

## Upcoming ECMC25 Concerts

Saturday, April 14

### **Contemporary Organ Music Festival**

with the Eastman Organ Department &  
College Music Department

**Steve Everett, Ron Nagorcka, and René Uijlenhoet,**  
**guest composers**

5:00 p.m. + 7:15 p.m., Interfaith Chapel on Wilson Blvd.,  
University of Rochester

Wednesday, May 2

### **New carillon works by David Wessel and Stephen Rush**

with the College Music Department

12:00 pm, Eastman Quadrangle (outdoor venue), University of  
Rochester

*admission to all concerts is free*  
ecmc.rochester.edu



## THE ECMC 25<sup>TH</sup> ANNIVERSARY CONCERT SERIES

This concert is the sixth in a series of eight concerts accompanied by guest lectures and related events sponsored by the Eastman Computer Music Center during the 2006-2007 academic year. The series celebrates the twenty-fifth anniversary of the founding of the center's computer facilities and of its creative and academic programs.

The next concert takes place at Interfaith Chapel on Wilson Boulevard at the University of Rochester. In conjunction with the Eastman Department of Organ & Historical Keyboards and the UR College Music Department, the ECMC will present works for organ and tape, for organ and live processing, and for carillon and electronics, including the world premieres of two new works. A grant from the UR College of Arts & Sciences has made this concert possible.

## Eastman Computer Music Center (ECMC) 25<sup>th</sup> Anniversary Series

**JoAnn Kuchera-Morin & Greg Wilder,**  
guest composers  
**Nathaniel Barlett & Jill Felber,**  
guest artists

Thursday, March 22, 2007

7:00 p.m.

Memorial Art Gallery



*PROGRAM*

- timeandagain** (2007) JoAnn Kuchera-Morin  
7:00  
Jill Felber, flute  
with multimodal music stand
- Synchronism No. 8** (1974) Mario Davidovsky  
7:00  
wind quintet *A441* and tape  
Helen Kong, flute  
Shane Helfner, oboe  
Oliver Hagen, clarinet  
Richard Chen, bassoon  
Dan Nebel, French horn
- Correspondence** (2007) Christopher Winders  
7:00  
Mark DeMott, guitar  
and processed sound
- Measuring Time and Place** (2007) Scott Petersen  
7:12  
Scott Petersen, quena  
and 4-channel digital audio

INTERMISSION

- Interlude** (2005) Greg Wilder  
6:00  
Nathaniel Bartlett, 5-octave marimba  
with 8-channel digital audio
- Vyšehrad** (2003) Greg Wilder  
11:00  
stereo playback
- Precipice** (2004) Allan Schindler  
17:40  
Nathaniel Bartlett, 5-octave marimba  
and computer-generated sounds

## PROGRAM NOTES

*timeandagain* (2007), by JoAnn Kuchera-Morin, is a work for flute and multi modal music stand that allows the performer to control the computer-generated portion of the work much in the way that they gesture and cue other live performers. The computer-generated portion of the work is primarily generated from the first 21 seconds of the live flute performance, thus allowing for the possibility of real-time processing algorithms to generate a new playback from each performance of the work. The Multimodal Music Stand (MMMS) is a device for the untethered sensing of performance gestures and the interactive control of music. Using a combination of multiple modalities such as electric-field sensing, computer vision, and audio analysis, the MMMS allows any traditional performer to extend their technique without physically extending their instrument. In this way, it has the potential to become a breakthrough in interactive electroacoustic music performance.

Mario Davidovsky wrote *Synchronism No. 8* (1974) on a commission from the Dorian Wind Quintet. The piece was realized at the Columbia-Princeton Electronic Music Center, of which he is former director. The Synchronisms series, beginning with *Synchronism No. 1* (1962) for flute and electronic sounds, allowed live and electronic sounds to modulate one another into something new, joining in an expanded acoustical space. Each piece in the series experiments with the most basic acoustical properties of the live instrument employed, including envelopes, overall tone color, and individual overtones. The pieces also exploit listeners' expectations about the live instrument through manipulation of its normal limitations. *Synchronism No. 6* for piano and electronic sounds was awarded the 1971 Pulitzer Prize for Music. Following *Synchronism No. 8* in 1974, Davidovsky focused on a series of purely instrumental pieces that exploited discoveries made in the studio. The sound world he had invented there translated to various chamber ensembles in work such as *Inflexions* (1965), a highly electronic-sounding chamber piece. After a fifteen-year hiatus from electronic music, he wrote *Synchronism No. 9* (1988) for violin and electronic sounds and concluded the series with *Synchronism No. 10* (1992) for guitar and electronic sounds. (E.C./T.N.)

Christopher Winders' *Correspondence* (2007), revised for this performance, is scored for live guitar and processed guitar sounds. The title refers to the modes of interaction between performed and recorded parts: one encounters correspondence when two temporal events occur at the same time or it can be conceived of analogously to an exchange of letters between two entities. These exchanges can be short, as in a brief exchange of emails, or much longer sections in which more elaborate ideas are explored. (C.W.)

All elements of *Measure Time and Place* (Scott Petersen, 2007)—pitch, rhythm (time), and spatialization—are connected. The work is, literally, the measurement of a virtual space in time. These measurements result in a series of numbers that correspond to specific points in the performance venue. The circumference of the space measures 14 by 19 seconds square. Within these measurements of the space are areas of importance. They are important because they move from the virtual space to places of consequence in the real performance space. Examples of these places are where the performer begins the piece and where the speakers are positioned. The measurement of these places is made in the time it takes to traverse the distance from one to another.

For example, midway through the stage, where the player begins the piece, is 0.7 steps (seconds) to either side, and then he is at the end of the stage. 11 steps from 0, and he is at one of the front speakers. It takes 26 steps to reach either of the rear speakers in the hall, etc. These numbers, 7, 11, 14, and 26, join other numbers of importance, such as the time it takes to circumnavigate the entire space, to inform the large-scale structure and organization of musical events, as well as to inform local-level events such as the placement of accents or the number of repetitions of a note. In addition, the pitch material is related to these numbers. Numbered on the quena from bottom to top, the pitches were chosen according to their relation to each other in reference to the important numbers.

An additional element of *Measure Time and Place* is the interaction of the parts, that of the live performer and that which is prerecorded. The prerecorded material may be thought of as four distinct additional players, each constrained to perform in the virtual environment that mirrors the real-world environment of the live performer. Each of these parts interacts with the special areas of its

shared virtual space, with each other, and with the performer. As the performer moves through the real environment, the performance space, he traverses a real space that is simultaneously being traversed by the other parts in the parallel virtual space. The interaction of the performer with the prerecorded material may be thought of as the simultaneous measurement of past and real-time musical events. Conceptually, the prerecorded elements occupy multiple places in time. They were real-time when they were created, but were also created with the future in mind. Although they are technically of a past time, they are experienced in real-time during the performance of the piece, “interacting” and combining with the material of the live performer. (S.P.)

Before I created the musical material that would eventually become *Interlude* (Greg Wilder, 2005), I followed Nathaniel to numerous concert venues in order to closely study his unique approach to marimba playing — Nathaniel is able to produce an extraordinarily deep, woody tone while maintaining a wide variety of expressive color variations. In addition, his adaptable mallet grip allows him the flexibility to perform complex passages that remain outside the standard lexicon of most mallet performers. My greatest challenge with *Interlude* was to find ways to showcase these remarkable features of his work through the vehicle of a short “musical palette cleanser.”

Musically speaking, my goal was to create a piece less concerned with specific, identifiable ideas and more about the world it defines and inhabits. Toward this aim, *Interlude* employs a multi-channel, computer-generated accompaniment that compliments and enhances the playfully scored marimba gestures. The digitally manipulated and expanded sound resources were compiled from piano and woodwind instruments in an effort to create an acoustically grounded, hyper-realistic environment using performance-based gesture models. The result is a brief journey through an unusual sonic world comprised of conceptually derived musical shapes and sights. (G.W.)

**Vyšehrad** (Greg Wilder, 2003) is the oldest section of Prague and served as a center of power for the original Slavonic dynasty that ruled the country during its first four centuries of history. According to legend, the Princess Libuse predicted the birth of Prague from this high ground on the Moldau, “a city whose glory would rise to the

stars...” Vyšehrad was created using an Intel based computing system running linux, MIT’s Csound, and qrt. (G.W.)

*Precipice* (Allan Schindler, 2004) provided me with an opportunity to explore the remarkably wide range of textures, timbres and playing techniques available on extended five octave marimbas. In the hands of virtuoso soloists employing contemporary four mallet techniques, the marimba often no longer sounds to my ears like an idiophonic percussive instrument, but rather can create an extraordinary breadth of subtle colors, phrasings, expressive gestures and nuances that at times are almost suggestive of vocal, string instrument, or piano performance techniques.

A particularly prominent element within *Precipice* is the utilization of various types of tremolos (rolled melodies and chords). Some chorale-like passages, for example, feature continuous alternations or transformations in tremolo speed in where the bars are struck and in the relative loudness produced by the four mallets. Live performance of this work was conceived for four or eight channel playback of the computer part, enabling spatialization of the computer sounds to virtual locations throughout the hall.

Nathaniel Bartlett, who commissioned the piece, offered many valuable performance and notational suggestions. He has performed the piece on more than fifty concerts and has recorded it on a commercial SACD compact disc recording also entitled *Precipice*. Many of the computer-generated sounds, especially during the latter half of the piece, were derived from sampled recordings of Bartlett playing isolated tones on his marimba, but often this may not be readily apparent. By digitally altering the frequencies, durations and attack/decay characteristics of these tones, and through granularization — slicing variously pitched sampled tones into tiny fragments, then stringing hundreds of these sound grains per second into timbral “necklaces” — it is possible to create pulsating or glistening sound colors that to me have a haunting richness and depth. More information on this piece is available at the composer’s website. (A.S.)

## *A NOTE ABOUT THE INSTALLATION*

**Modern Forest** (Scott Petersen, 2007) was created on a whim. It grew from an initial idea to simply fill an indoor space with the sound of a forest. Trees have always been very special to me, deeply and inexplicably so. The initial conception for the piece grew to include ideas of environmental responsibility as I pondered the materials that would give body to my idea. I quickly abandoned all notions of realistic representation and chose a minimalist, almost abstract representation for the trees. For the sound, a simple combination of granular synthesis techniques, filters and pink noise were used. With the sound, as with the physical sculpture, realism was not a motivating factor. The work is a response to the beauty and complexity of nature as it shows the shortcomings of any attempt to synthesize or recreate nature while striving to become something altogether different.

The materials that comprise the sculpture are all unavoidably detrimental to our planet. They are used every day by thousands of people for various purposes throughout the world.

Scott Petersen would like to thank Gabriela for her constant support and encouragement, Matt for his vast Linux knowledge and assistance, and Paul for his endless insights into and help with electronics, and also for the use of his garage and his stereo. *Modern Forest* would not have happened were it not for these three people. Much love! (S.P.)

## *MEET THE ARTISTS*

**Dr. JoAnn Kuchera-Morin** is Professor of Composition in the Music Department and in the Graduate Program in Media Arts and Technology, Director of the Center for Research in Electronic Art Technology (CREATE) and Director of the Allosphere Research Project in the California Nanosystems Institute at the University of California, Santa Barbara. She received her Ph.D. from the Eastman School of Music in 1984. Her current music research is focusing on a general purpose interface for control of digital information through natural performance gesture. Her Allosphere research project is one

of the largest immersive scientific instruments in the world. A composer of primarily electroacoustic works, her music has been performed throughout the United States, Europe and Asia.

**Jill Felber** has performed solo recitals, chamber music, and concertos on four continents and has held residencies in Hong Kong, Taiwan, Australia, Mexico, France, Switzerland, Great Britain, Mexico, and the United States. A tireless performer of new music, she has inspired many composers to write solo and chamber works for her and for her flute duo ZAWA! and is engaged in several commissioning projects. She has premiered over three hundred works for flute and has released world premiere recordings for Centaur Records, CRI, Neuma Records, and ZAWA!MUSIC. She is Professor of Flute at the University of California, Santa Barbara, and performs as Principal Flute with Opera Santa Barbara. Holding degrees from the University of Michigan and Bowling Green State University, she has taught on the faculties of Ohio University, Capital University, and Wright State University. Her teachers include Keith Bryan, Judith Bentley, Samuel Baron, and James Galway.

**Scott Petersen** (b. 1978) is a composer of acoustic and electronic music. He received his BMus and MM degrees from the Peabody Conservatory and is currently in the DMA program in composition at the Eastman School of Music. His musical works include pieces written for large orchestra, string orchestra, small ensemble with and without electronics, solo works with electronics, works for large homogenous instrumental groups, and film.

Since earning his DMA from Eastman in 2002, **Greg Wilder** has taught on the faculties of Dickinson College and West Chester University, where he received an HSA “Outstanding Faculty Member” award for excellence in teaching and honorary membership in Tau Beta Sigma. Dr. Wilder’s college-level teaching experience includes courses in all levels of music theory, ear training, and advanced computer music, as well as interdisciplinary multimedia project creation.

In recent years Greg has worked with top industry leaders as pianist, composer, software developer, and theatrical sound designer. In

addition to countless commercial credits, Greg has served as engraver/editor for several major publications and composed original music for nearly a dozen theatrical productions around the country, including several world premieres. His concert music has garnered featured performances in prominent venues around the world, in addition to numerous awards and honors from organizations including the American Composer's Forum, the Angel Orensanz Foundation, the William Penn Foundation, ASCAP, the Society of Composers International, and the American Academy of Arts and Letters.

Greg serves as president of Steeprock Media, Inc., an audio production company pioneering solutions in broadcast recording and interactive media. Under his direction, Steeprock has successfully designed and brought to market intelligent interactive media systems that provide uniquely tailored musical compositions in real time. Steeprock recently celebrated the launch of Orpheus, the industry's first web-based music library that allows users to customize music cues to match the specific needs of their projects.

**Nathaniel Bartlett** was born in 1978 in Madison, Wisconsin. He studied at the Eastman School of Music, the Royal Academy of Music (London), and privately with marimbist Leigh Howard Stevens. As an integral part of being dedicated to an instrument *of our time* (the modern marimba), he is also dedicated to the music *of our time* – making a great effort to commission, perform, and record new works for the modern marimba. In particular, he is interested in works that utilize 3D computer-generated sound projection.

He performs with a rig incorporating electronics, computers, and an eight-channel cuboid loudspeaker array, a performance concept he calls *modern marimba3*. In 2006, his debut solo marimba album was released on Albany Records. This recording, a hybrid multichannel SACD entitled *Precipice*, contains new and recent music by living American composers, including works he recently commissioned.

Bartlett specializes in serious Western art music of our time on an instrument of our time – the modern marimba. His repertoire focuses on works involving 3D, high definition, computer-generated sound projection. Through the use of a high-powered computer, other electronics, and a cube of eight high-definition speakers, he is able to

project and move sound anywhere in the performance space: total immersion in sound. Computer-generated sounds relate quite well to the visual arts in that concepts of objecthood and spatial structure become a part of the musical fabric.

**Allan Schindler** is Professor of Composition and Director of the Eastman Computer Music Center at the Eastman School of Music. Six of his compositions are available in commercial compact disc recordings, and another half dozen are available in score publications distributed by European and American music publishers. More complete biographical and current activity information is available at his website, <http://ecmc.rochester.edu/allan>

#### *THE ECMC STAFF*

Chris Winders  
Baljinder Sekhon II  
Bob Pierzak  
Scott Petersen  
Tiffany Ng  
Paul Coleman  
Matt Barber  
Hendel Almetus

Allan Schindler, Director (on sabbatical)