

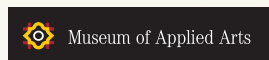
Sustainable protection and promotion of  
**ART NOUVEAU**  
heritage in the Danube Region



A stream of cooperation



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Réseau Art Nouveau Network

Project cofunded by European Union funds (ERDF, IPA)



# **ART NOUVEAU BUILDING DECORATIONS**

**Restorers' Workshop at the Museum of Applied Arts, Budapest**





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## **PROGRAMME**

### **9 October 2017 (Monday)**

9.00–9.15 Opening speech by Dr Zsombor Jékely

9.15–12.15 The restoration of Art Nouveau mosaics  
presented by Dr habil. Miklós Ernő Balázs, collaborators:  
Mária Brutyó and Dr Brigitta Mária Kürtösi

13.00–16.00 Art Nouveau terrazzo flooring  
presented by Róbert Kiss

### **10 October 2017 (Tuesday)**

9.00–12.00 The restoration of architectural glass  
presented by Dr Éva Mester

13.00–16.00 Restoring architectural ceramics  
presented by Klára Csáki and László Czifrák

### **11 October 2017 (Wednesday)**

9.00–12.00 Restoring wrought iron works from the Art Nouveau  
period  
presented by András Jeges, collaborator:  
Eszter Szatmáriné Bakonyi

13.00–16.00 The restoration of Art Nouveau murals and decorative  
paintwork  
presented by Dr habil. István Bóna, collaborator:  
Dr Brigitta Mária Kürtösi



## **PRESERVING AND PROMOTING THE ART NOUVEAU HERITAGE IN THE DANUBE REGION**

### **(PROJECT DTP 1-1-467-2.2)**

*The project is realised as part of the Danube Transnational Programme, with the financial support of the European Regional Development Fund, the European Union and the Hungarian state.*

#### **Criteria and objectives**

(Museum of Applied Arts, Budapest, 9–11 October 2017)

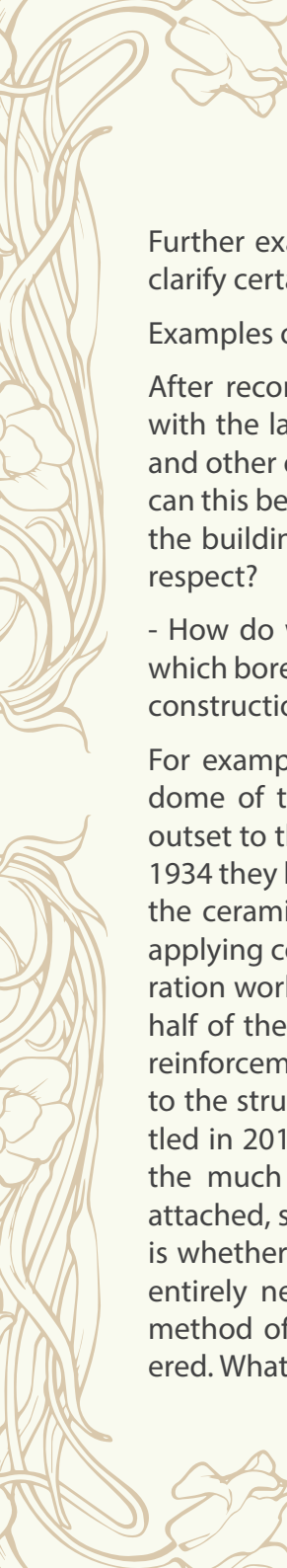
The Art Nouveau style of architecture and design is still very much in evidence in numerous towns and cities in the Danube region. Nevertheless, the inherent opportunities in using Art Nouveau monuments as venues for a thriving community life or as tourist attractions often go unexploited. Ten partner organisations from seven countries in the Danube region are cooperating with the aim of ensuring sustainable, coordinated preservation of Art Nouveau buildings, and, in response to the demand to revive and proudly display such buildings, have formulated a series of concerted, interdisciplinary activities for the entire period during which they are being preserved and renovated.

As part of the project, the research programme coordinated by the Museum of Applied Arts, Budapest deals with Art Nouveau building décor, focusing attention on how the appearance of buildings can be greatly affected by the richness – or otherwise – of their erstwhile decoration. Our objectives are to analyse individual decorative techniques that were widely used in the Art Nouveau period, and to explore potential methods of restoration and reconstruction by presenting several successful building conservation projects.

The workshop will attempt a thematic investigation of different means of restoration, for each type of material.

In organising this workshop, the Museum of Applied Arts, whose home is about to undergo restoration and reconstruction, would like to initiate a dialogue and expert consultation concerning the restoration of the building's decorative elements (including those that are simultaneously decorative and functional) that will, as a result, ensure that the interventions are carried out in the most ethical and most authentic way possible. When executing the complete reconstruction of a building as large as the Museum of Applied Arts, the experts involved in the work are faced with countless questions that need to be decided upon. The answers to such questions are best arrived at through co-operation between the museum's staff, museologists, art historians, professional restorers, architects, the experts undertaking the work, and monument conservation consultants. We consider it of great importance for personal meetings and exchanges of ideas among outstanding and experienced representatives of the restoration profession to contribute to the decision-making process in areas that concern specific elements of the museum building. We hope that the findings and outcomes of this workshop will provide valuable input when the implementation plans for the reconstruction of the Museum of Applied Arts are finalised.

The complete reconstruction of the museum building poses a number of challenges. The overarching goal of the reconstruction process must be to restore this historic monument as fully as possible to its original condition. In preparation for this, the museum's in-house staff, together with external experts, are researching the original documents of the building as well as archive photographs. In 2013, with the cooperation of restorers, a survey was carried out of different elements of the building, broken down according to their material: ceramic, glass, metal, wood and stone.



Further examinations of the building are under way in order to clarify certain unanswered questions.

Examples of the challenges ahead:

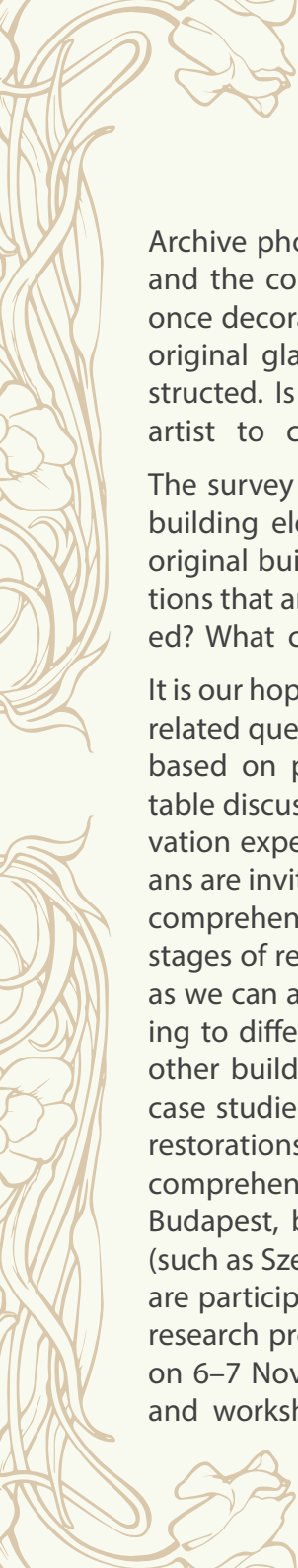
After reconstruction, the museum will be expected to comply with the latest technical requirements for protecting its exhibits and other objects (control of light, heat, dust and humidity). How can this be implemented while maintaining the original design of the building? What successful precedents can we look to in this respect?

- How do we proceed in the case of original building elements which bore the risk of early deterioration even at the time of initial construction?

For example, the ceramic elements of the lantern topping the dome of the Museum of Applied Arts were exposed from the outset to the threat of cracks and instability, which meant that in 1934 they had to be replaced in their entirety. At the same time as the ceramic elements were replaced, stability was improved by applying concrete to the lower half of the structure. During restoration work carried out in the late 1950s, the elements in the top half of the structure were also strengthened with concrete. This reinforcement was effective in the short term, but ultimately led to the structure being destroyed. When the lantern was dismantled in 2011, the ceramic elements could not be separated from the much thicker layer of concrete to which they were now attached, so the structure had to be cut into pieces. The question is whether any of the original ceramic elements can be saved. If entirely new ceramic elements need to be manufactured, the method of fixing the structure together must also be reconsidered. What criteria need to be followed when doing this?

The large, contiguous expanse of terrazzo flooring covering the entrance hall on the ground floor and the space beneath the glass-roofed hall was also originally prone to cracks. During reconstruction and restoration, what means can be used to prevent the threat of future deterioration? In such a case, where is the line drawn between demolition and reconstruction on the one hand, and restoration on the other? Is it even possible to define one at all?

Archive photos show that the halls and corridors of the Museum of Applied Arts were originally richly decorated. The plain white surfaces that are ubiquitous today came later. The original decorative paintwork has survived in a few places, so it is highly likely that the original appearance could be fully reconstructed. Preliminary research into restoring the paintwork was carried out in 2013, which resulted in the basic colours being precisely identified. However, it will be necessary to conduct further studies regarding the painted decorations. The question here is not so much technical as theoretical. In 1915, to enhance the setting for the original furnishings and decorations from Bethlen Castle (a country house near Alsórákos, now Racoș, Romania), the then-director of the Museum of Applied Arts, Jenő Radisics, had a copy of the seventeenth-century stucco ceiling decoration from the castle's state hall fixed onto the ceiling of the museum's first-floor exhibition hall. The decorative paintwork on the relatively young building was not regarded at the time as an artwork worth preserving. It was perfectly acceptable to cover it up in order to preserve the ceiling of a country house – and later on, almost all the decorative paintwork in the entire building was covered over. To what extent should this be taken into consideration when restoring a 120-year-old building to its original appearance?

A decorative illustration on the left margin of the page, featuring stylized orange and brown floral and leaf patterns that run vertically along the left edge.

Archive photos also show that the glass roof over the great hall and the coloured glass windows above the entrance hall were once decorated with painted motifs. As only some details of the original glass have survived, the original might not be reconstructed. Is it permissible to commission a contemporary glass artist to construct a new work in place of the original?

The survey carried out in 2013 revealed that quite a few of the building elements currently visible were later additions to the original building. Where do we draw the line between interventions that are worth preserving and those that should be discarded? What criteria should be used when making this decision?

It is our hope that the workshop will provide answers to these and related questions, as well as guidelines on how to move forward, based on positive examples, expert consultations and round-table discussions. Not only restorers, but also monument conservation experts, architecture historians, architects and art historians are invited to participate in the events, in order to build up as comprehensive and wide-ranging a picture as possible of the stages of reconstruction. It is essential for us to find out as much as we can about the questions and problems that arose pertaining to different decorative techniques during the restoration of other buildings, as well as the solutions that were found. Such case studies will, we believe, serve as good examples for future restorations and reconstructions. They will not only benefit the comprehensive reconstruction of the Museum of Applied Arts in Budapest, but also other cities throughout the Danube region (such as Szeged, Subotica, Oradea, Ljubljana, Zagreb, etc.), which are participating in the present project. The second stage of the research programme, to be held at the Museum of Applied Arts on 6–7 November 2017, consists of an international conference and workshop, where examples of restorations carried out in

Hungary will be presented alongside some exceptional international precedents.

Below is the structure for the workshop modules:

- General presentation of each decorative technique and an overview of the materials and technical solutions employed during the Art Nouveau period.
- General presentation of the kind of damage that typically occurs with the given decorative technique, as well as ways of conserving and restoring such decorations.
- Examples of successful restoration interventions (detailed case studies) from the practice of the restorer leading the workshop.
- Q&A session, round-table discussion with participants.

The decorative techniques to be presented at the workshop are as follows: mosaics, terrazzo, glass, ceramics, metalwork, murals.



## The restoration of Art Nouveau mosaics

Presenter: Dr habil. Miklós Ernő Balázs DLA, collaborators: Mária Brutyó and Dr Brigitta Mária Kürtösi

“By copying a horse, molecule for molecule, we create a dead horse.” This comment by painter and anatomist Jean-François Debord, alluding to the mystery of Life, applies equally well to the restoration of works of art. It is not enough to restore the physical state of an artwork; the restored artwork should continue to convey the original spirit. We must be able to interpret the artwork in the correct way. We must deliberately ignore pieces of information that were not known when the artwork was created. The general interpretation of artworks changes from generation to generation; we must not allow ourselves to be unduly influenced by whichever interpretation currently prevails. The original interpretation of mosaics, stemming from the hegemony of panel painting, was slowly succeeded by one derived from “progressive” techniques based on synthetic resins. These days, the prevailing progressive interpretation of restoration is based on scientific methods. It is to be hoped that such methods are beyond question and that their inspirational results will not overshadow the artistic essence. We must therefore take a comprehensive approach when interpreting each artwork.

Every analogy must be taken into consideration, and representatives from the associated professions must have their voices heard. Unfortunately, the opinion of the restorer sometimes has less weight than that of the decision makers.

It would be desirable to have fruitful and coequal cooperation between all participants, but how are they supposed to understand each other when there is such confusion surrounding the basic technical terms?

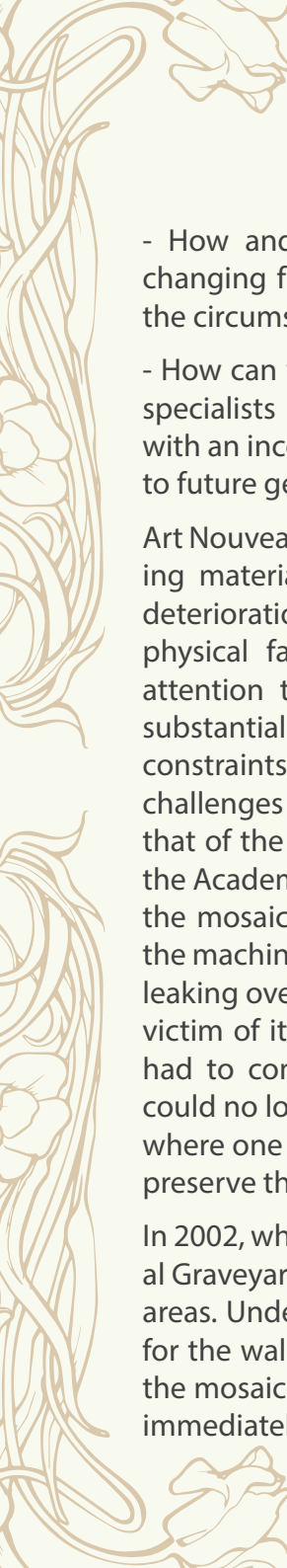


The words and expressions mosaic, pebble- and glassmosaic, concrete tile, mosaic tile, terrazzo, terrazzo tile, Murano mosaic, and so on, are often interchanged. Misleading expressions even appear in value inventories, documentations and announcements. One of the foremost tasks would be to create a multilingual thesaurus, although introducing it into practice would pose difficulties, which might be overcome through vocational training.

Now that the waves of stylistic trends have settled, Art Nouveau is at last taking its deserved place in the coliseum of our cultural heritage. It is not only first-grade buildings that benefit from this new, long-awaited attention; owners and tenants of more modest apartment buildings adorned with Art Nouveau décor elements are increasingly aware of the importance of preserving artistic treasures.

The restoration of mosaic artworks is a complex problem. In the quest for a solution, several questions arise:

- Who would be responsible for creating, maintaining, and financing the much-needed public database of mosaic artworks?
- How can we ensure that artworks are restored to the appropriate standard, on the scale of conservation – cleaning – repairing – restoration – partial or total reconstruction? And how can we ensure that this is not subject to cost-cutting?
- How can restorers, as a professional group, be kept from being secondary to the general contractors?
- How can the restoration of mosaics be financed in
  - a) public buildings, and
  - b) condominiums? For example, through municipal and state tenders, self-funding, procurement, European funding?

- 
- How and to what extent should restorers take account of changing functions and increased physical pressures, as well as the circumstances and limits imposed by budgets and deadlines?
  - How can we guarantee the continued survival of at least a few specialists in these disappearing professions, providing them with an income and supporting them to pass on their knowledge to future generations?

Art Nouveau buildings were erected in an age when certain building materials and technologies were undergoing change. The deterioration of their condition is the result of both material and physical factors. Carrying out restoration work while paying attention to changed usage and additional burdens poses a substantial challenge to restorers, who are already working under constraints imposed by budgets and deadlines. These special challenges often require unique solutions. One such case was that of the mosaic on the ornamental fountain by Miksa Róth in the Academy of Music in Budapest. Because of vibration damage, the mosaic had to be covered with a mechanical coating while the machinery was restored. Due to its scale and because of water leaking over many decades, the original artwork had become the victim of its own original functionality. We therefore regrettably had to come to the conclusion that its mechanical operation could no longer be sustained. The artwork had reached the stage where one of its values had to be sacrificed in order to be able to preserve the work as a whole.

In 2002, while working on the archway at the Fiumei Road National Graveyard in Budapest, we were forced to restore some sample areas. Under pressure of the deadline, there was no time to wait for the walls to dry. We opted for the intrepid solution of gluing the mosaic friezes onto granite plates, and placing the plates not immediately up against the wet walls, but by leaving a 5mm gap

to allow air to circulate. This protected the friezes from the threat of salt damage. This solution, born out of necessity, has since proved to be viable and workable. Now, fifteen years later, there is a possibility that the project can continue. I certainly hope that it does.



## Art Nouveau terrazzo flooring

Presenter: Róbert Kiss certified engineer, certified stone industry specialist engineer


One consequence of the Napoleonic conquests was renewed interest in the arts of Antiquity, including the use of colourful, hard flooring materials. Terrazzo originated from the agricultural regions around Venice, from where it was disseminated across Europe by Italian builders. The technique was commonly employed in neo-Renaissance architecture in Hungary in the nineteenth century. On account of the particularities of the technique, terrazzo soon developed its own shapes and patterns, which enabled complex, multi-coloured systems of motifs to be designed and executed. We and other practitioners of this profession consider it slightly disappointing, therefore, that the art of flooring receives nowhere near as much attention as the associated arts displayed on the walls of buildings. After all, the role of flooring as a means of conveying artistic content and extending the symbolism of a building is beyond question. Floor surfaces are integral and important elements of a building that are both functional and decorative.

The genres of flooring seem always to have been somewhat separated from the concept of buildings as a whole. For over a half century preceding the arrival of Art Nouveau, flooring motifs and colouration often contrasted, or even conflicted, with the rest of the ornamentation. Even in Art Nouveau buildings we often come across outmoded patterns, and there are relatively few floors that were designed in a clearly Art Nouveau style. Those that were make a spectacular contribution to the overall appearance, and visitors in such surroundings can feel immersed in a truly Art Nouveau universe. An example of this kind of

terrazzo flooring can be found in the halls and corridors of the Museum of Applied Arts, Budapest.

The techniques used for making terrazzo floors in Art Nouveau buildings were not particularly different from those used in other types of building, only their motifs and patterns are distinctive. Restoring such floors is therefore not different from restoring other terrazzo flooring of a similar age. Any damage can often be traced to the physical properties of the building. Apart from common wear and tear, cracks frequently appear as a result of subsidence or other movement of the building. The different layers sometimes separate from each other, which allows moisture inside and can lead to frost damage. The bonding material between the particles slowly erodes, leading to a rough appearance. The colours also fade over time.

The main difficulty when renovating such flooring stems from the need both to comply with the accepted principles for restoring historic monuments (prioritising the preservation of original details, observing the principle of reversibility, and using materials that are identical to the original ones) and to meet the challenges of the present day, which – due to the function of flooring – is a more important factor than with other forms of decoration. Usually the circumstances since the terrazzo flooring was created have changed considerably, meaning that restoring or reconstructing such flooring is generally a difficult task, although a very exciting one. Compared with the original terrazzo, bonding materials used today are generally of a different basic colour, while the mines that produced the crushed stone are no longer in operation, or are now outside Hungary's borders. The substructure beneath the reconstructed flooring is also more “modern”, comprising lightweight concrete, screeds and floor heating ...

A decorative illustration on the left margin of the page, featuring stylized orange and yellow flowers and leaves, extending vertically along the left edge.

There are other problems to contend with as well, some deriving from faults in the original flooring, others resulting from previous, improperly executed interventions. Terrazzo is often imitated – unsuccessfully – with engineered or cast stone. When terrazzo is laid, it is essential to handle the stone particles so that as little bonding paste as conceivably possible is needed to fill the gaps in between them. This can only be done with true craftsmanship, and in addition to expertise, it also requires special hand tools and machinery. Little wonder, then, that the most successful practitioners of this trade rely on knowledge built up over several generations.

Increasingly in the lives of floors that have been in use for the better part of a century, the moment comes when the only aesthetically pleasing, long-term solution is to carry out a total or partial reconstruction. It is fundamentally important to maintain a suitably trained team of experts, but it is far from certain that the market alone can exert a positive influence in this respect, for there are many examples of work being carried out cheaply and inexpertly, even in prestigious historic monuments.

Renovations of historic buildings can pose some surprising challenges. During the restoration of the Academy of Music in Budapest (1904–1907, Kálmán Giergl and Flóris Korb) it was not possible to replace the original linoleum floor covering, measuring several millimetres in thickness. It was necessary to come up with a material of a similar synthetic nature that would be durable but would also match the historic, Art Nouveau surroundings. The solution was to produce polished, brightened, coloured stone terrazzo with epoxy bonding. The decorative flooring in the public spaces covers a total surface area of 3500 m<sup>2</sup>. The result is impressive and has proved entirely successful. Such unconventional solutions, however, require artistic sensitivity, countless experiments with materials and colours, and close cooperation with the architects.

The terrazzo technique is closely related to the first major reinforced concrete structure in Hungary, designed and executed by Szilárd Zielinski, professor at the Technical University, and the Hungarian pioneer of reinforced concrete. The thin reinforced concrete floor slab on the first storey was strengthened by forming suitable layers from the terrazzo flooring laid on top of it.

The condominium at 4 Kölcsey Street, Budapest (1910, unknown architect) is not of particularly outstanding architectural value. It is an average, simple building, and could even be described as humdrum. However, it does have a few Art Nouveau decorations – such as the staircase railings and, especially, the terrazzo flooring on the various levels – that lend it a certain charm. The owners and residents realise and appreciate this, and slowly but surely are taking steps to restore the decorative elements. We have carried out repairs and partial reconstruction work in the building. This example illustrates how important it is to conserve Art Nouveau treasures not only on premium quality buildings but wherever they exist in the everyday environment.



## The restoration of architectural glass

Presenter: Dr Éva Mester

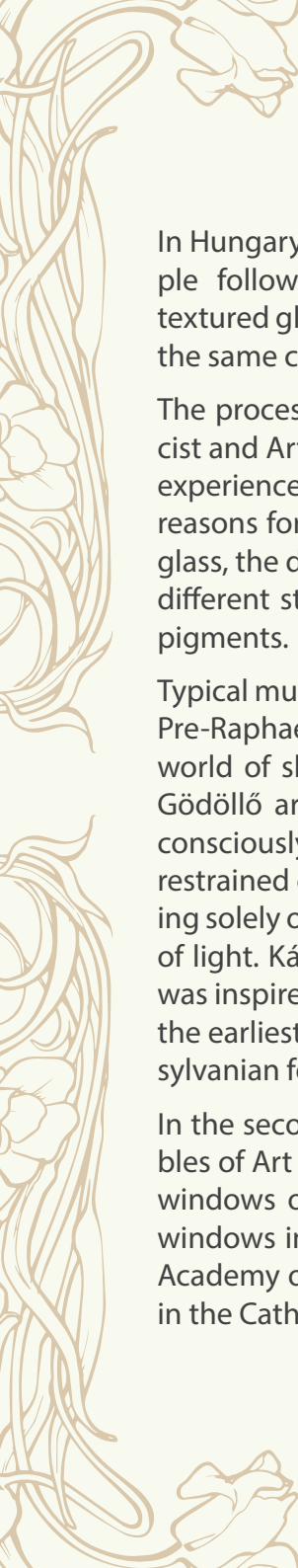
The first half of the presentation will cover the following topics: the concept of architectural glass, glass as a historical building material; undecorated glass windows, glass paintings, decorative glass and stained-glass windows; the connections between function and aesthetic value; an overview of the history of glass technology; tools for working with glass, glass components and additives for achieving special effects (colouring); types of damage suffered by stained-glass windows.

The reason for the changes that have taken place since the first glass panes were produced are rooted in social and cultural expectations, political and economic possibilities, the level of technical development, and in the effect geographical characteristics exert on architectural glass as an organic part of a building. In the Roman Empire, glass was produced solely for practical purposes, without decoration, in order to let in light while physically sealing off windows from the heat, the cold and the rain. In the Middle Ages, decorative glass was only used in ecclesiastical buildings, where the role of aesthetics was particularly acute. The enormous stained-glass windows in Gothic churches not only served a practical function but also aided religious education (e.g. Biblia Pauperum). In the Renaissance, stained-glass windows in secular buildings – coats of arms and cabinets – developed into an independent genre. Two fundamental changes also took place: instead of two-dimensional, planar depictions, three-dimensional images appeared, influenced by the similar change in easel paintings; and the light colours of transparent glass were subdued using colour enamel paints. As styles changed further, stained glass was thrust into the background, eventually being abandoned entirely.



Stained-glass windows returned during the period of historicism, reaching their pinnacle during the Art Nouveau era, with the emergence of American glass.

Technical changes: glass, as one of the most complex chemical compounds, is a measure of the general level of technical development. The disciplined military state of the Roman Empire produced clear plate glass of high quality. In the Middle Ages, monks in monastery workshops learnt about the different stages of melting, staining and working glass from a work by Theophilus Presbyter entitled *Schedula Diversarum Artium*. The technique is still essentially the same now as it was then. Working on a wooden table, using H-shaped lead profiles, pieces of glass in different shapes were put together into a panel. The optical effect of the glass was enhanced by the imperfection of the technique. The lead profiles separating the pieces of glass formed contour lines that aided interpretation of the images, and the restrained surface tones augmented their picturesque quality (Swarzlot, Braunlot, Grisaille). Staining with silver chloride, the Silbergelb technique was used for gold crowns, clothing decorations and blonde hair. Enamel paints reduced the transparency of stained-glass windows. The Industrial Revolution brought about unprecedented changes, and from the mid-19th century great strides were made in glass technology as well. In 1895 Louis Comfort Tiffany patented his new American glass that imitated the opalescence of semi-precious stones, under the name of "Favrile Glass" – within a short while it revolutionised the art of making glass windows. The glass itself, with its textured and painterly effect, made surface painting superfluous and encouraged the floral Art Nouveau style. The optical effect was enhanced using a variety of pressed and polished opal glass inserts, which caught the light at different angles.



In Hungary, Miksa Róth formulated his own compositional principle following the method of highlighting, using colourless, textured glass together with brightly coloured opalescent glass in the same compositions.

The processes by which stained-glass windows from the historicist and Art Nouveau periods deteriorate are different from those experienced with glass from earlier ages. Some of the main reasons for this are the different raw materials used to make the glass, the different techniques for working with the glass, and the different staining techniques and chemical compositions of the pigments.

Typical mutual effects in Art Nouveau: the influence of the English Pre-Raphaelites on the Gödöllő artists of Hungary, and the fertile world of shapes from Hungarian folk art. Sándor Nagy and the Gödöllő artists revived the pure style of the Middle Ages, and consciously used the symbolic meaning of colours. Using restrained colouring, they avoided all superfluous shading, focusing solely on contour and tone, and striving to achieve the colours of light. Károly Kós made stained glass whose colour symbolism was inspired by folk tradition, and combined the colour canons of the earliest leaded windows with the simple shapes used in Transylvanian folk art.

In the second part of the presentation I will present four ensembles of Art Nouveau stained glass: three in Budapest – the chapel windows of the Psychiatric Institute in Lipótmező; the Kossuth windows in Gresham Palace; and the windows in the Franz Liszt Academy of Music – and one in Zebegény: the chancel windows in the Catholic church (Church of Our Lady of the Snows).

The workshop will cover the following subjects: the materials used for architectural glass, in particular those used in Art Nouveau: glass, colours, lead profiles, methods of installation (e.g. by using thin wires); types of damage suffered by architectural glass (natural ageing); incorrect use of techniques (warping, cracking); environmental influences (air pollution, snow and rain, frost); physical damage (from war and break-ins to stone-throwing).

The workshop provides an overview of the transformation in the methods of portrayal employed in architectural glass in the context of the historical styles, up to and including Art Nouveau, from the sacral to the profane. It also deals with the principles of restoration, in accordance with the recommendations of international charters, and the different levels of restoring artworks: conservation (cleaning and fixing); restoration (which includes conservation, with varying degrees of replacements); and reconstruction (recreating the entire work or a large part of it using non-original elements, because the originals no longer exist – this is not preserving a thing of value, but regenerating one).



## Restoring architectural ceramics

Presenters: Klára Csáki and László Czifrák

Architectural ceramics began to be used increasingly prominently on the facades of buildings in the second half of the nineteenth century. By that time the Zsolnay Manufactory in Pécs had become the leading producer of ceramic elements in large sizes and varied shapes. At the start of our workshop we will present the most widespread types of ceramics, the main achievements of the Zsolnay Manufactory around the turn of the century, and the decorative architectural ceramics that appeared on Art Nouveau buildings.

The use of ceramic facilitated the serial production of architectural elements that had previously been made from stone, mortar or plaster. Serial production has both advantages and disadvantages. The main benefit is the reduced cost, while on the downside, damage to the finished goods may occur if any stage of the manufacturing process is carried out without due care and attention. The presentation covers the risks inherent in the manufacturing process, illustrating with several different examples the kind of damage and deterioration that may result from technical faults.

Many of the buildings where our examples are taken from have, over the past 100–120 years, had some of their architectural ceramics remanufactured, replaced or substituted. These later supplements were made from various compositions of materials, and their appearance and quality can often differ noticeably from the originals. Before starting restoration work, a material-analysing and restoration protocol must be devised specifically for the building in question. If conservation and restoration work is to be properly carried out on Zsolnay architectural ceramics, it is essential to evaluate and systematise the different types of damage that may occur.

During classification, it is important not only to identify and separate the ceramic elements that originate from different stages of restoration, but also to examine the methods used for fixing and bonding the elements at each stage. Conducting a qualitative analysis of the methods of installation and the types of materials used with each method is vital if we are to determine precisely the types of identifiable damage, their causes and their extent, in cases where doubts arise concerning the quality of the elements or the materials used to affix them. Such research can only be carried out comprehensively by taking samples and performing scientific analyses. The material examinations must therefore be planned in accordance with criteria that will benefit the overall quality of the restoration. Damage can take many different forms, such as mechanical damage, weakened fixing or bonding, degradation of the basic material, and other types of degradation.

Investigating the causes of damage:

- Types of damage where there are signs of lower quality material structure or where durability and resistance have visibly deteriorated, possibly as a result of manufacturing faults (cracks, detachments, etc.);
- Damage caused by the weather and other environmental factors (structural deterioration, mechanical impacts, deposits of sediment, etc.), as well as damage caused by leaks or other water intrusion problems (detachments, frost damage, glaze defects, salt damage, etc.);
- Damage resulting from improper materials used during earlier interventions (cracks, fractures, detachments, frost damage, etc.);
- Types of damage typical of indoor ceramics (mechanical damage due to wear and tear, improper use of materials during construction, wall vibrations, water intrusion, etc.), requiring investigation of the physical effects, any subsidence or other building move-



ment, leakage/seepage, and possible manufacturing faults.

Based on the above, professional preparations for the restoration process need to take the following factors into consideration:

- Distinguishing between the different types of architectural ceramics based on the raw materials used in different manufacturing periods, analysing them qualitatively and quantitatively according to each component material, examining their structural quality, and determining their firing temperature;
- Separating the fixing and bonding materials used during installation in accordance with their appearance, and conducting qualitative analysis on them;
- Examining samples of the surfaces of ceramics suffering damage caused by the substrate walls;
- In the case of architectural ceramics with weaker material structures or those produced later as substitutes, inspecting the basic materials that have suffered structural damage;
- Examining signs of salt damage and identifying any probable causes;
- It is also important to decide whether the architectural ceramics in question are expected to be frost resistant, in which case the level of frost resistance must be determined, as must the relationship between freeze-thaw cycles and any damage. If frost resistance is not a requirement, the possibility of conserving the ceramic elements using restoration methods must be explored, to see if it is possible to avoid replacing decorations of this kind.


## Examining the condition of interior architectural ceramics

Besides identifying the different types of damage, examinations of interior architectural ceramic decorations are also intended to facilitate comparisons between the material structure of the original ceramics and that of later additions. Another consideration is the quality of the render on the substrate surfaces. During earlier restorations and renovations, it is possible that elements of different types were installed, which can result in remarkably large discrepancies in terms of both material structure and aesthetic quality.

Interior ceramics are prone to becoming detached over larger areas, which allows us to presume either that the quality of the render on the wall was not good enough, or that the continuous presence of moisture has caused structural impairment or bulging. In such cases it must also be determined whether the ceramics have been affected by the salts from the walls, or whether the ceramics became detached as a result of poor quality building materials or perhaps inexperienced installation (such as failing to remove the dust from the walls or failing to wet them sufficiently). It is particularly important to examine surfaces of this kind, because this may impact on the quantity of ceramics that have to be dismantled and may also require treating the walls in some way before reconstruction is commenced.

After the results of the material inspections have been interpreted, the restoration schedule needs to be drawn up. The methods and materials used for the restoration must be supported in every case with thorough justification that assesses their suitability for treating the specific types of damage.

The phenomena outlined above are illustrated with examples taken from our experience in restoring a variety of buildings.



Among the examples are the Cifra Palace in Kecskemét, and – in Budapest – the Schmidl tomb in Kozma Street Cemetery, Gellért Baths, Olof Palme House, the Academy of Music, and the main entrance to the Museum of Applied Arts.



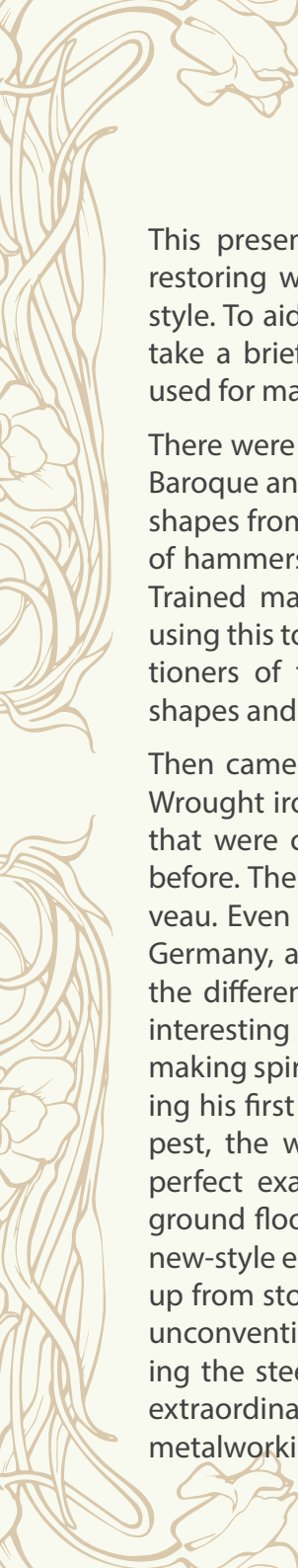
## Restoring works of wrought iron from the Art Nouveau period

Presenter: András Jeges, restorer of decorative ironwork, collaborator: Eszter Szatmáriné Bakonyi, restorer of fine metalwork

Before starting any restoration task, it is important to clarify where the artwork will end up after the “interventions” and what its function will be. Will it be in a museum display case, in a private home, indoors or outdoors? Or will it perhaps continue to be used as a functioning object?

In the case of works of wrought iron that are to be displayed in a museum, the method of restoration may differ from that used with objects exposed to the open air. The preliminary evaluations and examinations are the same, of course, and the methods of cleaning are also often identical. Items that are no longer in use can be repaired or supplemented using other materials (plastics); when reinforcing such items or affixing additions, it is not always necessary to use metalworking techniques. It is easier to provide wrought iron objects with long-term protection against corrosion when they are kept in a controlled environment.

Restoring historic wrought iron objects (fences, gates, door fastenings, bolts, window grilles and other decorative building elements) that will continue to be in regular use is, in many instances, a complex task. To ensure that such objects can still be used for their original function, the restorer needs to have additional specialist knowledge. Any deficiencies or defects need to be replaced or repaired so that the objects regain their original strength and stability and are fully functional once more. Iron objects exposed to the constantly changing open-air environment need to be treated with the most up-to-date forms of protection against corrosion.



This presentation deals with the problems and difficulties of restoring works of wrought iron produced in the Art Nouveau style. To aid understanding of the subject, it is important first to take a brief overview of the distinctive technological solutions used for making wrought iron in the different style periods.

There were certain typical tools associated with the Renaissance, Baroque and Rococo styles, which were used to forge the desired shapes from the raw iron. The basic tools were the anvil, a variety of hammers, some anvil extensions, cutters and engraving tools. Trained masters and their assistants could perform their tasks using this toolset. Virtually without the need for templates, practitioners of the art of “welding with fire” made different spiral shapes and acanthus leaves on an almost daily basis.

Then came Art Nouveau, which turned everything on its head. Wrought iron began to be used to produce decorative elements that were completely different from everything that had gone before. There were many different “movements” within Art Nouveau. Even their names were different, such as the Jugendstil in Germany, and the Secession in Hungary and Austria. As well as the different names, there were also different decorations. It is interesting to imagine a metalworker with vast experience at making spirals, acanthus leaves, shells and so on, suddenly receiving his first pattern for something utterly revolutionary. In Budapest, the works of wrought iron fitted in Gresham Palace are perfect examples of the change in progress at the time. The ground floor consists mostly of traditional forms, apart from the new-style embossed elements on the “peacock” gate. As we move up from storey to storey, we are met with increasing numbers of unconventional motifs. Finally, at the very top, the doves crowning the steel supports above the suspended walkway are quite extraordinary iron “sculptures”, created by the genius master of metalworking of the day, Gyula Jungfer.

Overall, the skilled hands that had grown accustomed to making spirals and similar motifs out of wrought iron revelled in the opportunity to make new patterns (such as doves) for Art Nouveau buildings. This has repercussions for restorers working today, because it is not enough to use traditional techniques when supplementing a piece of metalwork – the restorer also needs to be acquainted with the specialist expertise of an ornamental blacksmith. It goes without saying that any conservation intervention should always strive to preserve the original artwork and respect the craftsmanship of its creator.

This presentation includes information about the restoration of the wrought-iron main gate of the headquarters of MKB Bank (formerly the Hungarian Royal Officers' Casino) on Váci Street in Budapest, the restoration and reconstruction of the "peacock" gate of Gresham Palace, and restoration work on the wrought iron elements in the main entrance of the Museum of Applied Arts. We will also take a look at the restorations of the Art Nouveau aluminium gate of the Commercial Vocational Grammar School on Vas Street and the wrought-iron fence of Kőrössi Villa.



## The restoration of Art Nouveau murals and decorative paintwork

Presenter: Dr habil. István Bóna, collaborator: Dr Brigitta Mária Kürtösi

The restoration of Art Nouveau murals is, technically speaking, hardly different at all from the restoration of works from any other age. Restoration/conservation means that works handed down to us are preserved in their original appearance, using original materials, and then passed down in this way to posterity. This approach is to be followed irrespectively of style or period, a standpoint that is contradicted by only a few contemporary statements.

Taste and fashion can sometimes be the main barrier to putting this approach into practice when it comes to works from a previous era. In the 1960s and 1970s, decision-makers in Hungary regarded Art Nouveau as a worthless or even a deleterious aesthetic phenomenon, and far from conserving such works, the policy was actively to destroy them. As a result of this policy, the monument conservation authority at the time voiced no objection when the paintings by Sándor Nagy in the chapel of the Lipótmező Psychiatric Institute were destroyed, and even opted not to prepare any official documentation of the works before their destruction. The works were scraped off the walls, and the only records we have of them are a few photographs taken by some dedicated volunteers.

From a technical point of view, the Art Nouveau period is full of contradictions. Autonomous artworks were sharply distinguished from decorative paintwork in terms of both theory and technique. Autonomous works of art were made by notable artists using expensive materials and refined techniques. In the case of decorative paintwork, on the other hand, the artist's involvement was mostly limited to the design. The painting itself was carried out using less costly materials and simpler techniques, by beginner artists, decorative painters or even general decorators, depend-

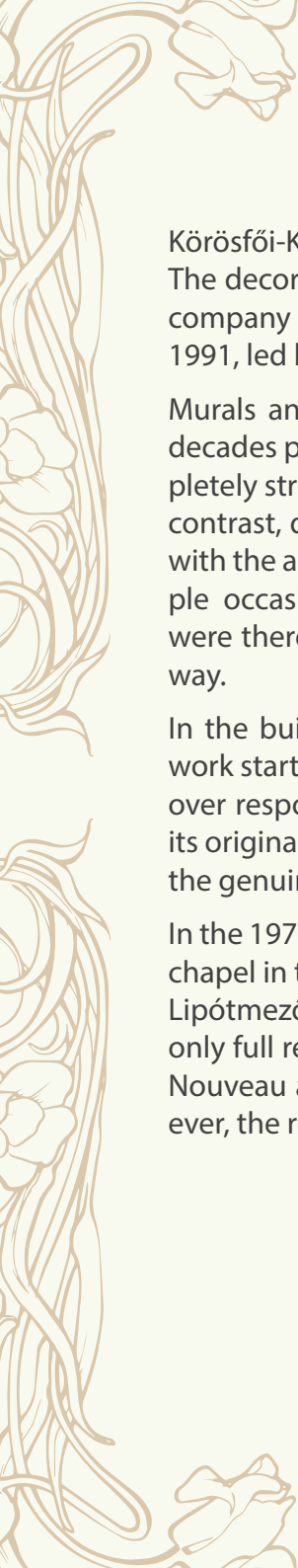
ing on the degree of detail. Artists tended in the main to use the standard methods of the time, although they did make attempts to deviate from these, partly by reviving tried and tested techniques from the past, and partly by employing the latest techniques and materials. These are the contradictions that pose the greatest challenges to restorers dealing with works from this period.

When wall paintings were restored, until the middle of the twentieth century there was a distinct line between autonomous artworks (murals) and decorative art. Only the former was regarded as worthy of conservation, while decorative paintwork was simply painted again. The repainting was usually carried out by decorative artists, or even painter-decorators, while restorers concentrated on the “artworks”. It is for this reason that we have in effect lost a large part of our eclectic and Art Nouveau painted heritage. The copies are of low value, not only because it is impossible to make a perfect reproduction of an earlier work, but also because the repainted decorations are not authentic elements of the original building, regardless of how well executed they may be.

The main task we face today is to make it generally understood that the interiors of buildings are at their most valuable when all the artworks and decorations within them are viewed as a whole; it is therefore essential to conserve as many of the elements as possible in their original form. As the profession of restoration and conservation develops and improves, there are increasing chances of this happening.

This presentation focuses on three typical cases.

Restoration work on two Art Nouveau paintings in the Hunters’ Hall of the Hungarian Parliament Building (Fishing on Lake Balaton in the Fifteenth Century and Bison Hunting, both by Aladár



Körösfői-Kriesch) was carried out completely in line with tradition. The decorative paintwork, meanwhile, was repainted by the state company of the period. The restoration work was carried out in 1991, led by Miklós Szentkirályi.

Murals and decorative paintings often undergo changes as the decades pass. It has long been the tendency for murals to be completely stripped back and restored to their original appearance. By contrast, decorative paintwork has usually been renovated in line with the appearance that emerged after being repainted on multiple occasions, resulting in darker, more subdued colours than were there originally, and often with their motifs altered in some way.

In the building located in the Pesterzsébet district of Budapest, work started out in a similar spirit, but the restorers gradually took over responsibility for the entire surface. The interior, restored to its original appearance using original materials, now clearly shows the genuine characteristics of an Art Nouveau building.

In the 1970s, the works painted by Sándor Nagy on the walls of the chapel in the National Institute of Psychiatry and Neurology in the Lipótmező area of Budapest were deliberately destroyed. Here, only full reconstruction provided an opportunity to restore its Art Nouveau appearance. When the institute was closed down, however, the reconstruction work was abandoned.





**Budapest, 2017**

