

## ***Protolith: Composition for marimba and spatialized electronics***

*Paul A. Oehlers*

Audio Technology Program,  
American University,  
4400 Massachusetts Ave. NW, Washington, DC 20016 USA  
[oeblers@american.edu](mailto:oeblers@american.edu)

### **ABSTRACT**

Written with form as the resultant of a process that creates sections of similar and contrasting elements, *Protolith* was written in celebration of the ICAD 2010 conference specifically for percussionist Nobue Matsuoka-Motley. The concert at the conference marks the world premiere of the piece.

### **1. PROGRAM NOTES**

*Protolith* attempts to derive formal structure by creating sections of music with unified global parameters (spatialization, rhythm, tempo, and meter) and juxtaposing them with elements of contrasting types (decreasing tempo vs. continuous tempo, unmetred vs. metred, close vs. far). The sections of similar and juxtaposed elements form the basis of the piece. The overall unifying parameter of the piece is timbre. *Protolith* refers to the lithography of a metamorphic rock. Metamorphic rocks can be derived from any other rock. They therefore have a wide variety of protoliths.

*Protolith* was written using various software synthesizers, resonating filters, convolution processes, and sounds and effects created with electronic and recorded sound, assembled in Pro Tools, and spatialized with VR Sonic's Vibe Studio software. Sections were assembled independent from each other and combined to form the global structure of the piece.

### **2. VIBE STUDIO**

*Protolith* employs VR Sonic's Vibe Studio in order to simulate realistic 3D environments through which the sounds of the piece travel. "VibeStation is a first of its kind virtual sonic environment design and runtime application. It provides a comprehensive editing suite for creating and incorporating spatial audio content into exhibition, post-production, lecture, immersive theater, or simulation systems. Based on SoundScape3D technology, VibeStation provides, for the first time, an integrated design environment for creating virtual sonic environments.

As a dynamic runtime environment, VibeStation is a powerful real-time audio simulation tool that allows users to build and apply realistic audio environments to networked simulations or research environments with no additional programming. Connect directly to your simulation using InterfaceLink™ technology and see how immersive audio adds a true sense of realism." [1]

### **3. ABOUT THE PERFORMER**

Nobue Matsuoka began studying marimba at the age of ten with her aunt, Kayoko Kito in Nagoya, Japan. She came to the United States in 1989 and studied percussion at Loyola University in New Orleans with Jim Atwood of the Louisiana Philharmonic Orchestra. She won the Aspen Music Festival Percussion Competition in 1994, became the national winner of the 1995 Music Teacher National Association Young Artist Competition in Percussion and graduated from Loyola with honors. In 1998, she received a master's degree in percussion performance from Southern Methodist University where she studied with Douglas Howard of the Dallas Symphony Orchestra.

As an active orchestral percussionist, Nobue's professional career includes performances with the Louisiana Philharmonic Orchestra, the New Orleans Opera, the Dallas Symphony Orchestra and the Nagoya Philharmonic Orchestra in Japan. She was a semi-finalist for the Buffalo Philharmonic and the Houston Symphony and a finalist for the Nagoya Philharmonic Orchestra. In 2003, the Gambit Weekly of New Orleans, honored her performance "Sticks and Strings II" with the Tribute to the Classical Arts Award for Best Chamber Performance.

She has worked for Google, Inc. as a Japanese Quality Rater, a Reference/Technical Services Librarian at Notre Dame Seminary and a Public Services Assistant/ILL specialist at Loyola University in New Orleans. Nobue recently moved from New Orleans, LA to become the Music/Performing Arts librarian at American University in Washington, DC. [2]

### **4. REFERENCES**

- [1] [www.vrsonic.com](http://www.vrsonic.com)
- [2] <http://www.musicacademyonline.com/performers/nobue.php>