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Environmental Science in Building

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Third Edition

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MACMILLAN

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Softcover reprint of the hardcover 3rd edition 1992

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First published 1983
Reprinted 1985, 1987, 1988
Second edition 1989
Reprinted 1990 (twice), 1991
Third edition 1992

Published by
THE MACMILLAN PRESS LTD
Houndmills, Basingstoke, Hampshire RG21 2XS
and London
Companies and representatives
throughout the world

ISBN 978-0-333-57676-2   ISBN 978-1-349-22169-1 (eBook)
DOI 10.1007/978-1-349-22169-1

Typeset by Ponting–Green Publishing Services, Sunninghill

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Preface

This book studies the technical basis of the environment which exists in and around buildings. The main considerations are the effects of heat, light and sound within buildings; together with supplies of water and electricity. The text also deals with climatic effects, energy use, sick buildings and other topics which underline the need for an integrated approach to the study and design of environmental services.

The book is intended for students of building, engineering and surveying who are studying environmental science at a variety of levels. The principal requirements of courses for degrees, National Diplomas and Certificates, and for examinations of professional institutes are satisfied by the contents of the book. A decade of publication has confirmed that the book is useful at all levels, from introductory student text to professional reference.

This third edition of the book contains appropriate revisions to data together with some new sections which have evolved from continuing teaching experience. An important aim of the text is to give the user a secure technical knowledge based on accurate principles and terminology, in order to complement the more superficial and pictorial treatment of technology by the media.

The book assumes a minimum prior knowledge of science and mathematics and the text highlights important facts and formulae as an aid to reference and to memory. Definitions and units are expressed in forms appropriate for this level of study and provide a link to the practical technical literature of the various topics. Where a numerical approach is required, worked examples are displayed step-by-step and supported by exercises for practice.

The style of writing has been kept simple but, at the same time, it has a technical content and accuracy appropriate to this level of study. The text is illustrated by labelled drawings which are intended to help explain the text and to act as models for student sketches.

Thanks are due to the many people who have contributed to the contents and production of this book. Students and colleagues have helped provide the experience, while Professor Ivor Seeley has wisely edited the contents. Much of the original text, so efficiently typed by Agnes McMullan, has survived scanning into electronic formats, while Malcolm Stewart and the

team at Macmillan Press have kept the book alive. All this would be a waste of time without good booksellers like Stanley Simms, and willing readers like yourselves.

Randall McMullan

Acknowledgements

The author and publishers thank the following organisations for permission to quote from their material, as indicated in the text.

CIBSE Guide for tables 2.1, 2.5, 3.1; *CIBSE Code of Interior Lighting* for table 6.2; by courtesy of The Chartered Institution of Building Services Engineers, London.

BRE Digests for table 7.2 and figures 7.4 and 7.5; by courtesy of the Director, Building Research Establishment.