Princeton University

Honors Faculty Members
Receiving Emeritus Status

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The biographical sketches were written by
colleagues in the departments of those honored.

Contents

Perry Raymond Cook

Perry Cook is a seminal figure in computer music; his research is at the heart of several important areas today: physical modeling, digital interface and instrument design, acoustics, psychoacoustics, and real-time audio processing. His influence pervades the research and musical communities, and his students have become leaders in the fields of digital audio and music research.

Singer, inventor, author, and mentor to generations of students across diverse disciplines, Perry is known for his brilliance, creativity, and disarming sense of humor. His ideas become physically embodied overnight at his workbench: for example, "The DigitalDoo" (a digitally enhanced digeridoo), "The SqueezeVox" (a sensor-enhanced accordion), and "The Fillup Glass" (a minimalist musical water glass). Other instruments come to life virtually; his work with digital synthesis algorithms modeled on the physics of acoustic instruments has resulted in numerous musically intuitive and expressive virtual instruments that are widely used by electronic musicians worldwide. His visionary and sometimes irreverent work with these unusual instruments ultimately led to the formation of the Princeton Laptop Orchestra, which he co-founded in 2005.

In addition to being a builder, Perry has been a prolific writer on a range of subjects. His two books, *Music, Cognition, and Computerized Sound: An Introduction to Psychoacoustics* and *Real Sound Synthesis for Interactive Applications,* have enabled researchers and musicians inside and outside academia to both learn and apply these varied topics. His most ambitious book, *La Bella Voce e la Macchina: A History of Technology and the Expressive Voice*, is near completion and promises to redefine and refine our understanding of the voice and its relationship to music, expression, technology, and communication; Perry's unique ability to draw deeply on such disparate fields as electrical engineering, vocal performance, acoustics,

and psychoacoustics make him singularly qualified to take on such a fundamentally multidisciplinary subject.

Born in Independence, Missouri, in 1955, Perry took a circuitous route to Princeton. After growing up in Blue Springs, he attended the University of Missouri at Kansas City Conservatory from 1973–77, studying voice and electronic music, eventually earning degrees in music (1985) and electrical engineering (1986). During that period, he also worked variously as an audio engineer, roadie, and stagehand with more than 250 bands and artists, including Bill Monroe, the Amazing Kreskin, Cool and the Gang, and Bill Cosby, to name but a few. In 1986, Perry began graduate studies at Stanford University and completed his Ph.D. in electrical engineering in 1990. Subsequently, he served as technical director at Stanford's Center for Computer Research in Music and Acoustics and worked in industry for NeXT Computer, Media Vision, Chromatic, and Interval Research. In 1996, he arrived at Princeton with a joint appointment in computer science and music.

At Princeton, Perry fostered a vital community of musicians and researchers, collaborating with faculty from computer science and elsewhere in the School of Engineering and Applied Science, not to mention music. His collaborative spirit resulted in dozens of publications with students and colleagues, and led to awards from the Guggenheim and MacArthur foundations, among others, as well as performances at Carnegie Hall and elsewhere.

While Perry is "retiring" from Princeton, he is hardly settling into a life of leisure; in addition to finishing his book on the voice and technology, he is creating new musical applications with the company Sonic Mule (Smule), a leading developer of software for the iPhone. Appropriately, Smule was founded by, and is directed by, one of Perry's former students. Surely we are going to be hearing much, much more from Perry in the coming years.