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Descrizione fisica	1 online resource (X, 221 p. 112 illus., 104 illus. in color.)
Disciplina	658.26
Soggetti	Energy efficiency Building repair Buildings—Repair and reconstruction Sustainable development Energy Efficiency Building Repair and Maintenance Sustainable Development
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Section I: Methodology -- Contexts and Methodology -- Conserving-Restoring for the Future What we Inherited from the Past -- Energy Efficiency and HVAC system in existing and historical buildings -- Thermal Behaviour of Historical Buildings, Materials and Components: Methodological Framework, Calculation, Results -- Section II: Enhancing Energy Efficiency in a Monumental Complex: a Feasibility Study -- Energy and Heritage. Development on a Case Study -- Constructive Techniques in Historical Buildings -- Thermal Behaviour and Energy Demand -- Strategies for Energy Saving and Efficiency: Technical Feasibility, Compatibility, Energy Balance -- Impacts of Solar-powered Panels on the Historical Environment.
Sommario/riassunto	This book provides a methodological framework to set properly the thermal enhancement and energy efficiency in historical buildings during a renovation process. It describes the unique thermal features of historical properties, closely examining how the building materials, structural elements, and state of conservation can impact energy

efficiency, including sample calculations and results. It also describes means and aims of several fundamental steps to improve energy efficiency in historical buildings with an experimentation on a case study. This timely text also introduces leading-edge technologies for enhancing the energy performance of historical buildings, including the potential for integration of co- ad tri-generation though micro-turbines, photovoltaics and solar collectors and their compatibility with architectural preservation. • Discusses the unique considerations for energy efficiency that are necessary when planning preservation and update work on historical buildings; • Provides tools to help undertake such projects, including methodological frameworks, sample calculations, and the results of technical feasibility studies; • Includes one complete case studies from work recently conducted on a listed building.
