Environmental Science in Building

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ENVIRONMENTAL SCIENCE IN BUILDING

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Preface

This book studies the science of those services that contribute to the environment which exists in and around buildings. The main topics are heating, lighting and sound in buildings; and the supply of electricity and water to buildings. Although some subjects have to be introduced separately the text emphasises the necessity of an integrated approach to the study and design of environmental services.

The book is intended for students of building, civil engineering and surveying who are studying environmental science. The requirements of courses for degrees, for examinations of professional institutions, and for Technician Education Council awards should be satisfied by the contents of the book. It will also serve as a useful reference book for those in professional practice and for anyone interested in a knowledge of environmental science.

The motivation for the book stems from continuing teaching experience with many students and information is presented in a manner that has been found popular and successful. Topics are developed from basic principles and assume the minimum prior knowledge of science and mathematics. Important facts and formulae are highlighted in the text as an aid to reference and to memory. Definitions and units are introduced in a consistent form using recommended units and, where a numerical approach is relevant, 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.

I wish to thank my colleagues and students who contributed, consciously or otherwise, to the book, and to give special thanks to Mrs A. McMullan who typed so much at such a distance.

R. McMULLAN

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