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Environmental Science in Building

Randall McMullan

MSc, CPhys, MCIOB, MInsP

Fourth Edition

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Fourth Edition first published 1998 by
MACMILLAN PRESS LTD
Houndmills, Basingstoke, Hampshire RG21 6XS
and London
Companies and representatives
throughout the world

ISBN 978-0-333-73201-4 ISBN 978-1-349-14811-0 (eBook)
DOI 10.1007/978-1-349-14811-0

A catalogue record for this book is available
from the British Library.

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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, vocational diplomas and certificates, and for examinations of professional institutes are satisfied by the contents of the book. Over a decade of publication has confirmed that the book is useful at all levels, from introductory student text to professional reference.

This fourth edition of the book contains new sections which have evolved from continuing teaching experience, together with appropriate revisions to data. The text still aims to give the user a secure technical knowledge based on accurate principles and terminology.

The book assumes a minimum prior knowledge of science and mathematics and the text highlights important facts and formulas 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. All of the subjects in the book are worthy of extended studies and it is hoped that this book will be a starting point for many further investigations.

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; 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 Building Research Establishment.