a two-column format and the figures are legibly large giving the volume a uniform professional appearance that rivals text books. The editors are to be congratulated for the high quality of the result.

The papers are divided into 13 topics: (1) vortex-induced vibration (14 papers), (2) rectangular sections (6 papers), (3) free shear layers (5 papers), (4) hydraulic structures (5 papers), (5) computational fluid mechanics (11 papers), (6) axial flows (9 papers), (7) biomedical (5 papers), (8) aero elasticity (5 papers), (9) heat exchangers (12 papers), (10) flow-induced sound (15 papers), (11) thermo-acoustics (5 papers), (12) turbo machinery and piping (5 papers), (13) rotor dynamics (4 papers), and (14) paper processing (5 papers). All of the papers are applications of experimental, theoretical, or numerical methods to problems in these areas of vibrations induced by fluid energy. Many of the papers are specific examples of engineering field problems. Three of the papers that I particularly enjoyed include G. J. Lyons (University College London) *et al.* measurements of the vortex-induced vibration oil production umbilical line in 400 m water off the coast of Norway. They found complex 0·1 to 0·2 diameter vortex-induced response due to vortex shedding but without a distinct peak. K. Anami and N. Ishii (Osaka Electro-Communication University) made experimental and analytical analysis of the 1995 failure of an 87 ton Tainter flow control gate at Folsom Dam in California, "A gate operator felt a small steady vibration start up very light and intensified very quickly and after a few seconds he saw the (whole) gate moving slowly to the downstream side." A hydrodynamic instability is held responsible. Finally, Y. B. Chang and P. Moretti (Oklahoma State University) describe the flutter like instability of sheets of paper moving at high speed between rollers. They develop an expression of the onset of aerodynamic instability.

The current range of troublesome and interesting flow-induced vibration problems and the state-of-the-art of their analysis are well described in this excellent conference proceeding. It is recommended both as a review of the art and as a source of examples of practical applications.

R. D. Blevins

DICTIONARY OF ACOUSTICS, 2001, by Christopher L. Morfey. London: Academic Press, xvi + 430pp. Price £43.95, $64.95. ISBN 0-12-506940-5

It would be trite to state that this is a nice handy dictionary, which differs from most other dictionaries in that its scope is limited to acoustics, and which all persons who work in acoustics should have (along with Rayleigh's *Theory of Sound* and a few other references on acoustics and related subjects) on their most accessible bookshelf. All this is of course true, but this particular dictionary goes far beyond what might be expected from a mere description of its scope, its number of entries, and its size. Indeed, it offers the world a new paradigm for how dictionaries on scientific subjects should be written.

The present reviewer is somewhat of a collector of dictionaries; the total number in his possession being of the order of 50. Almost all of these have been written by committees; a few are single authored. For those dictionaries that purport to be scientific dictionaries, those that were written by committees seem to be very uneven in the quality of their individual entries. Not every committee person is an extremely well-read person or an acknowledged writer of excellence, and what appears is often a result of a consensus of a group of opinionated individuals, not all of whose opinions are worth consideration. (The reviewer is willing to stick his neck out here and, with the customary mealy-mouthed prefatory phrase, "with all due respect," state that this criticism extends to the publication, American National Standard Acoustical Terminology, issued by the Acoustical Society of

America after a lengthy review and approval process overseen by the American National Standards Institute). On the other hand, scientific dictionaries written by a single author frequently seem to be rather shallow. The author often does not know the existing literature as well as he or she should and has not put in the extraordinary effort needed for the writing of a great dictionary.

Nevertheless, the greatest dictionaries of the past either were or began as the work of a single dedicated individual. The small but awesome list includes Samuel Johnson's *Dictionary of the English Language* (1755), Noah Webster's *American Dictionary of the English Language* (1828), William Strunk, Jr's *The Elements of Style* (1919) and H.W. Fowler's *A Dictionary of Modern English Usage* (1926). Some might argue that it would be presumptuous indeed to put Morfey's rather specialized book in this class, but why not? Professor Morfey, to begin with, is the ideal person in the acoustics community to have written such a dictionary. He has a breadth of experience in acoustics, has read extensively and has written widely and articulately on acoustics for nearly 40 years, is a close associate of Phil Doak, the undisputed dean of acoustics editors, and has been well acquainted with a good number of the world's foremost acoustical scientists throughout his professional life. Given this background and set of credentials, the remaining question is whether he really brought if off with excellence and with novel style. This reviewer believes he did.

The first thing one notes when one peruses the dictionary is that very few of the entries are stand-alone items. Often Morfey refers the reader to other definitions within the dictionary which would tend to clarify the present definition. (A dictionary written by a committee would have great difficulty incorporating such a feature). Morfey uses the convenient device of flagging the other entry by writing it out in smaller font size capitals. In cases where a term (presumably not meriting a full-fledged entry) is defined within the entry for another term, the reader is alerted to this by the use of bold face slant type. In those cases when an individual's name is associated with a term, Morfey gives the full name of the individual and the year of publication of the work that is implicitly being referred to by use of the term. (Some readers might have liked to have seen a full biographical citation, but doing so for all such cases would have unduly lengthened the dictionary and would have distracted from its principal purpose). Another feature that should be noted is that Morfey does not hold back on mathematical equations. For example, in the entry on Lilley's Equation, he states that equation explicitly. However, the mathematics is certainly not excessive—it seems to be just the right amount to make the definition clear.

One thing that Morfey does that one will find in almost no other scientific dictionary is to introduce and define terms that are almost entirely new but which he believes should be part of the standard acoustics terminology. There are altogether 27 such new terms in the dictionary—he is entirely up front in the introduction of these and flags each such entry with a special symbol. Doing this took courage, but courage in writing is a hallmark of great writing.

The present reviewer is currently revising the Information for Contributors document for another journal. In this document, advice is given to prospective authors as to what authorities they should consult for making sure that their terminology is being properly used. Needless to say, the recommended prime authority, insofar as acoustics is concerned, will be Morfey's *Dictionary of Acoustics*.

A. D. Pierce