



Asbjørn Krokstad, Fellow of the Acoustical Society of America and Professor Emeritus, passed away in Trondheim, Norway, on July 31, 2017.

Asbjørn was born in Verdal, Norway, in 1931 into a family where music played a central role. He moved to Trondheim

to study electrical engineering at the Norwegian Institute of Technology (NTH) from 1952 to 1956 and also was very active in student orchestra life. During his studies, he was offered a position in a symphony orchestra in Sweden. Asbjørn decided to finish his engineering degree, but his career could quite easily have taken the direction into the music profession. His active music interest continued for his entire life through his work in room acoustics and music technology and, in his spare time, his playing the double bass and, in later life, the cello as well as his conducting.

Norway's first university acoustics laboratory was established in 1964 with Asbjørn as its director. The laboratory was shared between the NTH and the Foundation for Scientific and Industrial Research (SINTEF). The laboratory's unique position in Norway and its modern facilities led to a visit by Norway's King Olav.

At the end of the 1960s, plans started for a new concert hall, *Grieghallen*, in Bergen, Norway. Asbjørn and his colleagues Svein Strøm and Svein Sørsdal developed the idea to use computerized calculations for the hall, leading to a seminal paper in 1968, a paper still regularly cited in new papers on computational room acoustics.

Asbjørn Krokstad became a professor of acoustics at the NTH (later the Norwegian University of Science and Technology [NTNU]) in 1970. In addition to his research, his interest in music and technology led him to develop a course on Speech and Music Technology in the 1980s, which later expanded to BSc and MSc programs on music technology at the NTNU.

Asbjørn had a passion for classical concert hall design but also became interested in the then quite new electroacoustic reverberation enhancement systems. In 1986, the first con-

cert hall in Norway with such a system, the Bjerkedst Concert Hall in Stavanger, was opened, with Asbjørn as designer of the electroacoustical system.

Asbjørn was interested in hearing and hearing aid technology. He assembled a research group in Trondheim in the late 1980s to develop a digital hearing aid prototype with an open construction so that the auditory system's natural functioning at low frequencies could be used while the hearing aid assisted at high frequencies. This was a novel idea then, and the acoustic feedback problem was solved using active noise control. The functioning prototype led to several patents. SINTEF further developed this technology into a successful communication earplug with active noise control.

Asbjørn played a central role in acoustics in Norway and was president of the national society from 1994 to 1998. He led the scientific committee for the 15th International Congress on Acoustics in Trondheim in 1995.

Having been a teacher, mentor, and colleague for a whole generation of acousticians in Norway, he will be widely missed.

Selected Articles by Asbjørn Krokstad

- Krokstad, A. (1988). Electroacoustic means of controlling auditorium acoustics. *Applied Acoustics* 24, 275-288.
- Krokstad, A., Strøm, S., and Sørsdal, S. (1968). Calculating the acoustical room response by the use of a ray tracing technique. *Journal of Sound and Vibration* 8, 118-125.
- Krokstad, A., Strøm, S., and Sørsdal, S. (1983). Fifteen years' experience with computerized ray tracing. *Applied Acoustics* 16, 291-312.
- Krokstad, A., and Svean, J. (1990). Feedback reduction in a digital hearing aid. *The Journal of the Acoustical Society of America* 88, S179.
- Svean, J., Krokstad, A., and Sørsdal, S. (1993). An all digital concha hearing aid. *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, NY, October 17-20, 1993.

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