

PROPOSAL OF AN EXPERIMENTAL APPROACH FOR FIRE SAFETY COMPLIANCE IN PALAZZO VECCHIO

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Abstract.

This contribution is a part of a wider research project dealing with the problem of complex activities management in "Palazzo Vecchio" in Florence. The goal of the research is to create a sartorial shell of building intervention and management strategies to reach both safety and comfort for occupants, together with building conservation and safeguard. The goal of this contribution is to describe the research framework and to give some remarkable results with respect to the complex approach to the whole Building. Palazzo Vecchio is the town hall of Firenze and it is an ancient building, since its origins built to be the representative location of the political power of the town. Palazzo Vecchio hosts a lot of very important activities for the city and the goal of the public administration is to assure health and safety both to the workers and to the public visiting the building. Moreover, public administration has the duty to conserve building and contents, both from fire risk and from the heavy building interventions usually required to reach safety regulation compliance. Fire Safety requirements can be managed in such a complex framework only making use of innovative approaches able to harmonize traditional fire safety design together with Fire Safety Engineering methods. As a first step, a wide specific database was created by performing a detailed data collection both about activities and about building's characteristics. As second step, the public administration's stakeholders were involved since the beginning, suggesting them the best management strategies to reduce risk from the top. Then, analysing the whole building with the proposed approach, were suggested management strategies and construction interventions on the building useful to reach most of the safety objectives taking the maximum advantage from building's architectural features. The first tangible results obtained since now are related to the whole approach to the building and to the first FSE results. Future developments are related with the definition of complete fire safety masterplan of the building.

Keywords: *fire prevention, historical heritage building, FSE.*