



## BULLETIN

September 2024

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### Message from the President

The Annual General Meeting (AGM) of ISCARSAH is to be held in Sinaia and Bucharest, in September 25-27. A big thank you to our Romanian host for the great organization, Radu Cazamir! We are looking forward to a great event, technically and socially.

The last year has been rewarding, with the preparation of a triennial activity plan, the finalization of the ISCARSAH Guidelines review, hopefully to be approved in this AGM, stabilization of the social media activities and definition of firm grounds for the Bulletin. We are looking forward to seeing the progress of the Working Groups, involving more than half of our members.

A second webinar on "ISCARSAH Perspectives on Fire Protection of Heritage Structures" on April 16, 2024, was successfully organized, with 100 attending. New emails domains for the president and secretary have already been created as president@iscarsah.org and secretariat@iscarsah.org.

ISCARSAH contributed for the Venice Charter Social Media Series by ICOMOS Communications Coordinator, by providing potential questions for several articles. The European Cost Action partly linked to ISCARSAH was not approved and possible resubmission is being considered.

Aspects pending for the new Bureau year are:

- ➤ Duly integration of the National Scientific Committees with ISCARSAH is still under evaluation and a productive meeting was held with the Türkiye Committee.
- ➤ A protected area for the members is under construction. This will greatly simplify our future operations and membership.

Finally, make soon your plans for the next year AGM in Lausanne during SAHC 2025

https://sahc2025.epfl.ch/

Opening abstract submission: May 10, 2024 - currently open



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Paulo B. Lourenco

### Portraits of Iscarsah



A dedicated member
of ISCARSAH
Prof. Ramiro Sofronie

Professor Ramiro Sofronie, a distinguished member of ISCARSAH since 1998

An active ISCARSAH member for 27 years

Professor Ramiro Sofronie is a distinguished member of ISCARSAH (International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage) since he joined the organization in 1998. His involvement began at a time when the committee was expanding its focus on the interdisciplinary approach to the conservation of historic structures, a mission that resonated deeply with his professional and academic pursuits.

An accomplished scholar, Professor Sofronie graduated with honors as the valedictorian of the Politehnica University of Timişoara in 1958. He later earned his PhD under the guidance of Aurel Beles, a notable figure who mathematically demonstrated in 1936 that earthquakes are jerks rather than tremors. His early career included hands-on experience at construction sites in Braşov, followed by two years of project work on the construction of a laminated pipe factory in the Democratic People's Republic of Korea.

In 1970, Professor Sofronie began his academic career, advancing from the position of assistant lecturer to eventually becoming an emeritus professor. His dedication to education and research was recognized through honorary decorations, including the titles of Doctor Honoris Causa and Honorary Member of the Academy of Technical Sciences. Since 1996, he has held the prestigious position of Chair of UNESCO Chair No. 177, a role he continues to lead. He has also guided 25 engineers to achieve their PhDs in Civil Engineering.

As an active ISCARSAH member for 27 years, Professor Sofronie has participated in numerous conferences, workshops, and collaborative projects all around the world. His work is characterized by a commitment to safeguarding the structural integrity and authenticity of heritage buildings, making him a respected figure among his peers. From 1977 to 1986, he also served as a technical advisor to Patriarch lustin Moisescu, contributing his expertise to the preservation of ecclesiastical heritage.

We extend our deepest gratitude to Professor Ramiro Sofronie for his unparalleled dedication and invaluable contributions to the fields of structural analysis, architectural heritage conservation, and education. His tireless commitment to preserving the integrity of our cultural heritage, coupled with his profound influence on generations of engineers and scholars, stands as a testament to a remarkable career that continues to inspire and guide us all.

Radu Cazamir



**HISTORICAL** 

**STRUCTURES** 

WORLDWIDE



# ISCARSAH Hosts "Historical Structures Worldwide": A Premier Gathering on Architectural Heritage Restoration

We are pleased to announce that ISCARSAH (The International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage), a technical committee of ICOMOS (International Council on Monuments and Sites), will be hosting its first-ever conference in Romania. This landmark event, titled "Historical Structures Worldwide," will take place on September 26, 2024, in Bucharest.

The conference will bring together over 120 participants, including more than 30 leading experts from over 21 countries. Attendees will engage in a series of highly insightful presentations focused on global architectural heritage. These sessions will explore innovative techniques and methods for the restoration of historic structures, offering a unique opportunity for knowledge exchange among professionals in the field.

This gathering is particularly significant in the context of worldwide efforts to protect and preserve architectural heritage. By fostering collaboration and sharing expertise, the conference aims to advance the global dialogue on safeguarding our shared cultural legacy.

We are excited about the valuable contributions this conference will make to the ongoing mission of promoting and protecting architectural heritage worldwide.

26 September 2024, Bucharest

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### ISCARSAH Webinar on Fire Protection of Heritage Structures

The webinar workgroup organized a session on fire protection of Heritage Structures on April 16th 2024. Four distinguished speakers shared their experiences working on recovering from, and preventing fires at heritage buildings around the world. Prof. José L. Torero shared his observations on the recent fire at the Cathedral of Notre Dame of Paris, asking the pointed question whether it is acceptable to be so unprepared when dealing with heritage structures of immeasurable value.

Chris Marrion subsequently discussed the low-tech fire risk reduction approach taken at Amarbayasgalant Monastery in Mongolia focusing on reducing ignition sources, removing combustible materials and working the monks to create a detection and notification strategy.

Prof. Mehrdad Hejazi spoke about fire protection measures at the World Heritage Site of Naqsh-i-Jahan Square in Isfahan, Iran. He presented the detailed assessment methodology used for the immense and complex site and the steps taken to create guidelines, evacuation procedures and a fire extinguishing plan.

Andreas Galmarini finally spoke about the reconstruction of Wangduephodrang Dzong in Bhutan. The local power center built from stone, rammed earth and timber burned down in June 2012 and was subsequently rebuilt combining traditional techniques enhanced with modern elements. He discussed how the reconstruction included seismic retrofitting features like base isolation and presented, amongst others, how the firefighting was improved.

A brief discussion with questions taken from the audience was led by webinar moderators Prof. Tim Michiels and Nicoletta Bianchini. Steve Kelley and Tom Morrison provided organizing help and technical support behind the scenes.

Tim Michiels



video of the webinar can be reviewed at this link: https://youtu.be/uB4gFr92Xpw?feature=shared





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### ISCARSAH WORKING GROUPS - Progress Notes

#### Climate Adaptation Working Group (CAWG)

As part of the International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage (ISCARSAH), the Climate Adaptation Working Group (CAWG) was formed as a consortium of international experts on sustainable climate adaptation and heritage structures from North America, Australia, Europe, and Asia.

This year, CAWG has been collaborating on a white paper tentatively titled "Preserving the Past, Protecting the Future: A Framework for Sustainable Climate Adaptation of Heritage Structures." Building upon ISCARSAH's recently published guidelines, which emphasize the principle of minimal intervention and the importance of balancing traditional and innovative techniques, the CAWG's paper addresses the critical challenge of integrating climate resilience into heritage conservation practices. The work acknowledges the increasing threats posed by climate change to cultural heritage sites worldwide, including extreme weather events, landslides, flooding, droughts, and wildfires.

A key contribution of the paper is a decision-making framework that expands on the ISCARSAH guidelines' emphasis on case-by-case evaluation. This framework considers multiple factors:

- Conservation: Assessing impacts on authenticity, cultural significance, and historical integrity in line with ISCARSAH's principle of minimal intervention.
- >Resilience: Evaluating hazard mitigation effectiveness, durability, and adaptability to future climate
- <u>>Sustainability:</u> Examining resource use, carbon footprint, and long-term environmental impact, reflecting ISCARSAH's focus on the "whole life cycle" of structures and interventions.
- >Feasibility: Considering cost, technical complexity, and regulatory compliance.
- >Socio-cultural Impact: Analyzing community acceptance, educational value, and economic effects.

The framework aims to provide conservators with a structured approach to making informed decisions that balance preservation needs with environmental responsibility while adhering to ISČARSAH's guidelines. The paper also addresses the challenges posed by multi-hazard scenarios, where heritage structures face concurrent or cascading threats. It emphasizes the need for flexible, adaptive strategies that can evolve as our understanding of climate change impacts grows and as new technologies become available while still respecting the principles outlined in the ISCARSAH guidelines. The full white paper is set to be submitted in late 2024 or early 2025.

Rebecca Napolitano

#### Building Codes and ISCARSAH Principles – Harmonization of safety issues

The main focus of the Working Group is to analyse the possibility of harmonization of the safety concept of historical structures and the one required by the codes for new buildings.

A complex online survey has been prepared in the period December 2023 to March 2024. The survey was launched in April 2024 and the responses from 28 countries and 5 continents were received by the end of July. The first run of the survey-response analysis has been performed and the respective report prepared.

The topics explored comprise: (A) Personal data, (B) Partial-intervention approach for seismic assessment,

(C) Extra-code approach for seismic assessment, (D) Lower-level safety approach for seismic assessment, (E) Authorities, codes, recommendations and guidelines, (F) Harmonization of Building Codes and ISCARSAH Principles, and (G) Safety of historic structures against other loadings (actions)

Several supportive documents (codes, recommendations and guidelines) such as FEMa, SIA 269, IEBC etc. are used in certain countries by engineers dealing with historic structures. This information requires additional research and comparative analysis concerning the safety issues.

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The total number (53) and the quality of the responses as well as their geographical distribution provide a solid basis for further elaboration. Mustafa Humo

2017-2021

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#### **ISCARSAHNationalCommittees**

### ISCARSAH Türkiye

A meeting was held with ISCARSAH Türkiye Bureau (6 participants) and the President of ICOMOS Türkiye also attended the meeting (he is an ISCARSAH member, Umut Almac). ISCARSAH Bureau was represented by Paulo B. Lourenço, Mehrdad Hejazi and Meltem Vatan. ISCARSAH Türkiye has a good plan of activities.

Paulo B. Lourenço has been asking two core questions.

- 1. Would you like to cooperate under the ISC (international scientific committee) umbrella?
- 2. What are your expectations?

NSC's (national scientific committee) can operate only under their NC (national committee) and do not need involvement with the ISC – so either approach is good.

Meltem Vatan clarified that the original setup had assumed that the direct connection would be to the ISC, sharing information with the NC. Her feeling is that the NSC in Türkiye will be well setup to coordinate with both ISC and NC. They are excited about being involved again more actively with the ISC. Paulo B. Lourenço noted that the group has extensive experience and that they bring great insight as most their members are from an architectural background – reflecting the situation that many countries have this role filled by architects and not engineers (who may lack conservation sensitive training).

It seems that ISCARSAH Türkiye can serve as inspiration for other potential national committees and a new meeting was planned for the end of the year.

ISCARSAH Türkiye - Key Points of IFirst Year Work Plan

Experts from Iscarsah Turkey and Icomos Turkey are actively working in earthquake zones

An interactive webinar with all experts involved in the region is planned post earthquake

>The webinar will lead to a publication on regional construction techniques, damage mechanisms, and both emergency and permanent post earthquake measures

