

Obituary

Thomas D. Rossing, 1929–2022



Courtesy of American Association of Physics Teachers (AAPT)

Thomas D. (Tom) Rossing, 93, a mentor, teacher, and author, passed away on July 14, 2022, in West Lafayette, Indiana. Tom earned a bachelor's in physics from Luther College, Decorah, Iowa, in 1950 and a master's and PhD in physics from Iowa State University, Ames, in 1954.

He then worked for three years on magnetic memories with the UNIVAC division of Sperry Rand. In 1957, he became a professor of physics at St. Olaf College, Northfield, Minnesota. From 1971 until retirement in 2005, Tom was a professor of physics at Northern Illinois University, DeKalb. He spent much of his retirement as a visiting professor at the Center for Computer Research in Music and Acoustics at Stanford University, Palo Alto, California.

Tom started in the musical acoustics community while teaching a physics of music class for music majors needing a science credit at St. Olaf College. His contributions to the field of musical acoustics included research on the acoustics of percussion instruments, most notably the timpani, cymbals, the Caribbean steelpan, and bells. His work on the acoustics of bells included taking measurements of ancient Chinese bells in the Shanghai Museum, Shanghai, China, and consulting with handbell makers to develop bass handbells made of aluminum as well as hand chimes, an instrument frequently used in handbell choirs.

Tom's contributions to musical acoustics were on a par with his work in the field of physics education. He was a staunch supporter of physics and acoustics education at all levels. He published articles in *The Physics Teacher* as well as in the *American Journal of Physics*. He wrote a laboratory manual to accompany his *Science of Sound* textbook. His dedication to physics and acoustics education was further demonstrated through multiple endowments, including a gift to the Acoustical Society of America (ASA) Foundation establishing the Rossing Prize that is awarded to individuals who have made significant contributions toward furthering acoustics education.

Tom was a lifelong learner and a self-described voracious reader. While serving as editor of the ASA newsletter *ECHOES*, he wrote the columns titled "Scanning the Journals" and "Acoustics in the News" that included short summaries of articles drawn from his reading pile. He was an associate editor for education for *The Journal of the Acoustical Society of America (JASA)* and for musical acoustics for *JASA Express Letters*. He also served as chair of the Technical Committee on Musical Acoustics and was a member of the Medals and Awards Committee.

He was a prolific writer. He authored or coauthored 12 books, mostly on acoustics or musical acoustics, but was also coauthor of a textbook called *Light Science* for use in a class on the physics of the visual arts. He was the author or coauthor of hundreds of scientific papers on topics of condensed matter physics, musical acoustics, and physics education.

Tom was an ASA Fellow and a recipient of numerous honors and awards including the ASA Gold Medal in Acoustics and Silver Medal in Musical Acoustics.

Tom is survived by four daughters, Karen Grandall, Barbara Rossing, Jane Frankenberger, and Mary Rossing, and his former wife Dorothy Rossing as well as two grandsons and two great-grandsons.

Selected Publications by Thomas D. Rossing

- Rossing, T. D. (1976). Acoustics of percussion instruments — Part I. *The Physics Teacher* 14, 546-556.
- Rossing, T. D. (1994). Acoustics of the glass harmonica. *The Journal of the Acoustical Society of America* 95, 1106-1111.
- Rossing, T. D., Russell, D. A., and Brown, D. E. (1992). On the acoustics of tuning forks. *American Journal of Physics* 60, 620-626.
- Sundberg, J., and Rossing, T. D. (1990). The science of singing voice. *The Journal of the Acoustical Society of America* 87, 462-463.

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