Nathaniel Bartlett:
Solo Marimba + Computer-Generated Sound Projection

NATHANIEL BARTLETT
TECHNOLOGY
CLINIC/PERFORMANCE
SATURDAY
10:00 A.M.

By Emory Dease

Over the past few decades, musicians have made computers commonplace in their work. Instrument imitation, notation software, and audio mixing are just a few applications of technology that "everyday musicians" have added to their toolboxes. Marimbist Nathaniel Bartlett is taking a fresh approach to integrating the computer with the acoustic marimba. By allowing the computer to be a live instrument as well as a real-time decision maker, Bartlett is stretching the common assumptions of the computer's utility on the musical stage.

Bartlett controls the computer in real time with the sound of his marimba as well as with a set of custom foot pedals. Something as simple as a specific note being played at a predetermined volume can trigger a musical action by the computer. This differs from commonly used electronic triggers in that the computer is reacting solely to the acoustic sound produced by the marimba, instead of the computer reacting to the velocity or force with which a pad is struck with a stick or mallet. By using the computer in this way, Bartlett is "playing" the computer and allowing it to be its own musical instrument.

By configuring eight main speakers and a subwoofer in a cubiod array, Bartlett creates what he calls a *sound field* surrounding his audience. He explains the sound field as "a physical, three-dimensional space where sound exists."

Analogous to standing in the middle of Times Square, sound is all around the listener or audience member at Bartlett's performances. "A car honks its horn behind you, a plane is flying overhead while people are having conversations to your left and right," explains Bartlett. "The idea is that the sound comes from everywhere creating an audio sculpture and the audience is at the center of it all."

As unusual as Bartlett's use of the computer is sonically, it is equally innovative for notation. Computer monitors replace the music stand, as no physical pages exist. Foot pedals trigger "virtual" page turns, freeing the performer to concentrate on the music, while avoiding the nuisance of mounting large boards of sheet music that also block the audience's sightline to the performer.

Bartlett explains how electronic notation eases his experience as a performer. "Sheet music puts undue constraints on percussionists, especially in terms of setup and page turning. The monitor simplifies everything."

Besides displaying music electronically, Bartlett's notation interface pushes further in new directions. The computer creates notation in real time as he performs a composition. Reactions to the marimba and other events trigger variations that appear on the monitor. The variations remain within the essential form of the piece, but make each performance unique and original.

Bartlett is active in commissioning new works, and will be performing several compositions during his upcoming PASIC clinic in November. Exposing the percussion community to computer-generated sound projection is an important step in educating the public in the capabilities of the modern computer, especially within the musical field.

Bartlett was born in 1978 in Madison, Wisconsin. He is a graduate of the Eastman School of Music and the Royal Academy of Music (London), and he studied privately with marimbist Leigh Howard Stevens. Additional information can be found at his website, www.nathanielbartlett.com.

Emory Dease is a Percussion Graduate Assistant at Kansas State University. He holds a Bachelors of Arts in Music Education degree from Central College, Pella, Iowa. PN

TECHNOLOGY

JOHN BEST
TECHNOLOGY LAB
THURSDAY @ 9:00 A.M.