



## Strategic decisions for retrofit of heritage buildings in different geographic areas of Europe

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New technologies and methods for assessing heritage are being introduced due to the digital transformation of society. These include the use of digital humanities methods of image annotation and mapping, as well as the architectural volumetric analysis and collecting and analyzing heritage databases.

## The Fund for financing university scientific research (FFCSU) competItIon 2021 – funds for financing university scientific research

In 2021, the University of Architecture and Urban Planning in Bucharest (IMUAU) conducted a revision process for its strategic research pillars. The five draft documents were then developed based on the results of the short research projects that were funded through

Such one was this, in priority direction: A. Revisiting the research strategy of the university – strategic research field:

## DISASTER PROTECT PROJECT

The project aimed to implement a IMUAU research strategy in the field of natural and built heritage protection against disasters in urban and rural settlements and aimed to acquire interdisciplinary skills on disaster-resilient architectural and urban design and its harmonization with international European legislation in the field for the IMUAU teaching and research community.

Another worthy to mention project, which also had as a priority direction: A. Revisiting the research strategy of the university – strategic research field, was: PLUS CULTURAL

The purpose of this project was built on the detected need to recognize and develop the potential of cultural heritage by identifying the areas poorly represented in research, in national and international projects. The final synthesis document gathered information from various specialists and practitioners in the field to identify potential areas for improvement. Such areas included the protection and conservation of built heritage and also the eastern European architecture for which there is a need to diseminate and connect the researches done in this part with the rest of Europe's.

In 2022, new projects in these fields were awarded grants and started to be implemented.

Based on the previous research and projects, there is a newly funded project by the Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI), through the Exploratory Research Projects Competition (PCE), entitled

Future on the Past, which proposes to transform a collection of photographs of early 20th century architecture (Art Nouveau and Modernism across Europe) into a database by answering the research question on how threats from the hazards of earthquake, flood and fire can be answered taking into account the local culture in the European countries covered, for buildings from a period when the architecture styles were global already that time. The whole concept of this project was based from the begining on the previously mentioned projects, Disaster Protect and Plus Cultural. The postdoc researcher team will handle the following research thermes, which are also part of their own previuous work, namely: The Modernism in the Mediterranean area, The Art Nouveau style in Central and Eastern Europe. These were global currents, but adapted with "other" Modernism for example according to the local culture or "other" Art Nouveau which is also a novelty concept. Based on these specific types of built heritage, the project looks out on the hazards related to them, such as earthquake, flood and fire elements. If local seismic culture is a concept already investigated, flood and fire must be followed. It also depends on the urban design for these two hazards, the environment matters in addition to the characteristics given by the construction material, therefore a dialogue between the scales must exist.

Project duration: 30 months (June 2nd, 2022 - December 31st, 2024)

Website: www.future-on-the-past.eu

Team:

Principal Investigator - Maria BOŞTENARU-DAN Senior Researcher – Cerasella CRĂCIUN Postdoctoral Researcher – Adrian IBRIC Postdoctoral Researcher – Mara POPESCU





Kecskemét, HUNGARY

On July 8, 1911, there was one of the strongest earthquakes in Hungary at Kecskemét in an area of medium seismicity. The city was becoming one of the most important for the Art Nouveau style. The painters' colony, on the model of Baia Mare in Romania, was affected as it was under construction 1910-1912. At the Art Nouveau town hall designed by Ödön Lechner, a Hungarian architect, one of the prime representatives of the Hungarian Szecesszió style, the ceiling of the gala hall collapsed.



Kecskemét, HUNGARY \*

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Corbeni, ROMANIA

In the workshop sponsored by EGU in 2018 in Rome, water as analyzed both as hazard and as heritage. At Hotel Gellert we have both: spa heritage as a result of the thermal springs in the karst and the threat of floods from the Danube. The flood in 2013 was as strong as the one of 1838, but the damage is not comparable, due to the fact that in the meantime the course of the Danube was regularized. Same situation in Târgu Mures, another Art Nouveau city, the course of the Mures was regularized after the floods of May 1970 and July 1975, among others.



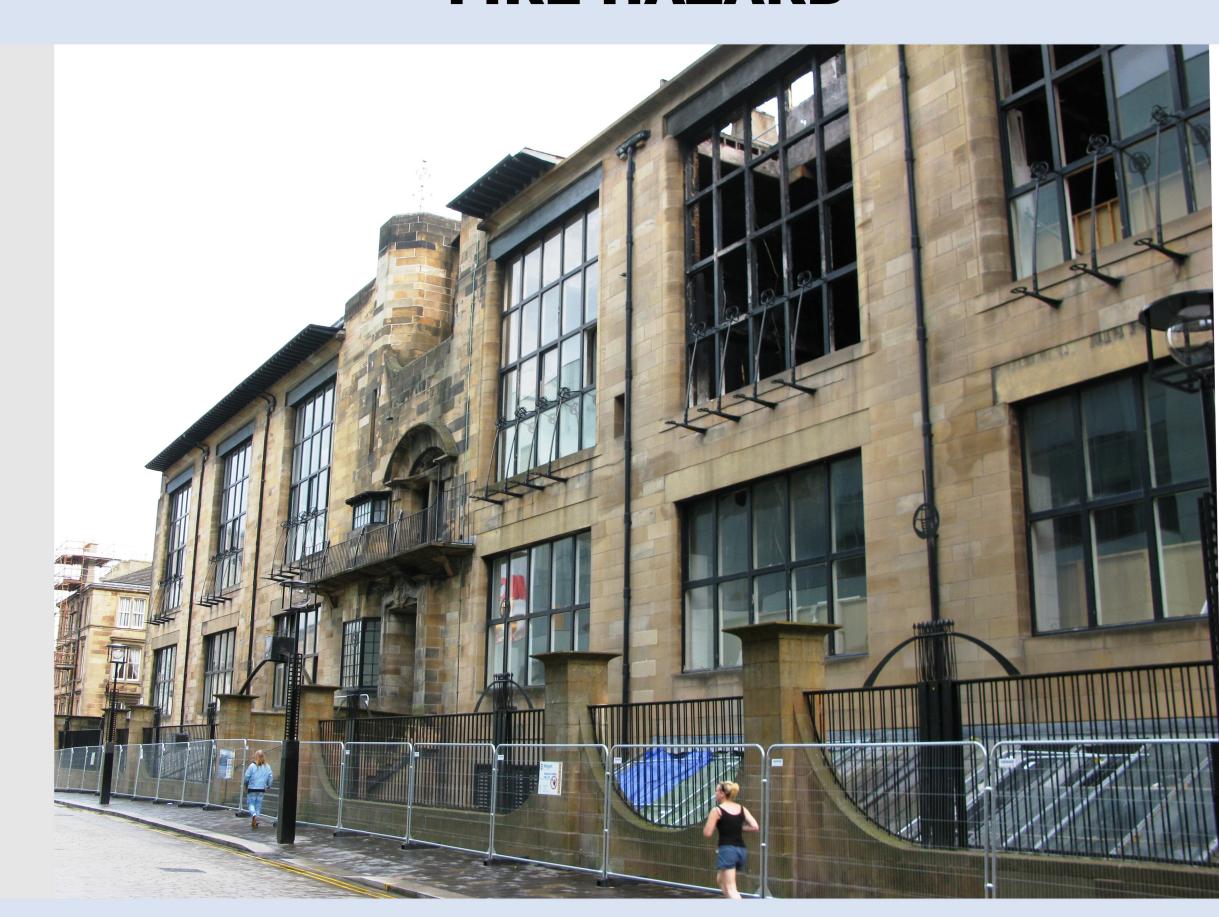
Târgu Mureș, ROMANIA



Gellert, HUNGARY

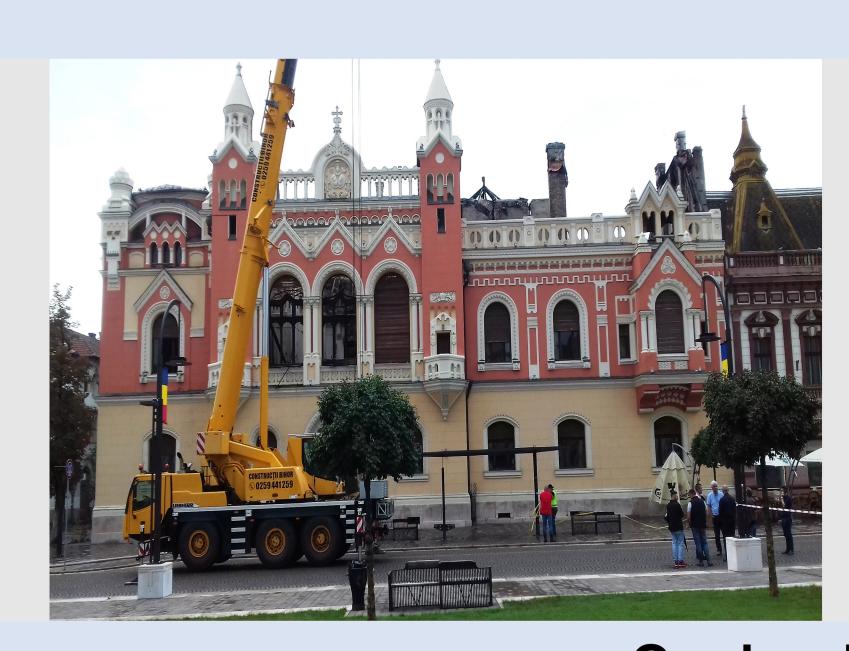
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FIRE HAZARD



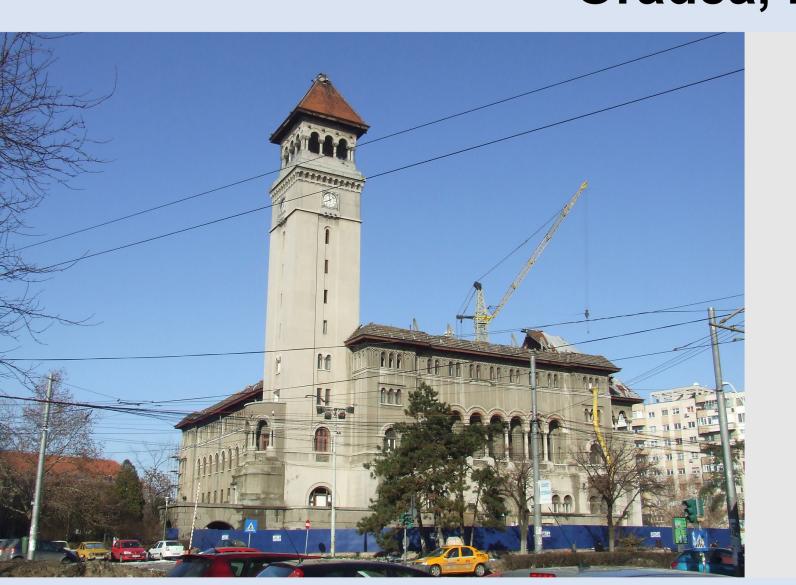
Glasgow, SCOTLAND \*1

The Glasgow School of Art burned in two successive fires in 2014 and 2018, started during the restoration works, same situation happening with the Townhall on Banu Manta street, Bucharest. After the second fire, the school sees 5,500 tonnes of fire damaged material removed. The damages were so severe that the school became irreparable. It also poses the question regarding the cost of restoration as the first project costed £35million. The photo here shows it after the first fire.





Oradea, ROMANIA \*2





**Bucharest, ROMANIA** 

All of the photographs in this poster belong to the personal archive of the creator: Maria Boştenaru-Dan, unless stated otherwise \*1© John a s, 2014: The front (north) facade of Charles Rennie Mackintosh's Glasgow School of Art on Renfrew Street, Garneth<mark>ill</mark> ir Glasgow, Scotland. Shown after the fire damage in May 2014.

