Book review

Sustainable Retrofitting of Commercial Buildings: Warm Climates

Richard Hyde, Nathan Groenhout, Francis Barran and Ken Yeang (eds).
Routledge (The Earthscan Science in Society Series), New York, NY, USA,
2013, ISBN 978-1-84971-291-0, £95.00 (hardback), 482 pp.

This book addresses critical issues related to the renovation of commercial buildings using 'green' technologies and the bioclimatic design approach. It is an opportune and adequate guide to the needs for energy efficiency and to those related to the increasing pollution affecting the ecology and climate in the world at present. Currently, it is mandatory that existing commercial buildings meet optimal energy use and environmental performance.

This book is a result of 6 years of extensive research written by 29 experts mostly from Australia, each with a particular story to tell about sustainable retrofitting of commercial buildings in warm climates, making this book diverse, complex and of great value. It contains a total of 35 articles divided into four parts: eco-design and renovation; bioclimatic retrofitting; technological and behavioural change for performance improvements; and retrofitting exemplars. The first part discusses the effects of climate change on the design and renovation at city scale. The second part describes the

design guides of bioclimatic retrofitting for existing buildings, emphasising both the architectural and engineering systems. Part three covers the technological and behavioural contexts of existing construction sectors including policies, modelling and monitoring and trend analysis, all with respect to energy and environmental performance. Part four presents case studies showing the effectiveness of suggested strategies for environmental performance.

The authors have undertaken the enormous task of preparing this guide to transform and renovate commercial buildings for sustainability. In doing so the authors have called on their experience as professionals (architects, engineers, builders) and their role as educators, consultants, planners, ecologists and policy makers in sustainable retrofitting, which has given them insight into the challenges to optimal green design. The guide rests heavily on case studies in several major cities of Australia.

The book is well illustrated and referenced and results in a reference guide that will be well used in many working offices where green technologies are planned and implemented. It is an excellent guide for professionals (architects, engineers and constructors) involved in the design and engineering of retrofitting buildings, particularly for those in tropical climates.

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