

BULLETIN

March 2026

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Message from the President

2026 will be an important year for ISCARSAH, as elections for a new Bureau will take place. A new term always brings renewed energy, and it has been a privilege to work with the current Bureau members. It is also impressive to see so many colleagues joining ISCARSAH.

As the Working Groups (WGs) conclude their work, the response to the creation of new WGs has been remarkable. The Bureau thanks all members for their engagement and proactive spirit. A call to action for greater involvement in the Committee is being issued.

We thank the WG on Climate Change and Adaptation for their important deliverable, the paper "Preserving the Past, Protecting the Future: A Framework for Sustainable Climate Adaptation of Heritage Structures" published in the International Journal of Architectural Heritage (<https://tinyurl.com/57k3r4rt>).

We also face an important milestone, as our Guidelines were approved this February 2026 to be considered a doctrinal text by ICOMOS. This will require additional effort and perseverance from all of us.

Our Annual General Meeting in Lausanne was highly successful, with 70 participants attending in person and 30 online, alongside technical and cultural visits. I personally thank Dr. Savvas Saloustros for his support in organizing this excellent event. The Bureau also created two new awards. The New Day for Conservation Award recognizes an early-career professional who has taken on greater involvement in ISCARSAH and made a noteworthy impact over the past year. The Founder's Award recognizes major contributions leading to significant deliverables over the past year. This year, the Bureau honored Nicoletta Bianchini for her enthusiastic involvement in the 2024 Webinars and Pere Roca for steering the complex, multi-year process that resulted in the approval of the updated ISCARSAH Guidelines.

In this Bulletin, you will find information about the ISCARSAH Annual General Meeting in Lausanne, the ISCARSAH Webinar series, and the ICOMOS Annual General Assembly in Nepal. You will also find notes on catastrophes and architecture, on the influence of manufacturing on clay bricks and on the importance of NDT for structural assessment. We thank all authors for their valuable contributions.

Preparations have begun for the ISCARSAH AGM in Lisbon (October 2–3). More news will follow soon, and I look forward to meeting you again at our annual gathering

Paulo B. Lourenço

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Catastrophes (or destruction) and Architecture

Maria Bostenaru Dan

"Ion Mincu" University of Architecture and Urbanism, Bucharest, Romania

In the March issue of last year, the reconstruction of Notre-Dame Cathedral was noted. The ongoing works highlight both the cultural significance of historic monuments and the complex risks associated with their conservation. In recent decades, several heritage structures have suffered major damage during restoration campaigns, including the Manège militaire in Quebec City in Canada, the Banu Manta City Hall in Bucharest, Romania, the Lutheran Church in Bistrița, Romania, and, subsequently, the Glasgow School of Art. These events underline the necessity of strengthened preventive measures, particularly regarding fire safety during restoration works.

Comparable reflections arise in relation to the Convent of Carmo, partially destroyed by the 1755 earthquake and preserved as a ruin, representing the impact of natural hazards on cultural heritage. In contrast, the Stari Most in Mostar exemplifies destruction caused by armed conflict and the subsequent challenges of reconstruction and reconciliation.

A further example is Casa Păucescu in Bucharest, Romania, damaged during the 1989 Revolution. Its current architectural expression—where contemporary glass structures rise among preserved ruined walls—creates an intermediate condition between the conserved ruin of Convent of Carmo and the reconstructed bridge of Stari Most. This approach reflects an alternative strategy of integrating memory, loss, and renewal within the urban fabric.

Taken together, these cases illustrate the diverse range of hazards affecting heritage sites—natural disasters such as earthquakes, human-induced events including war and civil unrest, and mixed hazards such as fires occurring during restoration. They collectively emphasize the importance of integrated risk assessment, preventive conservation strategies, and resilient reconstruction planning in safeguarding cultural heritage for future generations.



Figure 1: Stari Most, March 2025



Figure 2: Notre Dame, April 2025



Figure 3: Current headquarters of the Romanian Union of Architects, former Casa Păucescu (2010)

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ICOMOS Annual General Assembly (AGA) and Scientific Symposium 2025

Paulo B. Lourenço

The Scientific Symposium was held from October 15 to 18 around the theme “Perceptions of Heritage and Resilience”. Here, a Special Session on “Charters, Guidelines and Strategic Plans” was held, including:

- International Charter for the Conservation of Earthen Architectural Heritage, Mariana Correia
- The ISCEAH Earthen Conservation Strategic Plan, Claudia Cancino
- ICOMOS Guiding Principles on Protecting Cultural Heritage from Damage and Loss caused by Fire, Doug Evans
- 2022 ICOMOS International Cultural Heritage Tourism Charter, Celia Martínez
- The Iscarsah Guidelines - 2024 update, Paulo B. Lourenço
- Initial thoughts on the Disaster Risk Management Charter, Kerime Danis; Zeynep Gul Unal

The ICOMOS AGA 2025 was held in Lumbini, Nepal between October 11 and October 19. Lumbini was inscribed on the List of World Heritage in 1997 as the birthplace of the Lord Buddha, being one of the four most important pilgrimage sites of Buddhism. ICOMOS also celebrated its 60th anniversary in this occasion (Figure 1).

The convenor of the event was an Iscarsah member, Kei Weise, and four other Committee members were present (Paulo Lourenço, Arun Menon, Imola Kirizsan and Cyrill von Planta - also ICOMOS treasurer) (Figure 2). In total, more than 300 people were present in different parts of the event. Between October 11 and 14, Statutory ICOMOS meetings were held, including: Bureau, Board, Regional, National Committee, Workgroup and two ISCs meetings; the Scientific Council Meeting; the Advisory Committee Meeting; and the ICOMOS General Assembly itself. Iscarsah proposals for name change and adoption of the Guidelines as a doctrinal text were presented in the Scientific Council and Advisory Committee. Further information on this is due on February 2026 after the ICOMOS Board Meeting.

The speakers shared the most relevant learnings from these processes, including organizational and language challenges, the framework for detailed vs. conceptual documents, the need for a procedure for revising existing charters, and how strategic planning, impact assessment and training may be relevance for ICOMOS Triennial Scientific Plan on Disaster and Conflict Resilient Heritage | Preparedness, Response, Recovery (Figure 3).

On October 19, a final ISC Cluster session was held in Kathmandu City Hall, including CIPA, ICORP, Iscarsah and ISC Wood. The objective was to remember 10 years of the Gorkha earthquake in Nepal and to further contribute to the ICOMOS Triennial Scientific Plan. The morning session was followed by impressive visits to the sites affected by the Gorkha earthquake (photo). Ultimately, it was a great event (sincere thanks and congrats to Kay Weise and the local organizers) and we need to reflect on how Iscarsah may further contribute to the future ICOMOS General Assemblies.



Figure 1: AGA Nepal participants



Figure 2: ISCARSAH@AGA Nepal



Figure 3: Special Session on “Charters, Guidelines and Strategic Plans”

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2025 ISCARSAH Annual General Meeting, Lausanne, Switzerland

Tom Morrison

Iscarsah members gathered in beautiful Lausanne, Switzerland, for our 2025 AGM this past September. We were hosted by member Savvas Saloustros and his team, with the provided meeting and tours linked to the 2025 SAHC Conference. Both the AGM and the SAHC Conference were held on the EPFL University Campus (Figure 1).



Figure 1: Technical presentation with the train station seen through the windows

This year's AGM had a record high number of attendees with 71 people attending in person and 30 attending virtually. Many of those attending started the day together with the technical tour at the Lausanne train station where eight billion swiss franc (8.8 billion Euro) in construction is happening that will double the current passenger capacity of the station. A technical presentation by Julien Leuenberger and David Garcia Cueto talked about the challenges and solutions of doing such large scale work inside the historic surrounding; while simultaneously meeting the schedule demands of the railway on a main line. Discussion was wide ranging, at one point allowing us insight into how the Swiss legal system can interact with major construction projects; a reminder of how many complex variables influence our various construction industries. Our presenters were generous and knowledgeable, without being intimidated by any questions we had for them (Figure 2, Figure 3).



Figure 2: Tour at front of station (Organizers made sure they could find Iscarsah members with bright colours.)



Figure 3: Tour inside station (Some jokes on the challenge of 'leading' a group of experts on a tour – we tend to be a curious bunch.)

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Following the technical tour there was a chance for everyone to get a lunch and catch the metro (or a taxi) in the mountain city of Lausanne. One of the metro stations closest to the central train station has platforms at considerable slope to allow a more practical design around the area, but I digress. People travelled together to the EPFL campus for our meeting (Figure 4).



Figure 4: Final discussions of the station tour. Would be a paper on it's own to learn what each member is thinking

Our AGM was a full house, with only a few open seats left open in the room. We had a lot to cover, which as been provided in our meeting minutes. During the meeting we were able to celebrate Nicolledda Bianchini as an earlier carrier professional for her involvement with the 2024 Webinars, as well as recognise Pere Roca for leading the impressive multi-year project to update the Iscarsah Guidelines (Figure 5 - 7).



Figure 5: Full house for the AGM



Figure6: Nicolledda being recognised. I may have been cropped out of this one...



Figure7: Paulo L. recognising Pere

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From there our day got even more busy. The local team had gotten for us two separate tours of the Lausanne Cathedral (since we were such a large group). The earlier part of the cathedral began in 1170, and the current form towers over most the city. For those musically inclined the pipe organ was inaugurated as recently as 2003, and is the first in the world to contain all four principal organ styles; of which none can I play with any ability. (Figure 8, Figure 9).



Figure 8: Cathedral tour, and a general appreciation of visual aids



Figure 9: Cathedral tour interior

From here many of us travelled back down the hill for the SAHC reception, occurring near the train station, and back up the hill to rebuild all the lost calories at the Iscarsah dinner. The dinner highlighted Swiss Fondue as we took over the small L'Eveche restaurant neighboring the Cathedral. A welcome opportunity for members new and old to catch up. Many of us were fortunate to remain for the SAHC conference, continuing discussions and seeing more areas for collaborations (Figure 10).



Figure 10: A unique city and a chance to see everyone for which I feel fortunate - thank you to organisers

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The ISCARSAH Webinars

Evan Speer

The ISCARSAH Webinars Team is pleased to report strong engagement and exciting developments in our ongoing mission to advance and share heritage conservation knowledge worldwide.

Our recent webinar, "Analysis to Action: Current ISCARSAH Initiatives," drew an active audience of over 80 participants who joined us to hear directly from our four working groups on Climate Change Impacts on Heritage, Building Codes and ISCARSAH Principles, Cataloguing of Masonry Issues Worldwide, and Lessons Learned from Recent Projects. The session showcased how ISCARSAH is transforming members' expertise into practical advances for heritage conservation, followed by an engaging Q&A discussion that reflected the global community's commitment to preserving our architectural heritage.

Looking ahead, the Webinars Committee is developing an exciting collaboration with the ICOMOS Wood Committee for 2026. This partnership will deliver a series of webinars exploring critical topics in wood conservation, including important factors affecting timber heritage and to discuss state-of-the-art approaches to wood conservation and repair. This collaboration represents our continued commitment to addressing the diverse material challenges facing heritage structures worldwide.

As always, our recent webinars are available on our YouTube channel. We encourage members and interested professionals to subscribe and share these resources with colleagues working to preserve our shared architectural heritage. Please forward any inquiries or ideas for upcoming webinars or collaborations to Evan Speer (evan.neal.speer@gmail.com)!

Discussion Moderator



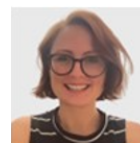
Evan Speer
Engineer, USA



**Building Codes and ISCARSAH Principles:
Harmonization of Safety Issues**
Mustafa Humo
Engineer, Bosnia and Herzegovina



**Examples: Lessons Learned From
Recent Projects**
Kai Weise
Architect and Planner, Nepal



**Climate Change
And Adaptation**
Rebecca Napolitano
Engineer and Professor, USA



**World Catalogue
Of Masonry Types**
Filippo Casarin
Engineer, Italy

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Moulded vs Extruded Solid Fired-Clay Bricks: Why Manufacturing Matters in Masonry Assessment

Albert Cabané Cañas, Universitat Politècnica de Catalunya_BarcelonaTech

In the assessment of existing masonry structures, material characterisation is often initiated through rapid typological assumptions. While this approach is sometimes unavoidable in practice, grouping moulded and extruded units under the single label of “solid fired-clay brick” may introduce a non-negligible bias. The manufacturing route can shape the unit's microstructure and, in turn, its directional response, so that anisotropy and the associated cracking mechanisms may differ between production techniques. Notably, practice typically distinguishes clearly between calcium-silicate, concrete and ceramic units; yet, within the ceramic category, the production technique (moulding versus extrusion) is seldom stated explicitly, despite its potential relevance to mechanical behaviour.

Experimental evidence indicates that manufacturing can affect the compressive behaviour of fired-clay bricks. When specimens are tested along the three principal unit directions (length, width and thickness), while controlling for geometric effects such as slenderness, anisotropy may be observed, and its magnitude can depend on whether the unit is moulded or extruded. This is not merely a material issue: the measured compressive strength is also sensitive to the testing protocol. End-surface preparation procedures specified by different standards (e.g., grinding, capping, ecc) influence the frictional restraint that develops at the platen-specimen interface and, therefore, the apparent strength. Importantly, a given preparation method does not necessarily affect all bricks in the same way; its influence may differ between moulded and extruded units, plausibly reflecting manufacturing-related differences in surface characteristics and internal texture. Beyond surface preparation, the broader test configuration can further modify the experimentally measured strength, for instance through specimen slenderness and the adoption (or not) of stacking procedures.



Handmade moulded brick manufacture



Brick extrusion process, prior to cutting

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Handmade solid fired-clay brick



Extruded solid fired-clay brick



Handmade solid fired-clay brick specimen tested in compression with a PTFE bearing layer to minimise confinement



Extruded solid fired-clay brick specimen tested in compression with a PTFE bearing layer to minimise confinement

This perspective is further supported by the role of tensile resistance in compressive failure of masonry. Under uniaxial vertical compression, cracking patterns associated with tensile splitting of the bricks are commonly reported, implying that the tensile strength of the units can influence the compressive capacity of the assemblage. In this context, reported tensile-to-compressive strength ratios for fired-clay bricks have been shown to vary with manufacturing route; for example, approximate ratios of 0.10 have been reported for moulded bricks, whereas values around 0.06 have been observed for extruded bricks. While brittleness cannot be inferred from a single ratio alone (as it also depends on factors such as stiffness, confinement and post-peak softening), a lower tensile-to-compressive ratio suggests a smaller relative margin to tensile cracking under compressive loading, which may contribute to a more abrupt transition to cracking in splitting-dominated responses.

These trends may be consistent with known features of each production route. Moulding typically involves higher water contents and may lead to a less oriented microstructure, often with higher porosity; extrusion, by contrast, can promote preferential alignment and more pronounced directional effects. In addition, extruded products have been reported to exhibit potential weak planes linked to lamination or delamination, which can adversely affect load-bearing behaviour. Overall, these considerations support explicitly distinguishing moulded and extruded typologies in mechanical characterisation. In any case, it would be advisable to expand the experimental evidence base and to consider these factors explicitly in future research and in the assessment of existing brick masonry structures.

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The role of NDT in the seismic assessment of historical structures: the Venetian dockyards (Neoria) of Heraklion, Crete

Federica Greco, Chrysl Aranha, Savvas Saloustros, Javier Ortega and Marieta Núñez-García - FENEC

The Neoria, or Venetian Dockyards, are located in the heart of the port of Heraklion (Greece) and offer visitors arriving by sea their first impression of the city (Fig. 1). Built during the Venetian occupation of Crete (13th–17th centuries) to facilitate shipbuilding and maintenance activities, they formed a key part of the Republic of Venice's naval infrastructure in the Eastern Mediterranean. Today, the Neoria are in a semi-abandoned state and detached from city life. The high seismicity of Crete, combined with the deteriorating condition of the dockyards, underscored the need for structural assessment to evaluate their long-term stability and inform conservation strategies.

Structural analysis of existing structures is often challenged by uncertainties related to constructive, geometrical, or material characteristics. This work shows how such uncertainties, difficult to overcome via visual inspection or engineering judgement alone, can be reduced by using non-destructive testing.

The complex geometry of the Eastern and Western Neoria was captured in 3D numerical models, which were later calibrated using results of the non-destructive testing campaign, namely sonic testing and ambient dynamic identification. Sonic tests provided quantitative information on the elastic properties of the materials and their variability (Fig. 2), while sonic tomography helped assess the internal wall morphology of the pillars along their height. Dynamic identification provided data on the modal shapes and frequencies of the structures. All information was essential for calibrating the numerical models and provided key insights regarding the influence of material properties, boundary conditions, and existing damage on the modal parameters of the two structures (Fig. 3).

The calibrated models were then used to assess the seismic response of the structures. Nonlinear static pushover analyses simulated seismic loading in different directions, allowing to evaluate damage progression and potential failure mechanisms.

The structural response of early non-calibrated models was compared with that of the calibrated ones (Fig. 4). Although the comparison of the Eastern Neoria models showed only minor differences, the divergence between the two models in the case of the Western Neoria was more pronounced. For the latter, the calibration process revealed that adjustments in the degree of connection between the vaulted system and adjacent structures were needed, which significantly influenced the seismic response of the structure. This outcome highlights the critical role of calibration in achieving an accurate and representative 3D model and demonstrates how on-site investigations with NDT can help reduce uncertainties in the structural assessment of existing structures.

The restoration project was exhibited during the 2025 Biennale Architettura of Venice at the Greek pavilion to foster discussion on how historical structures can become a living part of modern urban landscapes through adaptive reuse, while respecting the original materials and structural skeleton.



Figure 1: Photo of one of the barrel vault structures of the Venetian dockyards at Heraklion Crete (Greece), by C messier, Wikimedia Commons, licensed under CC BY-SA 4.0



Figure 2: Application of direct sonic test results showing the wave velocity in m/s overlaid on the west elevation of three damaged piers of Eastern Neoria, along with their corresponding crack maps.

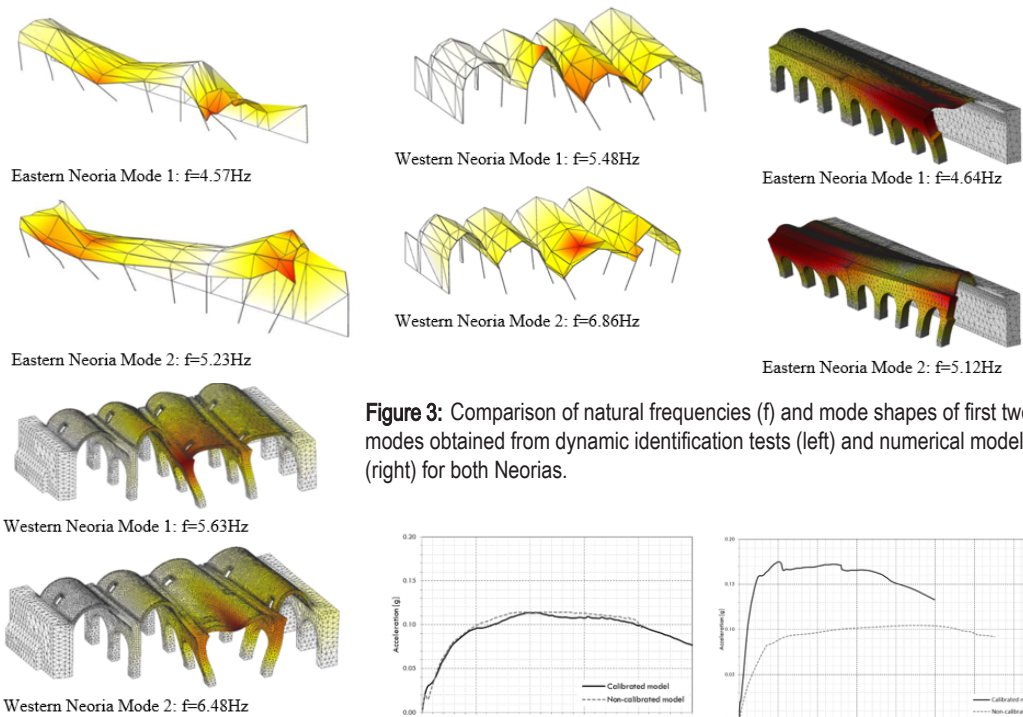


Figure 3: Comparison of natural frequencies (f) and mode shapes of first two modes obtained from dynamic identification tests (left) and numerical model (right) for both Neorias.

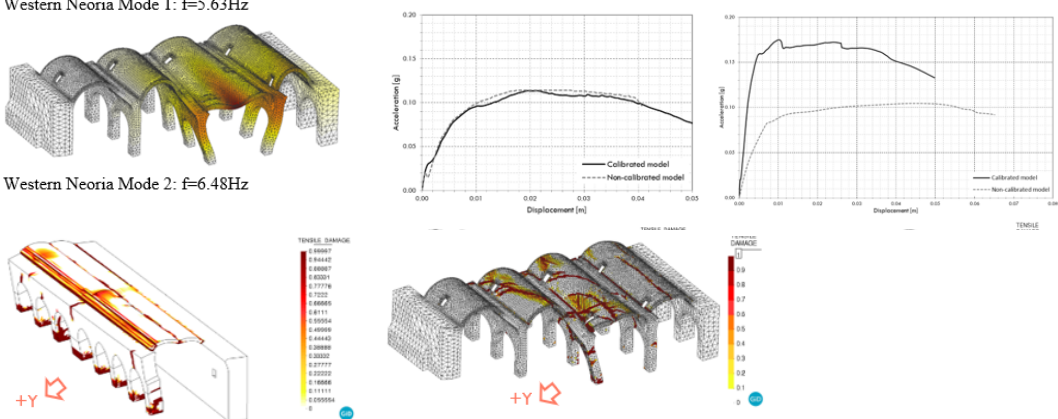


Figure 34: Pushover analysis in +Y direction for the initial model and calibrated model of Eastern (left) and Western Neoria (right). Load-displacement diagram and views of the tensile damage distribution in the structures, where dark red is fully damaged (x50).

References:
Greco et al
(2026):
Calibration of
Numerical
Models for
Seismic Analysis
of Historic
Masonry
Structures: The
Venetian
Dockyards
(Neoria) of
Heraklion.

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