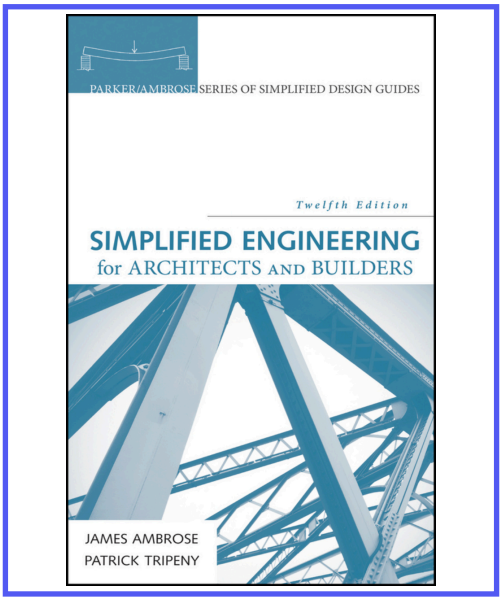


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PREFACE TO THE TWELFTH EDITION

This book treats the topic of design of structures for buildings. As with previous editions, the material in this book has been prepared for persons lacking formal training in engineering. Mathematical work is limited mostly to simple algebra. It is thus well suited for programs in architecture and building construction.

However, as most programs in civil engineering offer little opportunity for study of the general fields of building planning and construction, this book may well be useful as a supplement to engineering texts. The emphasis here is on the development of practical design, which typically involves a relatively small effort in structural investigation and a lot of consideration for circumstantial situations relating to the existence of the building structure.

Changes that occur in reference sources and in design and construction practices make it necessary to revise the material in this book periodically. This edition has indeed received such an updating, although the reader is advised that these changes are continuous,

so that it is inevitable that some of the material present here will be outdated in a short time. However, the concentration in this work is on fundamental concepts and processes of investigation and design; thus the use of specific data is of less concern to the learning of the fundamental material. For use in any actual design work, data should be obtained from current references. A list of these references can be found in the reference section of this book.

In addition to updating, each new edition affords an opportunity to reconsider the organization, presentation, and scope of the material contained in the book. This new edition therefore offers some minor alterations of the basic content of previous editions, although just about everything contained in the previous edition is here somewhere. Some trimming has occurred, largely in order to add new material without significantly increasing the size of the book.

This textbook has an accompanying website for students. The purpose of this website is to provide study material that will aid students in learning this complex material. It is available to anyone using this text either as part of the purchase price or at a nominal cost for those obtaining it secondhand. We encourage all students to take advantage of this resource.

In recent editions it has been the practice to provide answers for all of the computational exercise problems. However, this book receives considerable use as a course text, and several teachers have requested that some problems be reserved for use without given answers. To accommodate this request in this edition, additional exercise problems have been provided, with answers given only to alternate problems. These answers are provided at the accompanying website.

For text demonstrations, as well as for the exercise problems, it is desirable to have some data sources contained in this book. We are grateful to various industry organizations for their permission to use excerpts from these data sources, acknowledgment for which is provided where data are provided.

Both personally—as the authors of this edition—and as representatives of the academic and professional communities, we must express our gratitude to John Wiley & Sons for its continued publication of this highly utilized reference source. We are truly grateful for the sympathetic and highly competent support provided by the Wiley editors and production staff.