



Acoustics 1974

The Invited Lectures Presented at the Eighth International Congress on Acoustics London 1974

Edited by R.W.B. STEPHENS

February 1975 : 220 pages : illustrated
412 12400 9 : hardback : £5.00

The emphasis in many of the lectures in this book is on environmental acoustics. The objective is to review the present state of knowledge of the principal sources and propagation of noise, the prospects for its reduction, the role of building acoustics in noise control, and the psychological and biological effect of sound on man.

Acoustics and Vibration Progress Volume 1

Edited by R.W.B. STEPHENS and H.G. LEVENTHALL

November 1974 : 254 pages : illustrated
412 11560 3 : hardback : £6.00

This volume contains reviews on traffic noise, chemical ultrasonics, ambient noise, acoustic emission, and vibration and noise in building structures.

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Model standard for hydrogen bonding

Hydrogen Bonding. By Melvin D. Joesten and L. J. Schaad. Pp. vi+622. (Marcel Dekker: New York, 1974.) \$45.00.

THIS book is explicitly planned as supplemental to Pimentel and McClellan's *Hydrogen Bond*, "... to provide comprehensive coverage of those topics which account for a large percentage of the hydrogen bonding (HB) papers published since ... (1960)". It reaches a standard not unworthy of its model.

Four of the five excellent chapters are by Professor Joesten, and cover the detection of HB, thermodynamics and kinetics, (spectroscopic) correlations, and intramolecular and homo-intermolecular HB. The other chapter, by Professor Schaad, deals with the theory of HB exceedingly well; with minimal mathematics, he surveys the application of quantum mechanics to molecules, carefully explains the types of approximation necessary with HB, and assesses their limitations—all this with masterly elegance. He ends his chapter with a list of theoretical studies of HB systems carried out between 1960 and 1973. He

writes: "It is tempting for the experimentalist to conclude that since few theoretical predictions are completely certain one can ignore all theoretical results. The difficult alternative of weighing each separately is probably more useful".

Besides some 250 pages of straight text, there are 130 pages of tabulated results and 2,703 references. The book is largely concerned with spectroscopic studies and their thermodynamic consequences. This is the way most of the current HB literature runs; it implies no adverse criticism to state that this book concentrates on relatively weak HB; that it has less to say about strong HB or its study by diffraction methods. The book is an example of the pleasing results that are sometimes achieved by photo-offset. There are few errors—something is awr with the legend to Fig. 5.1. The price will deter most individuals from buying their own copy; but perhaps these days even 4 pence a page is not preposterous for so valuable a book.

J. C. Speakman

Limited horizons

Television review by Robbie Vickers

THE BBC are to be commended in launching *Choices for Tomorrow*, a new series of half-hour programmes on the environment and how we use or misuse it. The first, *Woodland or Wasteland* (Monday April 7; 11.05 p.m.) went only part of the way to solving the problems facing educational television.

Michael Pye of the *Sunday Times*, aired his own personal views on the trials and tribulations of the tree in Britain—government forestry policy, recycling of paper products, and so on. His impressions—they were essentially his, and on a topic very much related to his own sphere of interest—were interesting and should provoke thought and discussion.

The comments on the way we are likely to affect the world we live in were, however, left too open-ended, making the whole programme look very much like a miniature and limited *Horizon*. In the time available, a 'chat' programme of this sort cannot attempt to supply definitive answers—and we wouldn't want this—but it could forward suggestions; it is simply not constructive never explicitly to state alternatives. Such comments as "every time I write an article, the paper publishes one and a quarter million copies of it and that means 4,000 trees die"—do not get us anywhere other than making us aware of the problems.

Before making suggestions, however,

perhaps we should get our facts straight. At the moment, the cost of de-inking and bleaching paper far outweighs the benefits that may accrue from its re-use. It is not until a balance is reached that this method of conserving a resource can become viable and economical, although the organised collection of waste paper is a method worth investigating on a commercial scale.

For some time now, the Forestry Commission have, as a matter of high priority, considered the integration of maximum wood production and the amenity value or aesthetic value of our woodlands. National Parks were conceived to meet this need, at a time when the idea of increased leisure time came to the fore. To some people, therefore, Mr Pye's ideas may have been misleading, particularly at such late hour in the evening.

What was given was a popularised, one-sided, slightly inaccurate view; at least there was sufficient comedy and wit to sustain enough interest for people to take the punch-lines, but people need easily accessible informed comment to make reasoned judgements about the world in which they live.

Allowing for the limitations and the personal nature of the views expressed with a bigger budget, more time and a research staff, this programme could become worth a slot during peak viewing hours. Future programmes will consider the energy shortage, pollution control and the effects buildings have on our behaviour.