THE COMPLEXITY OF CONSERVATION OF OUTFITTING, HISTORIC SITES AND BUILDINGS UNDER EVERYDAY USES

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Abstract. One of the challenge for the conservation of a historic site and building under use is the definition of the optimal threshold among the safe and comfortable use (also per users staying and sitting inside for hours), the mitigation of consumption and damage due to the use and environment.

The paper especially deals with the last task, the mitigation of risk factors. With the aim of defining the best practices for reducing the risk factors, the paper refers the results of more than 25 years of monitoring of Cultural Heritage with different location, materials, structures, decoration, fragile features.

The further analysis is helpful to define a common procedure of monitoring and effectively collect the required information/data, including the historic microclimate. The final goal is defining the span of values to keep constant and the actions to prevent unbalances of the microclimate. The European standards indicate the optimal values and some criteria for defining the threshold in case of the presence of different materials in the same place. Nevertheless, it is difficult to maintain the microclimate stable with the irregular presence of numerous visitors and users (up to some thousands a day, as it happens in a large city during special events) and the employed personnel in the site.

The flux of visitors can vary in time and duration accordingly to the location of permanent/temporary exhibitions and collections, interesting part of the site itself, etc. Not controlled opening of windows, doors, shadowing, etc. can happen due to the transfer/permanence of surveillant personnel misunderstanding the direction.

On the bases of the scientific literature review and the collected experience, the paper presents the tested method for monitoring many of these dysfunctions, as confirmed by the showed results of several study cases (museums, tombs, archaeological areas). Especially when a new use requires the placement, substitution, reset or implementation of HVCA system, monitoring results fundamental for achieving the feasible, better balance between comfort and conservation. The further step of the research is the development of best practices and prototype/devices for mitigating the residual unbalances.

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