Climate evaluation in museums buildings. Two case studies.

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1 ABSTRACT

Museums represent our cultural heritage and are buildings of great importance as well as of significant representative character. Museums are very special buildings, since they are supposed to preserve important and in many cases unique, cultural heritage objects from outdoor climatic conditions. In our country there are two typologies of museum building; buildings designed to be museums and old traditional and historic buildings used as museums. This paper focuses on these two typologies considering as a case study the building of National Historical Museum in Tirana (NHM) and Iconographic Museum "Onufri" (IMO) in Berat. In some of the new museum facilities the indoor environment conditions were established by heating only or by HVAC systems. Actually all these systems are out of use and the indoor climatic conditions are not monitored anymore. Museum facilities housed in traditional and historic buildings are naturally ventilated, constructed with traditional materials and techniques. These buildings used to respond passively to climate. Such constructions have physical and spatial qualities that should be evaluated, acknowledge and enhanced or rejuvenated. The two case studies were selected based on the characteristics as above mentioned, representing NHM first typology and IOM second one. The study aims to measure, evaluate and analyze the NHM and IMO facilities indoor conditions focusing on the thermal and hygrometric parameters (Temperature and Air relative humidity). Both T and RH are key control variables to ensure the conservation of cultural heritage. The data of this study will serve for future interventions of the building aiming to improve the indoor climatic parameters and the building efficiency.

Key words: Museum facilities, Cultural Heritage Conservation, Thermo hygrometric parameters, data-logger device.