SOUND OF CHINA: COMPUTER MUSIC

Yu, Ying

yuying1999@hotmail.com

17/F Daxing Building
Baoan South Road
Shenzhen V&J Technology Ltd.
Shenzhen, Guangdong 518001
P.R.China

Abstract:
This paper reviews a brief history of computer music in China, presents computer music application in Multimedia in China, prospects for computer music application in Radio & Webcast.

I. A BRIEF HISTORY OF COMPUTER MUSIC IN CHINA

In China in 1984 the first computer music laboratory was founded by Prof. Xu Shuzhong at the Department of Computer Science of Shanghai Jiao Tong University, in cooperation with the Shanghai Conservatory of Music, has developed a M. A. program in electroacoustic music…

In 1992 the first report about computer music in P.R.China was published in the proceedings of ICMC92. Allen Strange, Chairman of ICMC92, suggested me to finish this report which chronicled the establishment of the initial activities of the academic & industrial supported studios, covered the various activities in the areas of teaching, research, production and publication and reviewed the problems of the dissemination of computer music in China.

In 1996 the second report about computer music in Shenzhen, P.R.China was published in the proceedings of ICMC96, the report showed the emergent computer music in Shenzhen, P.R.China and featured the application of computer music in multimedia.

In 1996 Prof. Xu Shuzhong chaired the 1996 International Conference on Computer Music & Music Science at Shanghai Jiao Tong University, in cooperation with Shanghai Conservatory of Music, Shanghai Institute of Art, Shanghai Musicians Association, Shanghai Computer Music Association and Peking University.
Stephen Arnold, Scotland, Vice President for Conferences;
Shuji Hashimoto, Japan, Vice-President for Asia-Oceana;
Lydia Ayers and Andrew Horner, Hong Kong, Chairs of ICMC96
and Prof. Gong Zhenxiong from Peking University all attended
The ICMC96, in the meantime, ICMC99 in Beijing was proposed.

From 1984 to 1999 computer music in China took 15 years to make history. Today's China is rapidly developing computer music in multimedia.

II. SOUND IN MULTIMEDIA

Sound of VideoCD

In China the first VCD player was born in April 1994, but In 1997 VCD players'sale is 10 million-a-year sets and VCD is getting very welcome. In addition, Multimedia PC all can play VCD, so in China VCD is more popular than CD-ROM. More and more corporations hope that commercial culture of their products is showed on VCD.

Because of interactive VCD, Multimedia Designer can arrange audio & video real-time controlled by audiences and design VCD as multi-title programs, for example:

the first title is Logo(Multimedia Music Advertising Program)to express Mind Identity of Corporation; the second title isintroduction to corporation's product to show Visual Identity of Corporation, successful Multimedia Music Advertising Programs will help sell the productions and bring digital music to life.

What effects will multimedia technology of the merging of audio and video have on future music?

Multimedia Music Advertising Program provides one sound space to computer musician. Recently I did some experiments to let AUDIO be master and let VIDEO be slaver. I think that computer music is the best approach to express Mind, so at first, I made multimedia music by Cakewalk and Sound Forge, and then according to music, I designed menu & digital image by Photoshop and created digital video by Premiere, at last I encoded audio & video by MPEGater, authored audio & video and record on CD-R by VideoPack. By Multimedia Music Advertising Program on the VCD, I probed the practical application of computer music in multimedia.

In China VideoCD is just go-between from CD to Digital Video Disc, China is focusing on 3D Sound for Virtual Reality and Multimedia Applications.

Sound of Web Multimedia

With dramatic improvements in multimedia technology, Web Multimedia become an increasingly familiar and essential part of our lives, the vision of our future in cyberspace is fading in:

We stand on the edge of a new age, where people are beginning to get technology, communications and commerce together in a way by Web Multimedia.

Webcast is right a bridge between the benefits of high technology and the demands of the mass consumer; Webcast is audio & video broadcast on the Internet; Webcast creates the most exciting opportunity for computer music!

Radio and Music are audio art. Radio is an ideal testbed to produce new music, this also is why in the early 1950s Musique Concrete was born at the national radio station of France and Elektronische Musik was born at the Cologne Radio Station in Germany. However, in 1994 China Shenzhen Economic Broadcasting Station performed a series of radio music program experiments, too.

"International Music Network" was the first program of my radio music experiments. This "Network" was edited and processed by me, not by a computer. It sounded like the United Nations of music, because the radio-recording tape programs provided by China Radio International, Radio Canada International, Australian Radio International, Voice of America and Sound of Germany and the programs were controlled and processed into "sound montage". In fact, this was a virtual network-analog communication, not a real network-digital communication, and so this radio experiment was just a prelude to virtual webcasting music for me.

My second experiment was Morphing Radio Music Program.

Morphing Music is gradually transforming one musical work into another. My Morphing Radio Music Program was to freely transform English Music program into Chinese Music program on the air.

It was an English-Chinese bilingual program series, which designed to compare the music and culture of the East and the West. This program "Best of the East and Best of the West" was co-hosted by Pierre G. Beautrais from Radio Pacific in New Zealand and me in China.

This program was to incorporate a recorded part with a real-time part. The recording part in English was "Best of the West" made by Pierre and it was mailed to the Shenzhen Economic Broadcasting Station, and then according to the tape, I inserted "Best of the East" and hosted the real-time part in Chinese. Although Pierre hosted his part in New Zealand and I hosted mine in China, however, listeners heard us broadcasting from "one" radio studio.

The Morphing Radio Music Program was actually broadcast over the airat the Shenzhen Economic Broadcasting Station, P.R.C in 1994-1995.

Today we could image that if we had an interactive system for morphing music in real-time on the web, this interactive tool would enable hosts to Morph between different sonic environments. By applying visual, object-oriented programming to music, webcasting music can be programmed into a computer, the result is a machine that comes closer to the true dynamics of radio music programs, with enormous control over the output afforded to the host. This webcasting music system will be called as "Webcasting Morpher", the system in real-time music application can perfectly control and process Speech and Music on the web.

Webcast is a new kind of multimedia application. Webcasting Music Program is a network-based interactive music application in the real-time music application area: It enables multiple players to play in real-time together over computer network; It enables computer musicians to compose in real-time together over the web; It enables all kinds of musical ideas to concretely realize…