

Book review

BUILDING STONE DECAY: FROM DIAGNOSIS TO CONSERVATION (GEOLOGICAL SOCIETY SPECIAL PUBLICATION 271)

R. Prikryl and B. J. Smith (eds), The Geological Society, London, 2007, ISBN 978-1-8623-9218-2, £85.00, 344 pp.

The Geological Society publishes many 'special publications' and these are frequently of great value, both to specialists and to practitioners in engineering and other applied branches of geoscience. This volume is an outstanding addition to this collection, addressing a subject that will be of interest to a wide range of disciplines involved with protecting and conserving the world's stone-built heritage. A senior manager at the Geological Society's publishing house told me recently that she aims to produce 'beautiful books' and I would think this book is an excellent example of success in this admirable objective.

I am always initially suspicious of books that comprise the proceedings of a conference concealed behind a seductive and topical title, because the contents can turn out to be an eclectic array of highly specialised issues, partial or premature research findings and 'reviews' of old material, together lacking continuity or completion. Readers need have no such fears about this particular book, however, even though most of the papers were presented during the General Assembly of the European Geosciences Union, in Vienna in 2005.

The editors, Richard Prikryl (Charles University, Prague) and Bernie Smith (Queen's University, Belfast), who are both widely known and well respected in the field of historic building stone, have taken steps to plug the inevitable gaps in coverage with additional invited contributions. They have also carried out an exemplary job of sorting and editing the various papers into a continuous sequence and a sensibly consistent style, including copious illustration by helpful diagrams and good quality photographs (although sadly only a small number of which are in colour). There is also an effective index, which is so often and unhelpfully absent from such a collation of papers.

In their preface, the editors correctly identify both that, 'successful conservation has to be underpinned by a comprehensive understanding of the causes of decay and the factors that control them' and that there is a parallel need for, 'the accurate specification of new and replacement stone linked to its performance'. They argue that these 'demanding goals' require co-operation between geologists, other scientists, engineers and architects, and explain that this book seeks to strengthen and assist this interdisciplinary collaboration. In terms of its content and quality, I consider that the editors have succeeded in providing such stimulation and guidance. Hopefully this review will also help in bringing the work to the attention of an audience beyond the Geological Society.

The scene is set by two introductory papers by the editors. A first paper addresses the 'principal underlying rationale', the importance of accurate diagnosis, and does this by exploring an interesting parallel between stone decay and human disease, embracing both the whole investigation scheme and a 'cost-benefit analysis' for proposed treatments. A second paper provides an overview of the role of the earth scientist in pre-restoration research into stone monuments.

Thereafter, some 27 papers are sorted into six groups. The first grouping is clumsily entitled 'Inventorying built heritage and its raw materials' and in truth is a varied collection of six only loosely related papers, but several of which are indeed fascinating. Then the book gets into its stride with sections on 'Patterns and monitoring of decay' (four papers), 'Processes of decay' (five papers), 'Salt decay testing' (four papers), 'Record of decay in rock properties' (five papers) and 'Performance in use and conservation' (three papers).

I am happy to commend this impressive and perhaps even 'beautiful' book on an important topic for everyone concerned with historic stone buildings. It is not a textbook, but a well edited collation of related papers by a host of specialists, mainly from various countries within Europe, and it represents a wonderful resource.

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