



Cube Fest 2018

August 9-12, 2018

SCHEDULE

Each performance is \$10 general admission except where indicated with *; those performances are free.

THURSDAY, AUGUST 9, 2018

Spatial Music Workshop*
Research ReSounds

7 PM
Cube

Destination Freedom
In(n/H)er Head
Untitled

Yvette Janine Jackson (San Francisco, California)
Lee Gilboa (Caesarea, Israel)
Ted Moore (Chicago, Illinois) and Kyle Hutchins (Blacksburg, Virginia)

These Times
MareNostrum
Escape the Future

Kai Oliver and Francine Dulong (London, England)
Anna Xambó (London, England)
William Ryan Baker (North Andover, Massachusetts)

FRIDAY, AUGUST 10, 2018

Paul Koonce
Performance/Lecture*

3 PM
Perform Studio

The Theory and Practice of Wave Field Synthesis

Paul Koonce (Gainesville, Florida)

Sounds in Focus

5 PM
Perform Studio

Tape Music
To Seek in Circularity
Synth Kit Music
Songs in the Valley
A Hot Jupiter
Automata | Mechanical Garden
in excess

Judith Shatin (Charlottesville, Virginia)
Pinda Ho (Taiwan, China)
Eric Simonson (Danville, Illinois)
Qi Mengjie (Beijing, China)
Michael Rhoades (Blacksburg, Virginia)
Kotoka Suzuki (Tempe, Arizona)
Robert McClure (Athens, Ohio)

Anna & Elizabeth
The Moon in Her Fan: Imagining Texas Gladden

7 PM & 9 PM
Cube

Anna Roberts-Gevalt (Brooklyn, New York)
Elizabeth LaPrelle (Rural Retreat, Virginia)

* Indicates free admission

SCHEDULE, continued

SATURDAY, AUGUST 11, 2018

Ableton Live Workshop*

11 AM
Perform Studio

Ben Casey (Brooklyn, New York)
Christopher Willits (San Francisco, California)

Sounds in Focus

3 PM
Perform Studio

Tape Music
To Seek in Circularity
Synth Kit Music
Songs in the Valley
A Hot Jupiter
Automata | Mechanical Garden
in excess

Judith Shatin (Charlottesville, Virginia)
Pinda Ho (Taiwan, China)
Eric Simonson (Danville, Illinois)
Qi Mengjie (Beijing, China)
Michael Rhoades (Blacksburg, Virginia)
Kotoka Suzuki (Tempe, Arizona)
Robert McClure (Athens, Ohio)

Christopher Willits

7 PM
Cube

Christopher Willits (San Francisco, California)

Sounds in Space

9 PM
Cube

Berloga
...the liquid mountains in the sky...
Seven
City of a Hundred Bell Towers (Ville Aux Cent Clochers)
Ritual
Untitled
Unrequited

Dmitri Mazurov (Moscow, Russia)
Christopher Coleman (Hong Kong, China)
Niloufar Irvani (Baton Rouge, Louisiana)
David Ledoux (Montreal, Canada)
Elizabeth Hoffman (New York, New York)
Eric Stewart (Alamosa, Colorado)
Jacob Elkin (Brooklyn, New York)

* Indicates free admission

SCHEDULE, continued

SUNDAY, AUGUST 12, 2018

Sounds in Focus

1 PM

Perform Studio

Tape Music
To Seek in Circularity
Synth Kit Music
Songs in the Valley
A Hot Jupiter
Automata | Mechanical Garden
in excess

Judith Shatin (Charlottesville, Virginia)
Pinda Ho (Taiwan, China)
Eric Simonson (Danville, Illinois)
Qi Mengjie (Beijing, China)
Michael Rhoades (Blacksburg, Virginia)
Kotoka Suzuki (Tempe, Arizona)
Robert McClure (Athens, Ohio)

Sounds in Motion

3 PM

Cube

The Murmurator
Feedback_Instinct
Curtains
In Suspension /
Slowly Drifting Down
Sonnet of light, shadow, and illusion
Automata | Mechanical Garden
Untitled

Human Shaped Objects (Charlottesville, Virginia)
Jane/KIN (Montreal, Canada)
Eric Lyon (Blacksburg, Virginia)
Steve Ellison (Los Angeles, California) and Eric
Dahlman (Boston, Massachusetts)
Chenyu Sun (Beijing, China)
Kotoka Suzuki (Tempe, Arizona)
Fede Camara Halac (Córdoba, Argentina)

Dustin Wong & Takako Minekawa

7 PM

Cube

Dustin Wong (Los Angeles, California)
Takako Minekawa (Los Angeles, California)

The Rise and Fall of Ziggy Stardust and the Spiders from Mars

9 PM

Cube

David Bowie

The Rise and Fall of Ziggy Stardust and the Spiders from Mars

10:30 PM

Cube

David Bowie

A Note from the Artistic Director

Welcome to Cube Fest 2018! Three overlapping drives catalyze Cube Fest: a focus on spatial audio research developed in the Cube, the sharing of creative music experiences with the general public, and the building of international communities of interest around 21st-century spatial music and new performance practices. There are only a handful of performance venues worldwide with the spatial audio capabilities of the Cube, and activating these capabilities with our stylistically varied music programming makes Cube Fest a truly unique festival in the world.

An expansion of the multichannel capabilities of audio software is an essential enabler for the music programmed at Cube Fest. We're happy to report that as of this year, the popular music software Ableton Live features multichannel output, overcoming its previous limitation as stereo-only software. The new multichannel features of Live will be demonstrated at Cube Fest in a community workshop by Ableton representative Ben Casey. We also welcome a Cube concert performance by Christopher Willits, the director of Envelop, a San Francisco-based organization that develops spatial audio software and presents immersive musical performances on its custom multichannel audio systems.

The stylistic range of Cube Fest 2018 encompasses Appalachian music, techno, ambient, experimental, and classic rock. Our concert programs present work specifically designed for the Cube in curated collaborations along with selections from an international call for massively multichannel music. In our third year of Cube Fest, we have a good sense of what the festival is all about. We also intend to further develop and experiment with the festival format. To that end, we would greatly appreciate any feedback you could provide on your experiences with our program. Thanks for joining us at Cube Fest!

Eric Lyon
Artistic Director
Cube Fest 2018

Cube Fest 2018 Team

Eric Lyon, artistic director
Tanner Upthegrove, technical director
Donnie Bales, project manager

Program Notes

RESEARCH RESOUNDS

The free *Research Resounds* concert will present work freshly created during the 2018 Spatial Music Workshop. During the workshop, participants will explore the spatial capabilities of the Cube, and create work specifically for this world-leading spatial music performance venue. Each work will be introduced by its creator. The participants of the 2018 Spatial Music Workshop are Yvette Janine Jackson, Lee Gilboa, Ted Moore and Kyle Hutchins, Kai Oliver and Francine Dulong, Anna Xambó, and William Ryan Baker.

Destination Freedom

Yvette Janine Jackson

Yvette Janine Jackson will present a new installment of her *Destination Freedom* radio opera series, which is a meditative electroacoustic experience that begins in the cargo hold of a tall ship transporting Africans to the Americas and traverses time in search of freedom. Previous iterations have included a 5.1 version at the Tonband Fixed Media Festival (2017) in Stockholm and a quadraphonic version at the Fridman Gallery in New York in 2018. This latest episode is composed specifically for the Cube and positions the listener within the narrative.

In(n/H)er Head

Lee Gilboa

When we are forced to listen in any controlled listening environment such as a concert hall or a club, we understand and process sound in a set order and direction that was organized by the creators of the piece. When we are forced to hear in an uncontrolled listening environment such as a street or the train, we understand and process sound out of order and without any consideration of our location. The organization of sounds in a controlled listening environment, even when performed perfectly, can be problematic because it is limiting the range of listening to specific points in the room, and by doing so it does not imitate or recreate the full natural listening process that we experience daily. I am choosing to use the word “forced” here because it fits to both scenarios in different ways. In a controlled environment, we are forced to listen in a certain way chosen by the creator of the work. In an uncontrolled environment, the lack of isolation we experience forces us to hear automatically. I believe that the act of listening is similar to the act of thinking. Thoughts, like sounds, come and go, and we choose which ones we focus on and which ones to ignore. If there are thoughts crossing our minds that make us feel uneasy, we can push them away. This is no different than walking around listening to music in headphones, while passively deciding to ignore the sounds of the truck that might pass by but actively paying attention to the sobs of a crying lady across the street. Does the fact that we did not pay attention to these sounds mean they never happened? And when we have a thought in our heads that we can’t ignore and it feels so real, does this mean that this is actually happening? With these thoughts in mind, I wonder if there is a way to break the limitations that speaker count and positioning present to us? What if we create a controlled listening environment that tries to recreate the organic feeling of listening in an uncontrolled environment? In the Spatial Audio Workshop, I will work on a piece that will attempt to answer these questions by placing the audience at a point where they are consciously listening to everything they hear. I believe that the perception of sound in an environment, using the metaphor of a head, will place the audience inside this head to experience the piece. I would like to use the spatial system of the Cube to create an “uncontrolled” controlled environment. I will use the Cube and the speakers as an orchestra, and my technology will approach the speakers as instruments. My piece will be scored for speakers and will make the sound travel in a way that creates a sense of movement and space. Through the use of spoken word, my piece will explore the idea of sounds and cognition: Which do we listen to? And which do we push out?

Untitled

Ted Moore and Kyle Hutchins

Binary Canary will improvise a work that is composed specifically for the Cube that will include saxophone, spatial audio, and video.

Program Notes, continued

RESEARCH RESOUNDS, continued

These Times

Kai Oliver and Francine Dulong

We invite you to come and play with sound in a new way, exploring how our perception of time and memory is changing as our virtual and physical worlds collide. *These Times* is about the physical consequences of pervasive digital technology, examining the human aptitude for existing in virtual worlds whilst living in a physical reality. This sharing is a work in progress of a participatory theatre experience that uses a responsive audioscape.

MareNostrum

Anna Xambó

This soundscape piece is the result of participating in the 2018 Spatial Music Workshop at Virginia Tech. The piece is based on the musical spatialization of sounds from crowdsourced online databases such as Freesound.org, which connects to the AudioCommons project. The theme of the piece is supercomputing centers and the acoustic properties of large-scale computation systems in massive spaces. AudioCommons is funded by the European Commission through the Horizon 2020 program.

Escape the Future

William Ryan Baker

Robotmonkeyarm's music explores our (sometimes flawed) emotional response to current and emerging technology.

PAUL KOONCE PERFORMANCE/LECTURE

The Theory and Practice of Wave Field Synthesis

Paul Koonce

Wave field synthesis is a technique of audio production for producing audio sound wave fields with a perceptual realism surpassing that of conventional sound diffusion approaches. The technique works to use large multi-channel speaker systems arrayed in front of listeners, and precisely calculated signals to transduce virtually conceived sound wave fields into the space of closely seated listeners. Using the author's 24-channel wave field array, this free presentation will demonstrate the allure and power of composing with wave field sound. Two of the author's works, *Rotorelief* and *Sisyphus in Situ*, will be performed along with a 20-minute video lecture addressing the principle of wave field synthesis and the author's software for its production. All sound for the video lecture (i.e. voice and examples) is synthesized and presented from within the wave field space, making the lecture itself, in effect, a demonstration of its subject.

Program Notes, continued

SOUNDS IN FOCUS

Sounds in Focus presents a selection of works from artists around the world, played on the 24.4 channel Genelec system in the Perform Studio of the Moss Arts Center. The Perform Studio is a smaller, more intimate performance space that is ideal for precise and detailed listening to multichannel music. Guests who attend concerts in both Perform Studio and the Cube will develop a deeper appreciation for the range of artistic expression possible in different multichannel formats. Participants of *Sounds in Focus* include Judith Shatin, Pinda Ho, Eric Simonson, Qi Mengjie, Michael Rhoades, Kotoka Suzuki, and Robert McClure.

Tape Music

Judith Shatin

Tape Music is a meditation on tape as a collection of materials that are emblematic of our throwaway culture and yet can be used to mend items that would otherwise themselves be thrown away. It is also a nostalgic tribute to the genre of tape music that persists despite the ongoing changes in playback media. Whether used merely to pack other, more permanent objects, or to extend the life of items we care about, the found sounds of these humble materials form the substance of this piece. To create source material I recorded myself ripping, cutting, squashing, and otherwise playing with a wide variety of types of tape, as well as taping boxes and then slashing them. *Tape Music* was originally created for 5.1 surround sound and has been recast for the Cube. In addition to this piece, I composed *Tape Music*, scored for any number of participants and stereo playback, first performed with students from the Sabot School in Richmond, Virginia. Both versions were premiered at the Third Practice Festival on November 2, 2013. They are part of an ongoing series called *Quotidian Music*, based on the daily sounds that surround us.

To Seek in Circularity

Pinda Ho

To Seek in Circularity is a quadraphonic electroacoustic. It experiments uses of minute sounds, choreograph-like crisscross panning, and contrasts in different dynamic range. It requires careful listening and sometimes a little more gain to hear the softness of sound, as if it is a chamber ensemble. Be advised, this piece is mostly quiet, and you will hear sounds from yourself and other audience members while the piece is being performed. This is intentional. Although it emphasizes softness, the sounds should be easily audible as the equal-loudness contour were put into thought, allowing sounds with low amplitude still to be heard in performance; this strategy of using soft sounds is an inspiration from my past misuse of ear piercing high pitches and body shaking low hums, often too loud for the ears to bear. Hence, softening my past mistakes and arranging them into patterns, I found myself seeking for something new, something soft, something delicate that is easily overlooked since I started to use loud speakers for composition: the ability of not using compressors and experimenting with dynamic range, in addition to treat spatialization as a timbre possibility. This piece was composed during the loss of my dearest grandma and my handsome little pup, a monument of me seeking remedy in one of the darkest times I have encountered. The sound materials are a tape measure, a stapler (with staples in it), a hole puncher, a whisk, a good old ping-pong ball, and GRM Tools; no other synthesized sound and instruments were used.

Synth Kit Music

Eric Simonson

After acquiring my PAiA 9700 series modular synthesizer kit and assembling it (learning some very valuable soldering skills in the process), I was anxious to see what kind of sound world could be created with it. Not being content with quadraphonic, I embarked on my first adventure in eight-channel cubic spatialization. Now, Cube Fest offers me an opportunity to present the work in 24 channels!

Program Notes, continued

SOUNDS IN FOCUS, continued

Songs in the Valley

Qi Mengjie

In the remote area of South China, people live in small villages surrounded by mountains. They always sing in a very free way to communicate with people from far away. They also tend to sing as a way to express their inner feelings. The vocal sounds echo back and forth in the valley where the mountains are at different heights. *Songs in the Valley* was inspired by the way of people singing, and the composer aimed to create an immersive soundscape of that space.

A Hot Jupiter

Michael Rhoades

A Hot Jupiter is a gas giant exoplanet, similar to Jupiter, which has a relatively short orbital period around its star. This challenges our current understanding of the properties of gas giants in general. Our current astronomical perspective would predict that such a gas giant could not exist in such close proximity to its sun, because its atmosphere should be burned off, leaving only its solid core. Enigmatically, this does not occur with Hot Jupiters. We do not know nearly as much as we think we do. This insight frees the imagination. Technically, *A Hot Jupiter* was composed using Csound, a programming language intended for musical composition, and Cmask, a stochastic event generator for Csound scores. The Cmask sub-score is an important, albeit indirect, determinant of the formal aspects of the composition.

Automata | Mechanical Garden

Kotoka Suzuki

The word "automata" (plural: "automa" or "automatons") is derived from the Greek word "automatos," meaning "acting of itself." The notion of autonomous mechanical processes has always interested mankind. In the hellenistic world, complex mechanical devices are known to have existed and used as toys, religious idols, or tools to demonstrate basic scientific principles. As more elaborate automata could be built in the 18th century, sound effects also became increasingly more important in order to make the automata seem more realistic. Many of them represented mundane figures, such as musicians playing instruments, magicians, or birds singing. Jacques de Vaucanson (1709-1782), who studied music, medicine, and physics, created a life-size mechanical duck that not only looked and moved like a duck, but also quacked like a duck and digested and produced droppings like a duck after being fed. In this work, old and new automata and mechanical toys are left in an imaginary garden where they are brought to life and allowed to operate freely according to their own imagination. This work is dedicated to Folkmar Hein, the long-standing director of the Electronic Studio of the TU Berlin (1974-2009). The materials for this piece derive from a miniature work I composed to celebrate Folkmar's 65th birthday and, thus, his retirement. These self-operating machines and toys are a symbol of his passion for computer music and the studio that became a birthplace for countless important computer music works. This work was written for a multi-channel live diffusion (for the premier, approximately 100 speakers were used using the BEAST system by the University of Birmingham). The work is also available for performance for two, four, eight, or 16 channels.

in excess

Robert McClure

in excess explores the vast amounts of waste humans produce on a daily basis. This general observation was magnified during my time living/working in China. Excessive packaging accompanied nearly all products in a vain attempt to elicit a feeling of luxury in the consumer. This plastic packaging served as the primary sound producing material. This work was written in conjunction with the oboe solo, *struggling*. The two pieces can be performed simultaneously under the title *struggling, in excess*. Taking cues from the oboe solo, balloons were used to simulate multiphonics, an important sound character for *in excess*.

Program Notes, continued

ANNA & ELIZABETH

The Moon in Her Fan: Imagining Texas Gladden

Anna Roberts-Gevalt and Elizabeth LaPrelle

Anna & Elizabeth, in collaboration with Irish composer Linda Buckley, present a new series of explorations inspired by the legacy and music of Texas Gladden crafted especially for the immersive Cube space. Gladden was recorded singing ballads in her living room in Salem by folklorist Alan Lomax and folksinger Shirley Collins in 1941; these recordings went on to have a lasting impact, making the singer renowned amongst folk musicians worldwide. The mother of nine, an occasional poet, and a gifted homemaker, Gladden's log home is still inhabited by her family—her memory and spirit still vibrates there, if you are lucky enough to visit and sit on the porch with her granddaughter. Anna and Elizabeth have been re-imagining and illustrating ballads—Gladden's among them—for the last seven years, to great acclaim. *The New Yorker* calls their most recent record "A radical expansion of what folk songs are supposed to do." They've enlisted Irish electro/acoustic composer Linda Buckley to join them in their exploration for Cube Fest; Buckley is an esteemed Irish composer whose work is "engaging with an area of experience that new music is generally shy of, which, simplified and reduced to a single word, I'd call ecstasy," according to Bob Gilmore in *Journal of Music*. The three create an immersive and multi-media language to supplement the songs and stories told by Anna and Elizabeth: reworking recent field recordings and videos of the Gladden home and surrounding woods and interviews with the descendants of the singer; texts built from stories Gladden and her family told, Gladden's own poetry, and immersive sound collages built from the sounds of her singing; and a deep dive into an ancient ballad she sung through dance, film, and sound. It's a piece exploring the possibilities of memory in a place, the legacy of a song (and the singer) in a space, and the possibilities of finding magic in the domestic home—and in the nature surrounding. The performance will feature a guest appearance by Vicki Miller, Gladden's granddaughter.

ABLETON LIVE WORKSHOP

Ben Casey of Ableton, Inc., will present a free introductory workshop on Ableton Live, introducing the new multichannel features of Live 10. Christopher Willits will discuss Envelop for Live, a collection of free open-source spatial audio production tools that work with Ableton Live Suite, and share how he uses it.

Program Notes, continued

SOUNDS IN SPACE

Sounds in Space will feature massively multichannel music compositions from seven artists from Russia, Iran, Canada, and the United States who will utilize the Cube's 149 speakers. The composed pieces will bring each artist's perspective through visual and auditory experiences. Guests will experience these works in the world-leading immersive audio environment known as the Cube. The participants of *Sounds in Space* are Dmitri Mazurov, Christopher Coleman, Niloufar Iravani, David Ledoux, Elizabeth Hoffman, Eric Stewart, and Jacob Elkin.

Berloga

Dmitri Mazurov

Working on *Berloga*, I tried to combine elements of sound art installation and underground techno music, discovering my interest in both academic and club cultures. The piece is based on the material from a live performance given at the Geometry of Now Festival, curated by Mark Fell at GES-2 in Moscow in February 2017. The piece explores the boundaries between so-called academic electronic music and underground electronica. What is academic nowadays, especially in the field of electronic music? What place is on the cutting edge of contemporary music: philharmonic, sound laboratory, or even a rave club? In Russian, "berloga" means "bear's lair;" the title reveals my siberian experience living in a cold, distant place.

...the liquid mountains of the sky...

Christopher Coleman

In March 2016 my brother passed away, far too soon. We had been emotionally close, although physically distant—he lived in America, and I am in Hong Kong. Oddly, the extent of my love and respect for him only became clear to me after he had died. I have a sense of loss that I doubt will ever heal. This piece is dedicated to his memory. The title is taken from a quote of Helen Keller, "It's wonderful to climb the liquid mountains of the sky. Behind me and before me is God, and I have no fears." *...the liquid mountains of the sky...* uses selections from a recording of my harp solo *The Autumnal Mountain* recorded by Kateřina Englichová. The selections are replicated into the thousands, and each replication is time-shifted by various amounts. These massive replications are often superimposed on sections that are far less extensively replicated. At the beginning, the replications are a background accompaniment to the original solo line, and later, two, three and six replications weave in and out of a much thicker background.

Seven

Niloufar Iravani

Seven was composed based on the idea of multiculturalism in music using seven modes of Iranian classical music: Shur, Mahur, Esfahan, Bayat-e-tork, Dashti, Afshari, and Chahargah. Short representative melodies of each mode performed on a setar, an Iranian instrument, as well as excerpts from the composer's work for solo flute, *Fusion*, were used as the source materials. The data from both sources were processed with Studio One and Pd-extended to create new sounds, designs, and characters. Iranian modes provide diversity with modal and rhythmic variations, while the flute excerpts, with no significant modal transitions, create unity. The work presents a unique fusion of tradition and technology by the integration of Iranian traditional music and Western music and the synthesis of acoustic and electronic sounds. The focus on number seven (seven minutes, seven modes, and seven channels), makes it clear that a numerical approach was considered in this work.

City of a Hundred Bell Towers (Ville Aux Cent Clochers)

David Ledoux

City of a Hundred Bell Towers is the first part of an acousmatic journey called *Cathédrales*, which addresses both sound immersion and cinema for the ear aesthetics into an acousmatic montage. Spotighting bell towers as an urban landmark and soundmark, this piece for dome of loudspeakers (3D audio) also digs its inspiration from acoustic ecology and Montreal's city life to interpret the spatial relationship between the urban environment and the sounds that are specific to its identity.

Program Notes, continued

SOUNDS IN SPACE, continued

Ritual

Elizabeth Hoffman

This piece (somewhat arbitrarily in this instantiation: 36 channels) is a very brief exploration of a sonification design I have been developing for a permanent installation in an atrium in New York City. Data of building usage, hour by hour, is reflected in resultant frequency and timbre realizations. This composition is thus one instance deriving from a structural design with infinite possibilities of musical realization. Currently the data is not reflected in the spatial design, though that is my ultimate goal.

Untitled

Eric Stewart

Time-lapses of cacti and succulent over the course of a year—environmental data drives the tone and filtration of the sounds while the rising and setting of the sun illuminates plant growth in and out of phase with each other.

Unrequited

Jacob Elkin

Unrequited was composed from the voicemails left by someone who was stalking a friend of mine. The fractured monologue has been sonically enhanced to reflect an obsessive thought process and its implied threat of violence.

SOUNDS IN MOTION

Sounds in Motion offers an experience in multichannel audio where artists from Canada, China, Argentina, and the United States will perform their composed pieces and explore the spatial capabilities of the Cube. The combination of live performance and immersive audio will provide a compelling experience of the artistic possibilities of the Cube. Participants of *Sounds in Motion* include Human Shaped Objects, Jane/KIN, Eric Lyon, Steve Ellison, Eric Dahlman, Chenyu Sun, and Fede Camara Halac.

The Murmurator

Human Shaped Objects

The Murmurator is a novel, biological model-driven digital musical instrument created by Human Shaped Objects. The system is built around a three-dimensional bird flocking simulation that spatializes and affects different sonic characteristics of a corpus of sound recordings. The manipulation of the parameters of this simulation, along with other sound processing tools, results in a semi-improvised immersive composition that harnesses the emergent behaviors of the biological model, while at the same time allowing for the improvisational decisions of the performers to speak. Running two of these systems concurrently facilitates a polyphonic interplay between these improvised sonic ecosystems. Diffused over a multi-channel loudspeaker array, the work alternates between densely immersive ambient textures and focused, dramatically spatialized gestures and back, exploring the spatiality of the performance venue.

Feedback_Instinct

Jane/KIN

Feedback_Instinct is a performance for saxophone, voice, and electronics based on live sound spatialization and on-stage feedback control. In it we explore the different uses of the microphone, either an object of amplification or a tool to generate sonic phenomenon. We develop the deepest connections possible between the electronic musician, the acoustic musician, and the performance space. Using the feedback as a third voice coming along when we find the exact proportion of each gives us the feeling of rope walking together.

Program Notes, continued

SOUNDS IN MOTION, continued

Curtains

Eric Lyon

Curtains is an electroacoustic composition for 135 loudspeakers created for the Cube. The work explores a variety of spatial presences with a focus on spatialized sounds that cannot be located with precision—curtains, rather than points of sound. More traditionally located sounds are also employed for contrast. As with my other multichannel works, there is no fixed point of reference, but rather an immersive environment for the listener to explore as the piece evolves.

In Suspension/Slowly Drifting Down

Steve Ellison and Eric Dahlman

Live multichannel performance and mix of a new work by Steve Ellison (guitar and voice) and Eric Dahlman (trumpets, overtone singing, and bells) that explores verticality and sonic layers in the Cube using Max/MSP and SpaceMap/MIAP. SpaceMap is an abstract panner, and maps will be created that explore groups and areas of loudspeakers with simple gestures that contrast to “representational” methods. While neither has performed in massively multichannel systems, Ellison helped develop technology and systems to support multi-channel performance including San Francisco Symphony’s *SoundBox* and numerous audio spectacles by Cirque du Soleil such as *Love* and *KA*. Some of the inspiration for this piece is an exhibition by Matthew Barney, the experience of descending through layers of clouds when landing into Roanoke airport, and Dahlman’s conceptualization of “clouds” of trumpets created with looping and signal processing.

Sonnet of Light, Shadow, and Illusion

Chenyu Sun

This video combines light and shadow to show the mix of traditional, Oriental, and modern aesthetics of the poem. The imagery in the poem conveys the author’s own conception about time and space between himself and the world. The use of several traditional Chinese characteristics in a modern garden and in a virtual space shows the structure of time in a traditional and modern sense. These combinations indicate the author living in an integration of the world and the fusion of art. The audio is based on Logic and Ableton Live production and uses Max/MSP for parts of the sound. The use of a synthesizer sound with electronic melodies with the distortion of the national tone of the East indicates a modern fusion of the nation. The change in sonic frequency reflects the concept of light and shadow staggered. The video and audio together show the combination of light and illusion, Oriental tradition, and modern time and space together to create an image of the sonnet.

Automata | Mechanical Garden

Kotoka Suzuki

The word “automata” (plural: “automa” or “automatons”) is derived from the Greek word “automatos,” meaning “acting of itself.” The notion of autonomous mechanical processes has always interested mankind. In the hellenistic world, complex mechanical devices are known to have existed and used as toys, religious idols, or tools to demonstrate basic scientific principles. As more elaborate automata could be built in the 18th century, sound effects also became increasingly more important in order to make the automata seem more realistic. Many of them represented mundane figures, such as musicians playing instruments, magicians, or birds singing. Jacques de Vaucanson (1709-1782), who studied music, medicine, and physics, created a life-size mechanical duck that not only looked and moved like a duck, but also quacked like a duck and digested and produced droppings like a duck after being fed. In this work, old and new automata and mechanical toys are left in an imaginary garden where they are brought to life and allowed to operate freely according to their own imagination. This work is dedicated to Folkmar Hein, the long-standing director of the Electronic Studio of the TU Berlin (1974-2009). The materials for this piece derive from a miniature work I composed to celebrate Folkmar’s 65th birthday and, thus, his retirement. These self-operating machines and toys are a symbol of his passion for computer music and the studio that became a birthplace for countless important computer music

Program Notes, continued

works. This work was written for a multi-channel live diffusion (for the premier, approximately 100 speakers were used using the BEAST system by the University of Birmingham). The work is also available for performance for two, four, eight, or 16 channels.

Untitled

Fede Camara Halac

Untitled is a question regarding creativity, unpredictability, and mechanical determinism. The audio consists of random and chaos generators in real-time synthesis. The video contains images of turbulence taken from a river in Cordoba (Argentina), cellular automata noise, and randomized nouns. The score has ordered sections made out of randomized variables, and the last section requires some human action. Sounds and images were made with Pure Data for the Immersion Lab at New York University's Bobst Library.

THE RISE AND FALL OF ZIGGY STARDUST AND THE SPIDERS FROM MARS

The Rise and Fall of Ziggy Stardust and the Spiders from Mars was released in 1972 and is about David Bowie's alter ego, Ziggy Stardust. The album addresses themes of exploration and social taboos. In 2017 the Library of Congress selected the album for preservation in the National Recording Registry. Tanner Upthegrove, media engineer for the Institute for Creativity, Arts, and Technology, will diffuse the 5.1 channel super audio CD master of the album over 140 loudspeakers in the Cube.

Biographies

ANNA & ELIZABETH

Anna Roberts-Gevalt is a voracious and curious musician who nestles in the space between ancient ballads and new sounds. After spending years in Baltimore's underground art scene, Roberts-Gevalt now resides in Brooklyn, New York. She fell in love with the sound of banjo in college, moved to the mountains, and learned with master musicians in Kentucky, Virginia, and North Carolina. She has been a fellow at the Berea College Traditional Music Archive and OneBeat (Bang on a Can's Found Sound Nation); three years as artistic director of Kentucky's traditional music institute, the Cowan Creek Mountain Music School; and co-curator of Baltimore's Crankie Festival. She is a summer 2017 fellow at National Sawdust in Brooklyn and recently studied in a workshop with Meredith Monk. Elizabeth LaPrelle is a world-renowned ballad singer who resides on a farm in Rural Retreat, Virginia. The student of master singer Ginny Hawker and National Heritage fellow Sheila Kay Adams, LaPrelle was the first recipient of the Henry Reed Award from the Library of Congress at age 16 and won the 2012 Mike Seeger Award at Folk Alliance International. She has been hailed as "the best young Appalachian ballad singer to emerge in recent memory" by UK's *fRoots Magazine*.

BEN CASEY

Ben Casey is a Brooklyn, New York-based electronic musician, Ableton Certified Trainer, and overall music tech nerd. When Casey's not surrounded by wires and drum machines or tinkering with Max for Live, he teaches Ableton Live to musicians across all genres, from avant-garde to zydeco. While living in London, he earned a master of music from Goldsmiths University and released tracks on the inscrutable U.K.-based label Werk Discs. Upon returning to the U.S., Casey founded a boutique electronic instrument business. A Live user since its very beginning, he is always happy to show off his boxed copy of Version 1. He works with Grammy-winning artists to integrate Live into their existing production and performance workflows, consulting on numerous live tours, theatre productions, and art installations. With a focus on teaching the tips and tricks that allow musicians at any skill level to harness the power of Live, Casey is available for one-on-one sessions and group lessons in person, or Skype lessons worldwide.

PAUL KOONCE

Paul Koonce studied composition at the University of Illinois and the University of California, San Diego where he received a Ph.D. in music. Koonce's music focuses on issues of representation and perception in electroacoustic sound. A software developer as well as a composer, he has explored the invention of computer technologies for the manipulation of sound and timbre, focusing on tools for exploring the parallels between musical and environmental sound phenomena. He is the recipient of fellowships from the Guggenheim and McKnight Foundations and has received awards and commissions from the Luigi Russolo International Competition for Composers of Electronic Music, the National Flute Association, Prix Ars Electronica Electronic Arts Competition, the Electroacoustic Music Contest of Sao Paulo, the Bourges International Competition, the International Computer Music Association, and the Hopkins Center at Dartmouth College. Koonce's music is available on CD from Society for Electro-Acoustic Music (SEAMUS), Mnemosyne, ICMA, Panorama, and many more.

Biographies, continued

CHRISTOPHER WILLITS

Christopher Willits is a musician, artist, and educator based in San Francisco, California, who believes that music and deep listening can catalyze inner change. Focusing on three-dimensional ambient electronic music, created with processed guitar and voice, the weaving and folding of sound is designed to be within. Often overlapping with earth-inspired photos and videos he creates, Willits' music has forged a world-wide audience that listens intently. Pioneering solo albums on 12k and Ghostly International, along with collaborations with Ryuichi Sakamoto, Tycho, Zach Hill, and many others, has created a prolific and diverse catalog of sound. Willits is also the director and co-founder of Envelop, a non-profit organization with a mission to amplify the unifying power of music through immersive listening spaces and spatial audio production software. As an experienced educator, he strives to illuminate people's vision and creativity in music, art and life, and has lectured at many leading institutions in the world. Willits also teaches meditation techniques that often accompany his music.

DUSTIN WONG & TAKAKO MINEKAWA

Based in Tokyo, Japan, Dustin Wong and Takako Minekawa are part of a growing DIY community, frequently performing in smaller spaces such as Nanahari, Fuchi-kuchi, and Ochiai Soup. Their artistic focus is to create the unexpected. It is a scene that encourages this adventurousness. Wong and Minekawa use their considerable technical skill to create the psychedelic, surreal, and conceptual—and with dexterity and inventiveness. While Minekawa still contributes to the Japanese music scene and Wong is still connected to his Baltimore roots, their joyous collaboration is as delightful and challenging as it is innovative.

WILLIAM RYAN BAKER

Ryan Baker (robotmonkeyarm) is a multi-instrumentalist, composer, and sound engineer for TV and film. Baker's chief compositional aim has always been to create unique transportive musical experiences for listeners. Attending Cube Fest in 2017 was an earth-shattering experience for the composer, and he is incredibly honored to attend this year's Cube Fest as part of the Spatial Music Workshop.

CHRISTOPHER COLEMAN

Christopher Coleman (Atlanta, Georgia), composer, conductor, and trombonist, is currently composition coordinator and associate head of the Hong Kong Baptist University Department of Music, where he has taught for the past 29 years. Coleman's works range from large-scale multimedia/improvisation pieces to works for orchestra, symphonic band, chamber ensembles, instrumental solo, fixed media, and voice. His music is published by Vanderbilt Music, Maecenas Music, Theodore Presser, Ensemble Publications, C. Alan Publications, and Crown Music Press. His CD *Multiple Worlds*, from Ablaze Records, has received three Global Music Awards. A transmedia artist, Coleman also works in painting, sculpture, and computer graphics. He is a founding member of People's Liberation Improv, Hong Kong's leading comedy improv group, and has performed with them in Beijing, Seoul, Manila, and Macau as well as in Hong Kong.

STEVE ELLISON AND ERIC DAHLMAN

Steve Ellison is a music technologist and musician from Los Angeles who has performed in a wide variety of ensembles and venues. Ellison developed Meyer Sound's SpaceMap abstract panner that has been made available as a suite of externals for Max/MSP as MIAP and helped to develop their Constellation acoustic system. Zachary Seldess, author of MIAP, is a consulting contributor. Eric Dahlman is a musician from Boston who performed with Chicago free jazz icon Hal Russel and currently with musicians including Rakalam Bob Moses.

Biographies, continued

The two have collaborated on a number of projects over the years, including kazoo band when they were six, live remote improvisations on Australian public radio in 1986, and Dahlman's recent release, *Glacier* (notably the pieces *Esopus Creek*, *Once Again*, and *Ochre*) and supporting performances. For more information, please visit ericdahlman1.bandcamp.com.

JACOB ELKIN

Jacob Elkin is a trombonist, composer, and arranger based in Brooklyn, New York. Elkin's electronic music has been featured in the Lüneburg New Electronic Music Festival (2015-2016) and FIGMENT art installation in New York City (2017). In September his atmospheric work *Dreamscape* was broadcast on *The Cutty Strange* radio segment on WGXC. Recent performances of his work also include Kyiv Contemporary Music Days Electroacoustic Festival in Kyiv, Ukraine; SHE LIVES Chamber Composition Workshop in Budapest, Hungary; and Festival Días de Música Electroacústica in Seia, Portugal. His acousmatic work, *Unrequited*, has been selected for performance in 16 channels at New York City Electroacoustic Music Festival (NYCEMF) and in 24 channels at Cube Fest. Future projects include an artist residency for electronic composition and field recording at La Macina di San Cresci in Florence, Italy, and for acousmatic composition for Butoh dance at En Chair et en Son Festival in Paris, France. As a freelance trombonist, Elkin is an advocate for new music in both chamber and solo settings. In 2017 he performed as soloist for New York Composer's Circle, Make Music New York, and the Variousound Sessions. Elkin has premiered works with Mimesis Ensemble, Contemporaneous, Mise-en Scene, New York Music Festival, David Taylor and the New York Trombone Consort, and many others.

LEE GILBOA

Born in Tel Aviv, Israel, Lee Gilboa has found her love for composition and jazz music at a young age. While at Berklee College of Music, Gilboa shifted her line of work from acoustic composition to composition of sound and was mentored by Neil Leonard, Richard Boulanger, and Jeff Baust. Through her time at Berklee College of Music, Gilboa got to perform and collaborate with a wide variety of musicians, artists, and technologists such as Rui Penha, Robert Rich, Amnon Wolman, and Terence Blanchard, among others. In 2016 she traveled to London to work for Robin Rimbaud (a.k.a. Scanner) and assisted on various projects, such as the world's first virtual reality ballet with Dutch National Ballet and the sound installation *Dark as a Raven*. Nowadays Gilboa is living in Brooklyn, New York, and attends Columbia University's M.F.A. sound art program, where she is mentored by Seth Cluett and Brad Garton. Her works deal with memory and identity through different social issues and have won awards for innovative use of multimedia in music technology.

FEDE CAMARA HALAC

Fede Camara Halac studied music composition at the National University of Cordoba in Argentina. Halac is a Ph.D. candidate in music composition at New York University (Graduate School of Arts and Science) with Jaime Oliver La Rosa and Elizabeth Hoffman. His research focuses on database multimedia composition. For more information, please visit fdch.github.io/tv.

PINDA HO

Pinda Ho is American-born Taiwanese and has lived in Taiwan for most of his life. Ho is now a composition doctoral student in the University of Illinois at Urbana Champaign and has studied in Taiwan under Shu-Yin Guo and Chao-Ming Tung, as well as in the U.S. under Erik Lund, Steve Taylor, Sever Tipei, and Scott Wyatt. His pieces have been performed in both the U.S. and Taiwan, and he has participated in festivals and conferences such as International Workshop on Computer Music and Audio Technology (WOCMAT), Society for Electro-Acoustic Music (SEAMUS), Electronic Music Midwest (EMM), New York City Electroacoustic Music Festival (NYCEMF), and Cube Fest, among others. Ho is also known for his strong interest in experimental

Biographies, continued

art forms such as multimedia installations, modern dance, theatre, music improvisation, and cross disciplinary collaboration. He has a great interest in utilizing semiotics and media theory in transforming narratives into musical phenomena and structures, especially folklore religious myths from both ancient and modern Chinese and Taiwan; his heritage as a born American, historical Chinese, and cultural Taiwanese are his main inspiration for composition. In a rare opportunity having a master class with Vinko Globokar in 2014, the old meister asked him a single question: "For whom do you write your music?" This question resonated deeply in Pinda's self-identity and has thereafter served as a compass for his compositional process.

ELIZABETH HOFFMAN

Elizabeth Hoffman writes computer/electroacoustic music focused on multi-channel sound, live processing, and virtual instrument design. Hoffman composes acoustic music for a range of ensembles and performers. In both mediums she strives to integrate notated nuance and non-notated freedom of contextual or contrived possibilities. Her music is particularly attentive to microtemporal detail of tuning and timbre. She has received recognition from the Bourges, Prix Ars Electronica, and Pierre Schaeffer International Competitions; MacDowell Colony; and the National Endowment for the Arts; and has received commissions from the International Computer Music Association and the American Composers Forum. Hoffman has published in *Perspectives of New Music*, *Organized Sound*, *The Computer Music Journal*, and others, including on narrative viewpoint in electroacoustic music's materiality, spatialization as an interpretive dimension of sound, and technology as it is impacting music archival practices. Current research and course offerings include a focus on relationships between gender and approaches to designing and using technology. Hoffman was a 2016 participant in ICAT's Spatial Music Workshop.

HUMAN SHAPED OBJECTS

Human Shaped Objects is Eli Stine and Kevin Davis. Combining backgrounds in electronic music composition, programming, and improvisation, the duo performs immersive electronics over multi-channel speaker arrays. Using custom-built composition systems, the group investigates the potentialities of adaptive performance and improvisation in multi-channel acousmatic sound, foregrounding real-time expressive control of spatialization. Stine is a composer, programmer, and media designer pursuing a Ph.D. in composition and computer technologies at University of Virginia. Stine's work frequently incorporates multimedia technologies and collaboration, seeking to explore the intersections between performed and computer-generated art. Davis is an improviser, composer, and cellist, and is currently an instructor at University of Virginia. Davis' musical work mediates the relationship between composition and improvisation through creative confrontation of the unstable properties present in gesture, sound, and instrumentality.

NILOUFAR IRAVANI

Niloufar Iravani, a composer of acoustic and electroacoustic music, achieved several national honors during her bachelor's degree (piano performance) and master's degree (music composition) studies at University of Tehran. Iravani is currently in the Ph.D. program for music composition at Louisiana State University (LSU) under the supervision of Dinos Constantinides and serving as the coordinator of LSU's Composers Forum. Her music has been performed nationally and internationally by recognized ensembles and soloists. Those performing her music include the Charlotte Symphony Orchestra and Louisiana Sinfonietta, as well as soloists Athanasios Zervas, Maria Asteriadou, Sara Beth Hanson, Kostas Tiliakos, and Aaron Farrell, to name a few. Iravani was a finalist of the ASCAP Foundation Morton Gould Young Composer Awards. She was awarded first place in the Southeastern Composers League's 2018 Philip Slaters Memorial Competition for Graduate Students and was named one of the three selected composers at American Composers Orchestra (ACO) EarShot 2018 Readings at the Charlotte Symphony Orchestra. Iravani's works have been accepted and presented in professional and well-known festivals and conferences in the U.S. and around the world.

Biographies, continued

YVETTE JANINE JACKSON

Yvette Janine Jackson is a composer and sound installation artist who combines electroacoustic music, improvisation, and voice to focus on historical events and contemporary social issues. Jackson's works have recently been featured at the Fridman Gallery in New York; the Tonband Fixed Media Festival in Stockholm; Organ for the Senses series at the Spreckels Organ in Balboa Park, San Diego; Stockholm's Kulturnatten 2017 festival; and the Borealis Festival in Bergen, Norway. Past projects include *Party Line*, a sound installation for San Diego Art Institute's *The Dead Are Not Quiet: A Group Exhibition of Macabre Art*; *Duets in the Key of Dada* with David Molina at the San Francisco International Arts Festival; a residency at Stockholm's Elektronmusikstudion (EMS); the premiere of *This is Radio Opera* at Auditorium Stockholm; *Soldier*, a five-day immersive cinematic installation in collaboration with video artist Ava Porter for the Recombinant Media Lab at Qualcomm Institute in La Jolla, California; and *Invisible People (A Radio Opera)*. She was selected by the American Composers Orchestra for a reading of her composition *Atlantic Crossing* by the Naples Philharmonic (Florida) in 2016, and *Cannot Be (Unrung)* for carillon and electronics was co-commissioned in 2018 by the University of Chicago and University of Michigan for Tiffany Ng.

JANE/KIN

Jane/KIN brings together saxophone player and vocalist Ida Toninato with electroacoustic artist and spatialist Ana Dall'Ara-Majek. Their music stands between instrumental, electronic, and a certain taste for drones. Having made their debut as a duet at festival Akousma XII (2015) in Montreal, they develop multi-disciplinary projects in collaboration with dancers, visual artists, and interface programmers. Jane/KIN has been artist in residency, along with VJ Myriam Boucher, at the Satosphere, a modular immersive theatre in Montreal (2017). They also performed at various venues such as: Akousma XIV, Daïmôn, Symposium IX, La Vitrola, Suoni Per il Popolo, and Toronto International Electroacoustic Symposium. Recently they performed at Le Viver/Gesù (Montreal), a show for kids using invented instruments and video mapping. Oscillating between dark drones and metal-like melodies, Jane/KIN's music takes its time to construct a startling resonance.

DAVID LEDOUX

As a postgraduate student and research assistant for the Groupe de Recherche en Immersion Spatiale (GRIS) under professor Robert Normandeau, David Ledoux's work has primarily been focused on developing a musical language anchored in the electroacoustic medium's immersive capabilities through 3D sound spatialization. Aesthetically speaking, Ledoux's work can be described as an acousmatic montage, derived from a cinema for the ear—a sub-genre at the crossroads of acousmatic music, soundscape, and radio art—which uses recognizable sounds to create sense and evolving scenes in a context of sound immersion. Moreover, Ledoux enjoys spotlighting the musicality and poésie of natural listening environments and aims to compose virtual auditory environments, in which operates a constant circuit of exchange between sounds and music through the three-dimensional space.

ERIC LYON

Eric Lyon's work focuses on articulated noise, chaos music, spatial orchestration, and computer chamber music. Lyon's software includes FFTease and LyonPotpourri, collections of externals for Max/MSP and Pd. He authored *Designing Audio Objects for Max/MSP and Pd*. His music has been recognized with a Giga-Hertz prize, MUSLAB, and League ISCM World Music Days. In 2017 he edited two issues of the *Computer Music Journal* devoted to the topic of high-density loudspeaker arrays. In 2018 he received a Guggenheim Fellowship in music composition. Lyon has taught computer music at Keio University, IAMAS, Dartmouth College, Manchester University, and Queen's University Belfast. He currently teaches in the School of Performing Arts at Virginia Tech and is a faculty fellow at the Institute for Creativity, Arts, and Technology.

Biographies, continued

DMITRI MAZUROV

Dmitri Mazurov is a composer and sound artist working in the field of contemporary academic music and experimental electronica. Born in the Siberian town of Novosibirsk, Mazurov studied music theory in the Novosibirsk music college. From there he moved to Moscow to solidify his career as a composer and sound artist. As his music straddles both the academic and the underground music scenes, it has appeared in a wide array of festivals, including inSonic 2017: Immersive future (ZKM, Karlsruhe), Geometry of Now (GES-2, Moscow), Synthposium–Festival of Music and Technology (Moscow), Another Space (Moscow Philharmonic), Burning Man Decompression (Moscow), and Archstoyanie Festival (Nikola Lenivets), as well as the seventh International Young Composers Academy in Chaykovsky (Russia).

ROBERT MCCLURE

Robert McClure's music attempts to discover beauty in unconventional places using non-traditional means. Visual art, poetry, the natural world, and neurological and mathematical concepts are elements that influence McClure's works. His work has been featured at festivals including New York City Electroacoustic Music Festival (NYCEMF), the Sonorities Festival of Contemporary Music, the Toronto International Electroacoustic Symposium, Society for Electro-Acoustic Music (SEAMUS), International Society for Contemporary Music (ISCM), and International Computer Music Conference (ICMC). His works may be found through ADJ·ective New Music LLC, Bachovich Music Publications, Imagine Music Publications, Innovative Percussion, Media Press, Inc., Resolute Music Publications, and Tapspace Publications, as well as on the ABLAZE and Albany Record labels. McClure received his doctorate from the Shepherd School of Music at Rice University, where his primary mentors were Shih-Hui Chen, Arthur Gottschalk, and Kurt Stallmann. He has previously held positions at the Shanghai Conservatory of Music and Soochow University in Suzhou, China. He currently serves as an assistant professor of composition/theory at Ohio University.

QI MENGJIE

Qi Mengjie (Maggie) is a composer and sound artist. Qi's works have been performed widely at international festivals, including International Computer Music Conference in Utrecht, Shanghai; Audio Arts Festival in Krakow, Poland; International Workshop on Computer Music and Audio Technology (WOCMAT) in Taiwan; the International Confederation of Electroacoustic Music (CIME) General Assembly concerts in North Texas, Moscow, and Beijing; International Electronic Music Festival of New York; Society for Electro-Acoustic Music in the United States at the University of Oregon; International Society for Contemporary Music in Beijing; SPLICE Festival at Western Michigan University; Cube Fest; Summer Institute for Contemporary Performance Practice at New England Conservatory; and MUSICACOUSTICABEIJING. Her works have won awards on noted competitions, such as first prize at the MUSICACOUSTICA electronic music composition contest in 2011, 2012, and 2014, and third prize at the Competition of Oskar Kolberg in 2014. Qi has been commissioned by MUSICACOUSTICA-BEIJING, and she is the composer in residence of Love for Music Ensemble in Beijing. She is a doctoral candidate at Central Conservatory of Music under the guidance of Zhang Xiaofu and is currently a visiting scholar at CUNY- Brooklyn College under the supervision of Douglas Geers. Her doctoral dissertation is on interactive sound installation. She received a master's degree in 2015 at the Central Conservatory of Music while studying electroacoustic music composition with Ping Jin. She received a bachelor's degree in recording and sound design at the National Academy of Chinese Theater Art in 2012. She is also enthusiastic for a music translation job, and she has served as translator and coordinator for lectures at MUSICACOUSTICA festivals and has translated lectures for many other festivals in China.

Biographies, continued

TED MOORE AND KYLE HUTCHINS

Binary Canary is a collaborative improvisation ensemble featuring laptopist Ted Moore and saxophonist Kyle Hutchins. Their work together since 2013 has included solo and chamber music, free and structured improvisations, and interactive multimedia. Their 2015 album *click/blow* was reviewed as “a full on noise-jazz symphony” (*Raised by Gypsies*) and a “display [of] individual virtuosity and group musicianship... well worth the listen” (*Signals for Images*). They have been featured at conferences, festivals, and on series such as the Society for Electro-Acoustic Music in the United States (SEAMUS), New York City Electronic Music Festival (NYCEMF), Electroacoustic Barndance (EABD), North American Saxophone Alliance (NASA), Music Now at the University of North Texas, New Horizons Music Festival (NHMF), Association for Technology in Music Instruction (ATMI), Ars Electroacoustica, The New Ruckus, Patrick’s Cabaret, Punk-Ass Classical, Skewed Visions, and as guest artists at universities across the country.

KAI OLIVER AND FRANCINE DULONG

Francine Dulong is a physical theatre performer and applied theatre artist from Nova Scotia, Canada. Balanced between the worlds of explorative play and theatrical performance, Dulong has worked as a facilitating artist for over nine years, applying drama to the exploration of language (French and English), social studies, ecosystems, computer coding, gun violence, and currently body image/gender. She is the founder and co-artistic director of Blooming Ludus, which creates environmentally-focused participatory theatre. Their key projects to date have been interactive theatre/game *Power Story*, tackling the fracking debate in the UK; *Salt and Vinegar*, an Atlantic Cod musical comedy duo; and *How Much Space Do We Need For Living*, an interdisciplinary project spanning Seoul, Vancouver, and London. Dulong is also a member of THAT!, a somatic dance/sound ensemble composing music through movement at venues such as the Barbican and Tate Modern. Kai Oliver is a professional game designer based at Preloaded, a game company in North London. His experience intersects the boundaries of the video game industry and the theatrical arts. His creative projects have included an exploration of alcohol addiction through alternative game controllers (made from beer bottles) funded by the University of Bristol Brigstow Award; computer programming and technical management of *Revolution*, a theatre experience showcasing a digital board game played by participants featured at the Vaults Festival; and the development of an augmented reality gaming platform for Exit Production’s *Keep Them Out*, an experimental escape room piece supported in kind by Theatre Delicatessen.

MICHAEL RHOADES

Composing from a contemporary Musique Concrète perspective augmented by various score synthesis techniques, Michael Rhoades elicits musical events from generative algorithms and an ever-expanding Csound sample playback instrument. Numerical representations of aural quanta are mixed and blended into formal elements via a variety of catalysts such as tendency masks, mathematical equations, sonifications, cellular automata, score-based sampling, and other paradigms in an unbending quest for emergent quanta. Rhoades served as a Society for Electro-Acoustic Music (SEAMUS) board member and hosted SEAMUS 2009. He curated the monthly Sweetwater Electroacoustic Music Concert Series and numerous other concerts, exhibits, and installations. His works have been presented in concert worldwide and have been used for pedagogical purposes. He is a published writer and also gives lectures on the subjects of algorithmic composition, score-based sampling, sonification, spatialization, and creativity. After receiving a bachelor of fine arts in creative technologies at Virginia Tech in the spring of 2018, Rhoades is now pursuing an interdisciplinary Ph.D. at Virginia Tech. His ongoing practice-based research in the areas of holography, holophony, algorithmic composition, and super computing is the focus of his curriculum, research, and creativity.

Biographies, continued

JUDITH SHATIN

Composer Judith Shatin draws on expanded instrumental palettes and a cornucopia of the sounding world, from machines in a coal mine, to the calls of animals, the shuttle of a wooden loom, the pull of a zipper. Timbral exploration, cross-boundary media, and dynamic narrative design are fundamental to Shatin's work. She is William R. Kenan Jr. Professor Emeritus at the University of Virginia, where she founded the Virginia Center for Computer Music. Her music has been commissioned by organizations including the Barlow Endowment and Fromm Foundation, Carnegie Hall, the Library of Congress, and many others. The genres she explores range from electroacoustic and multimedia to chamber, choral, and orchestral music. Shatin has received four NEA Composer Fellowships as well as grants from the American Music Center, the Lila Acheson Wallace-Readers Digest Arts Partners Program, Meet the Composer, and the Virginia Commission for the Arts. Her music is widely recorded on labels including Innova (two portrait discs), Neuma, New World, Ravello, and Sonora. Also in demand as a master teacher, Shatin has served as senior composer at the Wellesley Composers Conference, master artist at the Atlantic Center for the Arts, guest composer at the Aspen Music Festival, and senior faculty at California Summer Music. For more information, please visit judithshatin.com.

ERIC SIMONSON

Eric Simonson's music has been heard in concerts across North America, including Society of Electroacoustic Music in the United States (SEAMUS), International Computer Music Conference (ICMC) and Society of Composers Incorporated (SCI) performances. Simonson's composition teachers have included William Heinrichs, Harvey Sollberger, Eugene O'Brien, and Roger Reynolds. His degrees are in composition, but his interests and teaching experience have involved computer music, music theory, and musicology. He studied piano with Boaz Sharon at the University of Tulsa and subsequently enjoyed a brief career as an accompanist and chamber musician. Currently, he serves as a professor at Danville Area Community College (DACC) in Danville, Illinois, teaching musicology and music theory courses in the Liberal Arts division. His most recent large-scale project was an opera about Abraham Lincoln and Ann Rutledge, which was performed by the DACC Players in November 2015. He is currently at work on settings of excerpts from Tasso's *Jerusalem Delivered*.

ERIC STEWART

Eric Stewart (Chicago, Illinois) is an interdisciplinary multimedia artist and educator. Working predominantly with 16mm film, Stewart's artistic practice invokes photochemical and darkroom processes to investigate landscape, place, and cultural identity in the American West. Before moving to Colorado in 2013, he lived in the San Francisco Bay Area, where he taught a biweekly analogue filmmaking workshop, *The Elements of Image Making*. He was awarded the 2015 Mono No Aware Award for Excellence in Filmmaking at the Haverhill Experimental Film Festival, and his films have shown at the Yerba Buena Center for Fine Arts (San Francisco), Yale University, Crossroads Film Festival (San Francisco Cinematheque), 25fps (Zagreb, Croatia) and the Florida Experimental Film Festival. His current film examines the philosophy of science, ecology, and the 19th century natural sciences as a window into contemporary issues of globalization, climate change, and social perspectives on wilderness. He holds a bachelor of fine arts from the School of the Art Institute of Chicago; a master of fine arts from the University of Colorado, Boulder; and is an assistant professor of photography in the beautiful San Luis Valley of Southern Colorado.

Biographies, continued

CHENYU SUN

Chenyu Sun was born in 1996. The purpose of Sun's work is to influence people in arts ways and make people aware of nature and their surroundings. By exploring the innovative and technical possibilities of media production and musical works, Sun's works let viewers physically engage with different media that include both individual and cooperation works with music, videos, interactive technology installations, games, animations, and electromechanical sculptures. By using interactivity, he hopes to promote an understanding between the world and people as interdependent, bringing subtle changes and prompting reflection in order to influence viewers' lived reality.

KOTOKA SUZUKI

Kotoka Suzuki is a composer focusing on both multimedia and instrumental practices. Suzuki's work often stimulates visual senses and conceives of sounds as physical form to be manipulated through the sculptural practice of composition. Her work has been featured internationally by performers such as Arditti String Quartet, eighth blackbird, Pacifica String Quartet, Continuum, Nouvel Ensemble Moderne (NEM), Mendelssohn Chamber Orchestra (Germany), and Earplay Ensemble at numerous venues and festivals such as Ultraschall, International Society for Contemporary Music (ISCM) World Music Days, ZKM Media Museum, Inventionen, The Stone, International Computer Music Conference (ICMC), and Music at the Anthology (MATA). Awards she has received include DAAD Artist in Residence Berlin (Germany), Bourges First Prize in Multimedia, First Prize in Musica Nova (Czech Republic), Norton Stevens and North Shore fellowships from the MacDowell Colony, Howard Foundation fellowship, and the Robert Fleming Prize from Canada Council for the Arts. She has held residencies at MacDowell Colony, Yaddo, Djerassi Resident Artists Program, Ucross Foundation, and Center for Arts and Media (ZKM). Suzuki taught at the University of Chicago and is currently an associate professor at Arizona State University School of Music. Her works are published on Edition RZ, Albany Records, EMF Media, IMEB records and Signpost Music. She is an associate composer at the Canadian Music Centre since 2001. For more information, please visit kotokasuzuki.com.

ANNA XAMBÓ

Anna Xambó is currently a postdoctoral research assistant at the Centre for Digital Music (School of Electronic Engineering and Computer Science, Queen Mary University of London). Xambó's previous position was as a postdoctoral fellow at the Center for Music Technology and Digital Media Program (Georgia Tech). She has been co-founder and co-chair of the organization Women in Music Tech at Georgia Tech (2016-2017). From 2013 to 2014, Xambó was a research fellow at the London Knowledge Lab (UCL Institute of Education) while completing her Ph.D. in music computing with the dissertation *Tabletop Tangible Interfaces for Music Performance: Design and Evaluation* (2015, The Open University, U.K.). A commonality in her work is the use of code to create own-built music and sound prototypes for real-time interactive music. This includes tangible user interfaces, collaborative systems, mobile participatory systems, multichannel spatialization systems, and generative music systems. She has published her work in 18 peer-reviewed conference papers, six peer-reviewed journal articles, and two peer-reviewed book chapters. To date, she has released three solo recordings: *init* (2010, Carpal Tunnel), *On the Go* (2013, Carpal Tunnel), and *H2RI* (2018, panyrosas).

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In the Galleries

SITTING PRETTY: THE CHAIR RE-ENVISIONED

Thursday, June 21-Sunday, August 12, 2018

Ruth C. Horton Gallery, Miles C. Horton Jr. Gallery, and Sherwood Payne Quillen '71 Reception Gallery

Artists from Maryland, Virginia, North Carolina, and Tennessee expand upon traditional forms and cultural associations, re-imagining the possibilities of what a chair is and can be. *Sitting Pretty* features over 30 works, some created specifically for the exhibition. Curated by Moss Arts Center graduate assistants Emily Bianchi and Sarah Tucker in conjunction with the curatorial department.

WILLIAM WEGMAN: SIT!

Thursday, June 21-Sunday, August 12, 2018

Francis T. Eck Exhibition Corridor

Presented for the first time in Virginia, this recent body of photographs by conceptual artist and pioneering video artist William Wegman features a succinct selection of his work with his beloved subject—Weimaraners—on tables and chairs by renowned designers and architects Charles and Ray Eames and George Nakashima.

GALLERY HOURS

Monday-Friday, 10 AM-5:30 PM

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