The Doreen B. Townsend

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The Stanford Center for Computer Research in Music and Acoustics (CCRMA), currently housed in the Donald C. Power Laboratory Building on Arastradero Road, will move to new expanded facilities on the Stanford University Campus in Summer 1985. The new center will be dedicated the Doreen B. Townsend Center for Computer Research in Music and Acoustics in recognition of her longstanding support of CCRMA.

The Center will be located in "the Knoll" which overlooks the Stanford campus. Built in 1916, the Knoll served as the President's house and later housed the Music Department until their recent move to the Braun Music Center. This new location will put CCRMA in closer contact with the rest of the Stanford community, and provide a connection to SuNet, the Stanford University computer network.

CCRMA, with the University planning office, is currently working with the architectural firm of Bowers, Richert and Gratiot, acoustical consultant George Augspurger and consultant Elliot Mazer to specify and design the new facility. The plans include a "quiet" room for psychoacoustic research, a classroom, an experimental performance space with control room/studio, and several areas for computer workstations and terminals.

A major modification of the Knoll will be made to the East wing and ground floor, in order to build a computer room, and a very high quality digital recording studio and control room. The principle difference between more standard studios and the one specified for digital recording is that the noise criteria for the latter are much more stringent. The Knoll, located away from major thoroughfares, is well-situated for sound isolation.

The recording studio will not only meet current program needs of recording for research and compositional purposes but it will allow CCRMA to embark on new research directions. One such project is a long term study of the singing voice. The capability to digitally record a singer in a controlled environment on a system which instantly makes available powerful computer based analytical tools will yield new insight into vocal quality and technique. This research will not only increase our knowledge in acoustics, psychoacoustics, and the physiology of singing, but will lead to advances in vocal pedagogy as well.

Benefiting from Stanford's proximity to one of the world's great opera houses, CCRMA will invite visiting soloists in the Bay Area to its facility where digital recordings will be made of standardized vocalises and selections from repertory. The recordings can then serve as the basis for dissertation research and will become a permanent archive of the great voices of our age.

Funding required for the recording and monitoring facility at CCRMA is approximately $600,000. Additional equipment needed to complete the studios will cost approximately $300,000.

A division of the Stanford Music Department, CCRMA is an interdisciplinary research and educational facility that provides computers and digital signal processing technology for musicians and scientists alike. Activities include composition and digital synthesis of music, digital recording and editing, music manuscripting, studies in psychoacoustics, signal processing research, and explorations in artificial intelligence applications to signal processing and music.

"In addition to a university resource, we consider CCRMA to be a national, indeed, international resource where composers and researchers from this country and abroad have the opportunity to make use of and contribute to the musical/scientific environment. One of CCMRA's most striking attributes is the degree to which substantive interaction occurs between musicians and scientists, producing results greater than either discipline could produce by itself."- John Chowning, Director