LOUI

The Laptop Orchestra at UI

The Laptop Orchestra at University of Iowa represents a technical, aesthetic and social research opportunity for students and faculty. The ensemble is open to anyone who is interested in exploring aspects of the creation, performance and development of multimedia works. While music and software serve as a focal point, participants are encouraged to develop ideas collaboratively, contributing their own area of expertise and learning about other disciplines. This approach enables the exchange of ideas between a computer programmer and a dancer or an instrumental performer and a data robotics engineer.

Over the course of the 2015-16 academic season, LOUi is beginning an investigation into the role and types of performance a laptop ensemble can present. The goal is to explore the elements of performance and a range of musical ideas by focusing the creative energy on performing the works of composers beyond the Iowa community and then creating works in reaction to lessons learned. The Fall semester is devoted to the performance of four to six works, some of which are brand new, and that approach the ensemble in different ways. The emphasis is to not spend time in the particulars of developing a work, but rather to observe what others have done and use the opportunity to focus on the act of performance and develop criteria for a

performance/work that successfully challenges and supports a performer(s) and audience(s). The spring semester will serve as a time to develop new works that implement lessons that have been learned and explore the affordances that a focus on performance has created. One unique opportunity that results from having played others peoples music in the first semester is an opportunity to collaborate with students and faculty at other institutions in the second semester. This collaboration could involve sharing sonic ideas or even sharing a performance across multiple ensembles. The non-hierarchical structure of the laptop ensemble creates a pedagogical space for a range of people to emerge as leaders throughout the assertion of their unique skill-set and to expand collaborative dexterity.

- Christopher Jette 2015

In This Section

Interim Director Christopher Jette

2014-15 Introduction of LOUI

Course Syllabus

Teaching Policies & Procedures

Concert XIV — 04/23/2016

Concert XIV

The Laptop Orchestra at UI (LOUI)

Saturday, April 23, 2015, 7:30pm
Riverside Recital Hall (map)

Program

Fade in. **Carlos TORO-TOBON** *[BIO]*

A brain-sensing headband is the main control of the processes on this piece. The data provided by this hardware come from an accelerometer, a blink sensor, and an electroencephalograph. The control of each of the three sections of the piece is related to each of these sensors in that specific order and takes the performer from external expressions (head movements) through a gestural control (blink) to an internal process (brain waves). The parameters for the sound in sections two and three are taken directly from brainwave data, and the performer's goal is to move from an active state of mind

in section two to a peaceful one in the third section.

Mutability/Morphology **Joseph NORMAN** *[BIO]* and **Jake SIMMONS** *[BIO]*

Mutability/Morphology is based on a series of transformational states, each involving unique quantifications of register, density, dynamics, and timbre. These states are realized through the interplay of live lap top performers who alternate and overlap with algorithmically derived responses from each computer. Each state has a characteristic sound mass that is generated from the composite textures provided by the live players and the computer responses. The sound mass organically shifts in pitch space and sound color until it reaches a pinnacle of sonic saturation.

Cloud Organum **Brian HANSEN**

Cloud Organum derives its sonic foundations from dissonance theories originating in the writings of Hermann Helmholtz, On the Sensations of Tone, and Plomp and Levelt. Tonal Consonance and Critical Bandwidth. In particular, the notion of sensory dissonance (sonic “roughness”) is employed to generate frequency spectra with sounding roughness of various degrees. Each spectrum implies unique harmonic relationships of consonance and dissonance, where ultimately various tunings can be derived and explored.

In the piece, each ensemble member is presented with the generation of a sonic cloud, where they control its roughness and dynamic level. The cloud, consisting of a unique spectrum generated from a desired level of roughness, gets transmitted to a centralized hub. The hub then aggregates the ensemble spectra, calculating an optimal tuning for the entirety of frequency content present. With a tuning established, the ensemble then explores sonic relationships and characteristics present in the environment.

Brian Hansen holds a PhD in Music Composition and MS in Media Arts and Technology from the University of California Santa Barbara, where he studied principally with Clarence Barlow and Curtis Roads. He currently resides in the Los Angeles area working as a music

technologist. His main work lies in consulting, where he advises companies and individuals as a composer, algorithmic music specialist, sound designer, and developer of professional audio interfaces.

"The First Gathering" **Jonathan WILSON** *[BIO]*

Yosano Akiko, excerpts from *Midaregami*
Maissa Bey, excerpts from "What's an Arab?"
Raed Al Jashi, a selection of poems from *Genesis of Dignity: The Impact of the Arab Spring*
Koffi Kwahule, excerpts from *Les Recluses*
Marie Silkeberg, excerpts from *Staderna* ("The Cities")

Performers:
Patricia Hartland, *poet*
Hodna Nuernberg, *poet*
Amira Rammah, *poet*
Nicholas Theisen, *poet*
Kelsi Vanada, *poet*

The First Gathering is about the amalgamation of text and music into a collection, the assimilation of various ideas that are introduced individually, developed, and then combined into a kind of patchwork composition. The relationship I form between text and music is based on similarities in rhythm and contour, which are based on my adaptation of a passage from Yosano Akiko's *Midaregami* that was translated into English by Nicholas Theisen. In addition, the text of *Midaregami* is connected to four other texts, which have an indirect relationship to the individual lines of that poem and are united on the topic of social justice through images of death, decay, and war. These texts include a selection of poems from *Genesis of Dignity: The Impact of the Arab Spring* by Raed Al Jishi, which was translated by Amira Rammah; excerpts from *Les Recluses* by Koffi Kwahule, which was translated by Patricia Hartland; excerpts from *Staderna* ("The Cities") by Marie Silkeberg, which was translated by Kelsi Vanada; and excerpts from "What's an Arab?" by Maissa Bey, which was translated by Hodna Nuernberg. In addition, I borrow a brief passage

from T. S. Eliot's poem "The Waste Land."

While the poets read these texts, the performers in the laptop orchestra use a MIDI pad controller called QuNeo to play particular pitches from one or more oscillators on a program called Max. This piece is divided into three sections. The exposition introduces six motives that are crucial to this piece. The performers develop each of these motives individually by means of improvisation, with limitations placed on the variation of contour, rhythm, and rate at which these motives are heard. The development section becomes a kind of jam session for the performers. They combine these motives together into larger melodic cells, and the rate at which these motives are mixed gradually becomes more frenzied and agitated. After this rush of activity dissolves, a full statement of all six motives closes the work as the text from Midaregami is heard once again, now in its entirety. One more poem is read, and the music fades out.

In making this performance possible special recognition must be given to Patricia Hartland and Christopher Jette. Additionally, for their feedback and contributions to this project, I owe my thanks to the members of LOUi and to the poets.

Ensemble Feedback Networks

Ensemble Feedback Networks is a structured musical improvisation, where a variable number of players excite and control a sparsely-connected feedback delay network. This work was developed over 2 + years by the UCSB CREATE Ensemble. Each of the unique personal instruments manipulates a received audio input and incorporates it into the output. A digital patching matrix creates various connection topologies among the ensemble by mixing the instruments' outputs to form each instrument's input. Topologies with loops create feedback and can seem like a single group instrument whose behavior vitally depends on each performer's actions. As an ensemble, we explore several issues this raises. How do humans cybernetically adapt to these dynamic topologies? How to adapt our personal dynamics to the radical democratization of everybody's sound going through everybody's instruments and each member having a vital role with (some) total control at all times? What is the

relationship between managing a complex system versus being managed by the system? How much control can we have over a denselyconnected system? How do these challenges affect our musicianship?

In This Section

Concert I

Concert II

Concerts III & IV

Concert V

Concert VI

Concert VII

Concert VIII

Concert IX

Concert X

Concert XI

Concert XII & XIII

Concert XIV

Concert XV

Josh Levine, Asst. Professor, 2015

Nomi Epstein, Asst. Professor, 2016

Workshop Composers

Ensemble Musicians

Season 50 Photos