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Autore	Bernardini Gabriele
Titolo	Fire Safety of Historical Buildings : Traditional Versus Innovative “Behavioural Design” Solutions by Using Wayfinding Systems / / by Gabriele Bernardini
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Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-530X
Disciplina	620
Soggetti	Fire prevention Computer-aided engineering Quality control Reliability Industrial safety Computer simulation Cultural property Fire Science, Hazard Control, Building Safety Computer-Aided Engineering (CAD, CAE) and Design Quality Control, Reliability, Safety and Risk Simulation and Modeling Cultural Heritage
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Fire safety and building heritage: the occupants' perspective -- How to increase occupants' safety with no architectural modifications: defining effective wayfinding systems -- Applications to a case study: fire safety in historical theaters -- Conclusions and perspectives -- Appendix -- Glossary -- Solutions.
Sommario/riassunto	This book applies a behavioral point of view to individuals’ fire safety in historic buildings. It outlines theoretical and operative issues, based on recent studies and international guidelines. Firstly, critical issues for Building Heritage fire safety are widely discussed, by including the

modelling of human factor and man-environment-fire interference in these architectural spaces. A significant part of the book includes a discussion on emergency modeling and simulation. A source code for representing the fire evacuation process (including man-evacuation facilities interactions) is offered to the reader. Methods for effectiveness assessment of risk-reducing solutions are provided and tested in a case-study. Being a structured approach to occupants-related problems during a fire in heritage buildings, it offers an innovative methodology and practical examples that researchers and designers can use as a guide when proposing and testing solutions. Evaluation indexes for effectiveness assessment (also useful for future guidelines or handbooks) are included. Readers are encouraged to understand these indexes within the proposed approach, so as to extend their applications and possibilities of how to introduce human behaviors-based solutions in other fields. Lastly, attention is focused on the proposal and evaluation of low-impact and not-invasive strategies, such as ones based on wayfinding elements. From this point of view, the pros and cons of wayfinding systems are discussed: these are important today, especially for fire-safety designers, because of the ongoing innovations in this field. .