Composing Music—and Comparing Notes

Computers have been used in the field of music for some years now—but the relationship has not always been a harmonious one. According to Paul Lansky, professor of music at Princeton University's Computer Music Lab, the NeXT Computer has changed that. "I think that the NeXT Computer is the most important musical development to come along in years. It's the first computer that combines a lot of things that we've been forced to piece together in the past. We really like the total package—the environment, the Digital Signal Processor, the Music Kit, the Sound Kit, the converters, the objective C programming environment, the MIDI driver, the Interface Builder. It's a package that we think is really coherently and brilliantly thought out.

"Given the software that's there, and the hardware, and the development that companies like Ariel are doing, the NeXT Computer really looks to us like the music machine of the future—so we're intent on supporting it in every way we can."

The NeXT Computer is being used by the Computer Music Lab at several levels. Lansky and his graduate students are using it for music production. Lansky has had his NeXT Computer since last summer, and has already used it to produce three computer music pieces. "That's very rapid for me," he said. "Usually, I produce one or two pieces a year." The three pieces—two of which will be released commercially next fall on compact disc—are a varied lot. "They're musical images of aspects of the real world," Lansky explained. "One is about somebody playing rock-and-roll guitar, another is the processing of a conversation in Chinese, and another is about the sounds of a shopping mall." Lansky uses these sound inputs as musical sources with which to make musical patterns and shapes. "The piece about the guitar, for example, is sort of a musical portrait of a player. I took large stretches of improvisation that he did, manipulated them, and added computer instruments to go along with it. Then I did a lot of editing, reverberation, and room simulation, and put it all together."

At the undergraduate level, Lansky is using NeXT Computers for several courses he's teaching. Students have access to a lab with four NeXT machines, which they use for a variety of purposes. The computers—along with a number of synthesis languages, such as CSound, from MIT, and NeXT's Music Kit—enable them to experiment with sound in ways they couldn't otherwise.

Princeton students are using NeXT Computers to make music even after they leave school. Two of Lansky's former graduate students, for example, are now using NeXT Computers to produce music for MTV, commercials, and similar uses.

According to Lansky, NeXT is a great machine for computer musicians. ªIt's an extremely useful package for us,º he said. ªAnd for the first time, we're able to share a lot of software with people all over the country who are using it. Being able to share establishes a sense of community that is really lively and interesting and makes the whole development process much faster. I'm encouraging everyone to go out and buy these machines.º

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