Introduction of Computer Music Studio of  
Sonology Department,  
Kunitachi College of Music  
5-5-1, Kashiwa-cho, Tachikawa-shi, Tokyo, 190 Japan  
Takayuki Rai  
K. Matsumura, K. Takasaki, S. Mokushou

The Sonology Department was established at Kunitachi College of Music in 1991, and was named after the Institute of Sonology in the Netherlands. Our study includes working not only with 'sonic' but also with 'sound' from following points of view: technology, medium, environment and so on. In other words, we try to do 'sonic cultural design'.

Subjects:
We have four primary areas of study.
1) Musical instruments as media of musical activity  
   We study a musical instrument overall not only as 'an instrument for a musical performance' but also in terms of its social and cultural connotations.
2) Soundscape (sonic environment) research and design  
   Soundscape research is a technique for exploring new concepts in sonic environment, not only in a physical view but also in the relationship between people and the sounds of their environment.
3) Recording engineering  
   We study the fundamental operations of recording, sound analysis and editing sound synthesis in order to produce new work.
4) Computer music  
   Computer music compositions are created mainly with NeXT computers and IRCAM Signal Processing Workstations(ISPW).

Figure 1: 07 studio  
Figure 2: Macintosh Cowards 550

Computer music studio:
Our studios are based on 9 NeXT computers including a NeXT dimension and 8 ISPW's, connected by an Ethernet network. In 1993, we are installing a Sun SPARC 10 as the network server to reinforce network ability.

Computer music studio includes Extreme computers in order to expand our possibility to computer animation and multi-media art. We also added an Apple Macintosh computer for common musical use. In this circumstance students are studying computer languages, computer graphics and computer animation as well as computer music. Since we use the MAX musical environment so frequently, we are collecting signal processing programs into a patch library called "3Dpachilib" for common use.

Presently, we are concentrating on using computers for creative works, rather than software development.
Figure 5: Computer Studios of Sociology Department (plan 1993)

Our Activity:
We have opportunities to get more information from outside of our college. For instance, Takashi Harada, the sound motion player gave a guest lecture in 1992. Naofumi Otsuka of NTT Basic Research Laboratories gave lectures over signal processing technique and his own musical application "OKinshi" running on NeXT computer.

Our main opportunity to present new works is our annual "Try-Out" concert. Our first Try-Out concert was held in 1991. The program included the performance of K. Stoklaunen's "Solo" with NeXT computer and ISPW instead of analog tape recorders. The second concert, held in 1992, included four live computer electronic works composed by students, and one work by J. Cage in his memory. The students also made an interactive sound object named "Sensitive Pipes" for this concert. Ultrasonic sensors attached to the object detected motions among the people passing by and used that information to control computer generated sound from ISPW.
We have also opportunities to present our works outside of the college. In 1991 we gave the demo of ISPW, its first public appearance in Japan at the occasion of "DenGaku", the electronic music festival organized by JSCM and JMACS, and in 1993 one week long presentation of NeXT computer and ISPW at Sogetsu Gallery in Tokyo.

Further plan:
Our intention to expand our study into the computer aided multimedia art is started realized. And also we started a new class to experience the production of compact disc. In this class students study whole procedure of producing compact disc including planning, package design, recording, digital edition, and also marketing. Since our college has a significant collection of instruments throughout the world we are planning to make a computer database of 'musical instruments of the world' as well as a database of 'cases of soundscape design in the past'.

From recording to database, from computer music to multimedia art, from planning to management, we try to find new ways to create sound and sonic culture.