The Laptop Ensemble as Pedagogical Tool

A panel discussion proposal for ICMC 2006

Principle contact persons:

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Objective and Format:

This panel will bring together several scholar/artists who have directed laptop ensembles in a university setting. The goal will be to engage in a dialogue about their collective experiences, recounting both successes and failures. We hope to address the function of technology ensembles within undergraduate and graduate programs focused on music technology and/or composition. The audience will be invited to participate in the dialogue by posing questions to the panelists and recounting their own relevant personal experiences. We hope this will foster a broad discussion about an important teaching tool for our discipline and help develop a network of individuals interested in the topic.

Abstract:

The performing ensemble has a firmly established role in music education. In the music conservatory model, conventional acoustic groups such as the chamber orchestra provide students with the opportunity to apply musicianship skills that are taught in the classroom. These skills typically encompass subjects such as theory, analysis and aural skills. Traditional ensembles also have long-standing conventions about how their membership should be balanced based on instrumentation or range. When extending this ensemble tradition into the domain of technology-based music, certain questions commonly arise: what instrumentation is most effective in a technology-based music ensemble? What is the primary intellectual focus of the activity (code, learning software, performance skills)?

Institutions of higher learning produce diverse answers to these questions. Historically, there have been some general trends. Early technology-based ensembles were centered around the synthesizer, and leveraged its timbral variety. Repertoire usually consisted of arrangements or commissioned compositions tailored to an ensemble's membership. As computer hardware has become less expensive and more portable, the laptop computer has begun to unseat the synthesizer as the instrument of choice.

The transition from synthesizer to laptop has created exciting creative and pedagogical possibilities. The use of general computing hardware makes it easier to explore intermedia, and enables students to more directly participate in

the compositional responsibilities; this in turn raises the question of aesthetic antecedents and direction. As a teaching tool, technology-based music ensembles facilitate experiential, problem-based, collaborative learning in ways that complement and extend conventional classroom teaching. This panel will focus on the ability of laptop ensembles to enhance the development of artistic and technical skills in music students.

Panelists:

1) James Harley, Assistant Professor, Guelph University

Contact: jharley@uoguelph.ca

Bio:
James Harley, obtained his doctorate in composition/computer music from McGill University in 1994 where he studied with Bruce Pennycock and Bo Alphonce. From 1999-2004 he was Coordinator of Music Technology at Minnesota State University Moorhead, and in 2003 he created a new student group there, the Interactive Electronica Ensemble. Harley is active as a composer, researcher, and performer, and is also an Associate Editor of Computer Music Journal. He has received numerous prizes, grants and awards for his music including a McKnight Composers Fellowship and a grant from the Conseil des Arts et des Lettres du Quebec. Harley's book, Xenakis: His Life and Music, was published by Routledge in 2004. He is currently Assistant Professor of Digital Music at the University of Guelph in Ontario, Canada.

Position:
My experience working with students in music programs that do not focus on music performance (Music Industry degree, or Bachelor of Arts degree) is that their creative abilities and desires can be hampered by their inexperience in traditional musical skills. I developed the Interactive Electronica Ensemble to provide an opportunity to engage in composition/improvisation/performance using technology such as laptop computers. This has enabled students to develop highly refined musical sensibilities, the ultimate goal of any ensemble experience in a pedagogical setting.

2) Virgil Moorefield, Associate Professor, University of Michigan Ann Arbor

Contact: virgilm@umich.edu

Bio:
Virgil Moorefield is a composer, author, and drummer. His CD, The Temperature in Hell is Over 3,000 Degrees, is available on Tzadik

Records. His previous CD Distractions On the Way To the King's Party (Cuneiform) received international critical acclaim. Things You Must Do To Get To Heaven , a new ensemble project, was recently recorded in New York. The Virgil Moorefield Ensemble has performed in Europe and the U.S., including the Inventing America Festival at London's Barbican Centre, the Patronaat Festival in Haarlem, Holland, and the Bang On A Can Marathon at Lincoln Center. A collaborative CD, The Emily XYZ Songbook, appeared on Rattapallax in 2005; a collaborative intermedia work, Chicago Union Station, was presented at the International Computer Music Conference in Miami in 2004. Moorefield was recently awarded Rockefeller Foundation and MacDowell composition residencies (2005). He has also received grants from Commissioning Music USA, the Illinois Arts Council, and the NEA. Moorefield was commissioned by the Bang On A Can All-Stars to compose Arrival of the Crows; an orchestral work, Blanqui (Fragments for Orchestra) was premiered by the Orchestra of the S.E.M. Ensemble in Brooklyn. His book, The Producer As Composer, was published by MIT Press (2005). As a drummer, Moorefield has worked with numerous rock and avantgarde artists, including Swans, Bill Laswell, Elliott Sharp, and Damage. Most recently, he appeared as drummer for Glenn Branca's "Hallucination City" for 100 electric guitars at Walt Disney Concert Hall in Los Angeles (2006). Moorefield received a Ph.D. in composition from Princeton University. He is currently Associate Professor of Music at the University of Michigan in Ann Arbor, MI.

Position:
I was the director of Lucid Dream Ensemble, founded in 2002 at Northwestern University. The group was made up of audio-visual performers who control laptop computers in real-time by various interactive means. Its canvas was a surround-sound set-up, as well as three-channel video projection. Over the course of three years, the group progressed from presenting unrelated audio and video, to integrating the process of creation of sound and image, to collecting audio and video as a group and processing them collaboratively. This evolution proved to be an invaluable learning experience for all involved with the group and was chronicled in a 2004 journal article for Organised Sound.

3) Stephen Rush, Associate Professor, University of Michigan Ann Arbor

Contact: srush@umich.edu

Bio:
Stephen Rush is an Associate Professor at the University of Michigan, where he works with students from music, dance, art, and engineering. He is also the director of the Digital Music Ensemble, and the Music Director of the Dance Department. Rush has had premieres at the Merce Cunningham Studio and Merkin Hall in New York, Gyory Ballett in

Hungary;at many universities and colleges in the USA; and internationally in Canada (Toronto's Fringe Festival), Central and South America, most countries in Europe, and in Japan, India and Russia. His concert music has been published by Dorn, CRC and C. Alan Publications. Rush has premiered and recorded his music with the Detroit Symphony Orchestra, Warsaw National Symphony and members of the New York Philharmonic, and has released recordings on CALA, MMC Records, Centaur O.O.Discs, Equilibrium, Canterbury House and CRC Publications. He has received grants from Meet the Composer, New York Foundation for the Arts, the National Endowment for the Arts, United States Information Agency, and American Music Center. He is also known as a pianist, performing with Roscoe Mitchell, Steve Swell, Eugene Chadbourne, Pauline Oliveros, his electronic jazz group "Quartex", "Blue" Gene Tyranny, and the late Peter Kowald. Recently he has been quite active as an "interviewer", conducting public interviews with artists as disparate as Laurie Anderson, LaMonte Young, and Ravi Shankar.

Position:
Since 1992 I have been the director of the Digital Music Ensemble, a multi-media ensemble sponsored by the University of Michigan School of Music. The Ensemble creates site-specific and theatrical works, has recorded with Pauline Oliveros and "Blue" Gene Tyranny, and premiered work by Philip Glass, La Monte Young and John Cage. My rationale for the creation of the DME is that I feel today's students, when confronted with an artistic question, tend to solve it with technology. My goal in directing the ensemble is to bring them fresh questions, then enable the artistic solution (however sophisticated the technology may be). The outcome of the process is much more far-reaching than ensembles with pre-existent repertory, which is not to say that it is more important. The ensemble meets every semester, has an operating budget endorsed by our Dean, and won the Smithsonian Compuworld Award in 2002.

4) Dan Trueman, Assistant Professor, Princeton University

Contact: dtrueman@princeton.edu

Bio:
Dan Trueman plays and composes for a variety of violins, including the 6-string electric violin, the Norwegian Hardanger fiddle, and the Bowed-Sensor-Speaker-Array. His electronic improvisation ensemble “interface” has performed widely and recently released a DVD of improvisations and dance pieces with guest Pauline Oliveros. His duo “Trollstilt” released its first CD of original tunes in 2000 and has performed internationally at both contemporary music festivals and folk music festivals. As a composer of concert music, Dan has completed commissions from the American Composers Forum (Hardanger fiddle and orchestra), the Society for New

Music (electronic chamber ensemble), the Tarab Cello Ensemble (8 cellos), and most recently from the American Composers Orchestra, which premiered his piece Traps Relaxed, for strings, percussion and electric violin/laptop, at Carnegie Hall's Zankel Hall in January 2005. He teaches composition and electronic music at Princeton University and is currently working on a piece for Zakir Hussain, So Percussion and the Princeton Laptop Orchestra (PLOrk, which he co-founded with Perry Cook).

Position:
As part of the panel, I would focus my discussions on our experiences with the recently formed Princeton Laptop Orchestra (PLOrk). This is a newly established ensemble of computer-based musical meta-instruments. Each instrument consists of a laptop, a multi-channel hemispherical speaker, and a variety of control devices (keyboards, graphics tablets, sensors, etc...). The students who make up the ensemble act as performers, researchers, composers, and software developers. The challenges are many: what kinds of sounds can we create? how can we physically control these sounds? how do we compose with these sounds? There are also social questions with musical and technical ramifications: how do we organize a dozen players in this context? with a conductor? via a wireless network?

5) Nathan Wolek, Assistant Professor, Stetson University

Contact: nwolek@stetson.edu

Bio:
Nathan Wolek is an audio artist and researcher whose work encompasses advanced signal processing techniques, multimedia performance, audio installation art, and electronic music history. His software development includes VST plugins and Max/MSP externals that enable a variety of signal processing techniques. In 2005, Cycling'74 released *Hipno*, a collection of over 40 plugins that Wolek co-developed with Electrotap. He has performed with various groups as a laptop musician, appearing at the New Music Marathon (Evanston, IL), Version Festival (Chicago, IL), SEAMUS National Conference (Tempe, AZ), Ybor Festival of the Moving Image (Tampa, FL), New Forms Festival (Vancouver, BC), Spark Festival of Electronic Music and Art (Minneapolis, MN), Florida Electroacoustic Music Festival (Gainesville, FL) and the International Symposium of Electronic Art (San Jose, CA). His audio installations have been featured as part of Sonic Circuits, New Music Marathon and Chicago MayFest events. Wolek completed his Ph.D. in Music Technology at Northwestern University, and is currently Assistant Professor of Music Technology at Stetson University.

Position:
I will speak primarily about my current roll as music director of MPG: Mobile Performance Group. This group of new media artists disseminates work using automobiles, video projection, cell phones, FM transmission, wireless hotspots, and any other technologies with the goal of engaging the public more directly than we otherwise could through traditional venues. The Group's membership is comprised of students from classes taught as part of Stetson University's Digital Arts program. Undergraduate students with both visual and musical training collaborate to develop unique multimedia performances for MPG. I feel this is an ideal environment for their aesthetic sensibilities and technical training to be tested and honed, thereby increasing their overall self-confidence as artists.

Technical Requirements and Duration:

Depending on the size of the room, amplification may be necessary. If this is the case, in addition microphones for each of our panelists we would request a wireless microphone for audience participation. A computer with visual projection, audio playback and an Internet connection would enable us to present any multimedia that the panelists deem important.

We feel that this panel discussion would require a minimum of 30 minutes duration. This would provide each of our panelists with two to three minutes for brief opening comments before engaging the audience with the balance of our allotted time. Should the submission judges feel that more time is warranted and the schedule is able to accommodate it, we would be more than willing to extend our discussion to a maximum duration of one hour.