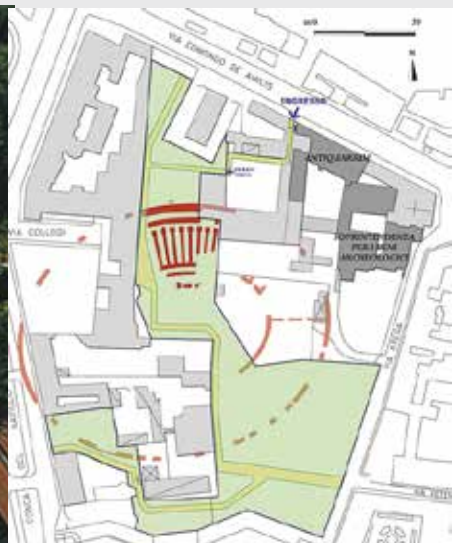
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**Fig 4. The Amphitheatre and its context**

Source: <http://milanoarcheologia.beniculturali.it>

**Fig 5. The Amphitheatre\_ In red the ruins and in orange the excavation campaigns**



05

of the article 9 and the role of the Ministry of Culture (MIBACT) to control the Sponsor from the design phases to the intervention on site. The so-called Project Financing can also be extended to the management of the cultural assets for a due period of time after the restoration, according to the agreement. The simplification of the public-private partnership originates from the necessity of managing and preserve the huge Italian Cultural Heritage, widening the participation of the private sector.<sup>(4)</sup>

Three kinds of contracts are available: the “pure sponsorship”, which refers to a direct private grant; the “technical sponsorship”, related to funding the restoration process from the design to the worksite; the “mixed” one, resulting by the combination of the previous. Among the projects suggest by the “Soprintendenza Archeologia, Belle Arti, Paesaggio”, for which are used this kind of private financing, especially the first one, are remarkable the cases of “Amphitheatrum Naturae” and the one developed on S. Lorenzo Maggiore.

### AMPHITHEATRUM NATURAE

The Amphitheatre, whose ruins are accessible from the Antiquarium “Alda Levi”, is hidden in a block of buildings among de Amicis street, Conca del Naviglio street and Arena street. It was the third largest amphitheatre in the world, after the Flavian’s in Rome and the one in Capua and it was built during the I century A.C., out of the city wall. According to the reconstructions, it should have an elliptical shape of 115x125 m and an height of around 38 m, divided on 3 levels and a final attic floor.

During the V century, the monument was disassembled and part of it was used to build other constructions such as the foundation of the near Basilica of S. Lorenzo Maggiore. Nowadays, the Amphitheatre ruins are collocated in an urban park. The project proposed by the Soprintendenza, called “Amphitheatrum Naturae”, consists in recreating the shape of the missing building through vegetation, terrain modelling and green elements. It will be used trees of box, cypress, privet, and other historical species.

<sup>(4)</sup> Art. 19-115 of D.Lgs 50/2016; Circolare MIBACT – Segretariato Generale, n. 28 of 17/06/2016 “Sponsorizzazione dei Beni Culturali”; D.M. 19/12/2012 “Norme tecniche e linee guida in materia di sponsorizzazione dei Beni Culturali”.

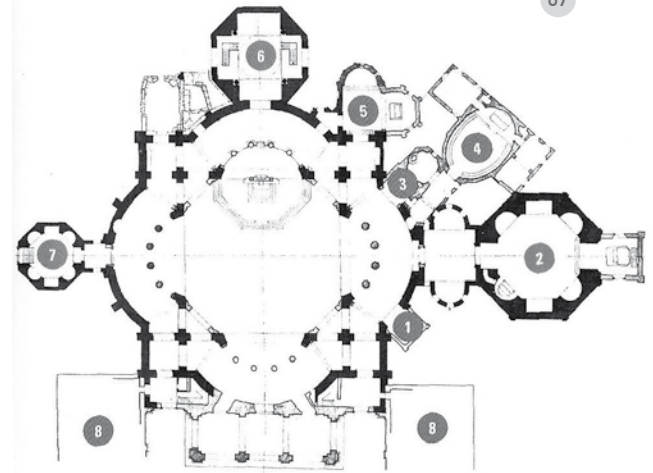
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**Fig 6. Foundation floor of S. Aquilino's Chapel made by the stone block of the Amphitheatre**

Source: <http://milanoarcheologia.beniculturali.it>

07



Legenda

1. Cappella di san Giovanni Battista
2. Cappella di sant'Aquilino
3. Cappella della Sacra Famiglia
4. Sacrestia
5. Cappella Cittadini
6. Cappella di sant'Ippolito
7. Cappella di san Sisto
8. Canoniche

**Fig 7. The Basilica of S. Lorenzo Maggiore. Plan**

Source: <https://www.geometriefluide.com/pagina.asp?cat=paleocristiana&prod=san-lorenzo-milano-storia>

“The care, custody and maintenance of historic sites can find new design solutions in the symbiosis of ruins and greenery, with a landscapist, romantic, architectural approach respectful of the principles of conservation, authenticity, reversibility. While adding or integrating architectural elements is not a very convincing solution, greenery opens the way to creating overtly transient settings capable of improving the enjoyment and enjoyability of a landscape of archaeological ruins. Of course, some precautions must be taken; for instance, trees must be planted into buried vats to avoid contact and the risk of root infestation, and vestige-friendly species must be chosen... Vegetation, terrain modelling and green furniture can be designed purposefully for archaeological sites...”

In line with this idea, I suggested to create a viridarium to revive the archaeological park of the Roman amphitheatre of Milan. An unprecedented Amphitheatrum naturae of ancient topiary species (boxwood, myrtle, privet, cypress), the large elliptical garden replicating the shape of the missing amphitheatre will match and integrate the archaeological finds on site, that is, some stretches of the radial walls of the Roman monument”.

From: Antonella Ranaldi, Green Archaeology. Landscapes, gardens, ruins. Integrating voids and images in archaeological sites, QA\_A06\_02 Lebanon

The area in which this experiment of natural reconstruction will be realized, is given in loan for use from the Municipality to the Soprintendenza for 5 years, in order to realize the intervention. It will be financed through the benefit deriving from advertisements collocated on a blind wall of De Amicis street.

This project, strictly connected to the Basilica of San Lorenzo, represents the desire of the Soprintendenza to create a unique itinerary from the archaeological park, to the church and the Park of the Basilica.



**THE BASILICA OF S. LORENZO MAGGIORE**

The Basilica of S. Lorenzo Maggiore is located close to the Amphitheatre and represents one of the most ancient church of the city. It was built when Milan was the capital of the Roman Empire, around the end of the IV century and the beginning of the V, in a strategic position: out of the city wall, near Porta Ticinese, the main access to the city from Pavia. The construction history of the church is very complex and a lot of details and information are unknown yet.

In front of the Basilica, The “Saint Lorenzo columns”, sixteen Corinthian columns, represent the edge of the old “quadriportico” at the entrance of the church.

Fig 8. The Basilica of S. Lorenzo Maggiore and its chapels

Source: [https://it.wikipedia.org/wiki/Basilica\\_di\\_San\\_Lorenzo\\_\(Milano\)](https://it.wikipedia.org/wiki/Basilica_di_San_Lorenzo_(Milano))





Repeatedly revised to face destructions, fires, collapses<sup>(5)</sup>, S. Lorenzo maintains its tetraconch central plan with an ambulatory on the ground floor, to which corresponds the matroneum on the upper level. Around this central plan, various chapels had added during the time: S. Aquilino's, S. Ippolito's, Cittadini's, S. Sisto's, S. Giovanni Battista's and Sacra Familia's.

The restoration of the monument is necessary because of the inadequate maintenance and the dated previous interventions (Ambrogio Annoni in 1913 discovered the stone blocks deriving from the amphitheatre under the S. Aquilino's chapel and Gino Chierici, from 1936 to 1940, coordinated the restoration of all the building).

This necessity has paved the way to the cooperation between Monsignor Gianni Zappa, parish priest of the church, and the Soprintendenza, to promote the harnessing of the

**Fig 9. The Basilica of S. Lorenzo Maggiore. A mosaic in the S Aquilino's chapel: "Jesus, on a throne, teaches his apostles"**

Source: [https://it.wikipedia.org/wiki/Basilica\\_di\\_San\\_Lorenzo\\_\(Milano\)](https://it.wikipedia.org/wiki/Basilica_di_San_Lorenzo_(Milano))

Photographed by Giovanni Dell'Orto

(5) *The present dome was built in 1573 after the previous collapse of the vault following the design by architect Martino Bassi.*





church and the harnessing of the rests present under the altar of the S. Aquilino's chapel. In this period, the pilot project is starting. It is based on the restoration of the S. Aquilino's chapel with its magnificent mosaics thanks to the financing from a private sponsor through the benefit deriving from advertisement (TMC Pubblicità). The first intervention is on the mosaics, the frescos and the ancient painting in the chapel. In conclusion, the intervention of all the church (consisting also on the restoration of the decoration elements, the resolution of the humidity problems, the illumination system and the creation of an exhibition itinerary of the finds through the matroneum will be divided in more steps, in more construction sites, for which is necessary finding sponsors and financings. One of these private sponsors will be "Fondazione Cariplo" and some of the works in the church will be realized thanks to the private fundraising.

**Fig 10. The Basilica of S. Lorenzo Maggiore. Internal view**

Source: <http://www.clponline.it/mestre/cappella-di-santaquilino-i-lavori-di-restauro>







Federica Alberga

## SALA DELLE ASSE

### A successful example of laser cleaning



Conservation Technologies  
Department

conservazione@elen.it  
www.lightforart.com

#### THE SFORZA CASTLE

The constructive history of the Sforza Castle in Milan started in the XIV century when Galeazzo II Visconti ordered the construction of the first defensive core. Then the castle was transformed, renovated and enlarged, during the following centuries, by the Visconti and the Sforza's families and then by other foreign lords, until it became the square plan castle as it appears nowadays.

It was considered, at the beginning, only a defensive fortress, but with the shifts in power and the changes of the needs, the structure was enriched with new residential functions.

The Sforza domination represented the golden age for the castle, in which there was an increase of the decorative system of the building: from 1450 Francesco Sforza started the reconstruction of the castle and turned it into his princely residence; his son Galeazzo Maria Sforza and his daughter-in-law Bona of Savoy, from 1466 to 1476, pursued the works increasing the decorative system. Ludovico Maria Sforza the 4th son of Francesco, better known as "Ludovico il Moro" one of the greatest sovereign of Milano and patron of Leonardo da Vinci and Bramante, presided over the final and most productive stage of the Milanese Renaissance. He developed the painted decorations, as a celebration of the power of his House, visible especially in the rooms of the Corte Ducale.

This part of the Castle, in which we can find the Sala delle Asse analysed in this article, was used on one side as residential area from the Duke and his family, on the other side for meetings and parties.

After the Sforza domination, the Castle lived an extended period of unstoppable decadence, during which it went through radical changes: it was used as a military fortress and prison and then as a barrack, during this periods many rooms had been strongly modified, without considering their historical and artistic relevance.

This status of carelessness continued until 1893 when the architect Luca Beltrami, with the help of the German art historian Paul Müller-Walde, started its restoration. The restoration was strongly wanted by the architect who fought for avoiding the destruction of the castle proposed by many locals. Milano after centuries of foreign domination wanted to delete

Fig 1. The Sforza Castle.  
Overhead view today

Source: <https://shop.fabiopolosa.com/products/milano-castello-sforzesco>

Fig 2. The Sforza Castle.  
Plan before the restoration  
by Luca Beltrami

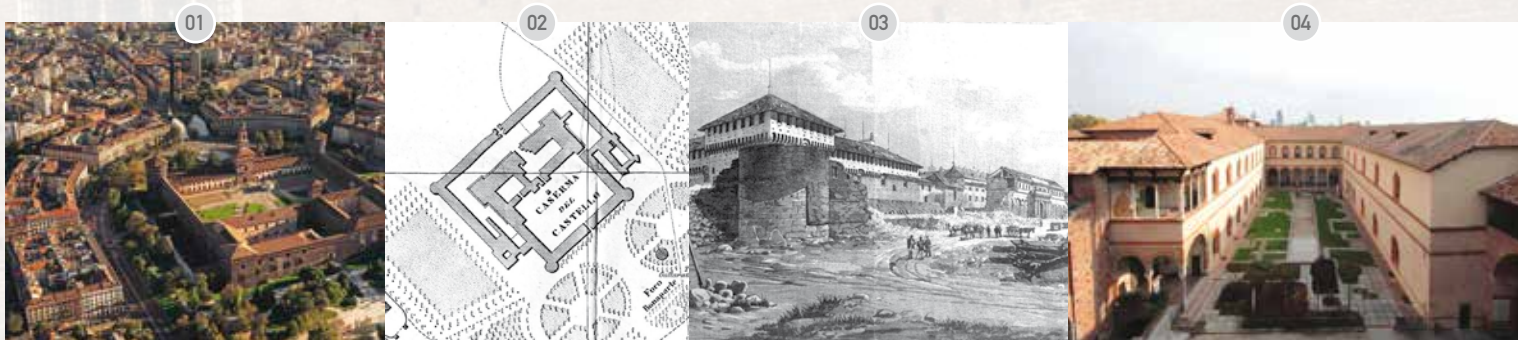
Source: <https://www.milanocastello.it>

Fig 3. Corte Ducale during  
the restoration by Luca  
Beltrami

Source: <http://www2.milaneicantieridellarte.it/corte-ducale-e-cortile-della-rocchetta-castello-sforzesco/>

Fig 4. Corte Ducale  
nowday

Source: <https://www.milanocastello.it/it/content/la-corte-ducale>





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06



07



**Fig 5. Sala delle Asse.**  
Particular of the paintings  
on the vault representing the  
Nodo Vinciano before  
the actual interventions  
of restoration

Source: <https://www.milanocastello.it/it/content/leonardo-da-vinci>

**Fig 6. Sala delle Asse.**  
Sforza and Visconti's  
coat of arms

**Fig 7. Sala delle Asse.**  
The diagnostic campaign

Source: <https://doattime.blogspot.it/2015/03/leonardo-ritrovato-alla-sala-dellasse.html>

Photographed by Luca Tosi

its past by destroying the symbol of the old powers and replace it with a new residential neighbourhood.

### THE SALA DELLE ASSE

The Sala delle Asse is located in the northern wing of the Sforza Castle, on the ground floor of Falconiera's tower. It is a broad room, with a square plan, in which each side measures fifteen meters. It is covered by a vault moulded to sixteen lunettes, it is enlightened by two windows, one on the northwest side and the other on the northeast and it communicates with the other rooms of the ducal apartment – The Sala Verde, la Sala dei Ducali and little rooms behind the lodge of Ponticella - through three doors.

The characteristic appellative with which it is commonly known, "Asse", from the end of XIX century, maybe derived from the wooden panels that covered, during the Sforza domination, the lower part of the walls of the room.

In the Renaissance palace is not infrequent the use of wooden panels to insulate a room from cold and humidity deriving from a north exposition to the outside. This escamotage was useful also to make a room more comfortable and decorate the space.

The most relevant characteristic of the hall is linked to its painting decoration, commissioned by Ludovico Sforza to Leonardo da Vinci in honour of his dead young wife Beatrice D'Este.

The vault and the lunettes are decorated with paintings that represent sixteen mulberry tree trunks which are originated from the upper part of the wall and branch off along all the vault. All the branches on the Sala's trees are rich with foliage and are cleverly intertwined to form a luxurious pergola. Among the branches there are twines of golden strings called Nodi Vinciani, that remind wicker baskets.

On the centre of the vault there is a coat of arms with the combination of the Sforza and the Este families' one. The only non vegetables elements in the scene are four plaques, positioned on each wall and inscribed with references to historical and political events that



took place during the Ludovico Sforza sovereignty. Probably, the room decoration was not completed because of the defeat of Ludovico Sforza.

**THE RESTORATION: FROM PAST INTERVENTIONS TO LASER CLEANING**

The paintings in the Sala delle Asse were discovered during Luca Beltrami's restoration, buried beneath many layers of whitewash, and this intervention was coordinated by the painter Ernesto Rusca, who integrated large part of the deteriorated decoration. Another important discovery was done by Beltrami: a monochrome drawing in the northern corner, made in charcoal, appeared on the lower walls. This discovery confirmed that a portion of the Sala delle Asse never progressed beyond the underdrawing stage.

In the '50s another restoration took place, realized by Ottemi Della Rotta who removed almost all the repainting of the previous intervention.

In 2013 a new restoration project has begun and is still underway. The conservation project is supervised by Dr. Claudio A. M. Salsi, President of the Scientific Committee for Restoration of the Castle, and carried out under the direction of Dr. Michela Palazzo of the Regional Directorate for Cultural Heritage and Landscape of the Lombardy. The restoration saw the advice of the Opificio delle Pietre Dure for the development of the intervention and of conservation strategies.

During the preliminary interventions other tracks of preparatory drawings realized in charcoal and incisions on the fresh plaster have been discovered on every wall. This demonstrates that, in Leonardo's idea of the composition, the trees had to grow from the rocks, maybe ruins, and that the decoration system had to originate from 2 m from the floor.

The relevance and complexity of the case have required the use of innovative techniques including the laser cleaning on the decoration surfaces in order to remove scialbature

**Fig 8. Sala delle Asse.**  
The restoration in progress

Source: <https://doattime.blogspot.it/2015/03/leonardo-ritrovato-alla-sala-dellasse.html>

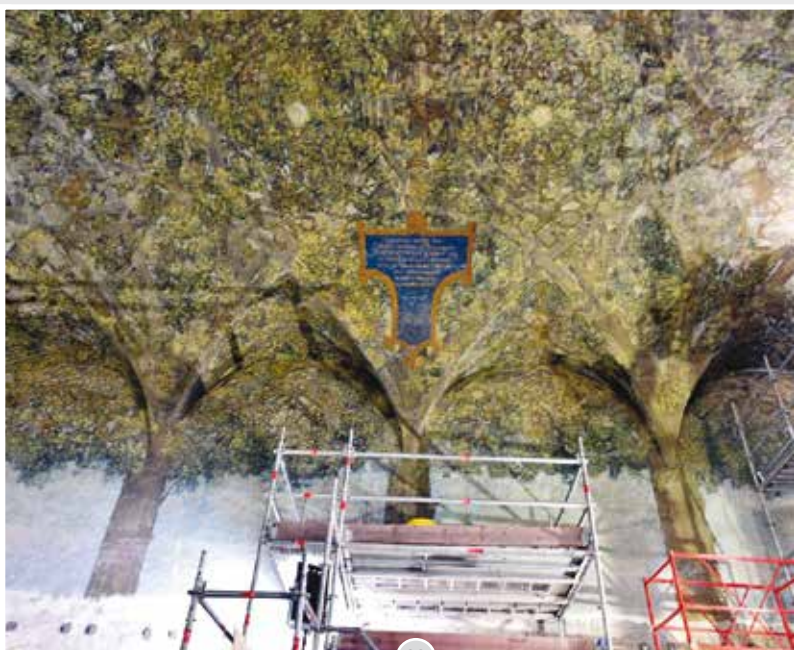
Photographed by Luca Tosi

**Fig 9. Sala delle Asse.**  
Particular of the decoration of a lunetta

Source: <http://sauvage27.blogspot.it/2015/12/sala-delle-asse-castello-sforzesco.html>



08



09





(whitewash), altered retouches and organic fixatives applied during past restoration interventions, biological infestation and soluble salts.

Compared with other techniques, the laser allows more versatility, accurate control and minimum surface damage. In fact it provides a selective elimination of unwanted layers without any mechanical contact with the surface and the preservation of superficial texture.

The used lasers have been provided by the Conservation Technologies Department of the E.I.n. Group.

The cleaning of painted surfaces represents a big challenge for laser cleaning and three kinds of laser have been used taking into account two main parameters: the variation of the wavelength and the variation of the pulse duration.

The Nd:YAG Q-switched laser (EOS QS), with its characteristic wavelength of 1064 nm, allows to work using two different pulse durations: Q-switch pulse (15 ns) and Short Free Running (30-100 µs) and it is flexible and useful to solve many cases of cleaning on different materials.

The other Nd:YAG laser (EOS 1000 LQS) has a pulse duration optimized for the cleaning of Cultural Heritage: the Long Q-Switch one (100 ns). This laser was designed and tested for the first time on the gilded bronze of the Porta del Paradiso, by Lorenzo Ghiberti, in the Baptistery of Florence, so it is suitable for particularly accurate interventions, with its optimized pulse duration in fact,

The last employed system is an Erbium laser (Er:YAG – Light Brush 2). Its technology is based on the strong absorption of the wavelength at 2940nm by surface layers that contain OH bonds. This feature makes it particularly suitable for the removal of repainting, varnishes and patinas from wall paintings, in the highest respect of the inner layers.

Fig 10-11.  
Laser Cleaning of  
stone and  
decorative surfaces





Silvia Demetri

## FONDAZIONE PRADA

### From an abandoned factory to a new way of showing art

**Fondazione Prada**

**Milano  
Venezia**

[info@fondazioneprada.org](mailto:info@fondazioneprada.org)  
[www.fondazioneprada.org](http://www.fondazioneprada.org)

The Fondazione Prada - Prada Foundation was founded by the Italian fashion house in 1993 as a cultural organisation. In 2008 Prada felt the need to open a permanent establishment in Milan, its birthplace and perhaps the most metropolitan and international city of Italy. The Foundation purpose is to offer people new learning possibilities in order to develop ideas and increase art in any shape, a constantly evolving cultural programme. This vision finds a complete synthesis in the spatial composition of Fondazione Prada, the headquarter designed by OMA-office for metropolitan architecture, headed by Rem Koolhaas, and located in an former gin distillery.

The industrial complex was built in the 1910's to house the "Italian Spirits Society" distillery - hence the name given to the golden building as "Haunted House - the house of the spirits" - and it consists of very different buildings: warehouse, silos, offices and plants for the production of liqueurs. It is located in the south-west part of Milan, in Largo Isarco, and it spreads over an area bigger than 19.000 m<sup>2</sup>. This district is slowly becoming a place of emergent presences - as Smemoranda or Jannacci dormitory - but there is a lack of coordination among them so Fondazione Prada has to take the guide role in the transformation of the entire area.

OMA's project is more than an architectural practise, it is an opportunity of urban development. The former distillery is a modest space that became the symbol of Milan transformation in the last 30 years: from a manufacturing city to a tertiary city. This is the widespread reappropriation: spaces of production must find new ways of being part of the collective city life.



In this intervention OMA approaches the theme of preservation but thinking at it more as memory than as a state of nostalgia for the past. Preservation is the chance to develop the building beyond a presumed originality. According to Rem Koolhaas “The Prada Foundation’s project is not a conservation project and not even the design of a new architecture. These two dimensions coexist while remaining distinct”. It is a process of permanent interaction, offering an ensemble of fragments that will not congeal into a single image, or allow any part to dominate the others. The most important aim of Fondazione Prada project is to create a diversity of spaces for presenting art, those spaces are meant to be “a collection of artworks that meets a collection of architectural types”. The thinking behind it is to offer everything that a contemporary museum needs, minimizing areas designed to services and collateral activities.

To the seven original buildings, the masterplan has provided the new Podium, Tower and Cinema, each one characterized by a different architectural project. The resulting outdoor space is fragmented into a series of small courtyards, some of them at the ground level and some sloping, that contribute to create an heterogeneous visit itinerary and to guide the visitors’ fluxes. “We didn’t work with contrast but, on the contrary, we tried to create a







actually merged together so that you cannot tell whether you are in a new or an old situation” explained Rem Koolhaas.

The project is based on a great research work, looking for both innovative and traditional solutions without preconceptions, choosing best materials for their functionality and their aesthetic performance. It creates a fragmentation of the parts in which spaces are defined by different materials.

This accurate investigation also allowed to face a complex construction-site: invasive interventions for the construction of the new buildings combined with delicate and precise operations for the protection of the existing ones. Particular attention was paid to their structural performances improvement and to the response to seismic actions. Seismic expansion joints have been inserted between buildings, keeping them separate and guaranteeing structural freedom of movement.





**AS IN AN ARCHITECTURAL PROMENADE...**

The buildings placed at the entrance are designated as offices and library. They have been deliberately subject to a subdued restoration which puts their Art Nouveau style provocatively in contrast with the luminous signs that shows the words Fondazione Prada. Proceeding there is the building resulting from the fusion between the Haunted House and the Podium. The first is a former industrial building which shapes are underlined by a 24-carat gold leaf cladding. The architect says: "to me the most exciting and now visible effect of it is how the gold and the reflected light of the gold contaminates the whole environment". Here is hosted a permanent exhibition of the sculptors Robert Gober and Louise Bourgeois. Instead, the Podium is designed to house temporary exhibitions and develops around the Haunted House, defining a space completely free from structural elements and glazed on three sides.

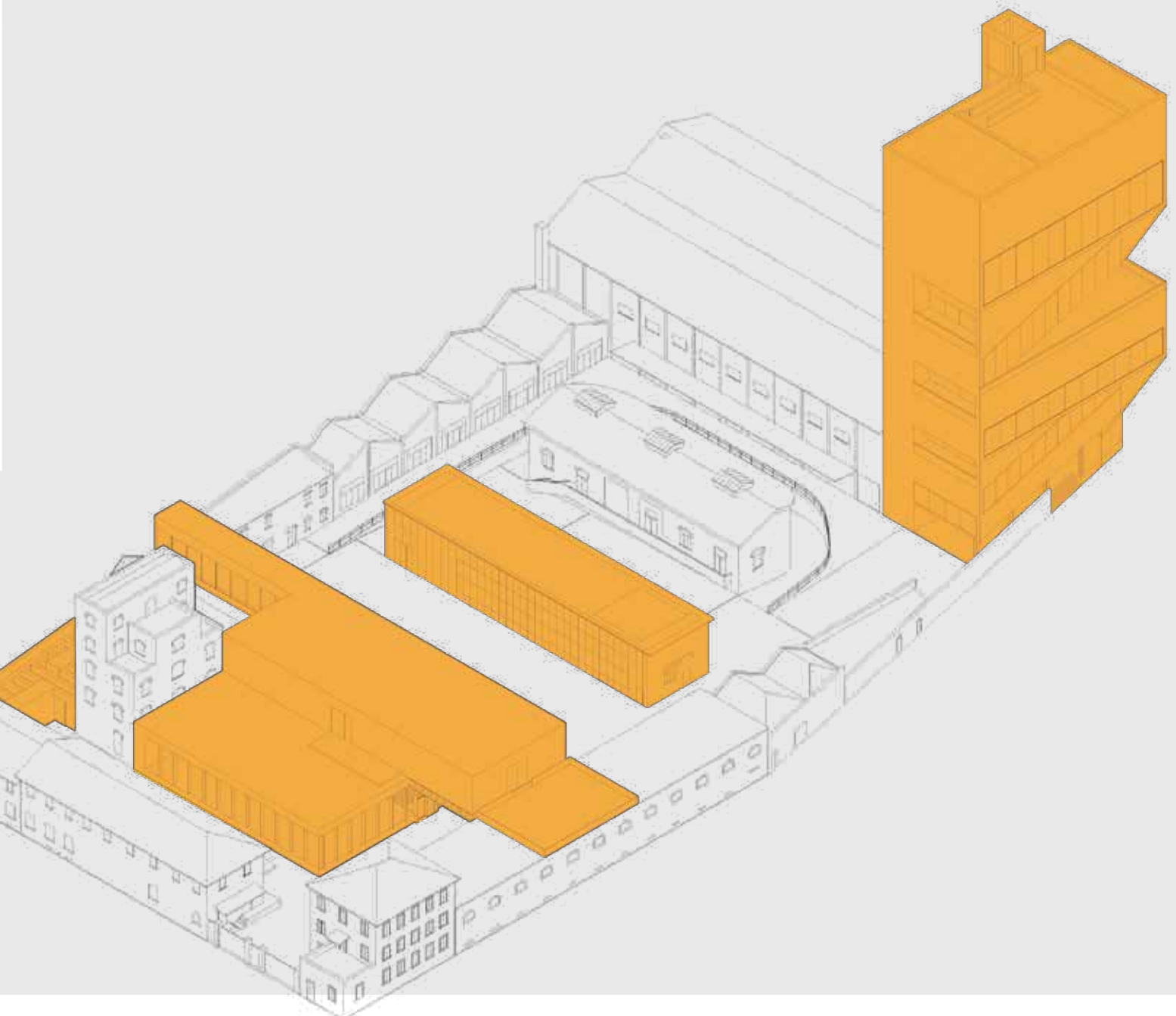




The building hosting the Cinema is a standalone structure, it has been rebuilt in the same position and with the same volume of the previous collapsed one. The Cinema is a captivating architecture: it is partially hypogeum and its facades are camouflaged by mirrors towards the inner courtyard.

The Tower building complete the masterplan. It is a out-of-scale construction spread over eight levels, plus a terrace, done in open-face white concrete. This building is made with the only purpose of showing art, according to Khoolaas “Art feels different on the ground than it feels on the 10th floor”, so “every next floor will be one metre taller, so that will have a very varied effect on the artistic content”.

The complexity of the architectural project contributes to the development of an open and constantly evolving cultural programme, in which both art and architecture will benefit from their mutual challenges. The quality of the intervention is mainly due to the constant and accurate dialogue between old and new.




Silvia Demetri

## PALAZZO DELLE SCINTILLE

### A connection between old Milan and the new skyscrapers city

studio  
**Berlucchi**  
società di ingegneria  
dal 1920

nicolaberlucchi@studioberlucchi.it  
www.studioberlucchi.it

 italianacostruzioni

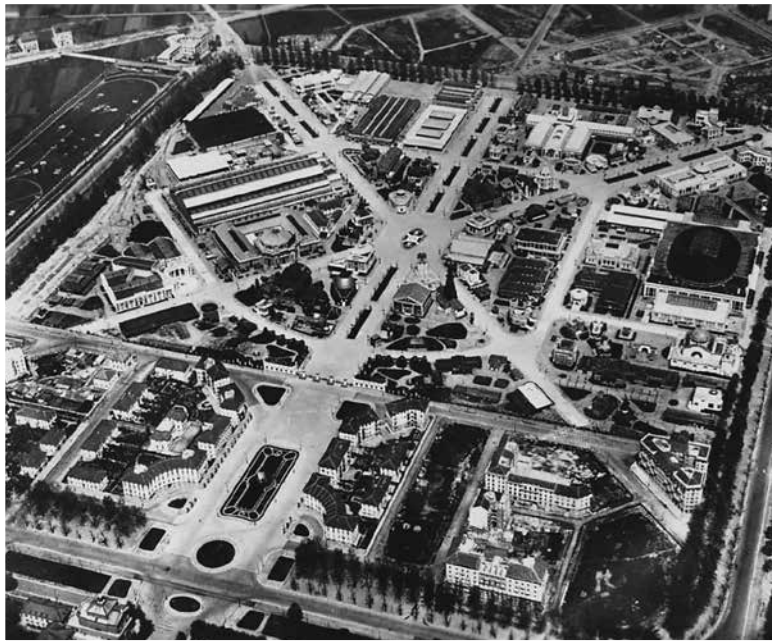
info@italianacostruzionispa.it  
www.italianacostruzionispa.it

The Palazzo delle Scintille was built between 1922 and 1923, inaugurated celebrating the annual car show and the realisation of a permanent and autonomous Fair Company. The building, also known as Sports Palace or Pavilion 3, was designed to be a link between the surrounding urban area and the new exhibition centre, nevertheless keeping its own independent drawing. It is a free-standing element inside the infrastructural modernization which has involved Milan during the 1920's and the 1930's and has resulted in the establishing of a sport village. Its construction was the occasion to display how the Italian building technique had reached the same level of foreign countries.

The Pavilion 3 is extended for 10.000mq on a rectangular diagram (104m x 81m with a mixed concrete-bricks structure) covered by an iron and glass dome described as an "inventive technical conception" where the iron structure was supported by a glass tambour. The dome was rebuilt after the Second World War bombing. This architecture was conceived likewise the industrial ones, based on a rigid structural grid softened with decorative cement items. Those reshaped classical forms into charming Art Nouveau tested elements. Facades were designed to be symmetrical, where windows scan a regular lands and grooves play. The interior was planned by the architect Paolo Vietti Violi to be a mul-







tifunctional space, a big empty room adaptable as showroom, racetrack but also concert and conference hall. It was a modern space, comparable to major expo spaces around the world (Paris, London, New York) sharpened full-height by a ring of slender béton fretté pillars (9,50m height and 0,50m diameter).

Over the years the Palazzo delle Scintille has been involved in several changes, addition and demolition, which changed its main aspect absorbing the building inside the neighborhood and leaving visible only the East Front, facing VI Febbraio Square.

The demolition of the exhibition centre has freed the three facades which now play a connection role between the old city and the new district of CityLife, characterized by its unbridled modernity.

To give new glory and to safeguard the Pavilion 3 inside the fast evolution of this area in March 2017 started the requalification proposal which involved Studio Berlucchi (architectural project) and Italiana Costruzioni - Arup Italia (consultancy) with the aim of a preservative project able to enhance this extraordinary architecture after years of neglect, restoring its part as active player in citizens public life.

The project focused on the four facades working on their decorative items and on the window frames, fundamental for the building compositional balance and its relation with the neighborhood.

In the first instance an experimental worksite has been realized on a 5m full-height area located on the front East side. The pilot worksite was divided into three stages:

phase 1: investigation, mapping, generic material sampling and laboratory testing in order to understand main surface deteriorations and alterations;

\_ phase 2: representative samples realization on surfaces and window frames, by applying different techniques, due to ensure operations compatibility and feasibility;

\_ phase 3: surface cleaning and restoration, pilot worksite conclusion.

After this preliminary study the project has been developed to answer the building damage necessities, most of whom produced by anthropic activities. The different facades presented more or less the same decay typologies and a general surface degradation with deposit, biological colonization, efflorescence, staining and soiling due to metal components



presence, but also hair-crack on finishing cement plaster layer, improper grouts operations or scratches. Decorative elements have been frequently subject to missing part and disgregation, which compromised the original shapes recognizability, added to this an ochre acrylic paint had been laid out in the recent past and has quickly formed a film, boosting the decay situation. The West front presents also stains and spurts caused by bitumen application on the surfaces and degradations are marked by addition and demolition operations. In the same way fronts South and North present signs of improper anthropic action that led to a strong presence of decaying structures, loss of modeled parts and irregular grouts or shaves.

In order to begin effectively the restoration, all the past additions have been removed starting cleaning operations, articulated into three accuracy levels:

1. Plasters typing, which needed bandages using acrylic resin or animal glue and overrun micro and macro flora removal by the application of a selective action exterminator;
2. Salt extraction through compress, deposit and paint removal by using a elicoidal micro air abrasion cleaning system assisted with manual dry-cleaning;
3. Chemical cleaning by reagent application through pad or brush for oxides removal and through compress for oil, paint and wax.

The next steps of the restoration project envisaged the surfaces consolidation using ethyl silicate, applied by brush or by pad, and consolidating injection if necessary. Those preliminary proceedings have allowed the conclusive operations: material loss reintegration with compatible mortar and plaster, hair-cracks grout and decorative missing parts replacement with off-site realized new elements. New ones are characterized by a topcoat comparable to the existing finishing layer, made recognizable shaping them as simple volumes. A parallel project has involved the iron window frames which present a heterogeneous state of conservation, those have been restored or replaced with identical ones. To guarantee natural micro-ventilation and prevent the detachment phenomena acceleration the creation of specific splits have been made in proximity to lower and higher elements.





The Palazzo delle Scintille is a perfect example of how well an old building is able to innovate itself, playing a new active role as public space inside the urban contest in which it is located, thanks to an efficient restoration project.

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**20** MARCH  
**PIACENZA**

## CARMINE WORKSITE: AN OPEN-LAB INSIDE THE SPACES OF THE EX-CHURCH OF THE CARMINE

Silvia Demetri



Worksite Manager:  
Referent Giovanna Achilli  
[www.comune.piacenza.it](http://www.comune.piacenza.it)



[lucazappettini@kairosrestauri.it](mailto:lucazappettini@kairosrestauri.it)  
[www.kairosrestauri.it](http://www.kairosrestauri.it)



[info@ibix.it](mailto:info@ibix.it)  
[www.ibix.it](http://www.ibix.it)

The church was established in 1334 by the Carmelite Order in Piacenza. The complex was designed with simple shapes according to the habits among mendicant orders. After their abolition in 1805, the area had been adapted to different uses, hospital, storehouse, barrack, slaughterhouse but also as the Fascist Party Headquarters and finally as a public office. It has been definitively abandoned in 2006.

It is built near Milanese Gate, a strategic position in proximity to Palazzo Farnese and between the historic town centre and the main city axes roads.

The restoration of the church is part of a bigger and more complex project which involves the urban growth of the whole north sector of the city: Piazza Cittadella redevelopment with the creation of an underground parking, the creation of a new covered market and the rehabilitation of important military and public buildings. The intricacy of this project lies in finding a balance between construction peculiarities and the definition of a new urban function. The purpose of the restoration intervention must be at the same time the enhancement of the built heritage and the identification of a compatible intended use, able to restore their roles as active player in the every day city life.

It will be a complex building-site due to the built heritage prestige and strict functional restrictions to which it is subject, an ambitious and innovative project which aim is to give back to the city one of its forgotten jewels.

The redevelopment of the Church of the Carmine is articulated between two different settings: restoration and structural rehabilitation, on one side, and functional reuse, on the other. It is going to be a double project intended to understand how the construction was and how it is nowadays because the re-functioning programme can only be the natural result of intervention choices. This has to be a compromise, the optimal way to find a balance among the stakeholders. Through the years the building has changed its shapes and its intended uses according to its users' needs, the "Cantiere Carmine" will be the next step in the factory life development.



01



02



03





04

**Fig 1.** Source: <http://www.liberta.it/luoghi/piacenza/2017/10/23/ex-chiesa-del-carmine-via-ai-lavori-intervento-da-5-milioni-di-euro/#>

**Fig 2-3.** Source: <https://www.comune.piacenza.it/temi/territorio/operepubbliche/lavori-in-corso/recupero-ex-chiesa-del-carmine/chiesa-del-carmine>

**Fig 4.** Source: <http://www.liberta.it/news/cronaca/2017/09/29/chiesa-del-carmine-a-meta-ottobre-partono-i-lavori-garetti-non-restera-scatola-vuota/#>

## THE RESTORATION PROJECT

The restoration project started from the laser scanner survey, necessary to study the church's factory in each of its parts. In addition, a careful and integrated diagnostic study plan (Shave test, georadar and videoendoscope, multichannel Masw test, methodological analysis on wood species, resistographic investigations, ...) that allowed to identify precise intervention methodologies on the various building components in a timely manner: roof, vaults, elevation and foundation structures. The whole project has been elaborated taking advantage of highly competent figures such as A.T.I.Edilstrade Building SpA (parent company), IMPRESA CELLA GAETANO SRL (principal), Kairos restauri S.n.c. di Luca Zappettini & C. (principal).

The intervention concerning the structures of the former Church of the Carmine has been designed with the dual objective of: resolving building structural problems and improving its behavior towards seismic activity at the same time. This was possible thanks to a careful worksite organization and the use of innovative technological solutions and restoration techniques.

The project main operations concern both exterior and interior parts of the building and they are very specific and differentiated: closing of the putlog holes to avoid nesting,



**Fig 5.**  
Principal façade:  
\_actual state  
\_degradation mapping  
\_restoration actions

punctual brickwork integration and demolition of incoherent cement additions, surfaces consolidation, reopening of windows and doors, especially those that are going to serve as emergency exits, restoration or replacement of windows and frames,... Moreover, on the outside the main access stairs will be rebuilt creating a concrete structure covered with pink granite; there will be also two ramps to guarantee accessibility to people with disability too. Inside, a specific restoration project has been focused on the surfaces; the vertical stratigraphy showed many layers of plaster, that requires an integrated action plan: biocide treatment, cleaning with EDTA or ammonium carbonate, desulfitation with barium hydroxide packs and plaster consolidation (filler injections, resin pivots, mortar grouting,...) where it is necessary.

Moreover, a Scheduled Maintenance Plan has been drafted to ensure the building protec-

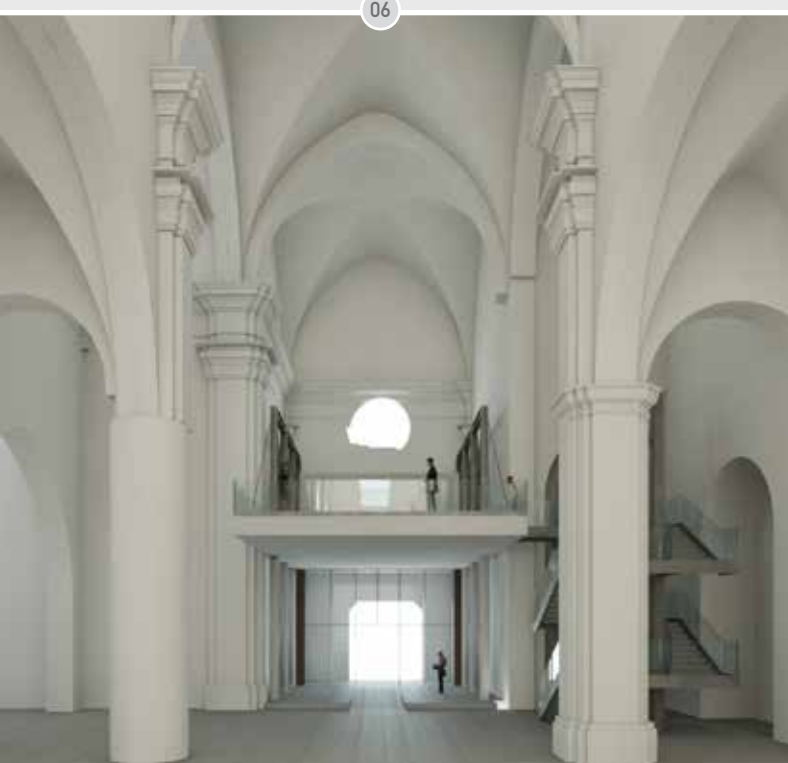




Fig 6-7-8-9.  
Renderized views  
of the entrance project  
with the addition  
of the new vertical  
connections

tion even after the restoration project because built heritage preservation is guaranteed only through a permanent attention towards the building itself. It is necessary to overcome the concept of restoration as an autonomous activity, making it instead part of the overall building life. The Scheduled Maintenance Plan is therefore divided between monitoring activities, such as routine inspection operations, and maintenance activities, like minor interventions to ensure building protection avoiding in this way the real restoration.

**THE FUNCTIONAL REUSE**

The Cantiere Carmine project was presented to citizen during an exhibition organized at Palazzo Farnese because their involvement during the whole transformation process is considered as essential. The Church of the Carmine is a prestigious space which offers to the city great growth possibilities most of all thanks to its strategic location and its natural aim to be a place for the community.

Past experiences have taught that a site will be able to preserve its importance as long as it can respond to its users' needs, without being denaturalized. In this context the Church of the Carmine has been a benchmark for collective life in past centuries but now it is going to carry out its mission transforming itself into an open-lab.

The project concerns the construction of an open laboratory, a multifunctional space designed to host processes of a continuous urban transformation, a place for exhibitions, events, meetings but also mobility and logistics.

There will be shops, a bar, areas designed both to coworking and to individual activities. The creation of a loft space near the apse makes this space even more flexible.

The new Church of the Carmine will be accessible to both citizens and firms, but also people passing through. It will necessarily have to be versatile, adaptable on a case-by-case basis to single needs.

08



09







**21** MARCH  
MIRANDOLA  
S. BENEDETTO

## POST-EARTHQUAKE RESTORATION OF THE CLOISTER OF THE “SECOLARI” IN THE COMPLEX OF SAN BENEDETTO IN POLIRONE

Simona Belmondo

studio  
**Berlucchi**  
società di ingegneria  
dal 1920

restauro@studioberlucchi.it  
www.studioberlucchi.it

### PREMISE

The monastery of San Benedetto in Polirone has been the subject of a substantial restoration (2006-2012) but unfortunately a few months before the ending of the restoration works, the earthquake damaged seriously all the buildings of the monastery. Such damage has made it necessary to survey all the parts of the complex with the aid of a laser scanner technology and several analyses to further understand the conditions of all bearing structures (timber or masonry structures), achieving a high level of knowledge of the whole complex. The earthquake hit the hardest in the portions of the complex called “Ala Giorgi” and the “Secolari” cloister, where the structural situation was already critical and the restoration was not accomplished yet.

### BACKGROUND HISTORY

The monastery of Polirone, from its foundation in 1007 up to its suppression in 1797, was a great centre of European religious, cultural and artistic life. The beginning dates back to the founding of the Abbey by Tedaldo di Canossa in this area of strategic importance, especially in earlier centuries, because of its position dominating the course of the river Po. In the year 1077 the pontiff Gregory VII put the abbey under the spiritual jurisdiction of the monastery of Cluny, to which the monastery of Polirone was strictly linked throughout Middle Ages. However, the life of the Abbey was initially related to the Canossa family which founded it and later to the Gonzaga dynasty, whose rise to power in these lands and exerted control also over spiritual aspects of the monastic community. The association with

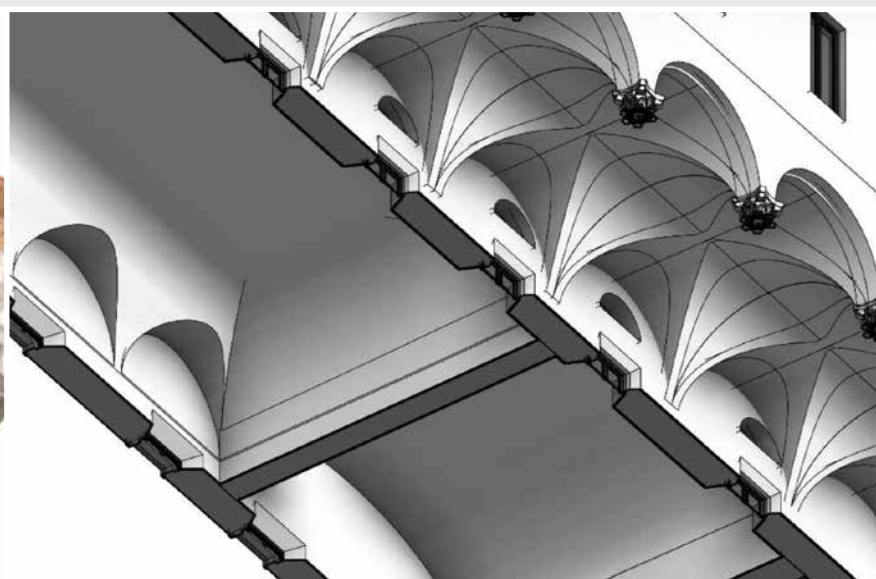
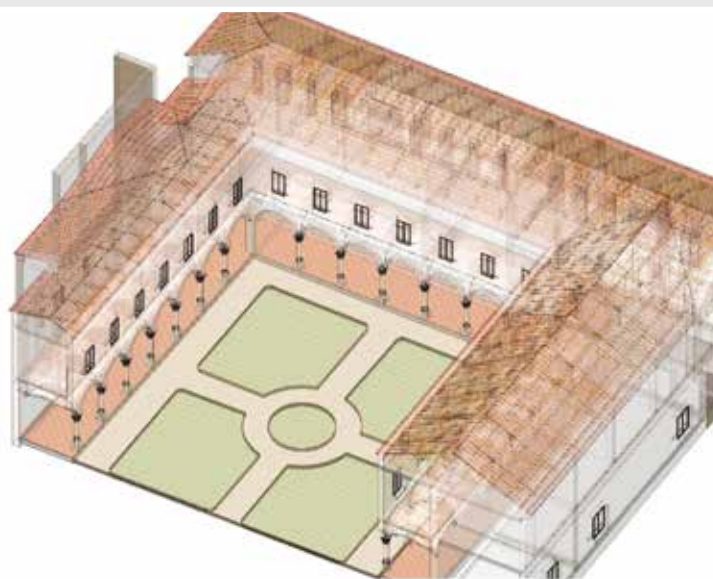


the congregation of Santa Giustina of Padua in 1420 marked the beginning of a process of renewal in which there was the rebuilding of a great number of the monastery buildings, including the complex of San Benedetto in Polirone, later redesigned by Giulio Romano in 1540. Renaissance represented a new lease of life for the monastery, characterized by a lot of renown artists of the Italian Renaissance who worked at the Abbey as Correggio, Paolo Veronese or Giulio Romano himself.

**THE CLOISTER OF THE SECOLARI**

Cloister was among the most characteristics areas of the monastery because it served as a connecting function and it represented the place where the great part of the monks' life took place. The majority of large monastery buildings such as San Benedetto in Polirone, had more than a cloister and each of which was used for specific activities. At present in San Benedetto in Polirone, there remain three cloisters: Saint Benedict's cloister which is adjacent to one side of the main church, Saint Simeon's cloister created in 1458 and the cloister known as that of the "secolari". The third cloister was built in three different stages: the first before the fourteenth century, the second dating from 1474, characterized by the connection of the pre-existing buildings with the porticoes and the construction of corridors above the east and north sides, and finally the construction of the great staircase and the enlarging of all the cloister windows at the end of the seventeenth century. Cloister of the "secolari" is a designation which goes back to the sixteenth century when the ground floor of the east and south sides was used as a guest quarters for the poor and for pilgrims, instead the upper floor accommodated the higher ranking guests.

The cloister develops on four sides characterized by round arches supported by marble columns, masonry vaults in the porticoes, ground and in the upper floors while the attic has timber structures as roof.







### CONSOLIDATION AND SEISMIC IMPROVEMENT

The earthquake of May 2012 provoked serious consequences on the cloister, in particular on the south and east wings, used as warehouse of the adjacent civic museum. The previous interventions aimed mostly to an overall re-functionalization and a seismic improvement of the bearing structures. Obviously, the first priority was to secure the structures from further decay and collapse, so the arches and the main entrance of the museum were supported with wooden provisional structures and new ties were located at the extrados of the vaults at the first floor in order to contrast the overturning of the east façade.

The next stage was the geometrical survey of: all ties in place (position, dimension and state of conservation), vaults, masonries, roof structures and the map cracking order to identify all the pre-existing weaknesses.

Such surveys regarding the cloister, have been carried out through a BIM (Building Information Modeling) approach, involving the generation and the management of a parametric three-dimensional model. Such approach has allowed to divide the building in categories of objects called “families”) and create a dynamic database of all parts of the cloister, identifying problems before executions phases.

The main structural weaknesses identified were attributable to: masonries not connected to each other’s and not toothed into the pre-existing structures as consequence of several interventions over time, insufficient number of ties that were not able to restore an effective transversal containing action and finally the presence of prompting roof structures.

Concerning the roofs, they were completely restored and seismic improved with the insertion of a new wooden curb in the south and east wings of the cloister and a metal’s one in the norther and west sides. Such intervention was necessary to connect the perimeter walls each other and with the wooden trusses of the roof and to ensure the “box behaviour” of masonries structures meaning that the building acts as a jointly assemblage of walls and roof. The whole intervention was improved by the insertion of a series of steel





cross elements under the bent tiles, working as bracing elements. Furthermore, every joint of the existing roof structures, needed to be verified and evaluated on a case-by-case basis and where appropriate, strengthened with steel elements. In case of the absence of a bottom chord in roof structures, it has been added a steel tie in order to improve the mechanical behaviour reducing acts on the masonries and preventing out-of-plane responses.

As regard the cracks on masonries and vaults, every crack was accurately opened along its entire length, trying as more as possible to preserve original plasters and decorations, then a consolidating mortar was injected through the crack in order to re-establish the continuity.

Moreover, the material filling the sides of vaults was removed and replaced with light-weight material connected to the walls and the mechanical behaviour was also improved with the insertion of new ties, working as a relevant protection element, able to restore an effective containing action.

All wooden architraves have been verified and replaced, where appropriate, by a metal element so as to increase its resistance.

In conclusion, concerning all the above mentioned works, it is relevant to highline that the complexity of the interventions was depending on the impossibility to apply a standardized approach, considering that each element is different from others and respecting in each stage the historical and artistic value of the building.

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Simona Belmondo

Alessio Lucchini

## RESTORATION AND SEISMIC IMPROVEMENT OF THE CHURCH OF SANTA MARIA MAGGIORE IN MIRANDOLA

**B** Bottoli  
costruzioni

www.bottoli.it  
info@bottoli.it

### PREMISE

Throughout its history, since the beginning in 1432 after the papal consent, the Church of Santa Maria Maggiore in Mirandola underwent numerous interventions and it has been restored countless times over the centuries.

Built in late-gothic style, the church has three naves characterized by ribbed groin vaults and wooden roof composed of beams and binding rafters in the lateral naves and queen post roof trusses<sup>(1)</sup> in the central one, above the clerestory windows.

### DAMAGE CAUSED BY THE EARTHQUAKE

The earthquake of May 2012 provoked serious consequences on the structure, damaging all its parts, included the bell tower, and highlighting its intrinsic vulnerability as in the most part of historical buildings.

However, most of the damage was concentrated in the central and left naves, whose roofs and vaults have collapsed completely, causing the damages of pavements, ornaments and precious artworks stored in the church. The right nave, on the other hand, underwent less damage and despite the presence of a serious map cracking, the vaults have not collapsed.

(1) Queen post roof trusses are very similar in design to king post trusses except that they have two vertical "queen posts" instead of one central "king post".



Such different mechanical behaviour of the structure can be substantiated by many reasons: first of all, the presence of the bell tower as bracing element that has improved the structural response of the whole building. The second reason would be the different quality of the various brick masonries. The brick wall on the left side of the church resulted from several interventions, mainly related to the construction of the oratory of San Rosario and its subsequent demolition. Therefore, the external wall facing was not toothed into the preexisting structure, being a remarkable inner structural weakness. This aspect must be analysed consciously, in order to understand the importance of the knowledge of historical building phasing.

Regarding the main façade, it has been severely damaged, showing a codified partial collapse mechanism: façade upper part collapse. The tympanum of the façade with its spires placed at the top, collapsed because of the inadequate connection with transversal walls, which permitted its out-of-plane defection. Furthermore, ties helped to restore an effective transversal containing action, working as a relevant protection element, preventing a whole collapse of the façade.

Such damage is certainly due to the lack of an effective connection between walls and to the quality of brick masonries, which are constituted by non-cohesive and poor materials (visible once the ruins had been removed). In each case, failure modes depend on the mechanical properties of masonries, geometry of the walls and loads at stake.



**INTERVENTION GUIDELINES, STRUCTURAL CONSOLIDATION AND SEISMIC IMPROVEMENT**

Serious cracking, as already mentioned, affected almost the entire building, causing damage and leaking out of construction materials. These observations call again for a general thought, from an architectural point of view, on the main topic of the rehabilitation and reconstruction measures after earthquakes.

The aim of the restoration intervention is either a static consolidation and a seismic improvement of the church in order to increase its ductility, reducing the causes of vulnerability. Project strategy consist in different interventions, as appropriate.

Preliminary stage consists in removing ruins, disassembling and partially demolishing the unstable structures still present, taking care of keeping all the reusable components, such as bricks, decorations or bent tiles in order to conserve them as much as possible.

Next step involves reparation and consolidation works on the damaged parts (walls, wooden roofs, vaults) using, as more as possible, the original components through their re-positioning and new components with the aid of a structural mortar hydraulic lime-based type. Besides, masonries and vaults consolidation has been achieved through the selected demolition and restoration technique, and through the repair of cracks with the use of reinforced filling injections based on a structural lime mortar.

Reconstruction of collapsed parts with a view to proceeding with a global consolidation of the structures in order to achieve the seismic improvement level required. The project involves the construction of a new lightweight structure in replacement of the collapsed roofs, according to the original geometries without upsetting the balance inside the church. In the central nave's area, the new roof is made of a steel and lamellar wood trusses, wooden binding rafters and a wooden boarding over them. The whole system is supported by the existing walls with the integration of steel plates above masonries. Instead, the vaults, made of wooden curvilinear panels, are hanging from the abovementioned roof. The whole concept is to fortify the connecting action of the roof towards the lateral walls giving a positive contribution to the global mechanic behaviour.







As regard the main façade, it has been considered as a large missing part to rebuild à l'identique, installing glass connectors between existing and new walls to restore the wall continuity and glass fibres meshes underneath the brick masonries on the interior wall of the façade.

Last but not least is the surfaces restoration: the rebuilding or the integration, as appropriate, of the indoor lime plasters and the use of a cocchiopesto-based (lime mortar with crushed pottery) plaster externally.

The restoration of church aims to ensure a global seismic improvement of the structure, on one hand reducing all vulnerability elements and local weaknesses and on the other hand increasing the protection ones (transversal reaction elements, steel ties normal to the façade, application of glass fibres) paying attention to the connections between the walls.

**21** MARCH  
**22**  
**FERRARA**

## THE BASILICA OF SAN FRANCESCO IN FERRARA

**One of the finest examples of the renaissance architecture of Biagio Rossetti**

Simona Belmondo



info@studioleonardo.it  
www.studioleonardo.it

Proprietà:  
Ministero dell'Interno,  
Fondo Edifici di Culto

RUP Keoma Ambrogio  
(SABAP Bologna, Modena,  
Reggio-Emilia e Ferrara)

Prog. Architettonico e DL:  
Paola Zigarella  
(SABAP Bologna, Modena,  
Reggio-Emilia e Ferrara)

Prog. Strutturale  
Giovanni Gualerzi

### HISTORICAL AND POLITICAL BACKGROUND

The Basilica of San Francesco in Ferrara has been erected in 1494 on a pre-existing Franciscan complex dated to the early forties of the twelfth century and it is a renaissance masterpiece of the architect Biagio Rossetti. His presence has been particularly relevant for the artistic development of the city, being author of a lot of works in Ferrara like Palazzo dei Diamanti, ordered by Sigismondo d'Este around 1493, currently renown as his most famous architecture.

Throughout the Middle Ages until the end of the fifteenth century, the northern boundary of the city of Ferrara was characterized by several prestigious buildings, some of which owned by the Duke of the city. In 1492 Ercole I d'Este, Duke of Ferrara, commissioned Biagio Rossetti to design a new urban plan that could include this area in the centre, making Ferrara the first modern city in Europe. Therefore, during the Ercolean Addition, so named in honour of the Duke, the church of San Francesco was reconstructed in Renaissance style. Such church had barrel vaults with lunettes located in the central nave and in the transept and it was characterized by the presence of rectangular windows with round arches at the top. The main façade was different from the current one, with three round arches at the top and the central one bigger than others.

In 1515, when the church was almost completed, a ground failure provoked a serious collapse, requiring the reconstruction of masonries and columns, while the roof was repaired and the ornaments of the central nave were realized by Tommaso da Carpi between 1529 and 1532.

In 1570, an earthquake heavily damaged the church of Biagio Rossetti causing the complete collapse of the vaults (of the central nave and the transept) and the main façade, leading to its present reconstruction in which the church is arranged as a Latin cross with three naves.







After the earthquake in 1570, the building was substantially amended: the central nave was divided into bays, the windows on the lateral walls were closed and replaced by rose windows, a semi-circular choir was added and the upper part of the main façade was flanked on both sides by enormous curved volutes as in many churches all over Italy, while the bottom part remained marked by marble and terracotta lesenes dated to Biagio Rossetti's design.

During such post-1570 reconstruction, also the masonries vaults in the central nave and in the transept were replaced by lightweight vaults, made of vegetal weaved fibres supporting decorated plasters, instead the vaults of the lateral naves and of the chapels (eight on each side) are probably attributed to Biagio Rossetti.

In the last half part of the nineteenth century, a further ground failure, leaded to relevant restoration works including the consolidation of the foundations of the transept and the reparation of the roof.

Moreover, the second world war provoked a further damage to the church, requiring, once again, new restoration works.

### POST-2012 EARTHQUAKE RESTORATIONS

A second relevant earthquake, happened on May 2012, altering the static conditions of the buildings and decaying historic plasters and decorated surfaces too. Particularly, cracks appeared alongside the vaults and the perimeter walls, causing the temporary closure of the basilica.

Restoration works concern both the bearing structures and the decorated surfaces that represent a relevant part of the interventions, while concerning artworks belonging to the church, many of them were moved to the Pinacoteca of Ferrara during the previous century and replaced by copies; anyway, among the remaining ones there are a lot of famous artworks such as, for example, the Capture of Christ (1524) by Garofalo in the first chapel on

the left side or the baroque cenotaph of Marchese Ghiron Francesco Villa.

Preliminary stage has been the geometrical survey of all structures and a drawing up of the map cracking in order to identify precisely the damage of the church, considering that such surveys have been constantly updated by the team of restorers, archaeologists and architects at work.

The next stage has involved reparation and consolidation works on the damaged parts through many interventions, in according to the different cases. The consolidation of the vaults of the central nave (made by vegetal weaved fibres) has been achieved strengthening the existing timber centrings and using glass fibres with a product gypsum based. The domes of the left nave, instead, after the cleaning of surfaces, have been consolidated with PBO fibres (PBO is a rigid isotropic crystal polymer) while concerning cracks, they have been repaired with selected demolitions, insertion of metal wedges, mortar joints re-pointing work, creation of a structural screed and construction of low walls with a reduced thickness at the extrados in order to stabilize the whole structure.

Besides, all surveys gave surprising and unexpected results as the finding of pre-existing decorations belonging to the previous phases of the building. As known, the church of Biagio Rossetti, dated to the second part of the fifteenth century, maintained the same orientation of the previous one, conserving a wall that was included in the left nave of the









actual church. On this internal wall facing, traces of wall paintings have been found and probably they are dated to two different stages: the more ancient of two is characterized by a frieze of stars in squares and the second one by polychrome circular patterns. All the current visible finishings, are dated to 1737 by an inscription located on the internal wall facing of the main façade, instead the ones below, go back the period between Biagio Rossetti's interventions and post-earthquake restoration works in the last part of the sixteenth century. Even on domes of the lateral naves, traces of wall paintings have been found and they have shown a red stars pattern on a beige background. Regarding the surfaces, the interventions have included cleaning and consolidation of all





decorated parts, mortar injections and use of acrylic resins in the parts more damaged. The church of San Francesco, therefore, shows an overlapping of prestigious historic decorations as consequence of articulated phases of the building over centuries. In order to ensure the best quality during the restoration of the decorated surfaces, it is necessary to carry out preliminary tests and surveys as the elaboration of a material mapping and the study of the decay of each part. These methodological criteria allow to develop a focused and deep research on constitutive materials and on the adequate interventions, according to the principles of full compatibility, reversibility and respect for all different stratifications.



**23** MARCH  
**PADOVA**

Tan Roushuang



info@kimia.it  
 www.kimia.it

## INTRODUCTION OF THE RECENT INTERVENTION APPLIED TO CAPPELLA DEGLI SCROVEGNI

### Featuring a new roof system for heritage building

#### HISTORICAL BACKGROUND

The family chapel of the Scrovegni in Padova, known as “la cappella degli Scrovegni” was constructed on the ruin of ancient Arena of Padova from the year 1303 to the year 1305, The Scrovegni was the richest family of the time which ran the business of banking and usury. One of the family member Enrico Scrovegni decided to dedicate a chapel to God, after knowing that in the Dante’s story, the usurious had been sent to hell. The architectural configuration and the space of the chapel is quite simple and clean. It is composed of a nave, following with a Choir and an apse with a tower on top, to the west side of the apse locates a sacristy. The architect might not be much recognizable, however, the Scrovegnis has definitely hired the most noted artists of the time taking care of the decoration of its interior space. Among them, the Florentine Giotto who has created the fresco on the walls and ceiling should be considered as one of the most noted and innovative artists of that period. Before having been assigned the task of “la Cappella degli Scrovegni”, he has already accomplished the decoration of several building among the most well known in Italy, such as the “Basilica di S. Francesco” in Assisi and the “S. Giovanni in Laterano” in Rome.

Giotto has been commissioned to create a serials of frescoes on the inner walls of the chapel, drawn from the stories of the Old and New Testament. 38 squares filled with different scenes were placed in three stripes on both side of the lateral walls. And the famous characters representing “the seven vices and the seven virtues.” were placed on the



bottom of each wall. These drawings are supposed to arouse the desire of redemption of humanity for everyone who enters the chapel. The ceiling of the chapel has been painted entirely with vivid blue, symbolizing the existence of heaven, which is considered as the most recognizable feature of this masterpiece of art. The fresco of the chapel is recognized as one of the most important works in western art history and the only one that is comparable with the fresco of the Sistine Chapel in Rome by Michelangelo.

**INSPECTION TOWARDS THE ROOF SYSTEM AND CORRESPONDENT INTERVENTIONS**

The roof system has always been the focus of the previous conservations in the history, since it's the most crucial aspect that prevents the fresco being affected by the natural environment. Throughout the most recent and comprehensive inspection towards every session of the roof above each space, concentrating on the efficiency of the roofing system, several existing damages and potential problems have been indicated, and according to which a serials of interventions have been applied.





## The Nave

### EXISTING CONDITION

The originally principle structural components of the roof were wooden trusses which had been replaced by steel ones in the 1960s, providing a more stable and durable roof structure. The existing coverage consists of three layers, listed as follows, from the inside out: a tablet constructed with ceramic panels which were supported by the steel trusses, some fissures presented on the panels; the waterproof layer had been applied directly on the ceramic deck. Since it had been set in the 1960s, some certain aging and deformation phenomenon has inevitably appeared; the traditional tile coverage showed no evident damage. All the three layers work together preventing the space underneath from being affected by the natural weather conditions such as the infiltration of the rain and the direct irradiation of the sunlight and so on.

### INTERVENTION EXECUTED AND THE GENERAL SEQUENCE OF THE CONSTRUCTION

1. In order to provide a protection of the space underneath during the conservation, a temporary coverage has been applied. In the meanwhile, a tablet attaching to the bottom of the trusses has also been built to work as the passage above the vaults. All the wooden panels are pretreated with a high fireproof performance fulfilling the EU standard.
2. Demolishing the roof coverage with all three layers.
3. Reconstruction of the tablet fixed on top of the trusses, replacing the previous ceramic panels with high density plywood panels displaced in double layers crisscrossed, it is capable of providing a much more durable and resistant base for the systems above, it will maintain certain stability even when responding to deformation caused by the earthquake and the expansion and contraction caused by the temperature variation. A stripe of carbon fabric tape has been applied along the perimeter of the nave, where the tablet meets the wall summit, in order to reinforce the sealing performances of the roof and form a more reliable connection between the walls and the tablet itself. After having the old ceramic tablet demolished, all the dust and detached fragments have been thor-





- oroughly removed from the wall top, providing a clean supporting surface. All the wooden panels are pretreated with a high fireproof performance fulfilling the EU standard.
4. Reconstruction of the waterproof layer, introducing the most updated self-extinguish material that meets the EU anti-fire standard.
  5. Reconstruction of the traditional tile coverage.
  6. When the conservation of the roof system has drawn to an end, the temporary roof has been dismantled, but some parts of the tablet that worked as passage have been kept as the structural reinforcement of the steel trusses and the maintenance passage for the future usage.

## The Choir

### EXISTING CONDITION

The Roof of the Choir is the same three-layered system as the nave's, the major difference is the application of trestles as supporting components instead of trusses, and the presence of tie rods fixed on the walls for reducing the thrust caused by the roof.

### INTERVENTION EXECUTED

The reconstruction of the principle three layers has been repeated in every session of the chapel. In order to provide a more stable supporting structure of the roof, the former trestles and ties have been replaced by a series of new steel components with a thin but resistant tie. prefixed at the bottom.

## The apse and the tower

### EXISTING CONDITION

The tower constructed above the apes is the highest part of the whole building. From the presence of a concrete roof, we can easily deduce that its coverage has been renewed in one of the previous restoration. The roof showed no signs of damage and overall in good state. There is a wooden deck dividing the apse from the tower, located a certain height above the apse, it showed no evident sign of damage. There is an arch between the Choir

and the Apse with a remarkable scale, when observing from above, minor fissures on the plaster can be noticed, and several evident cracks were found on the wall surface on which the arch is supported. They are caused by the thrust formed by the arch.

**INTERVENTION EXECUTED**

Apart from the reconstruction of the waterproof layer and the replacement of the tiles above, the concrete roof has been kept almost untouched. The only modification made was the addition of carbon fabric along the perimeter of the wall top, in order to reinforce the connection between wall and roof. Some minor interventions have also been applied to the wooden deck, some metal bars have been inserted into both the wood and the wall, creating a more secure connection between the two. The arches vaults and have also been comprehensively cleaned. All the dust and detached materials, found between the stones of the structure of the arches have been removed and the gaps refilled with grout of natural lime. The cracks on the walls showed an evident sign of the insufficient resistance of the





walls to the thrust caused by the arches. Tie rods and a metallic bar have series of minor been inserted to stabilize the structural behavior and preventing further deteriorations of the existing cracks.

## The Sacristy

### EXISTING CONDITION

The Sacristy was covered by the common three-layered roof system, but with a particular supporting system, composed by reinforced concrete beams. The overall stability of the structure performance was acceptable, according to the investigation, which emphasised only some reinforced steel exposure phenomenon.

### INTERVENTION EXECUTED

In order to solve the reinforced exposure problem, some FRP laminas of have been used.

## “TECHNOLOGY FOCUS”

Kimia S.p.A. manufactures both traditional products (e.g. lime mortars) and innovative high performance materials (FRP, FRCM, CRM systems) for the recovery and restoration of historical/monumental constructions, civil works, r.c. buildings.

The strong specialization of the solutions adopted, the technical support offered in any phase of the interventions and the versatility in meeting the specific needs of complex renovation projects, enabled Kimia to carve out a reference position in both Italian and foreign restoration markets.

For this intervention Kimia provided lime-based mortars applied with alkali-resistant glass-fiber nets & FRP solutions.

#### FRP STRENGTHENINGS WITH FABRICS

After adequate preparation of the substrate, apply with a brush, roller or airless pump Kimicover FIX water-based epoxy primer.

Afterwards apply with a notched trowel an average 1 mm thick layer of tixotropic resin Kimitech EP-TX.

On wet, place the reinforcing fabric made out of carbon fiber (Kimitech CB) or glass fiber (Kimitech VR) with grammage, type of weaving and width requested foreseen.

Impregnate the reinforcements applying by brush the fluid resin Kimitech EP-IN (with a longer workability time) or Kimitech EP-IN/50 (faster).

In case of regular substrates and low-grammage fabrics, it is possible to use a medium-viscosity resin (Kimitech EP-IN/CMP) both to glue and impregnate the fibers.

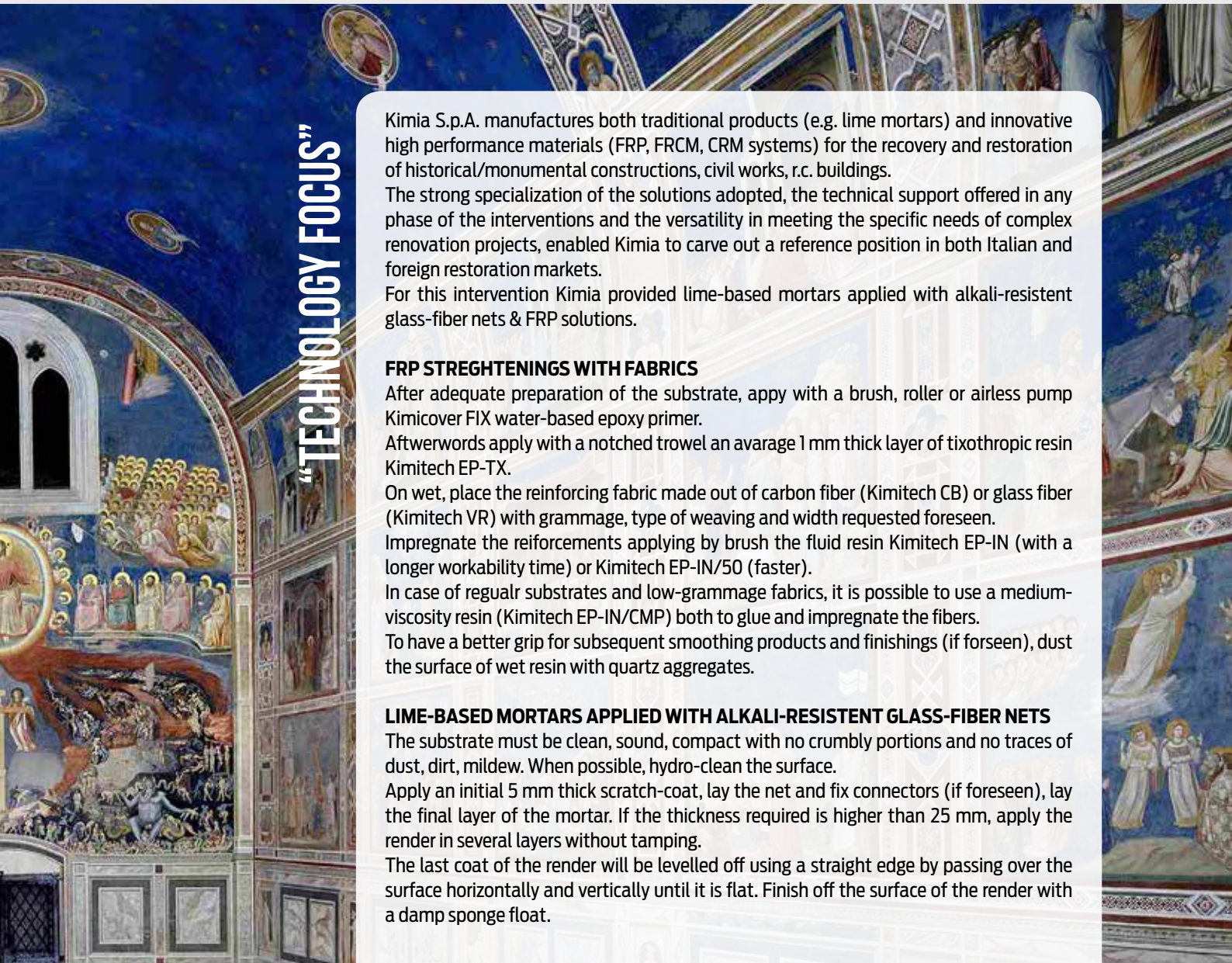
To have a better grip for subsequent smoothing products and finishings (if foreseen), dust the surface of wet resin with quartz aggregates.

#### LIME-BASED MORTARS APPLIED WITH ALKALI-RESISTENT GLASS-FIBER NETS

The substrate must be clean, sound, compact with no crumbly portions and no traces of dust, dirt, mildew. When possible, hydro-clean the surface.

Apply an initial 5 mm thick scratch-coat, lay the net and fix connectors (if foreseen), lay the final layer of the mortar. If the thickness required is higher than 25 mm, apply the render in several layers without tamping.

The last coat of the render will be levelled off using a straight edge by passing over the surface horizontally and vertically until it is flat. Finish off the surface of the render with a damp sponge float.





**23** MARCH  
**24**  
VENEZIA

## THE CONSERVATION OF PONTE DELL'ACCADEMIA IN VENICE

### How to maintain the historical appearance with updated technologies

Tan Roushuang

studio  
**Berlucchi**  
società di ingegneria  
dal 1920

restauro@studioberlucchi.it  
www.studioberlucchi.it

Studio Be.Fa.Na  
Ugo Fattore  
lido@studiobefana.it  
www.studiobefana.it

#### HISTORICAL BACKGROUND

In the day of November 20th 1854, citizens of Venice have finally witnessed the inauguration of the second pedestrian bridge crossing the “Canal Granda”, which was an iron structure spanned about 50 meters, designed by the British engineer Alfredo Neville. This had been the precursor of “il ponte dell'accademia”.

As a matter of fact, the iron bridge of Neville has never been fully appreciated by the Venetians. In their constant criticism, its industrial and modern configuration has been considered as dissonant element of the ancient Venice. And the outrageously high cost of maintenance made the government had no choice but to limit the use of it to decelerate its serious deterioration. In the year of 1931, a wooden bridge designed by engineer Eugenio Miozzi has been built, in order to function as a temporary solution replacing the previous bridge by Neville. At the same time, the discussion searching for an official and permanent scheme has never ceased. Contemporarily with the completion of the wooden one, a design proposed by Architect Dullio and Engineer Ottorin has been announced as the winning scheme. Unfortunately, restrained by the break out of war and financial difficulties, the official design had never had a chance to be built. Consequently, the temporary has become permanent. The name “ponte dell'accademia” derived from the fact that it locates next to “Accademia di belle arti di Venezia (now converted into Gallerie dell'accademia)”.

The principle structure consists with two Metallica arch supported by brick stacks sit on each side of the canal. The span of the both arches is around 50 meters, and the height from arch top to water is about 7 meters. Between the arches locates a metal wind resist system, it works side by side with the arches forming a solid base, on which a wooden structure of steps and platforms has been built.

As it has been designed and constructed as a temporary structure, the economically se-



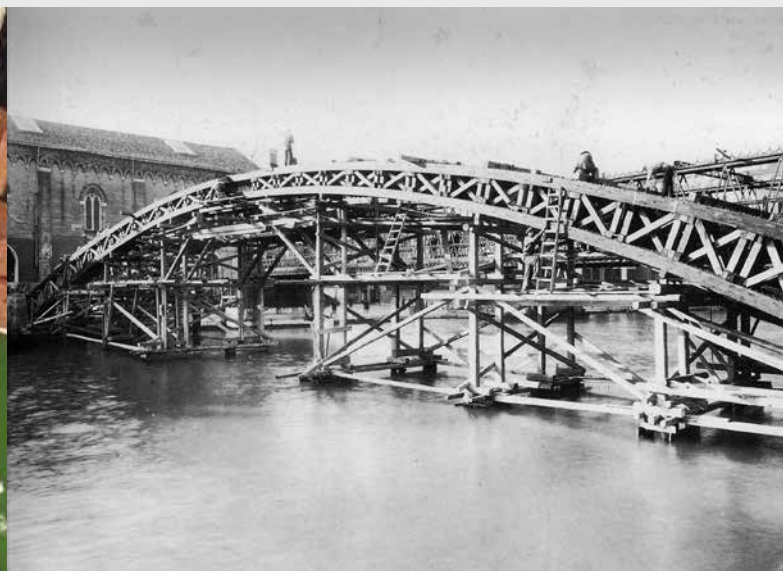


lected materials, the highly simplified construction methods and the intensely compressed working duration, are bound to be problematical during the utilization of the bridge. Furthermore, the high humidity of Venice and the corrosive sea water accelerate considerably the degradation of wooden and metallic components. The constantly increased number of tourist, the damaging caused by overloaded pedestrian traffic is becoming more and more critical. The bridge has gone through several major conservations in history, the resistance of the structure has always been the main concerns of the previous interventions. Under the premise of maintaining the original exterior configuration, the majority of structural now are made of steel with a larch coating resembling the original wooden structural. The most recent conversation has been completed not long ago.

**DEGRADATION PERCEPTION AND VALUATION**

Before drawing to a conclusion of definite intervention methods, the perception of existing degradation and the valuation of the risk causing by the damages should be very crucial. The process of sampling study includes works as following: partial dismantling of the most representative and essential sessions of the bridge (for example the wooden trusses on each end of the bridge which bear the most load and suffer the most severe corrosion from the sea water); observation the condition of each component of various materials; mapping of the existing damages on each components; mapping of the existing connecting situations between the components, especially between those made of different materials; valuation of soldering joints between Metallica components; valuation of damage situation of wooden coating ; valuation of corrosion situation of metallic components.

The foremost outcomes of the sampling study are listed as following: the most evident decay is the corruption of wooden components especially those function as coating, contacting directly with metallic materials. The stagnated sea water without being efficiently ventilated is the key factor that exacerbates the deterioration of the wood; However, the most critical damage concerns the rusting of metallic components, which occurs most frequently also on the joints where the various materials meet. For instance, the steel profiles with a C section, coated with larch panels, are the most essential structural elements of the two arches with a span of 50 meters that bear all the load of the upper structure. The sea water enters the gap between wood and steel frequently, due to its concealed





position, the serious corruption of steel revealed only after the demolition of wood during the sampling study. The concealment of degradation increases tremendously the level of potential structural risks. Another unignorable phenomenon is the severe abrasion of the wooden steps and platforms cause by the daily traverse of outrageous number of tourists.

#### THE INTERVENTION EXECUTED

Throughout the analysis towards the existing condition and outcome of the damaging valuation, it's very obvious that the majority of the damages are caused by the corrosive sea water and the unsuitable connection between components that exacerbates the effect of corruption. Based on the principle of reducing the risks of corrosion a series of comprehensive and meticulous intervention have been practiced, which can be generally catalogued into three basic categories: the amelioration of the existing joints between components; the corrosion prevention intervention applied on the existing structure; the substitution of over degraded components and the adjustment on the repairable parts. The specifics are listed are following:

The amelioration of the existing joints between components: the insertion of a spacer between wooden and metallic components, made of xylene with a thickness of 1cm. This method allows the circulation of air and water between the wood and metal in order to







create a relatively dry microenvironment avoiding the corrosive effect of the stagnated sea water.

The corrosion prevention intervention applied on the existing structure: the complete removal of rust on surfaces of metallic components; two layers of Zinc phosphate coating treatment on all the accessible metallic surfaces; three layers of polyurethane enamel treatment for all the micro metallic components; Multiple layers of corrosion resistant treatment on all the wooden components.

the substitution of over degraded components and the adjustment on the repairable parts: the replacement of unrepairable metallic components follows the principle of avoiding applying the profile with enclosed section in order to avoid undetectable decay in the future; the replacement of unrepairable wooden components follows the principle of applying the larch with the similar appearance to the original one, in order to obtain the harmony between the past and the present; proper adjustments for those parts which are slightly deformed.

The conservation of "il ponte dell'accademia" respected the historical appearance of the bridge, in the meanwhile considered comprehensively the updated functional requirements of modern times and the security of structural. For the sake of prolonging the duration, regular maintenance and verification is definitely required.



Tan Roushuang

LITHOS

Restauro e conservazione

info@lithosrestauri.com  
www.lithosrestauri.com

SETTEN  
GENESIO

we are builders

info@settengenesio.it  
www.settengenesio.it

## A HISTORY OF LA SCUOLA GRANDE MISERICORDIA IN VENICE AND ITS CONSERVATION

### HISTORICAL BACKGROUND

Founded in the Middle Ages as a secular phenomenon of devotion and solidarity, the “Scuole Grandi” played a key role in the social, political and religious fabric of the Republic of Venice. In the sixteenth century they reached a level of such wealth and influence in the community that were integrated into the social context of the Serenissima Republic, with a leading role in state ceremonies.

The original design of the Scuola was built in the Gothic style from 1308 onwards in Campo dell’Abbazia, where it still stands today. Expanded several times in the course of the century, in the late fifteenth century the Misericordia first proposed the reconstruction of its headquarters elsewhere, to provide a larger and more prestigious location for its ever growing number of members. The Florentine architect and sculptor Jacopo Sansovino was awarded for the project of the construction of the “Scuola Nuova”. He designed the interior referring to the layout of Roman basilicas, while maintaining the traditional model of the Venetian schools. Veronese, Zanchi, Lazzarini, Pellegrini, and last but not least Domenico Tintoretto, son of the famous Jacopo, were only some of the artists involved in the decoration of a building that still retains the splendour and prestige with which it was conceived. The end of the Republic of Venice forced the confraternity to leave the site. Since the beginning of the nineteenth century the Scuola has been used in different ways: firstly as military lodgings, then as a warehouse, and finally hosted the State Archives. In 1914 it became home to the educational and sporting activities of the Costantino Reyer Sports Club, which in spite of many logistic difficulties managed to transform it into a temple to sports in Venice. The Misericordia was home to the Reyer Sports Club until 1991 when the City of Venice started the restoration of the building, the works finally reached completion in 2015.

### THE CONSERVATION

The new architectural project revives the mystery and charm of the building, enhancing the depth of its historical traditions in every wall and decoration. The restoration aims to unearth the original painted surfaces, emblematic of the late Venetian Renaissance.

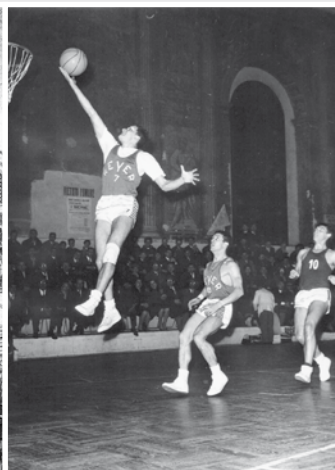






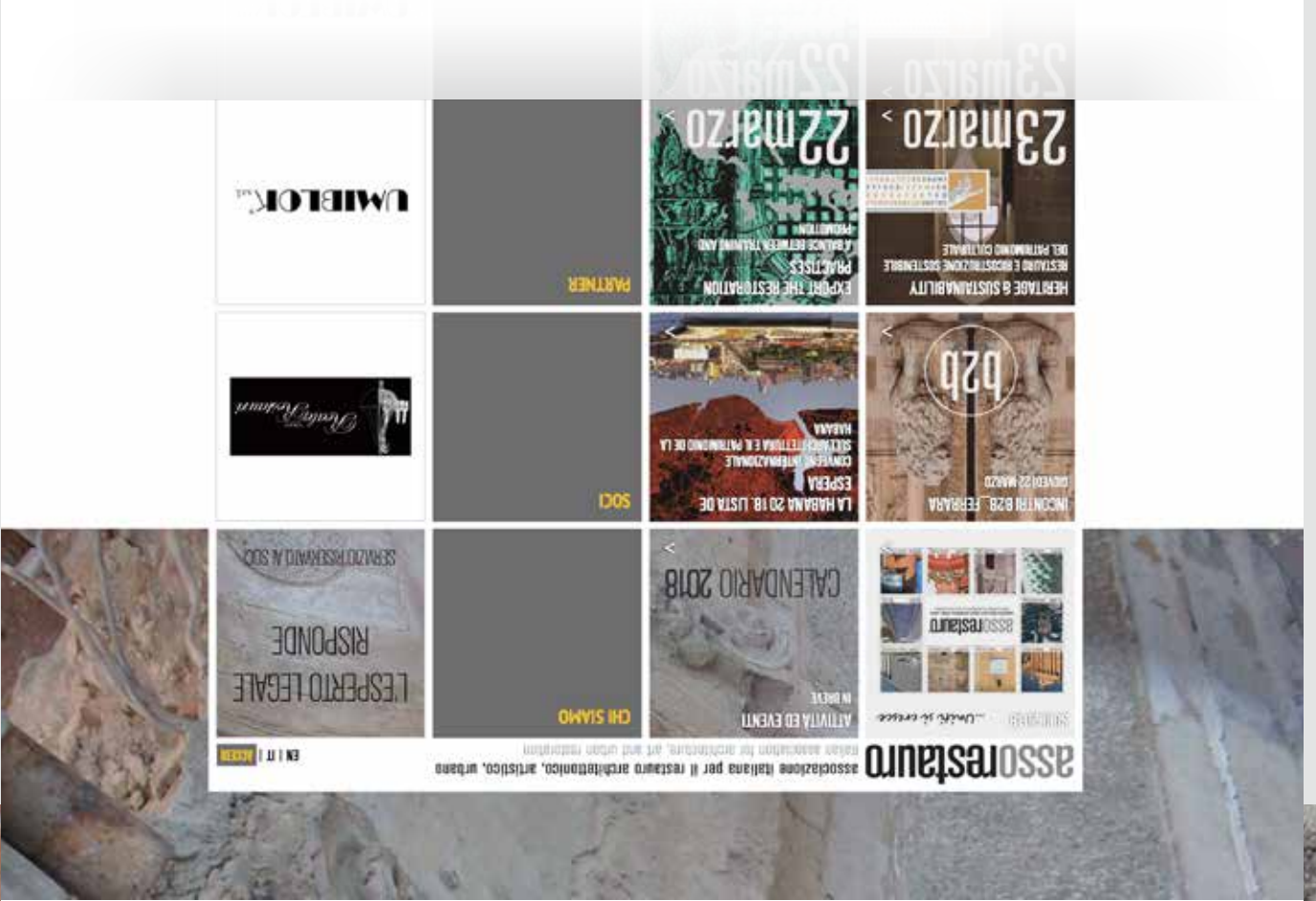
Photo source:  
[www.misericordiadivenezia.it](http://www.misericordiadivenezia.it)

Today the Misericordia is a sustainable ongoing project for the city of Venice at this moment in history: it is a space where urban upgrading, culture and social involvement converge. A generator of business, flexible and adaptable, focused on a single goal: the promotion of excellence, cultural exchange and opportunities to meet.





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Viale Einaudi 109 - 70125 Bari  
Tel. +39 080 9146373 - Fax +39 080 9146491  
info@xilux.it  
www.xilux.it

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1

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VGS COSTRUZIONI SRL

Via San Quintino 18 - 10121 Torino  
Tel. +39 011 0262555 - Fax +39 011 0262556  
segreteria@vgscostruzioni.com  
www.vgscostruzioni.it



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UNIVERSITÀ DEL SALENTO

Plaza Tancredi 7 - 73100 Lecce  
Tel +39 0832 292715  
urp@unisalento.it  
www.unisalento.it



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UNICALCE SPA

Via Pontt 18 - 24012 Brembilla (BG)  
Tel. +39 0744 756040 - Fax +39 0744 756029  
premier@unicalce.it - www.premierpremiscelati.it



A

UMIBLOK SRL

Via Fornace 14 - 48010 Fusiignano (RA)  
Tel. +39 0545 22163 - Fax +39 0545 909056  
umiblok@libero.it  
www.umiblok.it



ANNO DI FONDAZIONE: 1977

CERTIFICAZIONI: Di prodotto

FILIALI: Cisterna di Latina (LT)

L'azienda nasce nel 1977 con il nome "SANA CASA", l'attività principale era il recupero delle murature contro l'umidità capillare ascendente. Nel 1987 è depositata il proprio sistema e marchio "UMIBLOK" ed inizia la produzione di attrezzature specifiche per l'edilizia. L'azienda si estende, partecipa a fiere specializzate nel settore, è conosciuta sia in campo nazionale che estero, esegue lavori di massima importanza su monumenti e presenta svariati brevetti. Dal 1998 la ditta "SANA CASA" viene conferita nella "UMIBLOK S.r.l.", la quale continua la stessa attività e brevetta un nuovo taglia-muro il quale oltre a creare una barriera impermeabile alla base della muratura contro l'umidità di risalita, riesce ad assorbire le vibrazioni provenienti dal sottosuolo.  
Since 1977, work to repair and conserve masonry damaged by moisture.

**CERTIFICAZIONI:** UNI EN ISO 9001:2008 - EMAS  
Unicalce è il principale produttore italiano di calce calcica, dolomitica e prodotti derivati con 12 stabilimenti su tutto il territorio nazionale per una capacità produttiva di 2 milioni di tonnellate a cui si affianca la nostra linea di premiscelati Premier con 4 siti produttivi. Produciamo e sviluppiamo soluzioni necessarie per gran parte del tessuto produttivo nazionale: ambientale, energetico, manifatturiero e delle costruzioni.  
Unicalce is the leading Italian producer of calcium and dolomitic lime and derivatives with 12 plants all over the country with a production capacity of 2 million tonnes, together with our line of Premier premixed material with 4 production sites. We manufacture and develop products necessary for most of the national productive infrastructures: environmental, energy, manufacturing and construction.

Dallo studio alla diagnostica, dalle tecniche di restauro ai metodi per la valorizzazione, l'Università del Salento lavora a tutto campo sui beni culturali, con competenze diffuse in tutti i Dipartimenti. L'Ateneo salentino si impegna, parallelamente, nella formazione di professionisti competenti nelle varie attività di studio, tutela, vigilanza, conservazione e messa in valore dei beni culturali. Le attività didattiche, infatti, traggono sempre nuova linfa e continuano a aggiornamento proprio dalla ricerca condotta da docenti, ricercatori e tecnici qualificati, costruendo così un circolo virtuoso tra aule, laboratori (ben attrezzati con strumentazione all'avanguardia) e territorio in senso ampio. From theoretical studies to diagnostics, from restoration techniques to valorisation practices, the University of Salento is widely involved in Cultural Heritage themes, with competence spread in all Departments.  
The University of Salento is, in parallel, involved in the professional training of experts possessing high competence in different activities aimed at studying, preserving, supervising, conserving and valorizing Cultural Heritage. The teaching activities, in fact, always draw new life and continuous updating from research conducted by well qualified professors, researchers and skilled technicians, which builds a virtuous circle between classes, laboratories (supplied with the most up-to-date equipment and instrumentation) and the territory in a broad sense.

La VGS Costruzioni fonda le sue radici in oltre 40 anni di esperienza nell'ambito delle costruzioni, manutenzioni, ristrutturazioni di immobili a destinazione residenziale, terziaria ed industriale. Negli ultimi anni l'azienda si è contraddistinta nella realizzazione di restauri, riqualificazioni, recupero e valorizzazione di immobili di particolare pregio, acquisendo una comprovata esperienza in tale ambito. Lo spirito imprenditoriale, unito all'alta professionalità del suo staff e del suo collaboratore, ha permesso all'azienda di strutturare costantemente l'evoluzione di nuove tecniche, tecnologie e materiali applicati al settore. VGS Costruzioni è inoltre strutturata per partecipare ad appalti pubblici, disponendo di attrezzature SOA e di un sistema qualità certificato. Si propone come partner affidabile, finanziariamente stabile, desideroso di ottenere la migliore qualità conseguibile.  
VGS Costruzioni lays its foundations in more than 40 years of experience in the construction, maintenance, renovation of residential structures, service industry buildings and industrial constructions. In recent years, the company has particularly valuable properties acquiring great experience in this field. The entrepreneurial spirit, together with the high level of professionalism of the staff and collaborator enabled the company to constantly exploit the evolution of new techniques, technologies and material applied to this sector. VGS Costruzioni is structured and organized to take on public contracts, and is in possession of SOA certification and a certified quality system. The company proposes itself as reliable and financially stable partner who is always dedicated to obtaining the best possible quality.



restaura  
opere d'arte

**ANNO DI FONDAZIONE:** 1982  
**CERTIFICAZIONI:** UNI EN ISO 9001:2008

La TECNICON s.r.l. dal 1982 opera prevalentemente in Italia. Si compone di tecnici restauratori diplomati presso l'Istituto Centrale per il Restauro di Roma, tecnici qualificati e di storici dell'arte. Si occupa del restauro e la conservazione di dipinti murali, dipinti mobili su tela e su tavola, superfici di pregio dell'architettura, fontane, sculture, mosaici, stucchi, terracotte, manufatti lignei (sculture e soffitti policromi), manufatti metallici. Realizza calche e copie Born in 1982, it is composed primarily of Restorers graduated at the Central Institute for Restoration in Rome, qualified technicians, and art historians. TECNICON Ltd operates throughout Italy for Superintendents, municipal authorities and ecclesiastical institutions out Italy for ACTIVITY: Wall paintings, paintings on canvas, on wood, architectural surfaces, fountains, sculptures, mosaic, stuccos, terracottas wooden artworks, metal manufactures

**TECNICON SRL**

Via Monte del Gallo 26/E - 00154 Roma  
Tel. +39 06 39366504 - Fax +39 06 39366504

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tecnicon@hotmail.it  
www.techniconrestauro.it



Innovative Green  
Building Solutions

Il marchio Tecnova Group nasce per soddisfare nel mondo dell'industria edilizia le richieste sempre più esigenti di imprenditori e progettisti, offrendo una serie di soluzioni efficaci e innovative. Il leitmotiv che ispira la nostra missione è: "non offriamo semplicemente un prodotto, ma soluzioni". Per la realizzazione di questo obiettivo, Tecnova Group ha ricercato le migliori tecnologie presenti in tutto il mondo, nel campo della protezione e della durabilità delle opere murarie e del calcestrutto, del restauro, del risparmio energetico e della deumidificazione, diffondendo con successo crescente nel mercato italiano ed estero.

Tecnova Group distribuisce in esclusiva per l'Italia i prodotti ThermoShield, Evercem, Genie. Creation of Tecnova Group brand meets worldwide demands in the construction industry, offering a range of innovative and effective solutions. Company's mission is: "We don't offer simply products but solutions! " To reach its goal, Tecnova Group searches worldwide best technologies in the fields of concrete's protection and durability, restoration, energy saving and rising dump dehumidification. Tecnova Group offers eco-friendly products, tested and verified in the laboratory as in practice. Tecnova Group is exclusive distributor in Italy of ThermoShield, Evercem and Genie.

**TECNOVA GROUP SRL**

Via delle Industrie 21 (sede legale)  
Via Idriasi 2 (sede operativa)  
95041 Catagione CT  
Tel. +39 0933 56553 - Fax +39 0933 56553

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info@tecnovagroup.it  
www.tecnovagroup.it



PROTECTIVE SURFACE TREATMENTS

T&P è nata nel 1978 sotto altra denominazione, partendo dalle pulizie generiche ha nel tempo acquisito il know-how e le competenze necessarie per affermarci come impresa di pulizie specialistiche e trattamento conservativi a livello internazionale. L'esperienza acquisita ci permette oggi di portare alle condizioni originarie tutti i tipi di superfici dagli arredi urbani agli edifici storici. Grazie all'esperienza dei nostri operatori e del reparto R&D abbiamo eseguito lavori di pregio tra i quali la pulitura dei piloni in pietra della Torre Eiffel a Parigi, la facciata esterna dell'ambasciata italiana a Mosca e piazza Duomo a Milano.

Starting out from general cleaning in 1978, we gradually focused on specialized cleaning, thus developing that very know-how and competence that today enable us to restore the original intact conditions of all kinds of surfaces and constructions, from street furniture to historic buildings. Thanks to our operators' expertise and thanks to our R & D Team, constantly striving for an up-to-date performance, we cleaned the base pylons of the Eiffel Tower in Paris, the exterior walls of the Italian Embassy in Moscow, the Square of the Milan Cathedral.

**THOR & PARTNERS SAS**

Via Giancapo 16 - 53030 Carnaves Santa Croce (PD)  
Tel. +39 049 9900324 - Fax +39 0422 1760939

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www.capomasi.com  
nicola.capomasi@gmail.com



integrated services  
www.tryeco.com

Tryeco 2.0 concentra al suo interno svariate tipi di attività, grazie alla presenza di collaboratori con diverse competenze, legate all'acquisizione e rappresentazione solida virtuale di un oggetto, di un contesto o di un concept. L'azienda riunisce i servizi attorno alla progettazione rapida in gesso, nuova tecnologia che richiede strumentazioni specifiche, acquisite dall'azienda e poco diffuse nel territorio nazionale. Attraverso la prototipazione il lavoro si suddivide in diverse attività: realizzazione di modelli architettonici; collaborazione con consulenti e sovratendenza per la realizzazione di opere d'arte scultoree, lavoro in cui la prototipazione è affiancata da operazioni di scansione laser e elaborazione del modello digitale; realizzazione di oggetti di design o personalizzati; delle forme e dimensioni più svariate, per cui è possibile effettuare anche la modellazione tridimensionale. L'altro settore in cui Tryeco si inserisce è quello della comunicazione multimediale attraverso la realizzazione di animazioni e video spesso accompagnati da elaborazioni tridimensionali dei contenuti. Principalmente le richieste per questo genere di lavoro arrivano da enti ed aziende promotori di manifestazioni fieristiche o alla ricerca di spot promozionali di progetti di design. La gestione di un buon numero di conoscenza tecniche, a livello di tecnologie, hardware e software, consente l'individuazione del prodotto e dei processi per un miglior risultato, un minor spreco di tempo e un miglior controllo delle attività interne.

The firm develops several kinds of activities thanks to a team whose members have different abilities mainly in the field of the take-over and compact (solid) or virtual display of an object, an environment (context) or a concept. The company focuses its work and provides its services on rapid chalk prototyping, a new technology which requires specific equipment, purchased by the firm and still barely used in the country. Prototyping allows many activities such as: execution of architectural models; cooperation with museums and 'sovrintendenza' (regional boards for the preservation of cultural heritage) for the execution of designs or sculptural works of art where prototyping is supported by laser scanning and digital model processing; for the execution of copies or customized objects; in any shape or size or dimensions to obtain a tridimensional modeling Tryeco also works on animation and work on the field of multimedia communication, carrying out videos and animations often with tridimensional processing of the contents. This kind of service is mainly requested by public authorities or firms sponsoring exhibitions in trade fairs or advertising design projects. A specific and technical knowledge and high hardware and software competence allow the prototyping of products and processes so has to obtain the best result, with no a waste of time and a better control on the internal activities.

**TRYECO 2.0 SRL**

Via Poletelli 21 - 44121 Ferrara  
Tel. +39 05321915354

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info@tryeco.com  
www.tryeco.com





**SYREMONT SPA**

**3** Largo Antonio Sarti 4 - 00196 Roma  
Tel. +39 06 3220880 - Fax +39 06 3220881  
**5** info@syremont.it  
www.syremont.it



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Syremont begins in 1987 within the Montedison Group from which it inherits a specific competence in fluorine-based chemicals. After 26 years devoted to research, diagnostics and to the restoration of cultural heritage sites all over the world, Syremont is today a company specialised in a wide range of integrated services mainly focused on the management of cultural assets. Our full integrated working program is based on: a scientific and technological research centred on restoration and conservation products and services (Akeogard® Edigard® Linee Akeogard® Edigard®); projects and interventions of restoration and conservation of materials (Linee Akeogard® Edigard®); project and intervention of restoration and conservation of materials organic (sistema VLOXY®); progettazione e ingegnerizzazione tecnologica e impiantistica finalizzata alla manutenzione e/o creazione di asset culturali e paesaggistici per la fruizione e divulgazione; musei, mostre, eventi suoni e luci, visite guidate specializzate, parchi tematici, media production, comunicazione e marketing. Ciclo produttivo. Analisi fattibilità modelli di gestione - progettazione - opere - gestione.

**CERTIFICAZIONI:** ISO 9001:2008 - OG02 II classe, OS02 - I classe, OS06 II classe  
**ANNO DI FONDAZIONE:** 1987

**STUDIO BERLUCCHI SRL**

**1** Via Soncin Rotto 4 - 25122 Brescia  
Tel. +39 030 291583 - Fax +39 030 45248  
**5** nicolaberlucchi@studioberlucchi.it  
www.studioberlucchi.it



E

La Società Berlucchi srl venne costituita nel dicembre 1981 dai Fratelli Francesco e Roberto Berlucchi proseguendo l'attività professionale del padre Ing. Antonio. Oggi, la Società si occupa di Progettazione e Restauro e si suddivide in 2 settori distinti. Ling. Roberto Berlucchi è responsabile del settore Progettazione, mentre il figlio, Ing. Nicola Berlucchi coordina il settore Restauro. Lo Studio Tecnico Società Berlucchi può contare su un organico composto, oltre che dai due soci, da un gruppo di nove collaboratori tra ingegneri, architetti e geometri. The company Berlucchi srl was established in December 1981 by the brothers Francesco and Roberto Berlucchi, carrying on the professional activity of their father Ing. Antonio. Today, the company works on new buildings and on restorations and is divided in two sections: Eng. Roberto Berlucchi is responsible of the Designing division, meanwhile his son, Eng. Nicola Berlucchi is responsible of the Restoring division. The designing team is composed by two senior partner engineers and nine employees (engineers, architects and technicians).

**ANNO DI FONDAZIONE:** 1981

**STUDIO ASSOCIATO DI ARCHITETTURA CARARA E GUADAGNO**

**1** Via Fulvio Ranella 113 - 81100 Casera (CE)  
Tel. +39 0823 329066 - Fax +39 0823 329066  
**5** gstudio@libero.it



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Lo Studio Associato di Architettura Carara e Guadagno opera nel settore tecnico/progettuale, in particolare nel campo del restauro, avvalendosi delle prestazioni professionali di tecnici qualificati, regolamentari iscritti ai rispettivi Ordini o Collegi di appartenenza. A fronte di una esperienza operativa pluriennale, lo studio si è specializzato, nelle prestazioni tecniche afferenti opere ed interventi di nuova edificazione, restauro, riadeguamento, risanamento, ristrutturazione e riutilizzo funzionale di complessi monumentali, civili, pubblici, industriali e terziari. Studio Associato di Architettura Carara e Guadagno (CGA) operates in the technical and design field, with a strong focus on the restoration area. The architecture firm is supported by a number of professional services provided by qualified technicians, who are legitimately registered with the respective professional bodies. Thanks to the long time experience accumulated, CGA specialises in the all types of professional duties required for the preparation of design and technical documentation. The expertise in this area covers both the initiation of new buildings as well as restoration, adaptation, improvement, renovation and functional reuse of pre-existing ones.

**STUDIO AERREKAPPA SRL**

**1** Sede legale: Via Don Bosco 26 - 73100 Lecce  
Sede operativa: Via Vittorio dei Prioli 32 - 73100 Lecce  
Tel. +39 0832 307085 - Fax +39 0832 307085  
**3** info@studioaerrekappa.com  
www.studioaerrekappa.com



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Studio AERREKAPPA S.R.L. progetta, dirige e realizza lavori di restauro di edifici storici e di ristrutturazione di immobili privati e pubblici, con materiali e tecniche innovativi qualiintonaci e pavimenti biocompatibili, impianti termici a parete e a pavimento, illuminazione tramite LED, sistemi domotici, pannelli solari, sistemi di climatizzazione ad evaporatori passivi e cationi solari. Sensibile alle problematiche del risparmio energetico e di una architettura ecosostenibile, opera a Lecce dal 2011 come naturale evoluzione dello Studio Associato fondato nel 2003 da Cristina Caiulo, architetto, e Stefano Pallara, ingegnere. Studio AERREKAPPA S.R.L. was founded in 2011 by Cristina Caiulo, architect and Stefano Pallara, engineer. Its field is the restoration of historical heritage and the renovation of private and public property, paying attention to the problems of energy saving with innovative technical plants, especially of lighting system, domotic technique, solar panels, air conditioning systems and evaporators passive solar chimneys.

**ANNO DI FONDAZIONE:** 2011 (2003)

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SANSONE S.r.l. si propone come una solida realtà in grado di offrire un servizio del massimo spessore professionale per la realizzazione di restauri, pitture e decorazioni, pavimentazioni artistiche e stucchi, combinando tecniche nuove e conoscenze antiche nel nuovo colore del tempo.

SANSONE S.r.l. presents itself as a stable reality which can offer the highest professional quality service for restorations, paintings and decorations, artistic flooring and stucco work, combining new techniques and traditional knowledge in the new color of time.

**SANSONE SRL**

Via di Virano, 4 Loc. Massolina  
50060 Pelago (FI)  
Tel. +39 055 8311077 - Fax +39 055 8311068  
info@sansone srl.it  
www.sansone srl.it

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**MARCO PAOLO SERAVALLI STUDIO DI ARCHITETTURA**

Via Cadorna 4 - 24128 Bergamo  
Tel. +39 035 400156  
segreteria@servalliarchitettura.it  
www.servalliarchitettura.it

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**ANNO DI FONDAZIONE: 1998**

Marco Paolo Seravalli ARCHITETTURA, specializzato nel restauro di edifici storici e di culto e nella valorizzazione professionale di immobili di pregio, sia pubblici che privati. Ogni progetto è eseguito con la massima professionalità al fine di restituire i manufatti antichi all'uso contemporaneo salvaguardandone gli elementi originali. Il metodo di lavoro mira a qualità a al rispetto dei tempi, e lo studio si avvale di collaboratori esperti e affidabili. Progettazione architettonica e direzione lavori, sia in Italia che all'estero. Altre aree di competenza: progettazione del paesaggio, riqualificazione aree urbane, progetti per il Fund Raising.

Marco Paolo Seravalli ARCHITETTURA, specialized in the restoration of historic and religious buildings and the enhancement of prestigious properties, both public and private. Each project is executed with the utmost professionalism in order to restore the historic building to contemporary use while preserving original characteristics. Our working method is focused on quality and on timeliness, and the firm avails itself of expert and reliable collaborators. We carry out architectural design and construction supervision, both in Italy and abroad. Other areas of expertise include: landscape design, urban regeneration, and fund raising projects.

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**SOING**  
STRUTTURE & AMBIENTE

**SOING. STRUTTURE E AMBIENTE SRL**

Via Nicolodi 48 - 57121 Livorno  
Tel. +39 0586 426710 - Fax +39 0586 443552  
soing@soing.eu - www.soing.eu

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**CERTIFICAZIONI: iso 9001 - iso 14001**

Società di servizi per la DIAGNOSTICA ed il MONITORAGGIO applicate all'architettura, all'ingegneria, alla geologia, all'archeologia ed all'agricoltura di precisione.

SOING ha sviluppato negli anni un APPROCCIO INNOVATIVO per la progettazione e la realizzazione dei propri servizi tenendo al centro le tecniche di indagine geofisiche di tipo indiretto, e per tanto classificabili come non invasive, applicate senza l'estrazione di campioni e senza l'alterazione irreversibile delle superfici.

A provider of DIAGNOSTICS and MONITORING services applied to architecture, engineering, geology, archaeology and precision farming. Over the years, SOING has developed an INNOVATIVE APPROACH to engineering and executing monitoring services, with a special focus on indirect – and therefore non-invasive – geophysical survey techniques, where sample collection and the resulting irreversible alteration of finishes are successfully avoided.

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**SPC s.r.l.**

**STUDIO PROGETTAZIONE E CONTROLLI**

Viale Marco Polo 37 - 00154 Roma  
Tel. +39 06 5746625 - 06 5747860  
Fax +39 06 5746335  
mail@spc-engineering.it  
www.spc-engineering.it

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La SPC s.r.l. ha sviluppato nel corso degli ultimi 25 anni una esperienza unica ed un know-how interno specifico raglungendo l'eccellenza nel campo dell'ingegneria strutturale con una esperienza ormai riconosciuta in tutto il mondo nella conservazione delle strutture e delle architetture del patrimonio culturale mondiale. Soci e rappresentanti legali sono: l'ing. G. Croci, l'ing. A. Bozzetti, l'ing. F. Croci, l'Arch. A. Herzalla e l'ing. C. Russo. Le attività principali includono: l'analisi ed il rinforzo strutturale di edifici esistenti, la progettazione di strutture moderne ad elevata complessità utilizzando tecniche e materiali all'avanguardia, il restauro ed il consolidamento di monumenti, indagini e diagnostica di strutture e materiali in site ed in laboratorio ed in sito, project management di progetti di ingegneria civile ed architettura.

The SPC s.r.l. has been developing a unique experience and a proprietary know-how for the past 25 years reaching the excellence in the structural engineering with worldwide recognised experience in preservation of cultural heritage structures and architectures. Partners and legal Representatives are: Ing. G. Croci, Ing. A. Bozzetti, Ing. F. Croci, Arch. A. Herzalla and Ing. C. Russo. Principal activities include: analysis and strengthening design of existing buildings; design of new modern structures using advanced techniques and materials; consolidation and restoration of monuments; investigations and diagnostic on structures and materials, including on-site and laboratory tests; project management of civil engineering and architectural projects.

A SOCIO AGGREGATO | STANDARD MEMBER

E

SOCIO EFFETTIVO | FULL MEMBER

O

SOCIO ONORARIO | HONORARY MEMBER



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Via Right 6 - 30175 Marghera (VE)  
Tel. +39 041 2581911 - Fax +39 041 5328217

## SACAIM SPA



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Fondata nel 1920, SACAIM si è distinta fin da subito in quella che poi sarebbe diventata la sua attività caratterizzante: il restauro conservativo. Nel corso dei decenni i suoi interventi hanno ridato splendore ai più prestigiosi palazzi di Venezia e riportato all'originale bellezza alcuni tra i più importanti monumenti in Italia. Attenzione particolare anche per le opere maritime, ir-rigue, ed acquedotti, oltre che una forte presenza nell'edilizia civile e nelle infrastrutture. Soon after it was established in 1920, SACAIM started to excel in what was meant to become its core business: conservative restoration. Over the last decades, the company has committed to restore to their original splendour the most prestigious buildings in Venice and some of the most important monuments in Italy. Great care has also been given to projects in other sectors, including maritime works, irrigation works and aqueducts, as well as civil construction and infrastructures.

ANNO DI FONDAZIONE: 1920  
CERTIFICAZIONI: ISO 14001/UNI EN ISO 14001:2004  
ISO 9001:2008  
OHSAS 18001:2007

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Via Venosta 70 - 39020 Parines (BZ)  
Tel. +39 0473 966100 - Fax +39 0473 966150  
office.partschins@roefix.com  
www.roefix.com

## RÖFIX SPA



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Risparmio, restauro con un'attenzione costante per la bioedilizia, pittura, investimenti e sistemi di isolamento termico per esterni. Calcestruzzi, massetti e fondi di posa. Repairs and restoration (with constant attention to bio-building, paints, coverings and thermal insulation systems for exteriors. Concrete, footing and foundations.

ANNO DI FONDAZIONE: 1982  
CERTIFICAZIONI: Ambiental: ANAB / ICA - Natureplus  
FILIALI: Parines (BZ), Prevalle (BS), Comabbio (BA), Villanova (CN), Fontanafredda (PN)

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Piazza della Vittoria 6 - 16121 Genova  
Tel +39 010 2462978 - Fax +39 010 2462978  
restauri@panet.it  
www.restauri srl.eu

## RESTAURI SRL



E

Restauri diintonaci policoncromi e di decorazioni-materiali lapidei-consolidamenti strutture murarie e opere lignee-deumidificazione e impermeabilizzazione di strutture murarie. Restoration of polychrome plasters and decorations-stones-consolidation of wall and wood structures-repairs,dehumidification and waterproofing walls.

ANNO DI FONDAZIONE: 1998  
CERTIFICAZIONI: ISO 9001 - SINCERT SGS

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Via Ormea 67/B - 10121 Torino  
Tel. +39 011 6694675 - Fax +39 011 6694675  
realestauri@tiscali.it  
www.realestauri.com

## REALE RESTAURI DI FORCONI CRISTINA



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La nostra azienda è specializzata nel restauro di metalli, vetro e lampadari storici. Si eseguono lavorazioni su lampadari di qualsiasi genere, dimensione e stile, e soprattutto quelli tipici della tradizione storica italiana come ad esempio i lampadari veneziani di Murano e i lampadari in cristallo Maria Teresa o Impero. Il cliente, pubblico o privato, può contare sul nostro supporto per il restauro conservativo e museale, il tutto eseguito con alti standard di qualità artigianale. Azienda accreditata presso le Sovrintendenze.

Our company is specialized in the restoration of metal, glass and historic chandeliers. We carry out work on lamps of any kind, size and style, and especially those typical Italian history such as Murano and Venetian chandeliers crystal chandeliers Maria Theresa or Empire. The client, public or private, can count on our support for the restoration and museum, all executed with high standards of quality craftsmanship. Company accredited by the Sovrintendenze.

ANNO DI FONDAZIONE: 2000  
CERTIFICAZIONI: Eccellenza artigianale Regione Piemonte



**PESSINA COSTRUZIONI SPA**

Via Nizzoli 4 - 20147 Milano  
Tel. +39 02 483341 - Fax +39 02 48302245  
segreteria@pessinacostruzioni.it  
www.pessinacostruzioni.it

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**ANNO DI FONDAZIONE:** 1954  
**CERTIFICAZIONI:** SOA-IS09001, ISO14001-BSOHSAS18001

Fondata nel 1954 abbiamo sviluppato un forte carattere imprenditoriale, siamo presenti nel settore restauro con importanti referenze quali, Museo del Duomo, Palazzo Bagatti Valscchi, Banca d'Italia, Complesso Broletto di Novara, Biblioteca Apostolica Vaticana e Fondazione Don Carlo Gnocchi. Durante i 60 anni della nostra storia non sono mai mancate determinazioni e competenza e per questo oggi siamo tra le prime aziende del panorama edilizio nazionale con un fatturato che supera i 100 milioni.

Founded in 1954 we have developed a strong entrepreneurial personality, we're operative in the restoration industry with important references such as, the Duomo Museum, Palazzo Bagatti Valscchi, Bank of Italy, Broletto Complex in Novara, Vatican Apostolic Library and Don Carlo Gnocchi Foundation. During our 60 years long story, we never lacked determination and competence and for this reason we are now among the most important companies in the Italian construction industry, with a turnover that exceeds 100 millions.



**PIACENTI SPA**

Via Marradi 38 - 59100 Prato  
Tel. +39 0574 470464 - Fax +39 0574 471021  
piacenti@restauratori.com  
www.restauratori.com

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**ANNO DI FONDAZIONE:** 1875  
**CERTIFICAZIONI:** ISO 9001:2008, Certificazione SOA: OG02-classe III-BIS, OS02A-classe V

La Piacenti spa svolge attività di progettazione, conservazione e restauro di beni di interesse storico-artistico e monumentale, dispone di personale altamente specializzato nel trattamento di manufatti lignei policromi, di dipinti su tela e tavola, di stucchi e pitture murali, di reperti archeologici, materiali ceramici, metallici e lapidei. All'interno dell'impresa, che si avvale di attrezzature tecnologiche e di ampi laboratori, ogni competenza settoriale lavora in sinergia con le altre e viene coordinata dall'ufficio tecnico e diagnostico. L'azienda possiede i requisiti professionali, economici ed organizzativi che le permettono, autonomamente, l'esecuzione di grandi lavori pubblici e privati. Opera in Italia, Cina, Turchia, Moldavia e Russia.

The Piacenti S.p.a. carries out planning and execution activity in the field of cultural heritage restoration and conservation by his high specialized and qualified employees on wooden and polychrome objects, paintings on wood and canvas, stuccoes, wall paintings, artistic, ceramic metallic and stone materials. Inside the headquarters, geared by technical equipment and wide workshops, every sectorial competence collaborates with the others, coordinated by technical and diagnostic offices. The firm has all professional, economic and organizational requirements which allow, autonomously, to carry out big public and private contracts for restoration and conservation works. It works in Italy, China, Turkey, Moldova, Russia.



**PIMAR SRL**

Via Manzoni 36 - 73020 Cursi (Le)  
Tel. +39 0836 483285 - Fax +39 0836 429926  
info@pietralcecese.com  
www.pietaalcecese.com

3

A

**ANNO DI FONDAZIONE:** 1994  
**CERTIFICAZIONI:** Certificazione DNV per il sistema di gestione di qualità aziendale ISO 9001-2008

Pimar S.r.l. nasce nel 1994 come naturale continuazione dell'attività della famiglia Marocco nel settore della pietra leccese, che affonda le radici nel secolo scorso. Il know-how aziendale maturato è assai elevato e si tramanda da 150 anni. Gli attuali vertici aziendali, i fratelli Giuseppe, Giorgio e Daniele Marocco, insieme al padre Salvatore, attuale presidente, hanno sviluppato ed innovato l'azienda, sempre all'insegna della ricerca, sperimentazione, progettazione e comunicazione, dedicano risorse economiche e personali per valorizzare e quella che si può proprio definire una "pietra di famiglia", affinché possa continuare a soddisfare al meglio ogni esigenza architettonica ed essere impiegata in sempre più numerosi e nuovi contesti.

Pimar S.r.l. was born in 1994 as a natural continuation of the Marocco family's activity in the field of the natural stone from Lecce, which has its roots in the past century. The company gained know-how (savery high and has been handing down for 150 years. The present company leaders, the brothers Giuseppe, Giorgio and Daniele Marocco, together with their father Salvatore, who is the current president, have developed and evolved the company, always characterized by research, experimentation, planning and communication. They allocated financial and personal resources in order to give value to what can be re-defined a "family stone", so that it can go on doing the best to meet any architectural requirements and to be employed in more and more different new contexts.



**PLANARCH SRL**

Piazzale Flaminio 9 - 00196 Roma  
Tel +39 06 322783 - Fax +39 06 3204639  
planarch@planarch.it  
www.planarch.it

2

**ANNO DI FONDAZIONE:** 1982  
**CERTIFICAZIONI:** ISO 9001:2015/ ISO14001:2004/ ISO18001:2007

La PLANARCH S.r.l. è una società privata d'ingegneria creata originariamente nel 1971 come "Studio Mar-tuscelli" e divenuta Società a responsabilità limitata nel 1982. La PLANARCH ha più di 35 anni di esperienza di lavoro con Governi, Pubbliche Amministrazioni e Società Private soprattutto nel campo dei Lavori Pubblici, sia come responsabile della progettazione che della direzione dei lavori. Dal 1994 la PLANARCH ha iniziato operare in diversi paesi esteri tra cui Albania, Etiopia, Kosovo, Libano, Palestina, Repubblica Dominicana, Romania, Russia, Serbia e Venezuela.

PLANARCH S.r.l. is a private consulting engineering firm that was created originally in 1971 as "Studio Mar-tuscelli" and has become a limited liability company in 1982. PLANARCH has more than 35 years of experience in working with Government, Public and Private Agencies particularly in the field of public works, as responsible for design and construction management. From 1994 PLANARCH started to carry out assignments in foreign countries, as Albania, Ethiopia, Dominican Republic, Kosovo, Lebanon, Palestine, Romania, Russia, Serbia and Venezuela.



A

## NEWTON & WATT

**3** Zona Ind. Meipignano - 73020 Lecce  
 tarantino.mic@gmail.com  
 www.restaurostatato.com

### NEWTON & WATT SRL

La azienda è suddivisa in più reparti e offre assistenza diretta con i propri tecnici qualificati. R-parto diagnostica esegue con il proprio laboratorio mobile analisi di caratterizzare non distruttivo al fine di caratterizzare l'elemento architettonico e collaudare l'intervento di restauro. Reparto a analisi computazionale, svolge attività di modellazione e di analisi delle strutture, esegue proposte di intervento di restauro statico, al fine di valutare gli indicatori di rischio sismico con valutazione su possibili scenari di collasso. Reparto cantiere e officina esegue installazione di manufatti in acciaio o applicazione di FRM come da elaborati tecnici.

The company is divided by many departments and offers direct assistance through his qualified technicians. The diagnosis department performs not destructive type analysis with its mobile laboratory to distinguish the architectural element in order to check the restoration. The computational analysis department develops modelling and structure's analysis activities. The analysis department performs static restoration proposals in order to check the seismic risk indicators and the possible kinematic and collapse scenarios. The building site produces artifacts steels or FRM application as the technical drawings provide for.

A



## NICOLA RESTAURI S.r.l.

**1** Via S. Giulia 65 - 10124 Torino  
 Tel. +39 0141 909125 - Fax +39 0141 909170  
 info@nicolarestauro.com  
 www.nicolarestauro.com

### NICOLA RESTAURI SRL

Nicola Restauri Srl è una realtà d'eccellenza nel campo del restauro, riconosciuta a livello internazionale, al servizio di Musei, Università e collezionisti. Oltre sessant'anni di esperienza nel recupero, conservazione e restauro di opere antiche e moderne, su tela, legno, carta, pergamena, pietra, reperti archeologici, affreschi e stucchi in chiese e palazzi. Nel laboratorio operativo di Aramenigo (AT) di oltre 3000 mq si eseguono anche indagini strutturali non invasive.

Nicola Restauri Srl is an international recognized company in the field of restoration, serving Public, Private and Ecclesiastical organizations, Museums, Universities and collectors. Over sixty years of experience in the recovery, preservation and restoration of ancient and modern works on canvas, wood, paper, stone, archaeological finds, frescoes and stucco in churches and palaces. In the laboratory of Aramenigo (AT) of more than 3000sm are also carried non-invasive imaging techniques.

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### N.O.V.A.R.I.A. R.E.S.T.A.U.R.I. S.R.L.

Restauro Opere d'Arte

La N.O.V.A.R.I.A. R.E.S.T.A.U.R.I. Srl è una società specializzata nel restauro, recupero e conservazione di Beni Culturali, quali opere d'arte mobili e beni immobili sottoposti a tutela. Dal 1972 si occupa di progettazione, indagini diagnostiche, ricerche, pronto intervento, messa in sicurezza, recupero e restauro di affreschi e dipinti su muro, stucchi, dipinti su tela e tavola, elementi lapidei e monumenti all'aperto, bronzi, tessuti, sculture lignee dorate e policrome. Al necessario operiamo smontaggio e trasferimento di Monumenti, Trasferimenti di gipsoteche e di pinacoteche e assistenza nei restauri del loro contenitori (musei). Servizi di consulenza e perizie nell'ambito dei Beni Culturali.

La N.O.V.A.R.I.A. R.E.S.T.A.U.R.I. Srl mette a disposizione esperienza, competenza e serietà in ogni delicata fase del restauro, garantendo un alto standard qualitativo e un continuo monitoraggio dei lavori eseguiti. È in grado di intervenire, autogestendosi, in situazioni di emergenza conservativa, anche a seguito di calamità.

3

**3** Via Marco Polo 19 - 28100 Novara  
 Tel. +39 0321 691414 - Fax +39 0321 688698  
 novaria\_r@starnova.it

### NOVARI.A RESTAUR.I SRL

ANNO DI FONDAZIONE: 1954  
**CERTIFICAZIONI:** SOA-ISO9001, ISO14001-BSOHSAS18001

Opificio della Luce è la rete innovativa d'imprese che integra in modo multidisciplinare le competenze e le risorse tecniche necessarie a progettare, realizzare, programmare e controllare sistemi d'illuminazione di alta qualità nel mondo dell'arte e nel sistema museale. All'Opificio della Luce studiamo e applichiamo le innovazioni rese possibili dall'elettronica, dalla chimica e dalla luce a stato solido (SSL) e anche dalle opportunità offerte dalle più avanzate tecniche di gestione della luce digitale.

Opificio della Luce is a new business network with all the necessary skills and technical resources for designing, building, programming and controlling high-quality lighting systems in the art world and museum systems. At Opificio della Luce we study and apply the innovations made possible by electronics, chemistry and SSL (solid-state lighting) as well as the opportunities offered by the most advanced techniques of digital light management.

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**2** Via Mirandola 37/A  
 37026 Settimo di Pescantina (VR)  
 Tel. +39 0442 3610239  
 Fax +39 0442 3610239  
 opificio@luceluce.it  
 www.opificio@luceluce.it

### OPIFICIO DELLA LUCE



**E**

ANNO DI FONDAZIONE: 1937

CERTIFICAZIONI: ISO 9001, ISO 14001, OHSAS 18001

FIILALI: Sede del Gruppo: Milano, 68 consociate in 44 paesi, 59 stabilimenti in 28 paesi.

Il Gruppo Mapei, composto da 68 aziende consociate con 59 stabilimenti operanti nei cinque continenti, è oggi il maggior produttore mondiale di adesivi e prodotti complementari per la posa di pavimenti e rivestimenti di ogni tipo e specialista in altri prodotti chimici come impermeabilizzanti, malte speciali e additivi per calcestruzzo, prodotti per il recupero degli edifici storici, finiture murali speciali.

Mapei Group, 68 subsidiaries with 59 plants in the five continents, is today the world leader in the production of adhesives and complementary products for the installation of all types of floor and wall coverings. The company is also specialized in other chemical products for building, from waterproofers to special mortars and admixtures for concrete, products for the restoration of ancient buildings and special wall decorative and protective coating.

**1**

Via Carlo Cattero 22 - 20158 Milano

**2**

Tel. +39 02 37673.1 - Fax +39 02 37673214  
mapel@mapel.it  
www.mapel.com

**MAPEI SPA**



**A**

CERTIFICAZIONI: ISO 9001:2008

La MARMIROLI S.r.l., svolge da 40 anni restauro conservativo e strutturale di beni artistici: Dipinti murali; Paramenti in marmo, stucco e laterizio; Intonaci antichi; Manufatti lignei di pinti e dorati è certificata SOA cat. OS2-A class, IV BIS e Cat. OG2 class, III BIS e UNI EN ISO 9001:2008 Collabora con uno staff altamente specializzato, con strutture d'eccezione nei settori della diagnostica, con uno studio di ingegneria con particolare esperienza nel campo del restauro strutturale.

The MARMIROLI Srl, performs for 40 years and structural conservative restoration of artistic goods: Paraments marble, putty and brick; Old plaster. Painted and gilded wooden artefacts. It is certified SOA category OS2-A class, IV and category OG2 class, III and UNI EN ISO 9001:2008 Collaborates with a highly specialized staff, with structures of excellence in the areas of diagnostics, with an engineering study with particular experience in the field of structural restoration.

**3**

Via Strada Vecchia 88/1 - 42011 Bagnolo in Piano (RE)  
Tel. +39 0522 954342 - Fax +39 0522 954102  
info@marmiroli.com - www.marmiroli.com

**MARMIROLI SRL**



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Melloncelli srl, azienda nata 170 anni fa nella progettazione su misura di soluzioni tecnologiche avanzate, dopo la meccanica di precisione applicata agli orologi dei campanili e l'automazione delle campagne, da anni percorrendo l'evoluzione del settore elettrico ed elettronico propone le proprie realizzazioni nel campo dell'ampificazione, riproduzione del suono e videoregistrazione. Oggi grazie allo sviluppo della tecnologia illuminotecnica si pone con le proprie progettazioni ed installazioni come un artefice nel controllo della luce, il risparmio energetico mediante i propri corpi illuminanti a led ed il rispetto dell'ambiente. Proprio per diffondere l'ambiente ed in particolare il patrimonio artistico caratterizzato prevalentemente dal comparto ecclesiastico al quale Melloncelli si rivolge da anni, ha introdotto nel mercato la propria tecnologia per la risoluzione definitiva del problema dovuto all'umidità all'interno.

Melloncelli srl is a company founded 170 years ago. The core business was the custom design advanced solutions for the precision mechanics applied to clocks bell and automation of bells. Today along the evolution of the electronic and electrotechnical industry, Melloncelli srl presents its achievements in the field of amplification, sound playback and video surveillance. Thanks to the development of lighting technology arises with their own designs and installations as an architect in the control of light, energy saving through LED lighting and the environment. Just to defend the environment and in particular the artistic characterized mainly by the church to which Melloncelli caters for years, has introduced to the market its technology for the ultimate resolution of the problem due to moisture lifts.

**1**

Via Arginero 174 - 46028 Sermide (MN)  
Tel. +39 0386 960004 - Fax +39 0386 960335  
info@melloncelli.it  
www.melloncelli.it

**MELLONCELLI SRL**



**E**

CERTIFICAZIONI: UNI EN ISO 9001:2008

Da circa 30 anni MINERVA RESTAURI si occupa di Restauro Architettonico e archeologico dei Beni Culturali di grande valore storico-artistico. Da Palazzo Reale di Napoli fino al restauro e al recupero delle insulae di Pompei; MINERVA RESTAURI compie negli anni un arricchimento sul recupero e sul restauro tale da costituire un adeguato profilo per Enti Pubblici e strutture private. Oggi MINERVA RESTAURI rappresenta una realtà aziendale rinnovata, dove una nuova gestione, un passato illustrato e giovani professionisti si confrontano con le problematiche del restauro e della conservazione del patrimonio storico-artistico.

For about 30 years MINERVA RESTAURI has handled Architectural and Archaeological Restoration of historical, artistic and cultural Heritage. From the Royal Palace of Naples up to the restoration and the recovery of Insulae of Pompeii, MINERVA RESTAURI has developed over the years an enrichment on the recovery and restoration capable to provide an appropriate profile for public bodies and private companies.

**3**

Via Medina 40 - 80133 Napoli  
Tel. +39 081 5422036 - Fax +39 081 5422036  
ufficiogarecontratti@minerveraestauri.it  
www.minerveraestauri.it

**MINERVA RESTAURI SRL**



**ANNO DI FONDAZIONE:** 1979  
**CERTIFICAZIONI:** UNI EN ISO 9001 : 2008

La lunga esperienza alle spalle e la continua ricerca e miglioramento rendono Kimia SpA un leader riconosciuto nella produzione e commercializzazione di materiali ad alta tecnologia per il restauro e recupero edilizio. Siamo stati i primi in Italia (inizio anni '80) a credere nella tecnologia dei materiali composti per il consolidamento strutturale (inizialmente in carbonio e vetro, ora anche in acciaio con matrici inorganiche), applicati con risultati di durabilità eccezionali, ma non solo... Kimia è anche malte preconfezionate ad alta durabilità, calce idrauliche naturali, soluzioni per impermeabilizzazioni, pavimentazioni, trattamenti protettivi e di pulizia, isolamento e deumidificazione: una gamma di soluzioni per il restauro e recupero completa, dalle elevatissime prestazioni e sempre conforme alle più recenti normative.

Great experience leading company operating in the production and trading of hi-tech materials for building recovery and restoration like: high durability prepackaged mortars, natural hydraulic limes, steel composite and FRP systems for the reinforcement of existing structures, solutions for waterproofing and flooring, protective & cleaning treatments, insulation and dehumidifications, complying to the latest building regulations.

**2**

**KIMIA SPA**

Via del Rame, 73 - 06134 Ponte Felcino (PG)  
Tel. +39 075 5918071 - Fax +39 075 5913378  
info@kimia.it - www.kimia.it

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**ANNO DI FONDAZIONE:** 1997  
**CERTIFICAZIONI:** UNI EN ISO 9001 : 2008

Formitura di servizi di ispezioni per fini diagnostici su strutture lignee in opere antiche e recenti; servizi di classificazione per legname a uso strutturale; assistenza e consulenza per interventi specialistici su strutture lignee; formazione e divulgazione tecnico-scientifica nel settore dell'impiego strutturale del legno.

Supplier of diagnostic inspection services for old and recent in-situ timber structures; grading of structural timber; assistance and consultancy for consolidation works on timber structures; training and technical-scientific information in structural use of timber.

**5**

**LEGNODOC SRL**

Via Borgo Valsugana 11 - 59100 Prato (PO)  
Tel. +39 0574 36953 - Fax +39 0574 404677  
info@legnodoc.com - www.legnodoc.com

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**ANNO DI FONDAZIONE:** 2000  
**CERTIFICAZIONI:** OS2 Classifica III, Og2 Classifica I, Sistema Qualità Aziendale Uni En Iso 9001:2008

Leonardo S.r.l. interviene sui beni culturali dalla diagnosi al restauro. Possiede le certificazioni SOA categoria OS2 III e OG2 I, oltre al Sistema di Certificazione della Qualità (UNI EN ISO 9001:2008). Opera sia nella fase progettuale, effettuando analisi dei materiali e dello stato di conservazione, che nella fase esecutiva, realizzando restauri di beni mobili e immobili, documentazione interventi, monitoraggio operazioni effettuate.

Leonardo S.r.l. operates on cultural heritage from diagnostics to restoration. Leonardo is certified in SOA for categories OS2 III and OG2 I and in Quality Certification System (UNI EN ISO 9001:2008). It both works on planning, conducting analysis on materials and on state of conservation, and on practice, restoring paintings, frescoes, statues and historical buildings, documenting operations, monitoring restorations.

**1**

**ANALISI E RESTAURO**

**LEONARDO SRL**

Via della Bastia 13  
40033 Casalecchio di Reno (BO)  
Tel +39 051 334648 - Fax +39 051 5880360  
info@studioleonardo.it - www.studioleonardo.it

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**ANNO DI FONDAZIONE:** 1985  
**CERTIFICAZIONI:** ISO 9001:2015/ISO14001:2004/ISO18001:2007

LITHOS, opera da più di trent'anni nel campo del restauro, della conservazione, catalogazione, consolidamento e della movimentazione di opere d'arte, facendosi strada, negli ultimi anni, anche nel campo dei lavori edili. L'azienda è composta da un team di restauratori, architetti, ingegneri e conservatori esperti che si occupano della progettazione dell'intervento di restauro, sino alla sua effettiva realizzazione e manutenzione.

LITHOS has been working in the field of restoration, conservation, cataloguing and consolidation of cultural heritage and the handling of works of arts for more than thirty years: recently, it has also made inroads in the field of building works. The company is made up of a team of restoration experts and conservators, architects and engineers all of whom follow through the projects from the planning phase to the actual intervention to restore the works of art, their completion and maintenance.

**4**

**LITHOS SRL**

Castello 5236 - 30122 Venezia  
Tel. +39 041 5208892 - Fax +39 041 5200980  
info@lithosrestauri.com  
www.lithosrestauri.com

**ANNO DI FONDAZIONE:** 1985  
**CERTIFICAZIONI:** ISO 9001:2015/ISO14001:2004/ISO18001:2007

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**4**

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Castello 5236 - 30122 Venezia  
Tel. +39 041 5208892 - Fax +39 041 5200980  
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**4**

**LITHOS SRL**

Castello 5236 - 30122 Venezia  
Tel. +39 041 5208892 - Fax +39 041 5200980  
info@lithosrestauri.com  
www.lithosrestauri.com



A

**IMPRESA VIOLI SRL**  
Via Luigi Barzini 36 - 00157 Roma  
Tel. +39 06 4774786 - Fax +39 06 4774786  
impresavioli@impresavioli.it  
www.impresavioli.it

3

**CERTIFICAZIONI:** ENI EN ISO 9001:2008 ENI EN ISO 14001:2004

L'impresa Violi è da anni fortemente attiva nel settore del restauro conservativo. Il nostro lavoro è eseguito in collaborazione e sotto la supervisione delle Soprintendenze. La nostra esperienza, la struttura organizzata e le nostre attrezzature ci consentono di fornire alle imprese pubbliche e private un servizio completo dalla consulenza tecnica all'esecuzione di lavori su tutto il territorio nazionale. Eseguiamo molteplici tipologie di lavoro dalla realizzazione di grandi superfici monumentali e civili, quali facciate, ponti, pavimenti, soffitti fino ad arrivare a quelli più complessi come il restauro di fregi, statue, fontane, piazze, colonnati, chiese, centri storici, castelli e monasteri. Disponiamo di attrezzature che ci consentono di risolvere qualsiasi problematica grazie all'utilizzo delle più innovative tecnologie per la pulitura, la conservazione ed il risanamento ecologico.

The Company Violi has long been very active in the field of conservative restoration. Our work is performed in collaboration and under the supervision of the Superintendence. Our experience, the organizational structure and our equipment allows us to provide the public and private companies a complete service from technical advice to the execution of works on the whole national territory. We realized many types of work from the construction of large areas such as civil and monumental surfaces like facades, bridges, floors, ceilings, until get to the more complex ones such as the restoration of friezes, statues, fountains, squares, colonnades, churches, castles and monasteries. We have equipment that enable us to solve any problem through the use of innovative technologies for cleaning, conservation and ecological restoration.

## Istituto per l'Arte e il Restauro

PALAZZO SPINELLI

**ISTITUTO PER L'ARTE E IL RESTAURO SRL**

Via maglio 13 50125 Firenze  
Tel. +39 055 282951 - Fax +39 055 210365  
info@spinielli.it  
www.palazzospinelli.org

5

**ANNO DI FONDAZIONE:** 1976

L'Istituto per l'Arte e il Restauro nasce nel 1976 ed opera sia come centro di formazione, specializzazione e agglomeramento professionale nel settore della conservazione e del restauro del patrimonio culturale mondiale, sia come centro di consulenza e restauro per conto di enti pubblici e privati. L'esperienza accumulata in quasi 40 anni di attività, con più di 4.800 corsi attivati, oltre 7.500 studenti diplomati e 18.000 interventi effettuati, definisce l'Istituto per l'Arte e il Restauro quale centro di eccellenza del settore, a livello nazionale e internazionale.

The Institute for Art and Restoration was founded on 23 March 1978 and operates as a centre for specialisation and professional training in the field of conservation and restoration of cultural heritage worldwide. It is also a consultancy and restoration centre for public authorities and private companies. The experience gained from over 40 years of activities, with more than 4800 postgraduate programs, more than 7500 graduate students and 18000 restorations, defines the Institute for Art and Restoration as a centre of excellence in the industry. It is both nationally and internationally.



E

**ITALIANA COSTRUZIONI SPA**  
Via Antonio Stoppani 15 - 00197 Roma  
Tel. +39 02 910991 - Fax +39 02 6575161  
info@italianacostruzionspa.it  
www.italianacostruzionspa.it

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**CERTIFICAZIONI:** UNI EN ISO 9001:2008 / UNI EN ISO 14001:2004 / BSOSHAS 18001:2007

Fondata nel 1975 da Claudio Navarra e guidata oggi dai figli Attilio e Luca, ha dato continuità ad una "vitra centena" tradizione imprenditoriale della famiglia Navarra nel settore delle costruzioni: l'attività edilizia della Famiglia ha avuto inizio nel 1880 con la realizzazione di importanti opere pubbliche. La sede principale è a Roma dove vengono accentrati i servizi tecnico-amministrativi ed una sede operativa a Milano dove vengono coordinate le attività produttive localizzate nel Nord Italia. Nel corso degli anni, alla Italiana Costruzioni sono state affidate Aziende, sempre facenti capo alla Famiglia Navarra, specializzate in specifici settori. In particolare, nel corso dell'ultimo quinquennio, la costanter crescita espansa da un notevole incremento del proprio fatturato. L'esperienza professionale acquisita durante gli anni, la presenza di un'Università di Studi per la famiglia e di una struttura di ricerca e sviluppo, ha permesso alla Italiana Costruzioni di raggiungere standard qualitativi.

Founded in 1975 by Claudio Navarra and currently led by his sons, Attilio and Luca, has carried on the centuries-old tradition of the Navarra family in the construction industry, dating from 1880. Headquarters are located in Rome, where the company's technical and administrative departments are located, while its Milan office coordinates construction activities in northern Italy. Operations fields: private clients: construction hotels, shopping centres, public works; residential, industrial, university construction projects for the military and branches of law and enforcement; the restoration of churches, buildings of noteworthy historical and artistic interest subject. Infrastructure, urban development, residential, etc. Over the last five years, the steady growth expressed by a significant increase in its revenue, the professional experience gained through considerable investment in terms of human resources have enabled the company to achieve high quality standards.



E

**KAIROS RESTAURI SNC**  
**DI LUCA ZAPPETTINI & C.**  
Via Taccoli, 18 - 20161 Milano  
Tel. +39 02 36682135 - Fax +39 02 66228032  
info@kairosrestauri.it

3

**CERTIFICAZIONI:** ENI EN ISO 9001:2008 ENI EN ISO 14001:2004

Kairos Restauri S.n.c. opera nella progettazione e realizzazione dell'intervento di conservazione e restauro di beni artistici e culturali sottoposti a tutela: dipinti murali, affreschi, materiali lapidei e fittili, intonacchi, stucchi, manufatti metallici, dipinti su tela. Eseguiamo campagne diagnostiche con la collaborazione di consulenti scientifici avvalendoci di centri universitari (CNR) e di laboratori privati. Competenza ed esperienza permettono di affrontare a pieno ogni aspetto dall'analisi dell'opera, l'individuazione di tecniche e materiali, all'intervento stesso. Alti standard qualitativi nel rispetto dei tempi di esecuzione hanno caratterizzato le relazioni con enti pubblici e privati.

Kairos Restauri S.n.c. designs and executes conservation and restoration works of listed artistic and cultural heritage, including murals, frescoes, stone and clay artefacts, plaques, stuccoes, metal objects, paintings on canvas. We carry out diagnostics with the contribution of scientific advisers, university centres (CNR) and private laboratories. Our skills and experience help us successfully deal with all steps of the process, including analysing the artwork, identifying the most convenient techniques and materials, executing the work. Commitment to high quality standards and compliance with delivery times characterize our relations with both private and public customers.



1

IMPRESA GARIBALDI SRL

Piazza Mercantile 30 - 70122 Bari  
Tel. +39 080 5237428 - Fax +39 080 5234756  
info@impresagaribaldi.it - www.impresagaribaldi.it



E

CERTIFICAZIONI: UNI EN ISO 9001:2008  
La società è un'impresa edile con sede in Bari (la più antica della città), che opera prevalentemente per conto terzi nel campo del restauro, delle manutenzioni e delle nuove costruzioni in un ambito nazionale. Il restauro riguarda beni di interesse monumentale sia architettonico che di restauro artistico. La committenza del settore di restauro è quasi esclusivamente pubblica in particolare Ministero dei Beni Culturali.  
The Garibaldi, is a construction company registered in Bari (the oldest one of the town), which operates mainly in the restoration field on behalf of third parties, regards the architectural building constructions all over the national sphere. The restoration, regards the architectural and artistic operating to the monumental assets of interest. Our restoration customers, belongs almost exclusively to the public sphere, especially the Ministry of the Cultural Heritage.

3

ING. ANTONIO BUONO SRL

Via Ospedale - 886079 Venafro (IS)  
Tel. +39 0865 909 187 - Fax +39 0865 909 187  
info@impresaingantoniobuonosrl.it  
www.impresaingantoniobuonosrl.it



E

CERTIFICAZIONI: Certificazione SOA, Certificazione ISO 9001:2008  
L'azienda è stata fondata l'8 Agosto 1986 dall'ing. Antonio Buono, all'insegna del rispetto per la terra, i suoi uomini e la sua storia. Da 30 anni operiamo nell'osservanza delle procedure di qualità e sicurezza. Lavoriamo con competenza, affidabilità e disponibilità alle esigenze degli enti pubblici e privati. Restauro, costruzione di edifici, ristrutturazioni, scavi archeologici, realizzazioni di impianti idraulici ed elettrici, sono gli ambiti di nostra competenza.  
The company was founded on August 8, 1986 by Ing. Antonio Buono, in the respect of the earth, his men and his story. For 30 years we have been working with quality and safety procedures. We work with competence, reliability and availability to the needs of public and private institutions. Restoration, construction of buildings, renovations, archaeological excavations, realization of hydraulic and electrical installations: they are the areas of our competence.

1

IFAC - ISTITUTO DI FISICA APPLICATA "NELLO CARRARA"

Via Madonna del Piano, 10  
50019 Sesto Fiorentino (FI)  
www.ifac.cnr.it



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L'Istituto di Fisica Applicata "Nello Carrara" (IFAC) è parte del Consiglio Nazionale delle Ricerche (CNR). Il principale ente pubblico che persegue in Italia obiettivi di ricerca ed innovazione. IFAC conduce attività di ricerca, sviluppo sperimentale e trasferimento tecnologico in molte aree della Fisica Applicata e dell'ICT, come: SPAZIO, AEROSPAZIO e OSSERVAZIONE della TERRA; SALUTE, NANOMEDICINA e SICUREZZA; MONITORAGGIO AMBIENTALE e della QUALITÀ dei CIBI; BENI CULTURALI.  
The "Nello Carrara" Institute of Applied Physics (IFAC) is part of the National Research Council (CNR), which is the main public organization pursuing research and innovation in Italy. IFAC carries out research activities, experimental development and technological transfer in many areas of Applied Physics and ICT, as: SPACE, AEROSPACE and EARTH OBSERVATION; HEALTH, NANOMEDICINE and SAFETY; ENVIRONMENT and FOOD QUALITY MONITORING; CULTURAL HERITAGE.

1

ICVBC - AREA DI RICERCA CNR DI FIRENZE

Via Madonna del Piano, 10  
50019 Sesto Fiorentino (FI)  
Tel. +39 055 5225484 - Fax +39 055 5225483  
www.icvbc.cnr.it



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L'Istituto per la Conservazione e la Valorizzazione dei Beni Culturali (ICVBC) del CNR, nasce nel 2001 dall'accorpamento dei tre Centri di Studio del CNR sulle "Cause di Deterioramento e Metodi di Conservazione delle Opere d'Arte", istituti nel 1970. L'Istituto ha sede a Firenze con Sezioni a Roma e Milano. Compiti istituzionali dell'ICVBC sono: attività di ricerca, coordinamento, consulenza e formazione. Caratteristica essenziale dell'Istituto è la multidisciplinarietà con cui vengono affrontate le problematiche, resa possibile dalla molteplicità delle competenze in esso presenti e dallo sviluppo di una rete consolidata di collaborazioni nazionali e internazionali con altri Istituti di Ricerca, con Università e con Enti pubblici e privati preposti alla tutela ed alla conservazione dei Beni Culturali.  
The Institute for the Conservation and Valorization of Cultural Heritage (ICVBC) of the CNR, was founded in 2001 and is located in Florence with units in Rome and Milan. The institutional tasks of ICVBC include research, coordination, consultancy and training. One of the essential assets of the ICVBC is its multi-disciplinary character, promoting an interdisciplinary approach to research, guaranteed not only by the presence of different professionals, but also through the development of an extensive national and international network of cooperation with research institutes, universities and public or private bodies involved in the protection and conservation of Cultural Heritage.



A

ANNO DI FONDAZIONE: 1994

CERTIFICAZIONI: SOA - cat OS 20 class II

Laser Scanning 3D (Architettura, Archeologia, Infrastruttura, Industriale). Archeometria. Stereofotogrammetria. Topografia e GPS. Batimetria. Rilievi di interni. Elaborazioni grafiche e fotografiche.

3D Laser Scanning (Architettura, Archeologia, Infrastrutture, Industriale). Archeometria. Stereofotogrammetria. Topografia e GPS. Batimetria. Tradizionali Surveys. Graphic and Photographic Information Processing.

**GEOPRA SRL**

Via Indipendenza 106 - 46028 Serride (MN)  
Tel. +39 0386 62628 - Fax +39 0386 960248

1

info@geopra.it  
www.geopra.it

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E

ANNO DI FONDAZIONE: 2001

Rilievi architettonici, laser scanner, elaborati grafici e fotografici. La società geomar.it nasce nel 2001, dall'iniziativa di tre professionisti da anni impegnati nel settore dell'applicazione di nuove tecnologie e metodologie informatiche nel campo dell'architettura e della topografia. La società eredita l'esperienza acquisita dai suoi ideatori nel corso dell'attività professionale. Architettura surveys, laser scanners, graphic printouts and photographs. Geomar.it was established in 2001 by three experienced professionals in the field of the new technologies and IT methods applied to architecture and land survey. The company has inherited the skills acquired by its founders during their professional career.

**GEOMAR.IT SNC**

DI RASCHIERI A, MELLANO M. E BOETTI M.

Via Matteotti 5 - 12084 Mondovì (CN)  
Tel. +39 0174 45920 - Fax +39 0174 45920

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amministrazione@geomar.it  
www.geomar.it



A

ANNO DI FONDAZIONE: 1946

CERTIFICAZIONI: UNI EN ISO 9001:2008

Graphite S.r.l., dal 1946, è sinonimo di professionalità, esperienza e profonda conoscenza di materiali e tecniche costruttive. L'azienda, con sede nel centro storico di Napoli, fondata dall'ing. Giuseppe Archivolti, è attualmente guidata dal figlio Raffaele, Graphite è specializzata in restauro di beni architettonici, di opere pittoriche realizzate su diversi supporti e di manufatti in pietra, legno e materiale ceramico. In ogni intervento grande attenzione è sempre rivolta all'utilizzo di tecniche poco invasive e ad alto grado di sostenibilità, nel rispetto della materia prima, dell'ambiente e del lavoratore.

**GRAPHITE SRL**

Via R. Bracco 45 - 80133 Napoli  
Tel. +39 081 5521385 - Fax +39 081 2307410

1

contact@graphite.ae  
www.graphite.ae

3



E

ANNO DI FONDAZIONE: 2000

CERTIFICAZIONI: Codice AMSE e UE PED 97/23/CE

FILIALI: IBIX Norway, IBIX USA

IBIX® è leader tecnologico per la pulitura a bassa pressione mediante micro-aero-abrasione. È specializzata nella realizzazione di sistemi di pulitura selettiva a bassa pressione con tecnologia a vortice elicoidale HELIX® a secco e a umido. La tecnologia IBIX®, sviluppata in collaborazione con specialisti del restauro, utilizza specifici inerti selezionati per le puliture artistiche. IBIX Mobile Lab® ST01 è un completo e versatile laboratorio portatile che consente di eseguire indagini diagnostiche sui materiali dell'edilizia storica in maniera semplice ed intuitiva, rendendo accessibili a tutti coloro che operano nel campo della conservazione dei Beni Culturali le tecniche di base per la caratterizzazione dei materiali lapidei naturali e artificiali e dei relativi fenomeni di degrado. Le metodologie analitiche impiegate sono conformi alla normativa italiana (UNI-Beni Culturali) ed europea (EN-Conservation of Cultural Property).

IBIX® is a leader in developing technology and materials for low-pressure micro-aero-abrasive cleaning and designs and manufactures HELIX® low pressure dry or wet vortex cleaning systems. IBIX Mobile Lab® ST01 is a comprehensive & versatile portable laboratory to analyse and diagnose historic building materials in an easy and clear manner. The methods of analysis used comply with both Italian and European regulations by UNI-Beni Culturali (Cultural Heritage) and EN-Conservation of Cultural Property respectively.

**IBIX SRL**

Via la Viola 4 - 48022 S. Maria in Fabrago (RA)  
Tel. +39 0545 994589 - Fax +39 0545 994567

3

info@ibix.it  
www.ibix.it

4



**5** [www.gdlrestauRO.com](http://www.gdlrestauRO.com)  
**1** [info@gdlrestauRO.com](mailto:info@gdlrestauRO.com)  
 Tel +39 0385 287010 - Fax +39 0385 287828  
 Piazza Vittorio Emanuele II, 4 - 27041 Barbianello (PV)

**GDL - CONSERVAZIONE E RESTAURO SRL**



**GDL CONSERVAZIONE E RESTAURO SRL**

**ANNO DI FONDAZIONE:** 2007  
**CERTIFICAZIONI:** UNI EN ISO 9001 : 2008  
 SOA OG2 III  
 RestauRO e Conservazione di edifici monumentali ed ecclesiastici.  
 Restoration and conservation of monumental and ecclesiastical buildings.

A

**5** [www.gbctalia.org](http://www.gbctalia.org)  
**5** [info@gbctalia.org](mailto:info@gbctalia.org)  
 Tel. +39 0464443452 - Fax +39 0464443465  
 Piazza Manifattura 1 - 38068 Rovereto (TN)



**GBC ITALIA**

**ANNO DI FONDAZIONE:** 2008  
 Green Building Council Italia (GBC Italia) è un'associazione no profit che fa parte della rete internazionale del GBC presenti in molti altri paesi; è membro del World GBC e partner di United States Green Building Council (USGBC).  
 Promuove un processo di trasformazione del mercato edile italiano attraverso la promozione del sistema di certificazione LEED e dei propri sistemi di certificazione espressamente mirati alle specificità del mercato di riferimento.  
 GBC Italia ha elaborato inoltre un sistema di rating specifico per la certificazione degli edifici storici: GBC Historic Building.  
 Green Building Council Italia (GBC Italia) is a non-profit association bringing together the most competitive companies and the most qualified Italian associations and professional communities active in the sustainable building industry.  
 GBC Italia was founded in January 2008, with the objective of promoting sustainable design and construction practices in order to reduce negative environmental impact while increasing profitability, and improving building occupants health and well-being.

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**2** [www.fibre.net](http://www.fibre.net) - [www.fibrebuild.it](http://www.fibrebuild.it)  
**1** [info@fibre.net](mailto:info@fibre.net)  
 Tel. +39 0432 600918 - Fax +39 0432 526199  
 Via Jacopo Stellini 3 - 33050 Pavia di Udine (UD)



**FIBRE NET SRL**

**ANNO DI FONDAZIONE:** 2001  
**CERTIFICAZIONI:** ISO 9001 : 2008  
 Progettazione/costruzione di sistemi di rinforzo in F.R.P. (Fiber Reinforced Polymer) ad elevata resistenza meccanica e chimica, basso peso e spessore, per recupero e consolidamento di strutture.  
 Design and manufacturing of low weight and thickness FRP (Fiber Reinforced Polymer) systems with high mechanical and chemical resistance, suitable for structural reinforcement of existing buildings.  
 composite engineering

E

**4** [www.elengroup.com](http://www.elengroup.com)  
**4** [conservazione@elen.it](mailto:conservazione@elen.it)  
 Tel. +39 055 8826807 - Fax +39 055 8832884  
 Via Balduense 17 - 50041 Calenzano (FI)



**EL.EN. ELECTRONIC ENGINEERING SPA**

**ANNO DI FONDAZIONE:** 1981  
**CERTIFICAZIONI:** ISO 9001  
 Il gruppo EL.En. fondato nel 1981, è stato il primo in Italia ad aver sviluppato, nella prima metà degli anni '90, sistemi laser per le applicazioni nella conservazione dei Beni Culturali. Dal 2005 l'attività di EL.En. si è integrata con l'esperienza maturata da Quanta System S.p.A., azienda del gruppo tra le prime e più importanti nella realizzazione di sistemi laser per i Beni Culturali, tecnologicamente d'avanguardia e costantemente validati dal mondo della conservazione. La soc. EL.En. ha messo a punto anche alcuni dispositivi e sistemi optoelettronici ed elettronici per la diagnostica e il monitoraggio Laser LIBS (Laser Induced Breakdown Spectroscopy) per indagini composizionali su metalli e autenticificazione di opere d'arte e FLIDAR (Flourescence Light Detection And Ranging) per il monitoraggio in remoto di monumenti e diagnostica composizionale della carta. L'Actis, società del gruppo EL.En., ha messo a punto e detiene il brevetto della Black Box per l'arte, dispositivo per il monitoraggio del trasporto delle opere d'arte. I campi di applicazione della strumentazione laser sono la pittura di manufatti artistici, monumenti e edifici storici, potendo operare su supporti lapidei, stucchi, superfici affrescate, metalli di cui in particolare bronzo e bronzo dorato, argenti e oroferi, manufatti in legno anche dipinti. I sistemi laser del gruppo EL.En. sono presenti in numerosi laboratori europei e nel mondo e sono stati utilizzati o vengono adesso impiegati nei più importanti cantieri di restauRO. La Società EL.En. ha sponsorizzato i restauRO del bassorilievo di SS. Sepolcro a Gerusalemme, David del Verrocchio e David di Donatello al Museo Nazionale del Bagello.

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**Cristiellotti & Maffei s.r.l.**  
RESTAURO - DIAGNOSTICA - ARCHEOLOGIA

CERTIFICAZIONI: OS 2-A / OS 25

La società Cristiellotti & Maffei s.r.l. opera da oltre 20 anni. Interviene dalla diagnostica, alla progettazione dei lavori, alle fasi operative fino alla documentazione ed alla divulgazione con conferenze, partecipazione a convegni e pubblicazioni. Attraverso lo studio dei materiali e dei fenomeni di degrado, effettuato anche in collaborazione con Università e Centri di ricerca, la società è in grado di adempiere a qualsiasi incarico nel campo della diagnostica, del restauro e nel campo archeologico.

The company Cristiellotti & Maffei LTD works for over 20 years. The corporation operates in the setting of diagnostics and of restoration, from the realization of the projects of work to the operational steps, up to the documentation and dissemination through conferences and publications. The company is able to carry out every task in the field of diagnostics, restoration and archaeology, by means of the study of materials and degradation causes, also run in collaboration with university and research facilities.

Via Cesare Abba 2- 38122 TRENTO

Tel. +39 0175 5219040

Fax +39 0175 5219040

1 [m.cristiellotti@libero.it](mailto:m.cristiellotti@libero.it)  
[www.cristiellottimaffei.it](http://www.cristiellottimaffei.it)

**Cristiellotti & Maffei S.RL**

**CERTIFICAZIONI:** UNI EN ISO 9001-2008/ UNI EN ISO 14001-2004/ UNI EN BS OHSAS 18001-2007

La De Marco S.r.l. può contare su una consolidata esperienza nel restauro dei beni immobili sottoposti a tutela e nel settore specialistico delle indagini archeologiche. In più di venticinque anni di attività, l'impresa ha operato con successo in tutto il territorio nazionale, costruendo dosi giorno dopo giorno un bagaglio di competenze tecniche e di soluzioni progettuali utili ad affrontare in maniera consapevole e qualificata le esigenze legate alla conservazione del patrimonio culturale.

De Marco s.r.l. has a consolidated experience in the field of cultural heritage restoration and archaeological survey. For more than twenty-five years the company has worked successfully in the whole country, establishing and developing day by day the core expertise to take on consciously and competently any kind of restoration.

Via Caduti di Nassirya 28 - 70124 Bari

Tel. +39 080 5027389 - Fax +39 080 5027389

4 [info@impresademarco.it](mailto:info@impresademarco.it)  
[www.impresademarco.it](http://www.impresademarco.it)



**DE MARCO SRL**



**CERTIFICAZIONI:** Procedura in corso per ISO e OGS

**ANNO DI FONDAZIONE:** 1998

Consolidamento strutturale edifici con sistemi innovativi e tecnologie all'avanguardia. Perforazioni speciali. Installazione di ancoraggi e incastri per rinforzo di murature. Miglioramento e adeguamento in funzione antisismica di Edifici. Posa FRP. Demolizioni con trivolate con utensili diamantati, perforazioni speciali e tagli cemento armato. Risanaimento delle murature umide con barriere e chimica per l'edilizia. Micro sabbatura ecologica per pulizia di marmi, graniti, murature lapidee, murature facciate a vista, legno, ferro. Installatore certificato Bossong per sistemi di ancoraggio iniettati in murature storiche.

Structural strengthening buildings with innovative systems and well-advanced technology. Long special drilling, installation of anchors and heavy duty masonry reinforcement. Sismic retrofitting of buildings and structural improvement and adaptation. Installation of FRP. Controlled demolitions with diamonds tools; special drilling and reinforcement of concrete cutting. Renovation of damp walls with barriers and construction chemicals. Micro blasting ecological cleaning of marble, granite, stone, masonry face brick, wood, iron. Bossong certified installer for anchoring systems injected into historic masonry.

Via A. Gramsci 10 - 25080 Nuvolento (BS)

Tel. +39 030 6915222 - Fax +39 030 6915222

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**DIAMANTECH SRL**



**EDILTECNICA GLOBAL SERVICE**

Via S. Babini 80 - 48124 Ghibulio (RA)

Tel. +39 0544 552111 - Fax +39 0544 552075

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3 [info@ediltecnica.com](mailto:info@ediltecnica.com)  
[www.ediltecnica.com](http://www.ediltecnica.com)

La Conservazione e la Valorizzazione del Patrimonio Edilizio, in particolare se di valore storico, mediante la Manutenzione e la Creazione di Valore in una prospettiva di Sostenibilità Ambientale ed Energetica. La manutenzione di un edificio - mantenere efficienza, integrità e funzionalità - il recupero e il restauro, sono specializzazioni che non lasciano spazio all'improvvisazione e alla frammentazione ma richiedono ricerca, competenza ed esperienza per conservare il patrimonio storico e architettonico del nostro territorio nel rispetto dell'ambiente e di un'elevata qualità della vita. Il consorzio Ediltecnica nasce nel 1987 con una struttura che punta sull'integrazione verticale di tutte le necessarie professionalità e competenze proprie del settore edile creando sinergie tra imprese specializzate nei diversi e complementari settori di intervento in un processo che va dalla progettazione alla consegna, chiavi in mano. Il cliente ottiene così tutti i benefici della specializzazione e al tempo stesso i vantaggi di collaborare con un unico referente dagli elevati parametri qualitativi in un'evidente economia di processo che segna lo stile di tutta l'azienda. Edil Tecnica adempie alle prescrizioni e segue continui piani di miglioramento in materia di qualità e sicurezza.

**CERTIFICAZIONI:** in corso - Qualità ISO 9001

**ANNO DI FONDAZIONE:** 1987



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**CONFCULTURA**

Via di Pietra 70 - 00186 Roma

Tel. +39 331 9767296

Info@confcultura.it - www.confcultura.it

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**ANNO DI FONDAZIONE:** 2011

La prima associazione delle imprese private gestori dei servizi museali. Fondata nel 2001, Confcultura è l'unica organizzazione in Italia rappresentativa delle imprese private che gestiscono i servizi per la valorizzazione, fruizione e promozione dei Beni Culturali. La missione che ispira l'azione dell'Associazione è la convinzione che i Beni Culturali siano fattori di sviluppo e di progresso per l'intera società e che si debbano promuovere in maniera sostenibile per una sempre maggiore fruizione con l'incattivazione di forme ottimali di gestione dei servizi culturali e turistici. Confcultura, sulla base di quanto scritto nel suo Statuto, si pone al centro del dibattito culturale in atto per l'affermazione del nostro patrimonio storico e artistico con l'obiettivo di raggiungere forme più mature di collaborazione fra le istituzioni pubbliche e il settore privato specializzato. A questo fine Confcultura rappresenta le esigenze e le proposte delle "imprese della cultura" nei confronti delle principali istituzioni politiche ed amministrative, incluse le Soprintendenze, le Direzioni Regionali, il Ministero per i Beni e le Attività Culturali, il Parlamento, il Governo e le forze sociali che operano nello stesso ambito dell'Associazione.

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**CONSORZIO PONTEGGI**

**ANNO DI FONDAZIONE:** 2002

La Consorzio Ponteggi srl è specializzata nel progetto, montaggio e noleggio di ponteggi prefabbricati. Disponiamo di vari tipi di ponteggi: A tela, particolarmente idoneo per strutture lineari come le facciate degli edifici. Multidirezionale, particolarmente idoneo per realizzazioni di strutture complesse, puntezzazione e soprattutto per il restauro monumentale. Coperture provvisorie, per proteggere il cantiere di lavoro dalle intemperie. Operiamo nel pieno rispetto di tutte le normative.

The Consorzio Ponteggi SRL is specialized in the design, installation and rental of prefabricated scaffolding. We have various types of scaffolding: Frames, particularly suitable for linear structures as facades of buildings. Multidirectional, particularly suitable for the realization of complex structures, popping and especially for the monument's restoration. Temporary covers to protect the worksite from the weather. We operate in full compliance with all regulations.

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Via La Ricchi 30 - 40068 San Lazzaro di Savena (BO)

Tel. +39 051 782093 - Fax +39 051 6058625

Info@gramigna.com

www.gramigna.com

E



cooperativa archeologia

**COOPERATIVA ARCHEOLOGIA**

Via Luigi La Vista 5 - 50133 Firenze

Tel. +39 055 576944 - Fax +39 055 576939

Info@archeologia.it - www.archeologia.it

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A



**COSTANTER SPA**

Via Isacco Newton 11 - 52100 Arezzo

Tel. +39 0575 181015 - Fax +39 0575 984858

Info@circhimica.it

www.circhimica.it

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**ANNO DI FONDAZIONE:** 1980

**CERTIFICAZIONI:** Varie certificazioni tecniche rivolte al prodotto

"CIR - CHIMICA ITALIANA RESTAURI è un apprezzato e conosciuto produttore di formulati chimici ad alto contenuto tecnologico (prodotti nano-tecnologici, foto-catalitici, bio-degradabili, ecc.), studiati per le applicazioni nei settori del RESTAURO MONUMENTALE e dell'EDILIZIA CIVILE. L'offerta dell'azienda prevede, inoltre, una completa linea ANTIGRAFFI ed una per il trattamento delle PAVIMENTAZIONI. CIR offre alla sua clientela un valido supporto di consulenza, formazione ed assistenza tecnica".

"CIR - CHIMICA ITALIANA RESTAURI is a well-known and popular manufacturer of high-tech chemical products for the application in the sectors of RESTORATION OF MONUMENTS and CIVIL CONSTRUCTION. The offering of the company also provides a complete ANTI-GRAFFI product line and a specific FLOORING product line. CIR offers to its customers a valuable support of consulting, training and technical assistance".

A



**centrica**

**CENTRICA SRL**

Plaza della Madonna della Neve 5 - 50122 Firenze  
Tel. +39 055 2466802 - Fax +39 055 2009785

1

info@centrica.it  
www.centrica.it

**ANNO DI FONDAZIONE: 1999**

Specializzata nel campo dell'immagine digitale ad altissima risoluzione e della comunicazione visiva interattiva, Centrica, dal 1999, realizza interventi in ambito di conservazione e valorizzazione del patrimonio culturale, ponendosi come punto di riferimento per musei, fondazioni, aziende, PA e ovunque sia necessario un trattamento di elevata complessità delle componenti visive. Nel 2015 Centrica ha fondato virtualmente un team di esperti in grado di offrire servizi di consulenza e valorizzazione. Virtualmente per la produzione di mostre virtuali itineranti, interattive e immersive. Specializzata in digital imaging at very high-resolution and in interactive visual communication, Centrica, since 1999, carries out interventions in the field of conservation and enhancement of cultural heritage, being a reference point for museums, foundations, private companies, PA and wherever a high complexity treatment of visual components is necessary. In 2015 Centrica has founded Virtuality to produce interactive and immersive virtual exhibitions.

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**CENTRO CONSERVAZIONE E RESTAURO**

**LA VENARIA REALE**

Piazza della Repubblica - 10078 Venaria Reale (TO)  
Tel. +39 011 4993 011 - Fax +39 011 4993 033

5

info@centrorestaurovenaria.it  
www.centrorestaurovenaria.it

**ANNO DI FONDAZIONE: 1999**

**CERTIFICAZIONI: certificazione ISO 9001:2000/ OS2-A**

Centro per la Conservazione e il Restauro dei Beni Culturali "La Venaria Reale" nasce nel 2005 quale istituto per l'alta formazione e la ricerca nell'ambito del restauro e della conservazione del patrimonio culturale. I Soci Fondatori sono il Ministero per i Beni e le Attività Culturali, la Regione Piemonte, la Provincia di Torino, il Comune di Torino, il Comune di Venaria (Università di Torino, il Politecnico di Torino, la Fondazione per l'Arte (oggi Fondazione 1563 per l'Arte e la Cultura) della Compagnia di San Paolo e la Fondazione Cassa di Risparmio di Torino. Insieme alla formazione, gli scopi del Centro risiedono nello studio e nella ricerca sperimentale, nel promuovere lo sviluppo delle imprese sul territorio e nella partecipazione a programmi internazionali di ricerca e conservazione.

The Conservation and Restoration Centre is a no-profit foundation opened in 2005 by the will of its founding members to establish an advanced training and research institute for restoration and conservation of cultural heritage. The Centre hosts the Master's Degree in Conservation and Restoration of Cultural Heritage offered by the University of Torino. The interaction and exchange between various disciplines and skills constitute the work methodology of the Centre, involved in highly complex projects, which are placed at the service of cultural institutions in strict accordance with the training guidelines.

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**CIANCIULLO MARMI SRL**

Via Wenner 45 - 84131 Salerno

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Tel. +39 089 301306  
Fax +39 089 302104

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info@cianciullo.it  
www.cianciullo.it

**ANNO DI FONDAZIONE: 1980**

Cianciullo Marmi belongs to an association of historical firms boasting an over 100 years old tradition in the field of natural stone working, handed down from generation up to the third generation of Cianciullo's family. The actual holders, Paola and Massimo Cianciullo, have inherited the ancient one "work" from the skilled hands of their great-grandfather, refined sculptor of the end of the eight hundred. The two generations that have succeeded have transformed radically the old one "artisan shop" creating all over the world before an industry and a flourishing commerce in the whole southern Italy and then all over the world. The Cianciullo makes it is able to offer with the support of his architects also a complete consulting service on the principal techniques of assemblage, maintenance and use and treatment of the materials. And also for development of plans particularly complex, placing side by side the client in all the phases: from the consultation on the materials to the assistance in the yard.

Istituto di Ricerca, specializzato nella caratterizzazione di marmo, ceramica, lapidei e mosaici antichi e identificazione dei processi di degrado (archeometria e diagnostica). Sviluppo materiale da restauro. Geopolimeri per il restauro. Normazione italiana ed europea. Formazione. Research institute specializing in characterizing mortars, ceramics, stones and ancient mortars and identifying deterioration processes (archeometry and diagnostics). Development of restoration mortars. Geopolymers for restoring. National and European standard activity. Training.



**CNR - ISTITUTO DI SCIENZA E TECNOLOGIA DEI MATERIALI CERAMICI (ISTEC)**

Via Granarolo, 64 - 48018 Faenza (RA)

1

Tel. +39 0546 699771 - 699773  
Fax +39 0546 699719

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istec@istec.cnr.it  
www.istec.cnr.it

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BUILDING IMPROVING S.R.L.

**BUILDING IMPROVING SRL**

Via MM Botardo 33 - 20127 Milano  
Tel. +39 02 26111920 - Fax +39 02 26891321  
info@buildingimproving.com  
www.buildingimproving.com

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Building Improving è una società di ingegneria che da oltre 20 anni progetta ed esegue lavori di consolidamento strutturale, miglioramento sismico di edifici ed infrastrutture su tutto il territorio nazionale. Building Improving nasce nel 1994 operando inizialmente nella posa di materiali compositi (FRP) successivamente grazie all'introduzione di normative di riferimento - DT200/2004 - la Società si è specializzata in questo mercato anche con la progettazione dei compositi, la diagnostica preventiva e la verifica del rinforzo.

Building Improving srl is an engineering company specialized in construction work and infrastructure for over 20 years. The company is very active in the growing market for structural repair and adjustments seismic. It has matured - thanks to its deep experience in the field and synergies with leading manufacturers in the industry - a thorough understanding of all the technologies available on the market (FRP, seismic isolators, etc).

ANNO DI FONDAZIONE: 1994

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Sistemi di fissaggio  
**BOSSONG**



**BOSSONG SPA**

Via E. Fermi 49/51, 24050 Grassano (BG)  
Tel. +39 035 3846011 - Fax +39 035 3846012  
consolidamento@bossong.com  
info@bossong.com - www.bossong.com

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Dal 1962 progettazione, produzione, commercializzazione di sistemi di fissaggio e sistemi di consolidamento per l'edilizia per applicazioni che vanno dal semplice ancoraggio ai più complessi interventi di consolidamento strutturale. Al tradizionale ancoranti meccanici e chimici abitualmente utilizzati in edilizia si affiancano tecnologie per il rinforzo di strutture in muratura specifiche per interventi su manufatti di particolare interesse storico-architettonico.

Since 1962 design, manufacturing and selling of fixing and strengthening systems for building industry for simple fixing applications to complex strengthening intervention. A range of traditional mechanical and chemical anchors is integrated with technologies specially designed for masonry structures and in particular for historical buildings.

ANNO DI FONDAZIONE: 1962

CERTIFICAZIONI: ISO 9001: 2008

CE-ETA 11/0396 CE-ETA 09/0140 CE-ETA 09/0246 CE-ETA 11/0344  
CE-ETA 11/0345 CE-ETA 08/0208 CE-ETA 11/0377

FILIALI: Roma

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Sistemi integrati per la  
diagnostica e il monitoraggio

**BOVIAR SRL**

Via Rho 56 - 20020 Lainate (MI)  
Tel. +39 02 93799240 - Fax +39 02 93301029  
info@boviar.com  
www.boviar.com

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Formura, assistenza, noleggio di strumentazione geotecnica e geofisica-apparecchiature per controlli non distruttivi del costruito-diagnostica del calcestruzzo, delle murature e del legno. Supply, assistance, rental of geo-technical and geophysical instrumentation for non-invasive checks on constructions, diagnosing concrete, masonry and wood.

ANNO DI FONDAZIONE: 1969

CERTIFICAZIONI: ISO 9001 : 2008 QUALITY MANAGEMENT SYSTEM

FILIALI: Napoli

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BRESCIANI  
Materiali ed Attrezzature per  
il Restauro e la Conservazione

**BRESCIANI SRL**

Via Breda 142 - 20126 Milano  
Tel. +39 02 27002121 - Fax +39 02 2576184  
info@brescianisrl.it  
www.brescianisrl.it

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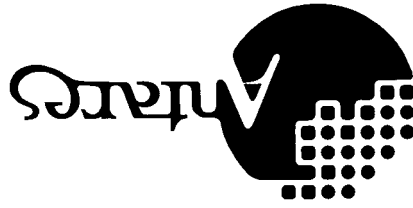
4

Commercio e produzione di materiali ed attrezzature per il restauro, la conservazione, la diagnostica, gli arredi museali. Progettazione e realizzazione di laboratori ed attrezzature per l'analisi e per il restauro del patrimonio culturale. Società certificata UNI EN ISO 9001:2000

Trade and production of material and equipments for restoration, conservation, diagnostic, furniture museum. Design and construction of laboratories and equipment for analysis and restoration of cultural heritage. The Company is certified UNI EN ISO 9001:2000

CERTIFICAZIONI: UNI EN ISO 9001 : 2008

ANNO DI FONDAZIONE: 1988



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**AN.T.A.RES SRL**

2 Via A. Moro 24/A - 40068 San Lazzaro di Savena (BO)  
Tel. +39 051 6259816  
info@antarestauro.it  
www.antarestauro.it

4

AN.T.A.RES srl offre un'ampia gamma di prodotti, attrezzature e servizi per la conservazione e ed il restauro dei beni culturali. La qualità dei prodotti, garantita da test sul campo e di laboratorio ed il continuo monitoraggio applicativo, assicura interventi di restauro attenti e rispettosi. Lo staff tecnico di AN.T.A.RES ha una lunga e consolidata esperienza. AN.T.A.RES offre inoltre un servizio di analisi diagnostica.

AN.T.A.RES srl offer a wide range of products, equipment and services for the conservation and restoration of cultural heritage. The quality of products, pre-launch field tests and continuous application monitoring ensure that the products and equipments meet the needs of a care-full, conscious and focused restoration. The technical team of AN.T.A.RES srl have a long and consolidated experience in the conservation field. AN.T.A.RES srl perform chemical, biological and imaging analysis applied to cultural heritage.

**archeores**  
archeologia e restauro

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**ANNO DI FONDAZIONE:** 1995

**CERTIFICAZIONI:** SOA: 0601-classe I, 0602-classe V, OS02-classe II, OS25-classe IV

L'idea imprenditoriale dell'archeores prevede la fusione delle logiche imprenditoriali con la passione per il restauro e la conservazione del patrimonio architettonico, artistico e archeologico, utilizzando le competenze e le conoscenze dei soci fondatori. La società opera su tutto il territorio nazionale nei settori specialistici del restauro monumentale, della ristrutturazione e del consolidamento di edifici storici, del restauro artistico e nel settore archeologico comprensivo di tutti i servizi di indagine conoscitiva. La società possiede un know how di assoluto valore, con competenze riconosciute dei propri tecnici esperti nelle specifiche discipline che consentono di poter fornire un prodotto finale di altissima qualità.

The archeores business idea foresees the merger of entrepreneurial logic with a passion for restoration and conservation of architectural, artistic and archaeological heritage, using the skills and the knowledge of the founding partners. The company operates on throughout the country in the following specialist areas: renovation and consolidation of historical buildings, art restoration and in archaeological sector including all services of fact-finding investigation. The company has a "know-how" of absolute value, with recognized expertise of its own technicians, experienced in their specific disciplines that allow to provide up a high quality final product.

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3 Via Sirente 13  
67051 Avezzano (AQ)  
Tel. +39 0863 447710 - Fax +39 0863 415643  
info@archeores.it  
www.archeores.it

**ARCHEORES SRL**

**ATE - ASSOCIAZIONE TECNOLOGI PER L'EDILIZIA**

ASSOCIAZIONE TECNOLOGI PER L'EDILIZIA



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**ANNO DI FONDAZIONE:** 1990

ATE è nata nel Dicembre 1990 sulla spinta di diversi operatori nel campo dell'edilizia, è stata rifondata nel 2010. L'Associazione si propone di sviluppare e approntare il patrimonio culturale in ambito tecnologico tramite uno scambio di esperienze e notizie operative.

ATE has been founded on December 1990 on the suggestion of several enterprises operating in the field of building construction. It has been re-founded on 2000 and again in 2010. The main purpose of the Association is to develop and read the Cultural Heritage with a technical and technological overview by means of an exchange of expertise and operative updates.

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5 Viale Giustiniano 10 - 20129 Milano  
Tel.: 02 29419444 - Fax: 02 29520508  
ateservizi@tiscali.it  
www.ateservizi.it



E

**B5 SRL**

1 Via S. Anna del Lombardi 16 - 80134 Napoli  
Tel. +39 081 5519274 - Fax +39 081 5518338  
info@b5srl.it  
www.b5srl.eu

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**CERTIFICAZIONI:** UNI EN ISO 9001:2008 - Erogazione di servizi di ricerca storica, consulenza, studi di fattibilità, progettazione e direzione lavori di opere di architettura e ingegneria civile

La società B5 Srl indirizza e promuove l'esperienza e la specializzazione in progettazione architettonica e strutturale, consolidamento e restauro degli edifici, direzione lavori in Italia e in Europa, di uno studio professionale di tradizione più che trentennale, con le competenze in materia di innovazione tecnologica e metodologica di giovani professionisti affermati (arch. Francesca Brancaccio, ing. Ugo Brancaccio), attraverso i contributi e le specificità dei singoli soci. La B5 Srl opera nell'ambito di un Sistema di Qualità, adottando al suo interno e nei rapporti con i committenti i criteri espressi dalle Norme UNI EN ISO 9001:2000.

B5 Srl engineering achieved a great experience and know-how in architectural and urban planning, in restoration of civil and monumental buildings, supervision of working in Italy and abroad, which comes from a successful long-term tradition, thanks to forty-year professional tradition with the innovative contributions and abilities of Francesca Brancaccio, Ph.D. and MA in architecture and Ugo Brancaccio, engineer, both specialized in the restoration of monuments. B5 Srl engineering operates in a Quality System, adopting in the relationship with customers, the criteria expressed by the regulations UNI EN ISO 9001:2000.

**ANNO DI FONDAZIONE:** 2005



**ACROPOLI SRL - Salone dell'Arte del Restauro e della Conservazione dei Beni Culturali e Ambientali**  
 Centergross - Vie Mercanzia, blocco 2B, galleria A70, CP 39 40050 Fumo di Angelato Bologna (BO)  
 Tel. +39 051 864310 / 051 6646832 - Fax +39 051 864313  
 info@salonedelrestauro.com  
 www.salonedelrestauro.com

**ACROPOLI SA**  
 RESTAURO

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Organizational office for Restauro, the "Art and Cultural and Environmental Assets Conservation Salon", the premier Italian event concerned with the conservation, protection and valorisation of architectural, artistic and monumental heritage. Four busy days full of events (conferences, theme exhibits) and technical meetings with exhibiting companies, in what can be considered the European capital of Culture and Restauro. Show figures: 16,000 sqm in a modern and functional hall; more than 300 exhibitors; 30,000 visitors; 40 international conferences; 110 technical meetings organized by exhibitors; 10 theme exhibits.

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**AHRICOS SRL - Architectural heritage restoration and consolidation for Structural Safety Srl**  
 Via Torquato Secchi 5 - 400132 Bologna  
 Tel +39 051 725763 - Fax +39 051 3167983  
 amministrazione@ahricos.it  
 www.ahricos.it

**AHRICOS**  
 RESTAURO e CONSOLIDAMENTO since 1965

3

AHRICOS® is a leading firm involved in conservative restoration and consolidation of civil and historic structures. Using the most advanced technologies, operating with multiple and patented systems, and recognising that, among its own values, the art of antique taste together with advanced knowledge of instruments and consolidation technology, AHRICOS® makes restoration a key part of its own professional DNA. AHRICOS® has at its disposal a strong team that is in charge of Research and Development with various Italian universities. Our knowledge of traditional techniques, together with committed research and experimentation of more developed intervention methods, allows us to work while fully respecting the nature and preservation of structures, and remaining conscious of the responsibility and commitment we devote to our work.

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**ALPAI Associazione Italiana per il Patrimonio Archeologico Industriale**  
 Piazzale Antonio Bosco 3/A - 05100 Terni  
 Tel. +39 0744 407187 (215) - Fax +39 0744 407468  
 info@patrimonioindustriale.it  
 www.patrimonioindustriale.it

**ALPAI**

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The Italian Association for Industrial Archaeological Heritage, the only one of its kind in Italy, was founded in 1997 by a group of industrial heritage experts and some of the most important Italian institutions in this field. It has over 300 members working in its regional sections spread all over the country and it cooperates with universities, research centres, institutions, museums, central and local State bodies (Ministries, Superintendencies, Regional and Provincial Authorities, Municipalities, Mountain Communities, Agencies for the promotion of tourism and local development, etc.). In 2008 ALPAI signed an agreement with TICCIH (The International Committee for the Conservation of Industrial Heritage), thus ALPAI became the official representative of TICCIH for Italy.

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**Aires Ingegneria**  
 Via Cesare Battisti 31 - 01100 Caserta  
 Tel. +39 0823 210435 - Fax +39 0823 1760540  
 info@airesingegneria.it - www.airesingegneria.it

**AIRES INGEGNERIA**

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Aires Ingegneria è stata fondata nel 2008 da tre ingegneri: Pasquale Crisci, Genaro Di Lauro e Gianfranco Lazza. È uno studio specializzato nello sviluppo di progetti, nonché in servizi di consulenza, nei campi dell'ingegneria strutturale e sismica. Svolge servizi di progettazione, di direzione dei lavori per i nuovi edifici, nonché indagini strutturali, valutazioni di sicurezza e sismica per gli interventi di consolidamento di edifici esistenti. L'utilizzo di materiali innovativi è parte integrante dell'approccio progettuale. L'approfondita conoscenza del materiale, delle tecniche e delle tipologie strutturali tradizionali, in particolare di quelle a carattere storico-monumentale, consente di risolvere agevolmente gli interventi di consolidamento e adeguamento sismico del costruito.

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**Associazione Italiana per il Patrimonio Archeologico Industriale**  
 ANNO DI FONDAZIONE: 1997

ANNO DI FONDAZIONE: 2008

**PARTNER ASSORESTAURO**

**AVVOCATI SGUERSO**  
STUDIO LEGALE ASSOCIATO

**STUDIO LEGALE SGUERSO**

info@studiosguerso.it - www.studiosguerso.it

*REC*  
magazine

**REC MAGAZINE**

info@recmagazine.it - www.recmagazine.it

**AON**

**AON**

www.aon.it

rappresentazione nella pubblicazione dei QA\_QUADERNI DI ASSORESTAURO e nella comunicazione attraverso il sito internet. Dal 2017 siamo attivi sui maggiori social (Facebook, Twitter, LinkedIn) per facilitare la comunicazione con i nostri soci e condividere attività comuni nell'ambito dei beni culturali. I QA\_QUADERNI DI ASSORESTAURO sono la rivista ufficiale dell'Associazione e presentano i cantieri, i progetti e le attività svolte dai soci nell'ambito di specifici progetti, dispone di un codice ISSN 2499-1864 (stampato) e ISSN 2499-1503 online, consultabili nella sezione QA del nostro sito o su ISLUI. Ai Quaderni di Assorestauro si affianca l'attività di comunicazione svolta dal sito internet dell'associazione [www.assorestauro.org](http://www.assorestauro.org). Disponibile in lingua italiana e in versione inglese, il sito assume all'importante compito di veicolare le attività associative in fase di svolgimento ad un ampio pubblico di utenti frequentatori del sito e, contemporaneamente, svolge attività di comunicazione diretta tra Associazione ed Aziende associate.

**OUR COMMUNICATION ACTIONS**

Assorestauro rappresenta i suoi membri e il settore attraverso una serie di azioni promozionali e internazionali, inclusa la pubblicazione di QA\_QUADERNI DI ASSORESTAURO e la comunicazione attraverso il sito. Dal 2017 siamo attivi sui maggiori social media (Facebook, Twitter, LinkedIn) con l'obiettivo di facilitare la comunicazione con i nostri soci e condividere attività comuni nell'ambito dei beni culturali. I QA\_QUADERNI DI ASSORESTAURO sono la rivista ufficiale dell'Associazione e presentano i cantieri, i progetti e le attività svolte dai soci nell'ambito di specifici progetti, dispone di un codice ISSN 2499-1864 (stampato) e ISSN 2499-1503 online, consultabili nella sezione QA del nostro sito o su ISLUI. Ai Quaderni di Assorestauro si affianca l'attività di comunicazione svolta dal sito internet dell'associazione [www.assorestauro.org](http://www.assorestauro.org). Disponibile in italiano e in versione inglese, il sito assume un ruolo importante nel veicolare le attività associative in fase di svolgimento ad un ampio pubblico di utenti frequentatori del sito e, contemporaneamente, svolge attività di comunicazione diretta tra Associazione ed Aziende associate.

Fondato a Genova nel 1956, lo Studio Legale Sguerso rappresenta da oltre mezzo secolo, grazie all'utilizzo di processi e strumenti all'avanguardia ed al rispetto dei propri valori fondativi, la perfetta sintesi di innovazione e tradizione. Sul sito [www.assorestauro.org](http://www.assorestauro.org) è disponibile il servizio di consulenza legale gratuita riservata agli associati. Il servizio consente di inviare personalmente quesiti specifici allo Studio legale Sguerso. Established in Genoa in 1956, Studio Legale Sguerso is a legal practice with a half-a-century long experience. Rooted in its original values while being provided with cutting-edge processes and tools, they are capable of offering an ideal combination of innovation and tradition. Free legal advice is available for Assorestauro members on the Association's website [www.assorestauro.org](http://www.assorestauro.org), through which you can send your requests directly to Studio Legale Sguerso.

La rivista digitale periodica dedicata agli operatori del mondo del restauro e del riuso, rec\_maga-zine è uno strumento di aggiornamento e di approfondimento per chi si occupa di beni culturali e di tutela, di riqualificazione e di consolidamento strutturale, sia nell'ambito dei beni monumentali sia in quello del patrimonio edificato più recente. rec\_maga-zine si rivolge a professionisti, ingegneri ed architetti, ad imprese e aziende che operano quotidianamente nel settore del restauro e della sua filiera produttiva. A digital magazine dedicated to the business of restoration and recycling, rec\_maga-zine is a valuable tool to get information and updates about the issues related to cultural heritage and its protection, rehabilitation and structural consolidation, both in the field of monumental heritage and recent constructions. rec\_maga-zine is addressed to all professionals, engineers and architects, companies and businesses working in the sector of restoration and related activities.

Aon è il primo gruppo in Italia e nel mondo nella consulenza dei rischi e delle risorse umane, nell'intermediazione assicurativa e riassicurativa. Aon assiste grandi Gruppi industriali e finanziari, PMI ed Enti Pubblici sviluppando soluzioni su misura per una adeguata gestione del rischio, offre piani previdenziali, soluzioni di talent management e gestione piani sanitari. Aon are leading consultants in Italy and worldwide in the sector of risk management and human resources, insurance and reinsurance brokerage. Aon offers assistance to big industrial and financial groups, SMEs and public agencies with tailor-made solutions for risk management, welfare planning, talent management and medical planning.





USA-BUFFALO



FIRENZE



TURCHIA

per il restauro della moschea Kabud a Tabriz, detta Moschea Blu. Nel 2018, grazie al finanziamento dal Ministero dello Sviluppo Economico tramite ICE-agenzia, partirà un cantiere pilota con sessioni formative sia in Italia che in loco, da realizzarsi all'interno del sito e presso l'università partner di progetto.

#### ■ ATTIVITÀ FIERISTICHE 2018

**SALONE RESTAURO E MUSEI 21/23 MARZO.** Fiera internazionale organizzata dal socio storico Acropoli, arrivata alla 25ª edizione. Assorestaurero rinnova la sua presenza con convegni dedicati e mostrando alla delegazione internazionale del workshop ICE le realtà d'eccellenza nel panorama italiano.

**CUBA FECONS - LA HAVANA - 3/6 APRILE.** Fiera leader del settore delle costruzioni. Assorestaurero parteciperà con una collettiva dedicata al progetto REDi e ai soci interessati al mercato cubano.

**TURCHIA HERITAGE ISTANBUL - 12/14 APRILE.** Assorestaurero è stata invitata a partecipare esponendo le eccellenze dei soci e presentando al pubblico internazionale le attività dei presenti alla collettiva.

**FIRENZE - SALONE DELL'ARTE E DEL RESTAURO - 16/18 MAGGIO.** Due giorni di convegni tecnici con esponenti di spicco da tutto il mondo. Assorestaurero dedicherà ai soci partecipanti un pomeriggio di presentazione delle tecnologie e metodi innovati di restauro.

**USA - APTI ANNUAL CONFERENCE BUFFALO - 22/27 SETTEMBRE.** Rinoviamo l'amicizia con i nostri partner d'oltre oceano con la presenza di una collettiva del restauro made in Italy, i soci potranno partecipare a conferenze, business lunch and dinners, incontri e workshop.

**GERMANIA - DENKMAL LIEPZIG - 8/10 NOVEMBRE.** In collaborazione con ICE-agenzia Assorestaurero proporrà una grande esposizione collettiva in occasione del anno europeo del patrimonio culturale.

#### ■ LA NOSTRA ATTIVITÀ DI COMUNICAZIONE

L'attività promozionale e di internazionalizzazione svolta da Assorestaurero in rappresentanza delle proprie aziende associate e del comparto del restauro avviene attraverso molteplici azioni di coordinamento che trovano la loro

strutturale restauro focussed on seismic retrofit and surface restoration. These meetings have generated the intention to start a joint restoration site at the Kabud mosque in Tabriz, the so-called Blue Mosque. In 2018, thanks to the financial support of the Ministry of Economic Development granted through ICE-agenzia, a pilot site will be started with training sessions in Italy and Iran alike, which will be held on site and at the local University, a partner in the project.

#### ■ TRADE SHOWS IN 2018

**SALONE RESTAURO E MUSEI - MARCH 21<sup>ST</sup> TO 23<sup>RD</sup>.** International Trade Show organized by our historic partner Acropoli, now at its 25th year. Assorestaurero will participate with dedicated conferences and the presentation of the best offer of the Italian sector of restoration to the international delegation of ICE workshop.

**CUBA - FECONS - LA HAVANA - APRIL 3<sup>RD</sup> TO 6<sup>TH</sup>.** A leading trade show in the construction sector. Assorestaurero will participate with a joint presentation of the REDi project and of the member companies interested in working with the Cuban market.

**TURKEY - HERITAGE ISTANBUL - APRIL 12<sup>TH</sup> TO 14<sup>TH</sup>.** Assorestaurero was invited to exhibit the best offer from its members to the international public.

**FLORENCE - SALONE DELL'ARTE E DEL RESTAURO - MAY 16<sup>TH</sup> TO 18<sup>TH</sup>.** Two days of technical conferences with leading international experts. Assorestaurero will organize for all attending members an afternoon session about the new technologies and methods of restoration.

**USA - APTI ANNUAL CONFERENCE BUFFALO - SEPTEMBER 22<sup>ND</sup> TO 27<sup>TH</sup>.** We will reconnect with our partners overseas with a joint exhibition of Italian restorers. Our members will have the chance to attend conferences, business lunches and dinners, meetings and workshops.

**GERMANY - DENKMAL LIEPZIG - NOVEMBER 8<sup>TH</sup> TO 10<sup>TH</sup>.** In collaboration with ICE-agenzia, Assorestaurero will participate with a large joint exhibition for the new European Year of Cultural Heritage.



and "Heritage & Sustainability: sustainable restoration and reconstruction of Italy's cultural heritage", respectively. The session of conferences is organized in collaboration with GBC Italia. The close collaboration with the Green Building Council on the issues of energy performance certification of historic buildings will be continued in 2018.

**ICE WORKSHOP**

A training action aimed at promoting abroad and internationalizing Italian companies is held annually by Assorestauro on behalf of ICE. The action includes the coordination and scientific management of a course in Italy for foreign specialist restorers from countries of primary importance in the conservation market. The workshop is traditionally held at the same time as the Salone del Restauro in Ferrara and is centred on a different topic each year. "Restoring historic buildings between technology and sustainability" is the title of the workshop of 2018, which will be attended by professionals from Iran, Russia, the US, Kosovo, Albania, Lebanon, Cuba, Turkey and Bulgaria. For the last two years, by virtue of an agreement signed with the Post-graduate course of architectural and landscape heritage of the Politecnico University of Milan, 4 post-graduate students have joined the workshop with the task of organizing and drawing technical reports about the site inspections included in the programme of the workshop.

**CUBA.** The project, started with a mission organized by ICE in 2009, has developed over time into two different working paths, in Italy and Cuba, respectively. A Memorandum signed between Eusebio Leal, Historiador de la Ciudad de La Habana, on behalf of the Cuban government, and Carlo Calenda, Vice-Ministry of MiSE, on behalf of the Italian government, represents the institutional deed and first formal step to found the Italian Technological Centre for Restoration and Design in Cuba. The site was opened in November 2018 and the shipping of Italian materials to Cuba was started to continue the joint training sessions and restoration works carried out by the companies involved in the project and to all Assorestauro members who wish to participate.

**IRAN.** For a long time now Assorestauro and ICE Agenzia have developed a policy of exchange with Iran, by inviting Iranian delegations to Italy and organizing technical workshops in Tabriz and Isfahan on the issues of

ritage & Sustainability: Restauro e ricostruzione sostenibile del patrimonio culturale italiano." Organizzato con GBC Italia. Il 2018 sarà un anno di produzione del rapporto sinergico instaurato con il **Green Building Council**, con cui si porterà avanti il tema della certificazione energetica degli edifici storici.

**WORKSHOP ICE**

Attività di formazione con cadenza annuale svolta da Assorestauro su incarico di ICE e finalizzata alla promozione all'estero e all'internazionalizzazione delle imprese italiane attraverso azioni di coordinamento e di gestione scientifica del Corso in Italia dedicato ad operatori esteri specializzati nel settore del restauro e provenienti da paesi di primario interesse per il mercato del comparto della conservazione. Il Workshop, che si svolge tradizionalmente in contemporanea al Salone del Restauro di Ferrara, si sviluppa ogni anno intorno ad un tema specifico. "Il restauro del costruito storico tra tecnica e sostenibilità" è il titolo dell'edizione 2018 che vede il coinvolgimento di paesi quali Iran, Russia, USA, Kosovo, Albania, Libano, Cuba, Turchia e Bulgaria. Da 2 anni Assorestauro grazie ad un accordo con la Scuola di specializzazione in beni architettonici e del paesaggio del Politecnico di Milano, coinvolge 4 studenti specializzandi nell'organizzazione e redazione di articoli tecnici riguardo i cantieri visitati nel corso del workshop.

**CUBA.** Il progetto, nato con una missione organizzata da ICE nel 2009, si è sviluppato nel tempo su due differenti filoni di lavoro rispettivamente in Italia e a Cuba. La firma del Memorandum fra Eusebio Leal, Historiador de la Ciudad de La Habana, per il Governo Cubano e Carlo Calenda, Viceministro MiSE, per il Governo Italiano è l'atto istituzionale che ha costituito il primo passaggio formale per la realizzazione del Centro Tecnologico italiano a Cuba sul Restauro ed il Design. Il cantiere inaugurato a novembre 2018 e l'invio dei materiali Made in Italy verso Cuba, continuano il lavoro congiunto di training e di cantiere di restauro, portato avanti dalle aziende partecipanti e aperto ai soci di Assorestauro.

**IRAN.** Assorestauro ed ICE Agenzia hanno da tempo avviato una politica di scambio con l'Iran invitando delegazioni tecniche in Italia ed organizzando seminari tecnici a Tabriz ed Isfahan sui temi del restauro strutturale in ottica sismica e restauro delle superfici.





POST SISMA



RESTAURO A FERRARA



CONVENTION 2017

Rientrano in questa tipologia di azioni sia attività promozionali nazionali (convegni e seminari formativi, fiere di settore, corsi e similari) sia iniziative promozionali e di immagine in termini internazionali (missioni all'estero, formazione, incontri b2b, cantieri di restauro) che vedono in prima fila le aziende associate, alle quali sono offerte opportunità di internazionalizzazione e studio dei mercati esteri attraverso progetti cofinanziati da enti nazionali e internazionali.

## ATTIVITÀ IN ITALIA

Nel 2017 a Macerata si è svolto il **convegno dedicato al terremoto** e in particolare al tema della ricostruzione connesso alle distruzioni e ai danni provocati dal sisma di agosto 2016 in centro Italia, organizzato da Assorestaurò e ARCo\_Associazione per il Recupero del Costruito. Le due Associazioni hanno rivolto un invito a tecnici ed esperti del settore i cui interventi sono stati raccolti in una pubblicazione curata dal Università di Roma Tre.

Il 24 marzo 2018 a Macerata presso sala della Filarmónica si svolgerà un secondo confronto con relatori e professionisti da tutta Italia sul tema della ricostruzione, vi invitiamo a partecipare.

Nella prestigiosa cornice di Palazzo Strozzi si è svolta a dicembre 2017 la **prima Convention Assorestaurò**

La firma di tale documento è momento di grande importanza per ASSORESTAURO che è ufficialmente riconosciuta dal Ministero dei Beni e delle Attività Culturali e del Turismo nello svolgimento delle proprie attività.

Assorestaurò nel 2018 sarà attiva sul piano dei convegni e proposte formative a partire dai tre convegni in programma durante il **Salone del Restauro di Ferrara**, con riconoscimento di CFP da parte dell'Ordine degli Architetti di Ferrara, dedicati rispettivamente al "BIM Historic Building", "Export the Restoration Practises: a Balance between training and promotion" e infine "He-

## ACTIONS IN ITALY

age and IJC, the Agency for the internationalization and the promotion abroad of Italian businesses. This class of actions includes both promotion in Italy (conferences and training seminars, trade exhibitions, courses and similar initiatives) and abroad (foreign missions, training, b2b encounters, restoration sites), where member companies are directly involved and offered the chance to study and penetrate foreign markets through projects co-sponsored by national and international bodies.

In 2017 a conference was organized in Macerata to deal with the reconstruction following the destructions caused by the earthquake that badly damaged central Italy in August 2016. The two organizers – Assorestaurò and ARCo\_Associazione per il Recupero del Costruito (Italian Association for the Rehabilitation of Constructions) – invited some engineers and experts in the sector, whose papers have later been collected in a publication edited by Università di Roma Tre.

A second event gathering lecturers and professionals from all Italy to debate on the issues of reconstruction will be held at the auditorium of the Filarmónica in Macerata on 24th March 2018. You are all invited to attend. The prestigious setting of Palazzo Strozzi was home to the first Assorestaurò Convention in December 2017.

The Association's members were invited to gather and attend a debate about the prospects of Italian restoration, with the participation of MIBACT, GBC Italia, Associazione per l'economia della cultura. At the end of the convention, the Secretary General of Mibact Carla Di Francesco, the General Director for Education and Research Francesco Scoppola and the President of Assorestaurò Alessandro Zanini signed an agreement to fix the terms of collaboration and exchange aimed at implementing and regulating a number of actions on training, study, research and applications in the field of cultural heritage and activities.

The signature of the document represents a momentous event for ASSORESTAURO, whose activities become officially recognized by the Ministry of Cultural Heritage and Activities and Tourism.

In 2018 Assorestaurò will set off a number of conferences and training sessions, including three conferences scheduled during the Salone del Restauro in Ferrara, recognized as CFP (professional training credits) by the Roll of Architects of Ferrara, dedicated to "BIM Historic Building", "Export the Restoration Practises: a Balance between training and promotion"

**CHI È ASSORESTAURO ?**

È la prima associazione italiana tra i produttori di materiali, attrezzature e tecnologie e i fornitori di servizi e imprese specializzate, nata nel 2005 per rappresentare il comparto nazionale del restauro e della conservazione del patrimonio materiale. Assorestauro è il punto di riferimento sia nazionale sia internazionale per chi voglia affacciarsi al mondo della conservazione italiana, intesa nel modo più ampio possibile, come sintesi delle svariate discipline che in esso convergono, delle professionalità specializzate, delle tecnologie e della crescente imprenditorialità. Un comparto che, se analizzato nel suo complesso, rappresenta una forte componente di mercato ed ha importanti ricadute nel settore turistico, dell'industria e della Green Restoration.

**QUALI SONO GLI OBIETTIVI DI ASSORESTAURO ?**

In rappresentanza di produttori di materiali, attrezzature, tecnologie, imprese specializzate, progettisti e fornitori di servizi per l'analisi, il rilievo e la divulgazione nel settore del restauro, Assorestauro fornisce alle imprese associate servizi di informazione, assistenza e formazione sia direttamente, sia attraverso i propri partner, al fine di dare coerenza e unitarietà di indirizzo alle diverse anime del settore sia a livello nazionale che internazionale.

Come Associazione di Categoria Nazionale per il comparto del Restauro, Assorestauro coordina, tutela e promuove gli interessi del settore produttivo di competenza e rappresenta, in Italia ed all'Estero, le posizioni comuni sul piano tecnico, economico e di immagine attraverso attività mirate nell'ambito degli obiettivi di inquadramento di comparto, informazione e comunicazione, tutela degli interessi (sui piani economico, dell'immagine, dell'evoluzione normativa del Settore) ricerca e sviluppo, promozione.

**COSA FA ASSORESTAURO ?**

Le finalità associative si esplicano attraverso molteplici attività che promuovono le professionalità nel settore del restauro, dalla fase diagnostica e progettuale a quella dell'esecuzione in cantiere, passando per la produzione di tecnologie e materiali, anche con forti connotazioni tecnologiche innovative, e con il supporto di Istituzioni, Università, Organismi di Tutela dei Beni Culturali e ICE Agenzia per la promozione all'estero e l'internazionalizzazione delle imprese italiane.

**WHO IS ASSORESTAURO ?**

Established in 2005 as the first Italian association of manufacturers of materials, equipment and technology, suppliers of services and specialized companies, Assorestauro represents the Italian sector of restoration and conservation of material heritage. It is a reference in the domestic and international market for any business wishing to work in the conservation sector in Italy, to be intended in its broadest sense, that is, as a synthesis of the various disciplines involved, of the professional specialists, of the available technology and of the growing business community. If examined as a whole, the sector accounts for a large market share and has a meaningful impact on tourism, industry and green restoration.

**WHAT ARE ASSORESTAURO'S GOALS ?**

Representing manufacturers of materials, equipment, technology, specialist companies, designers and suppliers of services for analyses, surveys and diffusion, Assorestauro offers its members information, assistance, advice and training both directly and through its partners, with a view to building a consistent and unitary orientation to the different sectors of the restoration industry at national and international level. As a National Trade Association for the Restoration Sector, Assorestauro is aimed at coordinating, protecting and promoting the interests of the restoration sector and it represents before the outer market, in Italy and abroad, shared views about technical and economic issues, as well as information and communication, protection of common interests (economy, image, reference standards), research and development, promotion.

**WHAT DOES ASSORESTAURO DO ?**

Several activities aimed at promoting the professional skills in the restoration sector fall in the scopes of the Association. They include diagnostic analyses, design and on site execution, producing technology and materials, as well as contributing technological innovation, with the support of Institutions, Universities, Agencies for the protection of cultural heritage





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Via Francesco Londonio, 15 - 20154 Milano (Zona Corso Sempione)  
Tel/Fax +39 02 34930653  
segreteria@assorestaurero.org - www.assorestaurero.org  
Orario segreteria: 9.30-18.00

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chiara.falcini@assorestaurero.org

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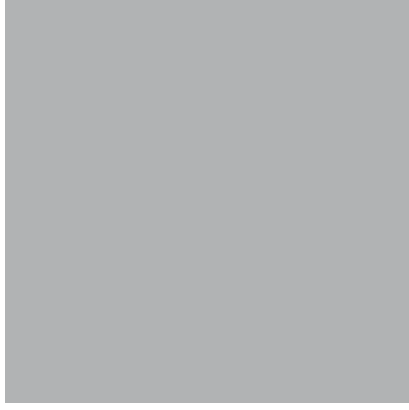
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