

Preface

The first edition of this book appeared in German in 1967. Parts were based on Prof. Lothar Cremer's work shortly after World War II, complemented by more recent research by Prof. Manfred Heckl. In 1973, the first English edition was published, translated and further complemented by Dr. Eric Ungar. Owing to the great interest with which the first English edition was received, a second edition, also in English, was issued in 1988. Apart from corrections and clarifications, the second edition also contained an update on waves in plates and shells.

Almost thirty years after the appearance of original edition, the second edition in German was published. This time, the book was given a thorough revision, whereby the material was restructured and several generalizations introduced. Although, Prof. Cremer passed away during the revision, much of his 'lines of thought' were retained also for the new sections. Another aspect observed in the revision was the computerization, making the analysis of more complicated structures more readily accessible. Importantly, however, this was employed without loosening focus on the fundamental physics. Shortly after his retirement and the publication, sadly Prof. Heckl died.

In this the third English edition, the revision of the material is continued. Moreover, the organization of the contents is modified in order better to take advantage of openings introduced by Prof. Heckl. Although significant parts have been thoroughly revised, the intention has been to preserve the style of previous editions i.e., to focus on the fundamentals to enable the reader to analyse further problems.

The author of the present third English edition is indebted to Ms. T. Lescau and Mrs. B. Töpfer-Imelmann for their ready efforts in processing the sometimes wearing text, equations and figures.

Finally, resting on the shoulders of his distinguished predecessors, it is the author's hope that this edition will prove as useful as the former.

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Structure-Borne Sound

Structural Vibrations and Sound Radiation at Audio
Frequencies

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