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Titolo	Historical Earthquake-Resistant Timber Frames in the Mediterranean Area / / edited by Nicola Ruggieri, Gennaro Tampone, Raffaele Zinno
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Soggetti	Light construction Steel construction Lightweight construction Building repair Buildings—Repair and reconstruction Engineering geology Engineering—Geology Foundations Hydraulics Architecture Light Construction, Steel Construction, Timber Construction Building Repair and Maintenance Geoengineering, Foundations, Hydraulics Architectural History and Theory
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Nota di contenuto	Timber framing wall in the Italic civilization -- Mechanical and constructive interpretation of the Giovanni Vivenzio’s model -- Timber Frames and Solid Walls: Earthquake Resilient Construction from Roman

Times to the Origins of the Modern Skyscraper -- Behaviour of the Borbone Constructive System under Cyclic Loading. Preliminary Report -- Seismic Performance of Traditional Half-Timbered Walls: Experimental Results -- Experimental Study on Timber-Framed Masonry Structures -- Shaking Table Test of Full Scale Model of Timber Framed Brick Masonry Walls for Structural Restoration of Tomioka Silk Mill, Registered as a Tentative World Cultural Heritage in Japan -- Seismic Performance Evaluation of Timber – Framed Masonry Walls. Experimental Tests and Numerical Modelling -- A proposal for a procedure to evaluate the seismic vulnerability of historic timber frame buildings -- An Overview on the Seismic Behaviour of Timber Frame Structures -- Practical Simulation Tools For The Seismic Analysis Of Timber-Framed Masonry Structures -- Earthquake Response of Historic Buildings at Lefkas Island -- A Diagnostic Plan Supporting Conservation Work on Timber-Frame Houses.

Sommario/riassunto

This book presents a selection of the best papers from the HEaRT 2013 conference, held in Cosenza, Italy, which provided a valuable forum for engineers and architects, researchers, and educators to exchange views and findings concerning the technological history, construction features, and seismic behavior of historical timber-framed walls in the Mediterranean countries. The topics covered are wide ranging and include historical aspects and examples of the use of timber-framed construction systems in response to earthquakes, such as the gaiola system in Portugal and the Bourbon system in southern Italy; interpretation of the response of timber-framed walls to seismic actions based on calculations and experimental tests; assessment of the effectiveness of repair and strengthening techniques, e.g., using aramid fiber wires or sheets; and modelling analyses. In addition, on the basis of case studies, a methodology is presented that is applicable to diagnosis, strengthening, and improvement of seismic performance and is compatible with modern theoretical principles and conservation criteria. It is hoped that, by contributing to the knowledge of this construction technique, the book will help to promote conservation of this important component of Europe’s architectural heritage.