

1. Record Nr.	UNINA9910782125203321
Titolo	The effects of air pollution on the built environment [[electronic resource] /] / editor, Peter Brimblecombe
Pubbl/distr/stampa	London, : Imperial College Press River Edge, NJ, : Distributed by World Scientific Pub. Co., c2003
ISBN	1-281-86589-3 9786611865894 1-84816-128-X
Descrizione fisica	1 online resource (449 p.)
Collana	Air pollution reviews ; ; vol. 2
Altri autori (Persone)	BrimblecombePeter <1949->
Disciplina	690
Soggetti	Air - Pollution - Environmental aspects Weathering of buildings Building materials - Deterioration
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	CONTENTS ; Contributors ; Preface ; Chapter 1 Long Term Damage to the Built Environment ; 1. Introduction ; 2. Changes in Climate ; 2.1. History of Climate ; 2.2. Freeze-Thaw Cycles ; 2.3. Storms and Precipitation ; 2.4. Biological Factors ; 3. Changes in Air Pollution 3.1. History of Air Pollution 3.2. Early Acid Rain and Dry Fogs ; 3.3. Early Descriptions of Damage ; 3.4. Industrial Development and Pollution ; 3.5. Victorian Approaches to Damage ; 3.6. Architectural Responses ; 3.7. The Twentieth Century ; 3.8. Economic Analysis 3.9. Archeometric Sources of Information 4. Recent Changes in Modern Pollutants and Materials ; Chapter 2 Background Controls on Urban Stone Decay: Lessons from Natural Rock Weathering ; 1. Introduction ; 2. The Origins of Misconceptions

; 2.1. Decisions Governing Choice of Materials
 2.2. Research Bias and Accessibility 3.
 Process Interactions ; 4. Climatic Controls on Stone
 Decay ; 4.1. Temperature Controls
 ; 4.2. Moisture Controls ; 5. The Direct Consequences
 of Placing Stone Within a Building
 ; 6. Rates and Patterns of Decay ; 6.1. Temporal
 Variability
 6.2. Spatial Variability 7. Inheritance Effects
 ; 8. Concluding Observations and Implications for Stone Conservation
 ; Chapter 3 Mechanisms of Air Pollution Damage to Stone
 ; 1. Introduction ; 2. Damage on Stone Buildings and
 Monuments ; 2.1. Marble and Limestone
 ; 2.2. Sandstone
 2.3. Granite

Sommario/riassunto

Air pollution damages materials, but it has changed dramatically in the past century, with a reduction in the concentration of corrosive primary pollutants in urban atmospheres. At the same time, architectural styles and types of materials have changed, as we have moved to more organically rich, photochemically active atmospheres. Contemporary air pollutants have the potential to degrade organic coatings and polymers, which are of great importance to modern structures, while increasing amounts of fine diesel soot spoil the simple lines and smooth areas characteristic of many modern buildings
