



**Neville H. Fletcher**, aged 87, died in his home in Canberra, Australia, on October 1, 2017, surrounded by his three children and their families. Neville was a Fellow of the Acoustical Society of America (ASA), a recipient of its Silver Medal for Acoustics, and a long-time asso-

ciate editor of *The Journal of the Acoustical Society of America (JASA)*.

Neville was a polymath; his 200 journal articles (35 of them in *JASA*) go far beyond acoustics to cover a wide range of physics. As a PhD student at Harvard in the 1950s, Neville published papers and a patent on power transistors. Returning to Australia to join the national scientific research organization (Commonwealth Scientific and Industrial Research Organisation [CSIRO]), he worked on a range of problems in condensed-matter physics before publishing the influential books *The Physics of Rainclouds* and *The Chemical Physics of Ice*.

As an academic in the 1970s, Neville turned to acoustics, a field in which he was self-taught, beginning with wave propagation in air jets and its application to flutes and organ pipes (flute and organ being two of the several instruments he played). From these, he expanded his music acoustics research to many other sorts of instruments, with a special interest in nonlinear problems. One example was the auto-oscillation of different types of valves (blown open, blown closed, and “sliding doors”). Others included mode locking and the behavior of gongs. His greatest influence in acoustics comes from the two books he wrote with Tom Rossing, *The Physics of Musical Instruments* and *Principles of Vibration and Sound*, both frequently cited and reprinted several times.

Beginning in the late 1970s, biologists began approaching Neville with diverse questions about sound production and hearing in animals, especially insects and birds. In this new area, Neville was once again able to combine a depth and breadth of knowledge, and he wrote *Acoustic Systems in Biology*. To all areas, he brought not only a formidable intellect and analytic power but also the ability to explain the essential physics in simple terms. Thus this, his fourth academic book, was warmly welcomed by biologists.

The list of awards for his contributions to research, teaching, and science overall is too long to list. There is also insufficient space to list the areas of acoustics in which he made significant contributions. For these reasons, his publications, a CV, and an interview about his life are available at <http://acousticstoday.org/fletcher>.

Neville’s last formal position was as a visiting fellow at the Australian National University, where he came regularly to work until the last few months of his life.

#### **Books by Neville H. Fletcher**

- Fletcher, N. H. (1962). *The Physics of Rainclouds*. Cambridge University Press, Cambridge, New York. Reprinted 1969.
- Fletcher, N. H. (1970). *The Chemical Physics of Ice*. Cambridge University Press, Cambridge, New York.
- Fletcher, N. H. (1992) *Acoustic Systems in Biology*. Oxford University Press, New York.
- Fletcher, N. H., and Rossing, T. D. (1991). *The Physics of Musical Instruments*. Springer-Verlag, New York. 2nd edition, reprinted 2000.
- Rossing, T. D., and Fletcher, N. H. (1995) *Principles of Vibration and Sound*. Springer-Verlag, New York. 2nd edition, 2004.

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