

25th ANNUAL VIRTU AL NATIONAL CONFERENCE

APRIL 23-25 2021

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Conference at a Glance

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About SEAMUS

Founded in 1984, The Society for Electro-Acoustic Music in the United States (SEAMUS) is a non-profit national organization of composers, performers, and teachers of electro-acoustic music representing every part of the country and virtually every musical style. Electro-Acoustic music is a term used to describe those musics which are dependent on electronic technology for their creation and/or performance. SEAMUS is committed to facilitating member interaction and the dissemination of their work through an annual national conference, juried recording projects, and the publication of Journal SEAMUS.

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Conference Welcome

WELCOME TO SEAMUS 2021!

On behalf of the Board of Directors, it is a pleasure to welcome you to the SEAMUS 2021 Virtual National Conference. We are profoundly grateful to the many individuals, collectives, and institutions who have dedicated themselves to producing the abundance of extraordinary programming detailed below. We hope the next three days will fortify and inspire you.

It would be difficult to overstate the challenges and traumas of this era. In such a context, the community responded by working together to build a singular conference that reflects its evolving place and aspirations. Not unrelated, our inability to gather in person suggested new ways the conference might be structured. The call for S21 program elements produced an innovative array of programming that has extended the field of participation and activated new modes of presentation. The conference also features a variety of panels that engage critical concerns with diversity, equity, inclusion, and belonging, both broadly and keyed specifically to our field — such

as digital equity, networked performance, and explorations of traditional performance practices in technology. And we are especially pleased by the opportunity to offer a conference that is open to the entire SEAMUS membership.

We would like to acknowledge some of our key partners: at CCRMA / TWELVE, Constantin Basica, Hassan Estakhrian, and Stephanie Sherriff; at Telematic for the People, Lauren Hayes and Isaac Schankler; at Temple / Futuring the Past, yaTande Whitney V. Hunter and Adam Vidiksis; at Crafting Sound, Abby Aresty and Rachel Gibson; at RE/SHIFT/ER, Nick Hwang, Jeff Herriott, Anthony T. Marasco, Eric Sheffield, and Anna Wiesling; at Installations / AltspaceVR, Kenneth Stewart and David Zielinski; at the Digital Equity panel, Jon Bellona, John Gibson, Simon Hutchinson, Jeffrey Stolet, and Chi Wang; at the [Switch~ Ensemble], Chris Chandler, Zach Sheets, and Jason Thorpe Buchanan; at Georgia Southern University, John Thompson, Allison Lourens, and Andres Correa; at the Oberlin Synthesizer Ensemble, Drew Smith, Tom Lopez, and Abby Aresty; at the

DEI panel, Elizabeth Hinkle-Turner, Annie Hui-Hsin Hsieh, Ralph Lewis, Caroline Louise Miller, and Cecilia Wu; at UNT / CEMI / Nova Ensemble, Mark Vaughn, Panayiotis Kokoras, and Elizabeth McNutt; at UNT Free Improv Ensemble, Kory Reeder; at WPI / MPR Lab, Scott Barton. Thank you! The S21 conference is hugely enlivened by your contributions.

We would like to acknowledge some key conference production collaborators: Associate Technical Directors Alex Christie, Omar Fraire, Andrew Litts, Julie McLaughlin, Jonah Pfluger, Lex Simakas, Juan Carlos Vasquez, Matias Vilaplana-Stark, and Eli Wilson; Research Coordinator, Luke Dahl; and SEAMUS Web Administrator, Joo Won Park. Graphic design: Gregory Wostrel Thank you!

Annea Lockwood, 2020/21 SEAMUS Award recipient, is a pioneer of electro-acoustic music, sound art, and instrumental and vocal music. Born in New Zealand, she moved to the U.S. in 1973, teaching at both Hunter College and Vassar College where she

is an Emerita Professor. She found kindred spirits in John Cage, Pauline Oliveros, the Sonic Arts Union composers, and her partner Ruth Anderson. As she recounts in Tara Rodger’s *Pink Noises*, “I developed as a personal guideline that when I had an idea which I thought was unreasonable, that was exactly what I should try to realize.” For example, creating an archive of recordings of every river in the world. Her work is fundamentally concerned with timbral and sonic specificity, from “The Glass Concert” (1967) to *A Sound Map of the Danube* (2005). The latter combines impeccable recordings of objects and environments with interviews of people living along the river, telling stories in their many native languages. Listening in, we engage another fundamental concern — the ecology of human beings and the sounds moving through and around them. Presentation of Annea Lockwood’s work in the Switch~ Ensemble concert and Saturday’s keynote / discussion / presentation will provide a view into the poetics of her compositional practice, interleaved with the presentation of recent work.

Finally, we would like to acknowledge the SEAMUS Board of Directors and Staff: Annie Hui-Hsin Hsieh, Konstantinos Karathanasis, Eli Fieldsteel, Lyn Goeringer, Olga Oseth, Steven Kemper, Scott Miller, Adam Vidiksis, Elizabeth Hinkle-Turner, Jeffrey Stolet, Eli Stine, Jiayue Cecilia Wu, Joo Won Park, and Sam Wells. Their time, dedication, skill, and labor maintain and help to evolve the organization. We owe each of them our sincerest thanks.

SEAMUS exists to promote electro-acoustic music and to serve and strengthen our membership communities. Please feel free to share your ideas with one another and with us about how we might best continue to do so.

All the best,

The S21 Conference Committee

Ted Coffey

Brooks Frederickson

Dave Gedosh

Annie Hui-Hsin Hsieh

Steven Kemper

Adam Vidiksis

SEAMUS 2021 Conference Partners

Stanford CCRMA — TWELVE

Constantin Basica, Hassan Estakhrian, & Stephanie Sherriff

Telematic for the People

Lauren Hayes, Isaac Schankler, & Andrew C. Smith

Futuring the Past Panel / Concert

yaTande Whitney V. Hunter & Adam Vidiksis

Crafting Sound

Abby Aresty & Rachel Gibson

RE/SHFT/ER

Nick Hwang, Jeff Herriott, Anthony T. Marasco, Eric Sheffield, & Anna Wiesling

Installations AltspaceVR design and development

Kenneth Stewart & David Zielinski

Digital Equity Panel

Jon Bellona, John Gibson, Simon Hutchison, Jeffrey Stolet, & Chi Wang

Switch~ Ensemble

Chris Chandler, Zach Sheets, & Jason Thorpe Buchanan

Georgia Southern University

John Thompson, Allison Lourens, & Andres Correa

Oberlin College and Conservatory / TIMARA /

Oberlin Synthesizer Ensemble

Drew Smith, Tom Lopez, & Abby Aresty

DEI Panel

Elizabeth Hinkle-Turner, Annie Hui-Hsin Hsieh, Ralph Lewis, Caroline Louise Miller, & Cecilia Wu

University of North Texas / Center for Experimental

Music and Intermedia / Nova Ensemble

Mark Vaughn, Panayiotis Kokoras, & Elizabeth McNutt

University of North Texas Free Improv Ensemble

Kory Reeder

Worcester Polytechnic Institute /

Music, Perception, and Robotics Lab

Scott Barton

2020/21 SEAMUS Award—ANNEA LOCKWOOD



Born in New Zealand in 1939, Annea Lockwood moved to England in 1961, studying composition at the Royal College of Music, London, attending summer courses at Darmstadt and completing her studies in Cologne and Holland, taking courses in electronic music with Gottfried Michael Koenig. In 1973 feeling a strong connection to such American composers as Pauline Oliveros, John Cage, the Sonic Arts Union (Ashley, Behrman, Mumma, Lucier), and invited by composer Ruth Anderson to teach at Hunter College, CUNY, she moved again to the US and settled in Crompond, NY.

She is an Emerita Professor at Vassar College.

During the 1960s she collaborated with sound poets, choreographers and visual artists, and also created a number of works such as the *Glass Concerts* which initiated her lifelong fascination with timbre and new sound sources. In synchronous homage to Christian Barnard's pioneering heart transplants, Lockwood began a series of *Piano Transplants* (1969–82) in which defunct pianos were burned, drowned, beached, and planted in

an English garden. During the 1970s and '80s she turned her attention to performance works focused on environmental sounds and life-narratives, often using low-tech devices such as her Sound Ball, containing six small speakers and a receiver, designed by Robert Bielecki for *Three Short Stories and an Apotheosis*, in which the ball is rolled, swung on a long cord and passed around the audience. *World Rhythms*, *A Sound Map of the Hudson River*, *Delta Run*, built around a conversation she recorded with the sculptor, Walter Wincha, who was close to death, and other works were widely presented in the US, Europe and in New Zealand.

Since the early 1990s, she has written for a number of ensembles and solo performers, often incorporating electronics and visual elements. *Thousand Year Dreaming* is scored for four didgeridus, conch shell trumpets and other instruments and incorporates slides of the cave paintings at Lascaux. *Duende*, a collaboration with baritone Thomas Buckner, carries the singer into a heightened state, similar to a shamanic journey, through the medium of his own voice.

Ceci n'est pas un piano for piano, video and electronics merges images from the Piano Transplants with Jennifer Hymer's musings on her hands and pianos she has owned, her voice being sent through, and colored by the piano strings.

Other recent work includes *Vortex* commissioned by Bang on a Can for the All-Stars; a surround-sound installation, *A Sound Map of the Danube*; *Luminescence*, settings of texts by Etel Adnan for Thomas Buckner and the SEM Ensemble; *Gone!* in which a little piano-shaped music box, attached to 20 helium balloons, is released from a concert grand and floats off over the audience playing, in one case, *Memories. Jitterbug*, commissioned by the Merce Cunningham Dance Company for the dance *eyeSpace*, incorporates Lockwood's recordings of aquatic insects, and two improvising musicians working from photographs of rock surfaces. Poems by three of the prisoners in Guantanamo Bay are the focus of *In Our Name*, a collaboration with Thomas Buckner for baritone voice, cello and 'tape'.

Much of her music has been recorded, on the Lovely, XI, Mutable, Pogus, EM Records (Japan), Rattle Records, Soundz Fine (NZ), Harmonia Mundi and Ambitus labels. She is a recipient of the 2007 Henry Cowell Award.

The SEAMUS Award (renamed from the SEAMUS Lifetime Achievement Award) acknowledges the important contributions of its recipients in the field of electro-acoustic music. The recipient is selected by the board of directors of SEAMUS. The prize was first awarded in 1987. A list of past recipients is posted at seamusonline.org/seamus-award.

2021 ASCAP / SEAMUS & Allen Strange Award

The ASCAP / SEAMUS student composer commissioning program encourages young composers to pursue creative endeavors in electro-acoustic music as well as student participation in SEAMUS activities. The program is administered by SEAMUS and funded by the American Society of Composers, Authors, and Publishers (ASCAP). The first and second prize commission winners will be announced at the 2020 SEAMUS National Conference Awards Presentation.

ASCAP / SEAMUS Finalists 2021

Hunter Brown

Zouning Liao

Douglas McCausland

Jeremy Wexler

The Allen Strange Memorial Award, named for our friend and colleague Allen Strange (1943–2008), is an annual award to celebrate the best undergraduate or high school electro-acoustic composition. Each year the winner receives a cash prize of \$250 and recognition at the SEAMUS National Conference.

Allen Strange Memorial Award Winner 2021

Alex Tedrow

SEAMUS Adjudicators

Ioannis Andriotis

Alexis Bacon

Merche Blasco

Russell Brown

Patrick Chan

Christopher Chandler

Chris Colatos

Kittie Cooper

Rodney DuPlessis

Lainie Fefferman

Jon Fielder

Louise Fristensky

Martin Gendelman

Garrison Gerard

John Gibson

Lemon Guo

David Ibbett

Niloufar Iravani

Chen-Hui Jen

Mikel Kuehn

Yoon-Ji Lee

JP Lempke

Elainie Lillios

Kerrith Livengood

Brett Masteller

Daisianee Minenger

Barbara Nerness

Ryan Olivier

Sue Jean Park

Jean-Paul Perrotte

Jonah Pfluger

Richard Power

Patrick Reed

Kory Reeder

Erin Rogers

Isaac Schankler

Stephanie Sherriff

J. Andrew Smith

Daniel Swilley

John Thompson

Fang Wan

Chi Wang

Silen Wellington

Rachel Lanik Whelan

Eli Wilson

Okan Yasarlar



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Detailed Conference Schedule

THURSDAY, 4/22

6:00-7:00PM: PRE-CONFERENCE EVENT: SCREENING AND ARTIST TALK

Co-Curators Drs. Adam Vidiksis and yaTande Whitney V. Hunter will screen their new collaborative work “Recursive Presence” created in collaboration between the Temple Dance Ensemble (TDE) and The Boyer College Electroacoustic Ensemble Project (BEEP). Co-Curators will be joined by Lela Aisha Jones of FlyGround to screen and discuss the collaborative process of her work “Plight Release and the Diasporic Body.” Curators will be joined by TDE and BEEP members.

FRIDAY 4/23

9:30-11:30AM: PAPER SESSION I

9:30-10: Arian Bagheri Pour Fallah and Ashkan Zareie *Récit as a Musical Form: Modular Media, Aural Simulacra, and Machine Learning*

10-10:30: Nicholas Cline *suono non statico: Luigi Nono’s Late Electroacoustic Works*

10:30-11: Marcel Zaes *From Listening to Playing—Browser-Based Sound-Making in #otherbeats*

11-11:30: Kaitlin Pet and Christopher Raphael *Applications of Interactive Score Following with Informatics Philharmonic in Electroacoustic Performance*

9:30-10: Arian Bagheri Pour Fallah and Ashkan Zareie *Récit as a Musical Form: Modular Media, Aural Simulacra, and Machine Learning*

ABSTRACT

In literature and ethnography, récit has come to be understood as a distinct form. Maurice Blanchot’s identification of the literary récit, as that which is spoken “in the neuter” (Blanchot 1999: 466), is integral to this ontological categorization, for it distinguishes the former from the novel wherein

speech carries with it obligation and fixity. This paper outlines a musical form structured akin to the récit, as opposed to sheet music and fixed-medium (acousmatic) electroacoustic works, whose formation, it is argued, to mirror that of the novel. Termed the “record”, the central structural unit of récit music provides an aural simulacrum of a creative event, which is, in a process termed “recital”, reciprocated by myriad musicians, no longer “preformed in the thought of a demiurge” (461). The works produced in this manner, of which sound examples will be presented, are described as modular, contrasting fixed media. Initially made possible using traditional recording technology, long-term overhaul of aforesaid media as data, we assert, drawing on state-of-the-art machine learning (ML) scholarship (LeCun et al 2015), to be ensured by virtue of deep learning methods pertinent to audio signal processing (Purwins et al 2019). Within this domain, audio super-resolution aims to reconstruct, and likewise generate, high-quality audio signals from low-quality input data, employing deep neural nets, a class of ML methods learning abstractions from data. Over traditional audio super-resolution approaches, deep learning-based methods offer better performance in that “they leverage sophisticated domain-specific models of the appearance of natural signals” (Kuleshov et al 2017: 6). Positing neural nets as adjuncts to modularity

of new musical works, emphasis is placed, rather than “algorithmic composition” and “automation” (Fernández & Vico 2013), on how ML can help reconfigure electroacoustic music, the strand of art music recurrently referred to as “indigenously a machine music” (Bowers 2003: 28), to help reconnect musicians. We conclude by demonstrating how in contrast to notation, i.e. visual simulacra of musical sounds anticipant of an obligatory aural performance, and fixed media, a modular work, taking cues from récit, consists in putting other musicians “into relation with what it says” (Klossowski 2007: 89), thereby anticipant of active reciprocal participation.

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10-10:30: Nicholas Cline *suono non statico: Luigi Nono's Late Electroacoustic Works*

ABSTRACT

In the last decade of his life, Luigi Nono was tremendously prolific. During this period, he produced numerous large-scale works including his opera, Prometeo. Tragedia dell'ascolto (1983-86). A fundamental component of these works is Nono's use of live electronics, developed while in residence at Das Experimentalstudio der Heinrich-Strobel-Stiftung. This paper approaches Nono's late works through multiple perspectives – sonic, historical, political, logistical, and philosophical – in order to examine the dynamic and reciprocal relationship between Nono's aesthetic concerns and his compositional techniques.

This discussion begins with an analysis of Quando stanno morendo (1982) that tracks both the development of new compositional ideas as well as

the common threads that bind Nono's late works into a cohesive project. Through the analysis of this work, I examine three components which shape the aesthetic framework of Nono's work during this period: his concept of listening, preoccupation with space, and the metaphor of wandering. Finally, I consider issues around performance practice and the preservation of Nono's electroacoustic works, highlighting the need for implementing and testing the recent documentation of the electroacoustic components of these works to ensure the sustainability of this repertoire.

10:30-11: Marcel Zaes *From Listening to Playing – Browser-Based Sound-Making in #otherbeats*

ABSTRACT

#otherbeats is a sound piece that lives on a website and in which users can playfully and intuitively interact with a “social” archive of rhythm; with a series of audio recordings collected from volunteering participants during the various global lockdowns. The piece is made exclusively with HTML and the Web Audio API and processes, mixes and arranges the audio recordings in real-time in the user's web browser. In this paper, I argue that my piece #otherbeats is reflective of a larger trend that I observe: that the internet is gradually shifting from a site where people consume music to a site where people directly create sound. I analyze my own piece, #otherbeats, through the lens of this development,

and I showcase how recent technologies, such as the Web Audio API, have afforded such novel artistic approaches with sound on the web, and yet how these technologies might change how people think of old binaries such as sound production versus sound reproduction. #otherbeats as well as similar browser-based works propose a rethinking, if not overcoming, of such binaries, and create positions that are ambiguous. Users are “playing” the archive by way of listening to it, turn consumption into production when they produce a sonic experience directly on their browser by reproducing collected sonic ephemera made by other people. This paper thus argues that #otherbeats is part of a vaster trend of works in digital spaces that present ambiguous notions of “play,” “consumption,” and “sound (re) production,” while also emphasizing the ethics of working with participatory sonic archives.

11-11:30: Kaitlin Pet, Christopher Raphael

Applications of Interactive Score Following with Informatics Philharmonic in Electroacoustic Performance

ABSTRACT

Informatics Philharmonic is a music performance system that uses interactive score-following technology to allow pre-recorded audio accompaniment to follow a live soloist. Using this system, performers can freely adjust their tempo, allowing for an experience that closely simulates

playing with human collaborators. Although Informatics Philharmonic has been largely used with standard acoustic repertoire, our research has demonstrated that it can also work well in music scored for live acoustic instruments and interactive electronics. Such applications fall into three categories: fixed media, visualization, and live media. Works for fixed media and live acoustic soloist can be adapted with Informatics Philharmonic so the fixed track stretches and contracts in real time to align with the soloist (see example in demo1.mov). Informatics Philharmonic can also be used to synchronize visual presentations accompanying performances. Examples include allowing event-based performance videos to follow a soloist in real time (see example in demo2.mov) and using non-real time score alignment technology to generate synchronized ensemble videos from separately recorded parts (see example in demo3.mov). Finally, an exciting future application of Informatics Philharmonic is live-media like usage where a soloist’s audio is processed, harmonized, mixed, and distorted in real time. We hope to find composers interested in collaborating with us to use Informatics Philharmonic on projects combining live performance and interactive electronica.

11:30AM: WELCOME SESSION

12PM-12AM (4/24): TWELVE

Adam Vidiksis, Stephanie Sherriff, Julie Zhu, Bradley Robin, Marc Ainger, Omar Fraire, Samuel Wells, The Core, Cathleen Grado, Seth Shafer, Modality, Nick Virzi, Jean-Francois Charles and Will Yager, Fernando Lopez-Lezcano, Ted Moore, Steven Kemper, Brad Decker, duoB. Vs. viDEO sAVant, Cecilia Suhr, Daniel McKemie, Jiayue Cecilia Wu, Chris Chafe, Scott Miller/Dilate Ensemble, Jean-Paul Perrotte, Jeremy dePrisco

Curated by CCRMA at Stanford University, TWELVE is an interdisciplinary durational performance event that begins at 12pm, 04/23, and ends at 12am, 04/24, featuring artists and musicians from around the world.

1-2:30PM: PANEL: TELEMATIC FOR THE PEOPLE: MAKING MUSIC ONLINE IN LESS THAN IDEAL CONDITIONS

Lauren Hayes, Andrew C. Smith, Isaac Schankler

This panel will discuss the challenges and discoveries involved in performing and presenting electroacoustic music in online contexts, with a special focus on telematic music-making in the wake of the COVID-19 pandemic.

2:30-4PM: WORKSHOPS SESSION I

Indra Networked Virtual Score Platform

Drake Andersen

Krashkan: Tools for Interactive Music Theatre

Alexis Bacon, Alison Dobbins, Clarence Nanamori

Indra Networked Virtual Score Platform

Drake Andersen

ABSTRACT

One of the most underexplored areas of technologically-mediated performance is the virtual score. A virtual score is music notation that is natively digital, allowing it to be transformed, rearranged, and redistributed in real time. In this workshop, you will be introduced to Indra, a new virtual score platform for live networked musical performance.

Indra is a tool for conductors to improvise with an ensemble of any size. Notation appears on performers' screens in real time according to musical criteria set by the conductor, which ranges from predefined parameters like duration and pitch center to custom metadata fields and tags. Indra also facilitates creative exchange by allowing composers to "conduct" each other's works, creating new interpretations with each performance.

Indra's unique performance paradigm is designed for musicians who are interested in integrating improvisatory and notation-based approaches to live performance. Aesthetically, Indra exists in dialogue

with a variety of performance practices, from the scores of Anthony Braxton and Earle Brown to the meta-language systems of John Zorn and Walter Thompson.

Participants are encouraged to download the software in advance: <https://creativeinteraction.org>

Krashkan: Tools for Interactive Music Theatre

Alexis Bacon, Alison Dobbins, Clarence Nanamori

ABSTRACT

Krashkan is an online performance where the audience controls flow, movement, and character of the music and sound, as the newest iteration of a work first performed as Shark! The Musical. The goal of this workshop is to test methods of audience interaction and interactive performance in a virtual, distanced setting. The original narrative form of this work allowed for interactive audience control of lighting, music, and actors' choices via the medium of their mobile devices. In this iteration, we are further exploring methods of audience interaction within a networked online performance. The performance will consist some aspects of the original production as well as new elements suggested by our current socially distanced circumstances.

This workshop explores how we, as artists, create a sense of communal art-making with a virtual audience. This presentation specifically explores the forms of musical change that promote audience engagement and transition from observer to

performer. As the audience acts in such a way to transform the sound, they are also responding to the sound they create. Any audience member with Zoom and a webcam can participate.

Note: Audience members will be invited to participate in this workshop. In order to participate, please make sure you have installed the most recent version of Zoom so that you may access its virtual backgrounds and filters.

4-5:30PM: PANEL: FUTURING THE PAST: CONTEMPORARY EXPLORATIONS OF TRADITIONAL PERFORMANCE PRACTICES IN TECHNOLOGY

"Big Room" (Artists and Audience Open Discussion)

Topic: In what way can we imagine the future informing the past?

An open discussion w/ Artists and Audience. Co-curators Drs. Adam Vidiksis and yaTande Whitney V. Hunter invite guests to discuss ways can we imagine the future informing the past specifically as it relates to "Contemporary Explorations of Traditional Performance Practices in Technology." The "Big Room" is structured around three grounding questions presented to the "room." An allotted duration will be provided as a frame for the responses before moving along to the following question.

Moderators: Drs. yaTande Whitney V. Hunter and Adam Vidiksis, Temple University

Guest Artists: Alice Blumenfeld, Marjani Forte, Manjunan Gnanaratnam, Aurie Hsu, Lela Aisha Jones, Rajeev Maddela, Everett Saunders, and Alex Shaw

5:30-7PM: WORKSHOPS SESSION II

Creating Visuals Through Code

JP Lempke

Remote Body Sample Player

Ryan Ingebritsen, Christopher Knowlton, John Toenjes

Creating Visuals Through Code

JP Lempke

ABSTRACT

*Participants should download Java and Processing before attending the workshop

Composers, especially electronic music composers, sometimes want to include visual elements as part of their pieces, but lack the knowledge or resources to do so. My workshop will provide a basic skillset for connecting automated visuals with sound. Over the course of 90 minutes, beginners with no programming background will learn the fundamentals of operating code and create a simple design built out of basic shapes. It will react to sonic input through changes in size, color, and rotation, each of which can be individually customized.

Participants will do this entirely with Processing, a free build on Java that simplifies the artistic coding process. Because the workshop is designed as a hands-on “follow-along” process where attendees can type along with me and check their work as they go, it functions well through Zoom screen sharing. The idea is to get people creating right away and avoid the tedium of theory and math that may put them off.

90 minutes is not enough time to become an expert in coding, but I want the workshop to have positive outcomes for everyone involved. It should establish a foundation that allows participants to recognize the language of code, what it does, and how it can be a tool that helps expand their artistic and compositional capabilities. In other words, it’s a step towards accessing a wide variety of topics and developing their creative toolset in the future.

Topics include:

- Basics of Processing sketches
- Coding syntax
- Installing libraries
- Creating basic shapes
- Changing color and outline
- Making repetitions of objects with for loops
- Rotation, translation, and scaling
- Animating with frameCount, noise, and sine functions
- Using sound to control an animation

The workshop can be done with minimal resources, and participants can join without having to make any purchases. All they need is a computer with Java and Processing installed (easily downloaded online) and a reliable Internet connection.

Remote Body Sample Player

Ryan Ingebritsen, Christopher Knowlton, John Toenjes

ABSTRACT

During the summer of 2020, several strategies for remote performance were investigated to see if Kinesthetic Empathy – the ability to encode and decode the input of other users in interactive systems, or the sense of “vicarious performance” felt by audience members – could be achieved in remote performance using an online platform. One of these is a system involving an instrument called the “Body Sample Player”. This instrument involves a Kinect version 2 camera, touchdesigner, and MAX/MSP. Eight discrete joint positions are tracked and used to control the volume of eight looping samples turning the body itself into a kind of DJ controller. This system can normally accommodate up to four players using one camera. In the version proposed here, the patch has been modified so that the joint data for each participant is sent to all of the other iterations of the patch running on a global area network (Zero-Tier One in this case) so that small packets of control data are sent rather than high bandwidth streaming audio or video and

each player hear the sound generated by these low bandwidth packets generated by their local iteration of the patch. This system minimizes latency and allows performers to have a meaningful interactive performance experience remotely. The workshop will be a presentation of the background and history of the system as well as a short demonstration of the remote version in action.

7-8:30PM: CONCERT/PANEL: CRAFTING SOUND

Tools are products of the societies that create them and are reflective of the gender and socio-political power structures inherent in these societies. In the *Crafting Sound concert and panel discussion*, we will turn a critical eye towards the technologies of sound, examining unspoken and unquestioned value systems inherent in these technologies. The program features artists who reclaim creative agency in their practice through intentional design of bespoke hybrid instruments and technologies, exploring how handicraft and technologies can engage new audiences and transform creative sound-making practices.

Concert:

Patricia Cadavid | *Knotting the memory//Encoding the Khipu_*

Jess Rowland | *Music for Bodyspace*

Sam Topley | *Punch Embroidery Study*

Asha Tamirisa | *RAVEL*

Afroditi Psarra | *Hums, Beeps and Squeaks*

Panel, moderated by Abby Aresty and Rachel Gibson: Patricia Cadavid, Afroditi Psarra, Jess Rowland, Asha Tamirisa, Samantha Topley

Knotting the memory//Encoding the Khipu_

The Andean Khipu is an ancient textile computer used in the Inca Empire for the processing and transmission of information encrypted in knots and cords of cotton and wool. This system was widely used until the Spanish colonization that prohibited and destroyed much of the existing Khipus.

In the performance, the interface is reused as a new “Electronic_Khipu_”, paying homage to this device. Through the weaving of knots, the artist takes the position of a contemporary “khipukamayuc” (khipu knoter) seeking, from a decolonial perspective, the interrupted legacy of this ancestral practice in a different experience of tangible live coding and computer music.

The experimental sound piece presented is filled with digital textures modified by the live manipulation of the cords and the knot-weaving that will encrypt a sound composition influenced by the ancestral sounds of the Andes with a contemporary treatment.

Music for Bodyspace is a spatialized sound piece for the human body. It uses audio wearables in the form of necklace, earrings, and a bracelet to form a four-channel composition. Each wearable

is a Bluetooth controlled remote one-channel speaker. The piece is controlled remotely by Max MSP. The music itself could be thought of as “sound perfume” or a “subtle body”.

The ***Punch Embroidery Study*** is a short video, documenting Topley’s exploration of a handcrafted textile interface.

The textile piece is made using the punch needle technique, where a sharp pen-like tool is used to push yarn through fabric. Conductive thread is blended with brightly coloured yarn, creating a soft, but densely textured, interactive textile piece. The interface is positioned next to a ‘yarnbombed’ loudspeaker.

This handmade textile interface responds to touch to generate musical material. Simple gestures excite the sounds, creating rich and evolving textures.

The ‘Punch Embroidery Study’ is a part of a larger body of work, investigating a craft-focused approach to making electronic musical instruments and sound artwork.

RAVEL is a multimedia performance motivated by the interrelated yet often obfuscated connections between textiles and sound and image technologies. The performance highlights the processes of spinning and weaving and uses the textile as a metaphor for the construction of history.

Hums, Beeps and Squeaks was recorded live on March 2021 at the DXARTS Softlab on the third floor of the Art Building at the University of Washington in Seattle. The live set is comprised of a series of hand-embroidered digital synthesizers, machine embroidered fractal antennas, software-defined radio, and other miscellaneous electronics. The composition is largely improvised exploring the gestural language of the handmade synths, the tactility and textural characteristics of the textile radio antennas, and the dynamics of layering live radio signals.

**9-10PM: PERFORMANCE/DEMONSTRATION:
RE/SHFT/ER**

Nick Hwang, Jeff Herriott, Eric Sheffield, Anna Wiesling, Anthony T. Marasco

RE/SHFT/ER will perform SHP of THSEUS, a remote collaborative audiovisual work with audience mobile participation and demonstrate Collab-Hub, the network messaging tool Hwang, Sheffield, and Marasco have been developing since the start of the pandemic. The demonstration will describe Collab-Hub, its ability to connect across varying creation tools, and how Collab-Hub was utilized for the SHP of THSEUS performance.

10-11PM: INSTALLATIONS “GALA”

Tour of virtual installations on AltspaceVR platform

Brian Alexander | *HVAC Sonification Project*

The Einstein Collective: Sara Mast, Jessica Jellison, Christopher O’Leary, Cindy Stillwell, Jason Bolte, Charles Kankelborg, Nico Yunes, Joey Shapiro Key | *Black (W)hole*

Courtney Brown, Melanie Clemmons, Ira Greenberg, Brent Brimhall | *Skin Hunger*

Miles Friday | *for loudspeakers, contact microphones, and motors*

Akiko Hatakeyama | *ちとせ ももとせ—chitose momotose*

Simon Hutchinson and Paul Turowski | *Rhythmcremental*

Nate Krebs | *all Your death belongs to us*

Daniel McKemie, Ernesto Cárcamo Cavazos, Esteban Ruiz-Velasco | *El movimiento en la quietud*

Mark Micchelli | *Roll ‘Em*

Ted Moore, Katherine Balch | *Aluminum Forest*

Kory Reeder | *Chimes*

Margaret Schedel, Nick Hwang, Rob Cosgrove, Brian Smith | *Rhumb-Line*

Mark Vaughn | *b i r d*

Adam Vidiksis, Sam Wells | *Translucent Cartography*

Sam Wells | *Four Winds*

SPECIAL PROGRAMMING: RUTH ANDERSON

SUM (State of the Union Message) (1973)

Points (1973–74)

I come out of your sleep (1979)

SPECIAL PROGRAMMING: PRIX CIME 2019

Wojciech Błażejczyk | *#NetworkMusic*

Daniel Blinkhorn | *valiha*

Mario Mary | *Le sophistiqué son du Dasein*

Douglas McCausland | *Black Amnesia*

Giulio Colangelo | *Forbidden Soundscapes [Narcissus’ Nausea]*

Nathaniel Hearing | *Medical Text p.57*

Nikos Kanelakis | *Spaces and Places*

Alexander Khubeev | *Cryptocalypse*

Nicola Mišić | *Insection*

Zhaoyu Zhang | *Inheritance*

The ***HVAC Sonification Project*** is one of a series of site specific installations aimed at giving a voice to everyday objects and systems which are largely taken for granted and ignored. The project is intended to highlight and express the hidden subtleties of each system in an artistic manner thereby triggering an awareness of other autonomous systems in our lives.

HVAC, (heating, ventilation, and air conditioning) is a system of equilibrium. It is equivalent roughly to homeostasis in biological terms. When it is performing correctly, it renders itself invisible - making it a topic of interest on several levels. For this project I designed and built two styles of sensors to interact with air flow and light which then modulate

synthesized sound within a predetermined format. It was revealed through this process that in a typical system, all inlet and output points flow at slightly different rates and begin and end at different times. Each time the system runs it creates a different composition which can be interacted with or left alone entirely. The frequency and duration of the system's run time is tied directly to its set point but varies widely by the time of day, weather conditions, seasons, and occupants. When these variables are brought to life as an auditory experience, its greater depth and complexity become clearer such that it seems more alive than the apparently colorless background device it appears to be. It is hoped that this experience bridges a general awareness for all of us to slow down and look beneath the hardened surface we've unconsciously applied to our daily lives.

Black (W)hole uses data visualization of an extreme mass ratio inspiral (EMRI) with the aural data of gravitational waves in an experiential work of artscience. It engages mind and body in both historical and current gravitational wave astronomy, encompassing our current, 21st century level of understanding of the universe. The work was commissioned as part of the Celebrating Einstein Event and was funded in part by a NASA Education Enhancement Grant.

In **Skin Hunger**, participants are invited to kinetically escape the rectangular confines of their web camera via an audio/visual

experience facilitated by digital embrace.

Participants access Skin Hunger, a web-based installation, by going to the website and allowing the site access their webcam. Participants can choose to be paired with a random partner or they can click and copy a link to send to a friend. As the participants interact through touch and movement, they create an audio/visual organism that progresses in complexity but without interaction, the organism regresses. Initial touch results in a long, held horn sound, and a visual organism begins to take shape. The pitch of the sound is determined by the location of the embrace. The participants can shape the sound and organism in different ways by moving in synchrony while they are touching and holding the touch longer. Each touch also evolves the organism and creates a short sound, which will repeat in its own rhythmic cycle, until it "dies". The length of time each short touch note stays "alive" and how many short notes are "alive" at once is determined by the average movement between the two participants. The percussion parts are determined by the both the number of short note cycles "alive" and the average movement of both the participants.

This work was created in response to the increased use of video communication during the 2020 global coronavirus pandemic, and the stress incurred due to a lack of touch as a result of quarantining and social distancing. Lack of touch can result in a condition known as touch starvation, sometimes referred to

as skin hunger, which leads to increased levels of cortisol and feelings of social exclusion. While the remedy for touch starvation is skin to skin contact, we wanted to offer a digital alternative for those unable to obtain that remedy. Additionally, we hope that participants interacting with this piece will enjoy a break from the confines of the rectangular grid of video communication.

for loudspeakers, contact microphones, and motors

This sound sculpture, made from suspending contact microphones over loudspeaker drivers, is a messy, DIY construction that explores the animation of objects through the phenomena of "physical feedback". Sound is produced from structure-borne interconnectivities—physical movement, deformation, and vibration—between piezo disc and speaker membrane (as opposed to air-borne audio feedback generated from microphone and loudspeaker). Motors reside in individual tower-like constructions and work diligently to push and pull cables, further animating and enhancing the kinetic qualities inherent in physical feedback. Individual towers combine in modular forms to make a variable, city-like structure that frames these creatures of sentience, agency, and personality. Some are hyperactive, some are pushy, some are cute, and some are a little bit lazy.

ちとせ ももとせ—*chitose momotose* is a sound and light installation using candle lights on line via a live streaming platform such as YouTube Live. By lighting a candle, a participant can trigger a sound that gradually changes along with candle burning – a change in the length of the candle. With seven candles on the installation table lit, each candle triggers a unique sound at a unique timing with the use of infrared sensors; as a result, they together create weaving sound streams at the site. The musical composition will always be unique due to varying combinations of sounds based on numbers, timings, and lengths of the candles that participants light. The movements of candle flames create subtle fluctuations in sound. Slow and introspective time flows in the space, both physical and virtual, and participants and witnesses will be encouraged to immerse themselves in the environment. For this online iteration of the piece, the participants will send a request to the artist by listing their names/ nicknames by sending an email. The artist will light a candle for them as an executor and a witness at the site. The broadcast of the installation will be real-time, and people can participate by sending a request or simply witness the site online. The lights, sounds, warmth, smell, and texture of the candles will speak to the participants’ senses through their past experiences and imagination, and this actuation of bodily senses will trigger their emotions and memories that reside in them. If all candles are already lit, the participants will wait and enjoy the moment until a candle completely burns out.

Following, the artist will light a candle in the open spot for a participant. The artist will reply to their email when their candle will be lit as well as post the participant’s name/nickname on the chat area on the YouTube channel. The time one candle burns may represent a period in a lifetime – may be a day, a year, ten years, or more.

ちとせ/chitose means a thousand years, **ももとせ** / momotose means a hundred years. The title of the piece refers to a sense of time, history, and life.

Rhythmcremental is an incrementally evolving drum machine where players create their own beats in a ““clicker”” game.

Click the “Click” box to gain points. Points are used to buy items which you drag from the left of the screen into the grid at the right. Items in the grid add points automatically.

all Your death belongs to us was created to serve as a morbid reminder for the tolls associated with the COVID-19 pandemic. The piece is pointed towards the disastrous U.S. response to the virus within its own borders, specifically from the federal government.

The installation first ran and was live-streamed for 24 hours on November 3rd, 2020. By the time the patch finished, the estimated total deaths worldwide reached 6,358, while U.S. deaths reached 901. In reality, the numbers reported were lower. However,

the week of Nov. 3rd continued to see a precipitous increase in the rate of cases and deaths worldwide and in the U.S. - far above the rate the installation was running on. By January 2021, the death count in the United States would consistently surpass 3,000 daily deaths.

Now in the spring of 2021, the end of the pandemic seems to be in sight. However, the patch I hoped would be defunct by now still tells us that there is much suffering to be had in the lives lost.

El movimiento en la quietud is a web-based sonic experience that takes the listener in an imaginary walk, weaving in and out the unique soundscapes and contemporary music scenes in Mexico City and Berlin. The listener is taken through an algorithmic narrative with the ability to move in the city space and interact with sonic elements in binaural and three-dimensional audio. Each instance is thus a unique, interactive, and immersive experience for every listener.

Roll ‘Em is a boogie-woogie standard that Mary Lou Williams originally wrote for the Benny Goodman Orchestra, though she also recorded the tune a number of times with piano trio. My somewhat maximalist take on the tune is also inspired by the player piano music of Conlon Nancarrow, relating the I-V-IV foundation of the blues progression to the 2:1, 3:2, and 4:3 tempo relationships that frequently characterize his works.

Special thanks to Modern Works Publishing for granting permission to present this recording at SEAMUS 2021.

Aluminum Forest

Forty-five hand-crafted aluminum chimes are placed all throughout the garden. Each is independently agitated by a small DC motor creating varying gestures, trajectories, and timbres. Motion sensors (connected to the motors by a small Arduino controller) trigger added agitation, acknowledging audiences presence and allowing them to participate in shaping the sonic environment. The Arduinos can also be controlled via WiFi enabling the entire system of chimes to be a performative space creating motions and gestures of sound that encompass the garden and can adapt to different configuration of chimes and installation sites.

Chimes is a generative audio installation created using the resonant frequencies of of wind chimes and and field recordings. In 2020, it has been challenging to find new and dynamic spaces for performance and creation, but while in my apartment, I was always able to daydream and hear the sounds of the small world around me. Part of this tapestry is the wind chimes several of my neighbors have. While this small, somewhat nostalgic sound world is certainly pedestrian and domestic, it is still home. It's where I create, think, dream, and do all the mundane things that make life dynamic and ever-changing.

Rhumb-Line

In the wake of environmental calamity, global climate change has triggered a blaring silent alarm. This silence is a clarion call—a soundless scream from the environment itself for stewardship and protection.

Rhumb-Line is a web-based sound installation contending with ecosystem silencing in the anthropocene by emphasizing the spatial properties of acoustic sound and the bodies that produce them. Portending a dystopic future in which acoustic ecology is encountered only through the mechanical reproduction of environmental soundscapes, the interactive audio of our installation is created by a chorus of robotic frogs—a recognition of the catastrophic global population collapse amphibians are facing.

The virtual environment (<https://tinyurl.com/rhumb-line-interactive>) that the robotic frogs inhabit, divided into two web pages, invites visitors to become members of this fragile ecosystem. The first page creates an acousmatic listening experience—listening to a sound whose source is unseen—in which the frogs are heard but veiled from view. The second page allows visitors to peer behind the acousmatic “veil” that occludes the sound source from the visual field, see the robotic frogs, and control the listening experience of other visitors.

Visitors to the site become temporary members of an online sonic community by performing

short rhythmic calls with a computer mouse on a website connected to the frogs. Next, they listen to an emergent ambisonic soundscape from within the environment as their calls are mimicked by the frogs and transformed through artificial intelligence. These calls act as rhumb lines. An arc crossing all meridians at the same angle, rhumb lines create paths of constant bearing established by true or magnetic north.

The singular geometric designation of “line” belies the range of visualized forms rhumb lines instantiate. When mapped on a global polar projection, for instance, rhumb lines spiral and tighten towards the poles, while rhumb lines on a Mercator projection map are realized as straight lines. Whether in oceanic or aerial contexts, rhumb lines establish orientation, direction, and position to navigate space with a constant bearing. In this installation, spatial sound becomes the bearing listeners use to locate the relative origin of each frog. The spatial information embedded in the calls allows visitors to imagine the shape of the frogs’ collective formation. Are the frogs spread out or very close? Do they surround the listener evenly, or are they in clusters?

On the second page, visitors see the actual formation of the frogs. There they can control the orientation of ambisonic microphones on a motorized head used to generate the listening experience of all visitors. They can also see one

of the frogs up close performing their calls in real time. Essentially, interacting with Rhumb-Line uses the spatial properties of acoustic sound to engage in a form of sonic navigation. The sonic rhumb lines in this work draw attention to a community of bodies that announce their situatedness in the environment—bodies that call for stewardship and protection from violent acts of imposed silence.

bird is an open-ended, experimental, electronic intermedia composition presented in the form of a website. The work provides a freely navigable intermedia environment for remote participation on the part of an audience member. The work's structure moves freely from one mode of signification to another, explicitly engaging with the multiple frameworks for interpretation that exist when processing auditory or visual stimuli, particularly online. In the work itself, this includes modes of interpretation that exist in domains like web design, the internet, the English language, typography, popular musical culture, technological fluency, knowledge environments, and nature.

Influenced by the study of semiotics and the concept of applying musical principles to areas other than sound, this work engages with musical categories, such as thematic and motivic development, rhythm, deceptive motion, quotation and reference, improvisation, composition, harmony, dissonance, and phasing. A key concern is the relationship between text, pattern, vision, sound, timbre,

uniformity, and implied meaning as it relates to an electronically-based sonic and aesthetic experience.

Translucent Cartography provides a framework for reflection on the “long-term Earth System responses to COVID-19 along two multidisciplinary cascades: energy, emissions, climate and air quality; and poverty, globalization, food and biodiversity.”* The installation is a multi-dimensional audio-visual virtual space composed of entangled geographies constituted of the diaries of the artists' experiences of the natural world through the lens of personal experience and observation in the midst of the pandemic. It consists of documentary video footage, audio recordings, electroacoustic sound, and digital audiovisual processing. The participants' navigation of the layered, multi-dimensional space determines their experience, which manifests as 2-dimensional video and stereo sound. Movement unfolds both linearly and nonlinearly through the interconnected geographies.

* Diffenbaugh, N.S., Field, C.B., Appel, E.A. et al. The COVID-19 lockdowns: a window into the Earth System. Nat Rev Earth Environ 1, 470–481 (2020).

A concert length work for improvising trumpeter and interactive audiovisual electronics, ***Four Winds*** is a narrative exploration of spaces, internal and external, defined by air and breath. The visual imagery is derived from time-lapse photos and videos taken in June 2020 in the

Gothic Valley of Gunnison County, CO. This performance was recorded live on June 19, 2020.

SPECIAL PROGRAMMING: RUTH ANDERSON

Works by Ruth Anderson were selected by the conference hosts in consultation with Annea Lockwood, Anderson's longtime partner and spouse. These works and more are included on Here (2020)—a limited edition 12” by Arc Light Editions.

SUM (State of the Union Message) (1973) was made in between ‘pieces’ at MacDowell Colony while waiting a couple of weeks for my regular studio to be free. I had intended to do a collage of sounds, taken from TV commercials. A rich resource, my studio ears thought. But the project extended itself to include words and phrases as well – material rich beyond sonic experience. The time, one January, and the content which emerged, suggested the title. My intention became to say as little and, by omission, as much as the President would in his address, using the one medium we all share. The impulse for doing SUM was the same as for designing electronic games around that time, as in Triangular Ping Pong (1973) and Tuneable Hopscotch (1975), in the sense of just playing. —RA

Points (1973-74) is built from sine tones which are the basic building blocks of all sound. As the smallest unit of sound, a sine tone is a single frequency focal point of high energy. In this work, such points occur on various arcs which float in and out of one another.

Separate sine waves enter at five-second intervals, accumulate in a long veil on one channel while another set of sines then is introduced on the second channel, and continuing this way with the veils of sound shifting in and out of each other.

The high focus of energy of a sine wave, the outsize breathing interval of five-second entries, the calm of the veils and timeless quality are some of the elements I can isolate which have made this a healing piece, one that constantly generates in listeners a sense of repose and quiet energy. —RA

I come out of your sleep (1979) is based on the speech vowels in Louise Bogan's poem, Little Lobelia's Song. Vowels have a natural flow, while consonants define separate spaces and trigger distinct rhythms. Some vowels form melodic contours, others are steady state tones of varying qualities on different pitches which form oblique rhymes with one another. Here they are whispered and elongated, interacting in four canonic lines. The shapes of vowels become breathed melodic arcs and tones, and that breathing becomes the core of a stylized meditation. In the poem, a dual self is described in mirror images. In the text-sound composition, these images flow through their vowel sounds to resolve into one another. No longer verbal, they merge in a holistic recognition of the unity of self implicit in the essence of the poem. —RA

SATURDAY 4/24

9-9:30AM: COFFEE/CHAT ON DISCORD

9:30-11:00AM: PAPER SESSION II

9:30-10: Michael Boyd *Electro-acoustic Confessional: Confronting One's Artistic Past*

10-10:30: Taylor Brook *Scuffed Computer Improviser: Aesthetics of Imprecision in an Artificial Intelligence Musical Improvisation*

10:30-11: Daniel McKemie *Control Surfaces: Using the Commodore 64 and Analog Synthesizer to Expand Musical Boundaries*

9:30-10: Michael Boyd *Electro-acoustic Confessional: Confronting One's Artistic Past*

ABSTRACT

We've all made poor decisions – had one too many drinks, dated the wrong person, overused a credit card, accepted employment at a toxic workplace, and so forth. Some such questionable decisions are artistic in nature. Indeed when looking back on one's early work, it is easy to have tinges of embarrassment and regret. However, those emotions are often at least partially counterbalanced by feelings of warm nostalgia. I have love/hate feelings about my own early compositions and suspect that many artists have similar relationships with their early output. John Baldessari made this dynamic compellingly tangible in 1970 through his Cremation Project, an

undertaking in which he burned all of his paintings, baked some of the resulting ashes into cookies, and publicly announced the act in a newspaper as a sort of obituary. Viewing some of these cookies/ex-paintings several years ago I felt that Baldessari's approach to his previous work, simultaneously embracing, annihilating, and remaking, was a fitting way to let go of one's artistic past.

Confessional is a user-driven installation that provides the opportunity for composers to briefly take pleasure in and then (symbolically) destroy one of their dubious creations. This process is accomplished with a computer (running Max or Max Runtime) and a recording provided by the user that is processed live. The audio processing unfolds in stages and mirrors the phases of animal decomposition: fresh, bloat, active decay, advanced decay, and dry remains. Through this series of transformations, the user's piece transitions from its original state to nearly imperceptible bits of noise. Users may also log this activity into an official registration book, and they may create and take home a frameable certificate commemorating the destruction. Any other way(s) that a user wishes to document the event are encouraged ("selfies," social media announcements, etc.), and a Facebook page is provided to collect such documentation. For score-based works, implements will be provided to facilitate the physical destruction of scores: paper shredder or scissors for indoor venues, a fire pit or barbeque grill for outdoor venues (if allowed).

In this paper, I discuss Confessional, which was included on the virtual SEAMUS 2020 National Conference. The primary focus is the work's conceptual background – Baldessari's art and animal decomposition – and the structure of the Max patch that is used for live processing. I also discuss previous presentations of the installation at Electronic Music Midwest and the Electroacoustic Barn Dance, as well as the online realization I created for last year's SEAMUS conference.

10-10:30: Taylor Brook *Scuffed Computer Improviser: Aesthetics of Imprecision in an Artificial Intelligence Musical Improvisation*

ABSTRACT

This paper introduces the Scuffed Computer Improviser (SCI), a piece of artificial intelligence software designed to generate music in dialogue with a live human performer. While some of the technical details are described in this paper, the central focus is a consideration of the musical motivations and aesthetics of the SCI.

The design concept for the SCI challenges the optimist-utopian perception of AI through a purposely imprecise as well as transparent design. The SCI is an audio-corpus based computer improviser developed by the author in 2020 using the visual programming language MAX. The SCI first completes a learning stage from

incoming audio and then improvises with a live player using a variety of musical behaviors. This paper begins by considering the artistic goals of developing the SCI in the context of the recent research in improvisation and live algorithms along with relevant technical details of the software.

The paper concludes by identifying shortcomings and proposing future improvements for the SCI and computer improvisers in general.

The paper presentation will also include demonstrations of the SCI and a survey of the performances that have used this software to date, including recordings by the author and Marina Kifferstein (violin).

10:30-11: Daniel McKemie Control Surfaces: Using the Commodore 64 and Analog Synthesizer to Expand Musical Boundaries

ABSTRACT

Analog-digital hybrid electronic music systems once existed out of necessity in order to facilitate a flexible work environment for the creation of live computer music. As computational power increased with the development of faster microprocessors, the need for digital functionality with analog sound production decreased, with the computer becoming more capable of handling both tasks. Given the exclusivity of these systems and the relatively short time they

were in use, the possibilities of such systems were hardly explored. The work of José Vicente Asuar best demonstrated a push for accessibility of such systems, but he never received the support of any institution in order to bring his machine widespread attention. Modeled after his approach, using a Commodore 64 (or freely available OS emulator) and analog modular hardware, this paper aims to fashion a system that is accessible, affordable, easy to use, educational, and musically rich in nature.

11-12PM: S21 CONCERT 01

Jean-Francois Charles | *Petrified*
Will Yager—double bass

Anna Elder & Brian Riordan | *Succubus*
Anna Elder—soprano
Brian Riordan—composer

John Akins | *Cymbalindrome II*

Hubert Howe | *Broken Glass*
Hubert Howe—composition
Lisa Naugle—choreography
John Crawford—videography

Jeffrey Stolet | *Caminos Terribles, Desiertos Crueles*

Becky Brown | *dark parts*

Miles Friday | *Chain Blossoms*

Petrified is a reflection on the plastic nature of stones and rocks. The different states of the piece

include Explosion, Ebullition, Expansion, Erosion, Effusion and Eruption. Petrified showcases the incredible expressive range of the double bass.

Did you know it's possible to write music for soprano and live processing without angelic reverb? ***Succubus*** was written to explore underutilized real-time vocal processing techniques. This piece was commissioned for Re:Sound Festival 2020.

The source of all of the material in ***Cymbalindrome II*** is an array of samples from several cymbals belonging to the composer's son, taken with a handheld Roland recorder and processed with Audacity. Not only is the second half of the four-minute piece an audio retrograde of the first half, but numerous (though not all) individual short motives and gestures are in a palindrome format. Also sprinkled in are several familiar motives from classical literature; these are sounded in reverse in the first half.

Broken Glass is a video that was created to document a dance that was created for Inharmonic Fantasy No. 13. This work is based on compressing all of the components into the interval determined by the fundamental frequency times the square root of 7 (2.64575), which amounts to an octave and a value between a major third and perfect fourth above the note (one octave 3.184 semitones). This represents pitch compression by an irrational number. The work consists of numerous short

passages that include different numbers of notes, densities, and rhythmic distributions. The inharmonic components are presented in ways that both fade in and out over the course of the tone or are attacked and decay separately.

Caminos Terribles, Desiertos Crueles (*Wicked Paths, Cruel Deserts*) is a media work for amplified mezzo-soprano, Yamaha Disklavier, computer-generated sound, and computer animation created in collaboration with media artist Yin Tang. The six-part, multi-media song cycle emerged from personal contemplations about what it means to cross borders and to arrive in new lands. The texts, based on poems by the Spanish author Gustavo Adolfo Bécquer describe the dangers and treacherousness awaiting those that penetrate or challenge the border’s authority. This excerpt contains only the music of the prelude and two of the songs.

dark parts

A liminal space is a liminal space is a liminal space
i paace A limin s pa li mna space is space is space
is a liimin lnaa spi liminal liminal spsp ANimal speci
le scepim nillima ellaminis cesna alimin aces laces
animal special alleminiam asp case is a kn i. A kn i. A
kn i. A liminal spa is ce f. A kni. f. F. F>

“Chain Blossoms” is a work that mixes acoustic instruments with flexible fixed media. Playing with the delineation and blossoming between texture vs rhythm and precise virtuosity vs gestural shape,

“Chain Blossoms” links together an ebb and flow of energies. Harmony emerges from saturation, signal becomes noise, and thresholds are explored. All electronics in “Chain Blossoms” are synthetic and made in Supercollider and Max/MSP.

12-1PM: S21 CONCERT 02

Jeremy Wexler | *Choose your identity provider*
ASCAP / SEAMUS 2021 Finalist

Jee Won Kim | *Mneme*

Christopher Poovey | *Forged Effervescence*

Andrew Walters | *Noise to Signal*

Christopher Biggs | *Imprints in Time*
Noa Even—saxophone

Nina C. Young & Yuliya Lanina | *Always and Forever*
Nina C. Young—music
Yuliya Lanina—animation

Simon Hutchinson | *Hiraizumi Memories*

Choose your identity provider is a sonic poem that explores the manipulation of found sounds through a hybrid analogue/digital setup.

Mneme means “memory” in Greek.

We all have different fears: fear of heights, fear of closed places, fear of the darkness, and so forth. Most of the fears are from our past experiences.

When the experience remains in our memory, and as it encounters time, it gets merged and distorted by itself or from external factors. And this memory develops into a fear.

This piece, *Mneme*, shows the illusion of myself that I feel when I am inside a cave or a tunnel. With this fear, although I hear the real sound, my imagination distorts the sound that it is hard to tell what the reality is.

Forged Effervescence is an exploration of synthesized metals created to showcase my modal synthesis VST Bellforge. The piece develops on the ideas of envelope shape, resonance, and inharmonic timbre through the transformation and juxtaposition of a large pool of sound sources created entirely through modal synthesis.

Noise to Signal uses noise, randomness, unintelligibility, and/or sound that is usually not wanted becoming tone and its transformation into orderliness and intelligibility as thematic material. These themes operate at several different levels. In Noise to Signal several Eurorack modules are used, but especially Mutable Instruments’ Plaits and Peaks modules.

Imprints in Time for alto saxophone, thunder tube, and computer was written for and is dedicated to a consortium of saxophonists consisting of Noa Even, Drew Whiting, Zach Shemon, Henning Schröder, and

Justin Massey. The work abstractly reflects on how people are connected through their interactions. The title comes from an article by Michael Tze-Sung Longnecker that posits that we can think of objects as creating a curve in time, just as objects curve space, and he refers to these curves as imprints in time. I imagined personal interactions as having an analogous mass-energy to objects and that interactions imprint on our personal histories similar to how objects bend space and possibly time. The audio consists of three, interactive sonic layers—the saxophone, live processing of the saxophone, and fixed media files. The visuals for the work are generated in real time: the energy in the low, mid, and high frequency regions of the three audio layers is extracted and mapped to control the parameters of visual events.

“Always and Forever”, a collaboration between visual artist Yuliya Lanina and composer Nina C. Young, grew out of the artist’s painting practice during the beginning of the pandemic. In animated form, they give testimony to my subconscious mind’s effort to process his impending death, the distance between us, and feeling powerless. As the characters in a masked ball of Life flash across the screen, the furry black alter ego must decide if it’s safe to follow the high-heeled spider into another dimension—will it hurt or heal?

Hiraizumi Memories

Hiraizumi, a small town in Northern Japan, is home to

a collection of Buddhist temples nestled in the hills of a picturesque rural landscape. These temples, dating back to 850 AD, were declared a UNESCO World Heritage Site in 2011. A place must meet several possible criteria to become a World Heritage Site, and the “Historic Monuments and Sites of Hiraizumi,” was accepted under criteria ii, “exhibits an important interchange of human values...on developments in architecture or technology, monumental arts, town-planning, or landscape design”, and vi, “is directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.” These temples stand, then, as a possible conduit to the past, but a place that is connected to living traditions that continue to be shaped by the modern world.

1-2:30PM: PANEL: DIGITAL EQUITY: TEACHING ELECTRONIC MUSIC ONLINE DURING A PANDEMIC

Jon Bellona, John Gibson, Simon Hutchison, Jeffrey Stolet, Chi Wang

The COVID-19 pandemic has posed daunting challenges for educators around the world. In this unprecedented environment, teachers of music technology have been confronted with very particular challenges and, in response, have developed technological and creative initiatives. Three institutions of higher ed—University of Oregon, University of New Haven, and University of Indiana—

will present case studies that describe the problems faced, and the solutions deployed, at each of the three schools. The presentation will be followed by a live open discussion, with questions taken from the audience.

2:30-3:30PM: S21 CONCERT 03

Anthony Marasco | *The Spinning Earth Shall Spread Before You*

Nicolas Chuaqui | *Liminal X*

Greg Dixon | *SubRay*

Brian Belet | *Sea Lion Mix*

Ruppenthal | *Post-Apocalyptic Biscuit*

Alecto | *Cathedral of Particles*

Jon Christopher Nelson | *and sometimes wind from the south*

The Spinning Earth Shall Spread Before You

Inspired by the work of composer/hardware hacker Nick Collins, this piece explores the process of composing music through real-time improvised performance of circuit-bent consumer audio devices. Both CD players have been modified, allowing for networked control of their play/pause, seek, and stop controls. Additional modifications made to the anti-skip memory and data-muting chips of each player result in the creation of rhythmic loops when each CD player is paused, and heavily distorted, delayed audio fragments when connecting pins on the anti-skip memory chip.

Each CD player is connected through a hardware/software system that allows for networked performance between circuit-bent devices and web-enabled interfaces. Through this system, the performer and the hacked devices share control data between each other, allowing for machine-to-machine and human-to-machine interaction. During the performance, one or both CD players randomly choose certain control elements on the performer's interface to display, resulting in moments of subverted intention and a structure shaped by chance and machine intervention. Each disc contains source material written by the composer which is in turn mangled and processed live by the CD players.

Liminal X

This piece is inspired by theories of physics that suggest the existence of additional dimensions. Using a combination of electronically-generated and sampled sounds, the sonic landscape around us seems to fluctuate between the familiar and unfamiliar, and between the known and unknown, occupying a liminal space where these features meet. Sounds decay, grow, and return in ways we can grasp but not fully understand. Time figures greatly into this threshold space: time flows ever forward, but resonances into the past and future hint at the existence of a deeper, unknown reality.

SubRay (2020) is an acousmatic work created from the sound designs for the virtual reality video game, SubRay VR (2016), where the composer worked

as a sound designer specializing in submarine and creature SFX. The work is intended to invoke the atmosphere of the deep water, with feelings of exploration, wonder, awe, and suspense. SubRay (2020) seeks to explore musical drones and the deep, dark, and low frequency range of sound. The opening and closing of SubRay (2020) incorporates sound design created by Seth Weedin.

Sea Lion Mix (2009) was constructed from field recordings of sea lions basking on the wharf in Santa Cruz, California in early January 2009. Sea lions frequently doze and warm themselves on the sturdy wood beams supporting the wharf, and that day we encountered thirty or more of the creatures crammed onto a single platform, jutting out from the wharf a few feet above the water line. As always, the sea lions yelled and screamed at the slightest provocation, new comers clamored over the sleepers, and disturbances (both physical and vocalized) traveled through the group in waves. As I started to record one sleeping female sent a volley of snot flying over the group (that's the opening sound group, largely unaltered), and several others bellowed their protests to this intrusion. These antics were enough to trigger some hearty laughing episodes from my son Jacques, and his sounds are just as delightful as the sea lions. Then, my wife Marianne, mindful that I was recording, asked me several questions as quietly as she could (including: "Are you recording?"). My voice is in there a few times,

mumbling incoherently (I have decided not to dwell too much on that). So, what began as a jaunt to the ocean to celebrate Marianne's birthday and to record pristine sea lion sounds became a much richer, more real experience of our family outing to the wharf, with each of us being simply who we are. Great fun!

When performed live within Kyma, the recorded sound files are segmented and processed in real time to create a unique performance environment (live *musique concrète*!). Alternately, any specific performance can be recorded and preserved as a fixed audio structure in a more traditional *musique concrète* format. This music is dedicated jointly to Marianne Bickett and Jacques Belet, who form a large part of the music of my life. This work is published on the audio CD *Sufficient Trouble* (Ravello Records, RR7969, 2017).

Post-Apocalyptic Biscuit

Post-Apocalyptic Biscuit, jawbreaker, sea biscuit or Hardtack as it was commonly known. This biscuit, made of three ingredients was rationed out to soldiers in the American Civil War as well as other soldiers and sailors in various Countries throughout history. It will last a very long time, at least 20 years. This was what there was left to eat after the apocalypse.

"Post-Apocalyptic Biscuit" (2020) is for Buchla 200, Electric Music Easel, Voice, and a variety of post-processing digital algorithmic plug-ins. The work

is my response to the Strange Times that we are living through; especially the dark political tragedies playing out around the world, along with the horrific pandemic, and the subsequent self-isolation that we must all endure; a cautionary tale. The structure of the work follows this pattern of variants:

“Post-Apocalyptic Biscuit” (November 19, 2020; Take 4b) (8:12)

Variants: I , III, IV, VI, VII, IX

Watchtower

Cathedral of the Winds

Wailing at the Wall

Bones

Klangs & Drones

Reminiscence

Cathedral of Particles

“Cathedral” is a multimedia work written for alto saxophone, electronics and film. All three instruments collaborate as equals to create a narrative platform for the audience to create their own journey. The combination of abstract mediums can create universal narratives; narratives that are uniquely formed from each individual’s personal experiences, memory, and the social “sub-consciousness”; but also a narrative that draws from one unique tank that includes all human experiences. The verge where each individual microcosm meets the ancient communal archetypes of humanity is exactly where we position our narrative focus and ideology.

The performer stands in the middle of the stage with all lights out. The film starts. It shows multicolored circular lights—like planets or stars—projected exactly on and behind the performer. The performer is now in the middle of the galaxy. The saxophone sound merges with the emerging electronics which make up the sound of the universe, while the saxophone provides the sound of humanity. The music grows in volume as time goes by symbolizing the expansion of the universe as well as the evolution of humanity through the ages. The piece climaxes and the harmony finally rests with a note from the saxophone.

and sometimes wind from the south

I have long admired the poetry of Robert Gregory, having set one of his poems for voice and fixed media and having been captivated by his work on many occasions. His poetry has provided inspiration for my own work, finding its way into not only my work titles but also into the conceptual foundation of a number of my compositions. When I heard that he had passed away, I spent some time reviewing his work and revisited a recording I had made of Bob reading several of his poems in the early 1990s when we both lived in Miami, Florida. One of the three works I had recorded, and sometimes wind from the south, provided an ideal poem for me to set in memoriam. This text-sound composition is based on Bob’s inimitable voice and strives to capture some of his fanciful imagination and lively spirit.

and sometimes wind from the south
— by Robert Gregory (1947–2018)

and sometimes wind from the south
and sometimes there is no way to be ready
she looked bad as far as losing weight
one tooth left, the other lady said
(there was a seed in her)

it’s amazing what they do these days
and sometimes there is
(there was a rising in her heart)
and sometimes there is overcast
and the bread gets a complicated taste from that, from the sky
(often walked solitary)
and sometimes whatever it is decides to vanish
and sometimes the sky is full of a previous sky
they tried to get the ring off
she never would have wanted them to do that
(all was dark and under the chain)

(she came among a people that relied much on dreams)

threw out all the clothes
he didn’t want them around, to remind him
(to quench the spirit)

stuff nobody wears any more
even so, said the other – they didn’t waste any time
and sometimes whatever cracks the cat is forbidden
and sometimes we don’t feel all that human
and sometimes the dragon who lives in the dead tree begins to sing
(to speak of these things being within)

and sometimes I remind myself of a parking lot
five minutes at the graveside and in she goes
well, when my time comes

I want it short and sweet

what was she like when you were kids?
she was a princess

and sometimes we disregard the cues
and sometimes the old ladies put pebbles in the soup
and sometimes the walls are more rubbery than absolute
and sometimes you wake up and immediately fall into
a hole of some kind that fits you perfectly
and sometimes the girdles are so cheap you might as well try one on
since although ugly they promise control
and sometimes General MacArthur comes in a dream
and sings a song about his crumpled hat
all night long, for you only

did she die quietly?
how do you mean?
(the passages, the ordinary monster)

well, was she awake? Did her heart
(rubbish and crooked ways)
and sometimes you watch tv angrily, as if to punish someone
and sometimes inside big buildings we puff up as well
and sometimes people are so groomed that
grooming seems all there is to it

and sometimes there are the twenty-eight constellations
to assist the brightness

go on her in her sleep or . . .
oh God no, it all went on her, kidneys,
liver, heart, the whole business

the sky is soft (it's night again)
the buildings are proud of their edges
out there somewhere past their lines
is what they call "the ocean"

the sleepwalker,

the wind has come up
it suggests that we go walking
leave the door open behind you
don't come back

3:30-5PM: CONCERT: [SWITCH~ ENSEMBLE]

Chris Chandler | *Strata*
for contrabass clarinet, percussion, violin,
and cello

Anuj Bhutani | *To The Lighthouse*
for violin and live electronics

Ted Moore | *frame*
for flute, cello, percussion, and piano
video processing by Ted Moore

Eren Gümrükçüoğlu | *Pareidolia – Section V* (2019)
for cello, percussion, piano, and electronics

Annea Lockwood | *Jitterbug*
for open instrumentation — bass flute,
contrabass clarinet, and tape

Zachary James Watkins | *Do Your Best Never Say
Can't and Love One Another*
for flute, clarinet, saxophone, violin, cello,
piano, percussion, and electronics

[Switch~ Ensemble]
Zach Sheets — flutes
Madison Greenstone — clarinets
Matt Evans — saxophones
Lauren Cauley — violin
TJ Borden — cello
Wei-Han Wu — piano
Megan Arns — percussion

Clay Mettens & Christopher Chandler —
computer musicians
Jason Thorpe Buchanan — production
and mastering

Strata

Drawn from the field of geology and referring to layers of rock or soil, the title Strata alludes to the compositional process used for this work. At the beginning of our collaboration, I gave the musicians of the [Switch~ Ensemble] various prompts of sounds, techniques, and gestures to record, which I then used to construct the electronics. The musicians then recorded solo improvisations alongside these electronics, and finally, we held a telematic group improvisation session with these materials.

I find that this multi-part asynchronous collaborative process that draws on recording, listening, reflecting, and improvising, both independently and in response to others, connects in interesting ways to the geological concept of strata. The initial electronics I composed became a kind of landscape upon which external forces act through the musicians' improvisational responses. The landscape changed, gaining new texture, features, and depth, with each successive improvisation. My role at the end of this process became like a geologist or archaeologist, sifting through various layers to uncover and highlight novel features. The end result is a composite of improvisations from different times and situations that I have arranged to be dialogue with

each other. It has been a rewarding way to connect and make music together in these distanced times, and I am deeply grateful for the artistry that Madison, Lauren, Megan, and T.J. brought to this project.

To The Lighthouse

"She felt... how life, from being made up of little separate incidents which one lived one by one, became curled and whole like a wave which bore one up with it and threw one down with it, there, with a dash on the beach."

— Virginia Woolf, To The Lighthouse

The source material of **frame** is about two minutes of eurorack recordings transcribed for the Switch~ Ensemble to record. These recordings were then subjected to data analysis using audio descriptors and machine learning algorithms to be recombined with each other and new electronic sounds to create the final result.

Pareidolia - Section V (2019)

The way I hear and perceive music is inevitably shaped by my own artistic experiences in contemporary classical, film music, jazz, and Turkish folk music, bringing together listening practices of disparate genres and cultures. Analysis of my own listening practices piqued my interest in the psychology of listening. This led me to investigate auditory illusions and the spontaneous perceptions of meaningfulness known as apophenia and pareidolia. As a result,

I wrote *Pareidolia*, for ensemble and electronics. The piece is in seven sections. This is section V.

Making musical sense out of seemingly incoherent sonic data was the way I treated electronics in my music for a long time. In section V, I wanted to take this concept a step further and created a synthesized cello using virtual string modeling. Afterwards, I simulated a computer-generated performance of an improvisatory nature to implement in Section V. This section is scored for piano, percussion doubling on drum set, cello and a tape part—the tape part, which is the embodiment of an imaginary cello player. The whole performance of the tape cello part, including dynamics, duration, rhythm, and pitch, were generated in this way by using very loose limitations regarding pitch and rhythm so that the end result could be a big surprise to me. The more unexpected it is, the better for my process. Naturally, I have done many iterations of these computer-generated improvisations and listened to them, cataloged them, and finally decided on which one would be the right fit for the piece. The score for the live ensemble in this section was written after the tape selection was made. The entire section is an interpretation of the "music" I heard in the tape cello performance.

Pareidolia (/pæri'doʊliə/ parr-i-DOH-lee-ə) is the tendency to interpret a vague stimulus as something known to the observer, such as seeing shapes in clouds, seeing faces in inanimate objects or abstract patterns, or hearing hidden messages in music.

Jitterbug is a guided improvisation in which the musicians are interpreting photographs of rock surfaces as graphic scores; these are intricate in their patterns and color shifts, rhythmic. I found them in a creek bed up in the Rocky Mountains, not far from where I made the underwater recordings for the pre-recorded sound. This draws on insect sounds: aquatic insects which I recorded in the small lakes and backwaters of the Flathead Valley, Montana using a very sensitive hydrophone; also terrestrial insects made available by Lang Elliott of the NatureSound Studio. A curious aspect of the underwater recordings was that these strong sound signals were being created by beetles and other microscopic insects which were always invisible to me, although the water was clear and often shallow. On one occasion I experimented with proximity, slowly bringing the hydrophone closer then further away from the bugs which caused one of them to accelerate markedly as I got closer, then slow as I moved away – bug under stress. Deep tones from bowed gongs and a piano infiltrate this insect world, contrasting with the fast rhythms of the insects.

Do Your Best Never Say Can't and Love One Another is a mantra my father would have my sister Tighe and I recite every morning when dropping us off at Elementary School. During the pandemic, I found myself remembering these words and feeling overwhelmed with love. I have written a piece that attempts to resonate my understanding of these

words in this specific moment in history. This piece continues to explore a 20 note just intonation tuning that I have been developing for over 10 years. Here, I juxtapose these intervals with the Western Equal Temperament with the intended goal of creating a new sonic tapestry. Tension and release.

5-6PM: S21 CONCERT 04

Ben Luca Robertson | *Artemisia #34-53*
Ben Robertson—composition, actuated instruments, electronics
Science Ficta Viola Da Gamba Ensemble

Garrison Gerard | *Reflections of a Sea Bean*

Esther Deng | *Prisoner of time*

Maggi Payne | *Heat Shield*

João Pedro Oliveira | *Kontrol*
Ivan Manzanilla—virtual percussion

Robert McClure | *syn*

Nathaniel Haering | *to facilitate friction*
ASCAP / SEAMUS 1st Prize Commission, 2019

In **Artemisia #34-53**, the composer deploys an extended system of 11-Limit just intonation to model the phenomenon of “stretched” octaves and other spectral non-linearities. Contrasting with the simple, harmonic proportions exhibited by most stringed instruments (including the Viol da Gamba), we generally associate such inharmonicity

with bells, gongs, and various metallic percussion. However, through the inclusion of high-order just intervals, one may construct ‘hybrid’ sonorities which embody traits of both harmonic and inharmonic timbres. Here, stretched octaves exhibit intervallic displacement equivalent to at least three forms of just commas (81/80, 45/44, 33/32). The cumulative effect for this mode of inharmonic distortion suggests the perception of an altered or otherwise, ambiguous fundamental frequency—thus eliciting a sense of movement analogous to ‘Tonal Flux.’ So as to afford the precise transformations in pitch and spectra necessary in generating these phenomena, performers use custom software to process the signals from two electric instruments within the consort. Commensurate to electronic processing, the ensemble also alters the positions of frets on their instruments to accommodate new tuning schemes. This intonation structure corresponds to harmonics produced by two actuated string instruments (‘Rosebud’ I, II). Designed and constructed by the composer, these instruments employ electro-magnets and other transducers to induce sympathetic resonance across eighteen strings. In this context, actuated instrumentation plays a similar role to audio signal processors—re-embodying spectral components from the ensemble in parallel with their acoustic source. From these procedures emerge a continually evolving set of 19 distinct sonorities which constitute the structure of the piece.

Composed as part of an Artist-in-Residence at Padre Island National Seashore, ***Reflections of a Sea Bean*** uses field recordings from Padre Island National Seashore as its basis. The sounds of the island weave together in shifting patterns, reflecting the changing nature of the island itself. The sounds of the waves mixes with the call of a tern or the laughing gull—the sounds intermingle, and at times devolve into a surreal soundscape of waves and static.

Prisoner of time

In this piece, character dived into childhood through one gift from mom, the music box. Character is back to the childhood with the fading memory. Time eclipses, truth submerges, with the fading of childhood’s innocent image, character strives to find the truth, what the character looked like before. The melody of music box appears, solving all the answer and let the character remember all the thing. This is the innocence of child, pure and simple, when the time is still going on, tick-tock, tick-tock.

Some Chinese sentence and English translation in the music:

- 1. ‘Cuddling with your innocence and youth, tick-tock, tick-tock’
- 2. ‘Eternal time and full of darkness’
- 3. ‘Prisoner of time’

I use microphone to record my sound materials. Also I use midi, VCV Rack, and

some sound effect of granulator, filterbank and resonatorbank, to compose the music.

Heat Shield

As I was refining my final mix and searching for a title, I came upon an article in Science News describing the Parker Solar Probe and its imminent launch. The 8/12/18 launch date beat the completion of my work by six days, which was fitting since *Heat Shield* materializes while in an imagined outer space. References to the scorchingly close solar flybys occur in the middle and final sections of the work, as the solar probe will experience 2500 degree Fahrenheit temperatures and will be protected by two light weight heat shields, each consisting of two superheated carbon-carbon composite panels with a carbon foam core between them. In *Heat Shield* these close encounters are represented by powerful crackles and pops that occur as a result of shifting phase relationships among the several oscillators I used in the making of the work.

At times multiple spaces coexist in this work. There is always a sense of place, an atmosphere, in these acoustic constructs. The sounds are choreographed in an expanded three-dimensional space beyond boundaries, with no walls, ceilings, or floors to constrain them.

This work was conceived in four channels and is mixed in four channel and stereo versions.

I created all sounds except one, a cricket that appears briefly at :29, using an early Moog synthesizer.

Kontrol is a virtual percussion piece. Movements correspond to sounds and sounds correspond to invisible instruments.

Performance from the Festival Visiones Sonoras, September 2019.

Recording provided by Centro Mexicano para la Música y las Artes Sonoras. <http://15.cmmas.org/>

syn (2021) is four short movements centered on an imagined future world where synthetic beings have become the prevalent species. Digital has become the new religion. Any yearning for the distant past organic way of life is shut down and stomped out. The work follows one such synthetic being, SB-1021, and their “sins” against this new culture.

i. corpora - The body, and thus physical labor, is the only valued aspect of SB-1021 and beings like them. They are replaceable cogs in the machine of production. Yearning to be organic, SB-1021 slips into vivid daydreams and halts progress, a sin, before being violently thrust back into the cycle of production.

ii. intima - Synthetics’ thoughts are periodically downloaded and observed for deviation. Imagination, mindfulness, and creative thought

are sins. They are forced into digital mediation to clear their minds. SB-1021 covertly engages in wild fantasies before being surveilled.

iii. loquere - SB-1021 attempts to develop expression in their vocalizations (which had previously only been sequences of clicks in a binary language). This useless expression of the self in the synthetic world is superfluous and inefficient, and therefore a sin for which SB-1021 will be punished and terminated.

iv. viscera - Every synthetic being is created with core control mechanisms to distribute discipline for any transgressions. viscera details SB-1021's punishment and termination as they are torn apart from the inside out.

to facilitate friction

While working on a recent piece for chamber ensemble and electronics, I was immersed in its erratic, panicked atmosphere. I became obsessed with the idea of frantic, futile solos lashing out violently from silence with such constant intensity and fervor that they resulted in a kind of horrified stasis, a unit of grotesque and vicious sustain, striving endlessly but going nowhere, grasping desperately at nothing in the pursuit of a distant unseen hope. *to facilitate friction* elicits this sense of urgent driving desperation even more potently as it is condensed, focused, and amplified by being embodied by a single performer. Acting as the sole conduit for the rapid, jarring yet intricately intertwined shifts in

materials, sonic worlds, and dire emotional stakes of the piece the soloist wields, reinforces, and rallies against the electronics as an extension of themselves.

6-7PM: S21 CONCERT 05

Zouning Liao | *Water, Bowls and Rocks*
ASCAP / SEAMUS 2021 Finalist

Paul Oehlers | *Flux Hammer*

Doug Bielmeier | *St. Martin's Summer*

Timothy Moyers | *Recycled Linoleum*

Juan Carlos Vasquez | *Channel Zero*

Scott Barton | *Mechanophore*

Robotic Instruments by WPI's MPR Lab and
EMMI

Chi Wang | *Action-Reaction*

Water, Bowls and Rocks

This piece explores the metamorphosis from recording simple actions of nature, to the blanket of processed sounds. By using gestures on a Wacom drawing tablet which is driving data from Kyma, a single rock hit turns into thousands of horses galloping, and a single water drop becomes flexatones shaking.

An exploration of sounds derived from a piano, **Flux Hammer** employs sounds of physically altered piano strings. Source samples were prepared acoustically and manipulated through various processes, such as convolution, resonance filtering, and granular synthesis.

St. Martin's Summer

This work is rooted in the exploration and extension of the classic tape piece, "Orient-Occident" by Iannis Xenakis. While "St. Martin's Summer" focuses on the sustained and drone like quality of the last third of "Orient-Occident," it forges a new path and language from the realms of commercial ambient and drone music. Similarly, as "Orient-Occident" moved away from the Schaefferian sound object montage practice, "St. Martin's Summer" utilizes vertical harmony and reverberation focused on the sustaining and merging of sound objects into larger dronescapes. "St. Martin's Summer" sonically translates the phenomenon of one last warm day in the fall, just prior to winter.

"Recycled Linoleum" is an audiovisual reinterpretation of my older audio piece "Linoleum". The sound material for the piece was generated by sonifying a PDF document of an old Pro-Tools manual. The synthetic nature of the audio is reflected in the visual component.

"Channel Zero" is one of the ways Jean Baudrillard refers to life in the suburbs of the United States in his book "America," with a special emphasis on "the proliferation of technical gadgets inside the house, beneath it, around it, like drips in an intensive care ward." This piece was made under lockdown using the SOMA Ether, a device that perceives and records the surprisingly diverse electromagnetic landscape produced by electronic components in a

regular American house. Throughout the piece, the electromagnetic fields are occasionally blent with field recordings, portraying a small window into the real world.

Mechanophore was inspired by the force-sensitive molecular units of the same name. As mechanophores are subjected to physical forces, they activate chemical reactions that can communicate their state (e.g. color change) or even heal themselves. The musical work represents this process of increasing tension to the point of ring opening, out of which a texture whose nature ascends and heals emerges. The second section represents a particular mechanophore, spiropyran, more literally by tracing the molecule's skeletal structure in its pitch contours. Just as force makes spiropyran transform into a different molecule (merocyanine), the musical theme morphs into new configurations as it progresses. After another ring opening, the final section of the work represents interactions between individual polymers within a material, which can be characterized by entanglement, bridging, paths of motion, qualities, sizes, velocities, densities and loops.

More philosophically, the piece shows the wonder and complexity of the microscopic world through sonic elements that border on the threshold of perceptibility. As polymer science brings the distinction between the ideas of organic and synthetic into focus, the music illustrates the

continuum between these poles through various kinds of virtual and acoustic instruments that are combined and manipulated in a panoply of ways. Spiropyran elastomers were used as membranes for PVC drums played by robotic actuators made from 3D-printed PLA, thus connecting the metaphors of the work to its physical realization.

Action-Reaction is a real-time interactive electronic music composition of approximately eight minutes in duration for two GameTrak controllers, Max/MSP, and Kyma.

In classical mechanics, Newton's third law of motion states that for every action, there is an equal and opposite reaction. The action and reaction form a single interaction, they are simultaneous and neither force exists without the other. The GameTrak's retractable tethers interact with the performer's push, pull, release and free movements, causing the tethers deviating from and aligning with the rest state. The performer sometimes makes subtle and sparse push movements while sometimes pulls and drags the tethers dramatically. However, after releasing the tethers, the tethers are retracted back to the rest state, creating predictable yet unique realignment path each time. The data measured from the physical movements are mapped to various parameters in the sound producing algorithms, creating musical expressions that are both superposed and nuanced.

7-8:30PM: SEAMUS 2020 AWARD WINNER ANNEA LOCKWOOD

Keynote, concert presentation, and conversation with Tara Rodgers

Annea Lockwood | *Buoyant* (2013) & *Wild Energy* (2014)

Buoyant (2013) brings together wave action on Flathead Lake, Montana, ambient sounds at a boat basin on Lake Como, Italy, and metal gangplanks undulating with the Hudson's waves at the Hoboken Ferry Terminal; a bocce ball game comments.

Wild Energy (2014) is a collaboration with sound artist and audio engineer, Bob Bielecki. It is a site-specific multi-channel installation which was commissioned by the Caramoor Center for the Arts for the exhibition curated by Stephan Moore in 2014, In the Garden of Sonic Delights, and is now a permanent installation at the Center in Katonah, NY.

We were interested in exploring sound/vibration from geophysical, biophysical and atmospheric phenomena which lies in the ultrasonic or infrasonic ranges and was transposed into the human hearing range by the scientists who generously sent us their amazing sound files: Milton Garces' recordings of Mt. Kilauea's vents; Ben Holzmann's sonifications of seismic data from Japan and Indonesia; Aaron Corcoran's startling recordings of a Grote's tiger moth jamming a

hunting brown bat’s echolocation with its own ultrasonic clicks; solar oscillations and more.

9-10PM: CONCERT: GEORGIA SOUTHERN UNIVERSITY: BARELY THERE—A CONCERT OF QUIET MUSIC

Sean Peuquet | *Plane of Slight Elevation*

Diane Kessel—flute

Francisco Corthey—violin

Russell Brown—bass clarinet

John Thompson—electric guitar

Leah Reid | *Crumbs*

Matt Fallin—percussion

Linda Antas | *Still Shining*

Daniel Fishkin | *Masking Songs*

Tyler Roquemore—vibraphone

Tom Pearsall—piano 1

Jarrett Thompson—piano 2

Francisco Corthey—cello

Russell Brown—bass clarinet

John Thompson—conductor

Eli Fieldsteel and Kerrith Livengood | *Sonic Crumbs*

Holland Hopson | *Follows from Hummingbird*

Andrew Grabowska—Seaboard

Ryan Devens—Moog Prodigy

Francisco Corthey—violin

Jarrett Thompson—EML-200

Alex Ferre—trombone

Plane of Slight Elevation

The electronic portion of the piece alternates between algorithmically generated canons of sampled instrumental, pitched sound materials and soundscapes recordings of airports from across the world. Written during a time of isolation, where travel feels both nostalgic and also more privileged than ever— the piece confronts the minimal difference between the imagined and real. The acoustic ensemble is positioned to mediate such a gap, from a position of incomplete knowledge that draws upon each performer’s individual musical sensibilities and feelings that arise at the intersection of listening (to the electronic part and each other) and voicing (instrumentally, through microtonal pitch-matching and open articulation and dynamics). The title of the work is taken from Eleanor Kaufman’s description of a unique verticality associated with Middle America, what we too often refer to as “fly-over” country. As she states: “This space has its own verticality, which is the verticality of vast flatness, occasionally set off by a small yet pivotal elevation. This space is marked by what I’d like to call a plane of slight elevation, which could range anywhere from the space of about a story high to the space of not being yet six feet under—or to the space of thought itself.” In a time of physical confinement, this piece was written within the space of a two story walk-up on the edge of that vast flatness, caught between memories of movement and the presence of place.

Crumbs, for amplified percussion and electronics, is an aphoristic composition that explores delicate grains, sounds, and textures. The work was designed to be portable. The instruments and found objects used in the live-percussion part can easily fit inside a small box. The work is comprised of six short sections, each examining a unique set of small handheld percussion instruments and common household items. The work is centered around a 5:1 ratio, which controls the piece’s proportions and the distribution of the number of attacks per section. Each of the first five sections are composed of two gestures: 1 decelerating and 1 accelerating. Their weighted proportions gradually shift from a 5:1 to a 1:5 ratio. The 6th section is divided into 5 additional parts that mirror the largescale proportions in the piece. The work begins with small, bright, effervescent grains, and gradually incorporates larger, deeper, and more resonant textures.

Still Shining was created in 2020. The title relates to a previous work that explored the role of our dealing with difficult things in constructive ways, while reflecting on appearance vs. reality—on our often-distorted perceptions of good/bad, success/failure, direct cause/serendipity—and on all manner of assumptions. Six years later, I found that these thoughts still motivate me and revisited them.

Masking Songs

“Contrary to the masking of external sounds, it is possible to abolish the perception of tinnitus sounds

by pure tones of a similar intensity regardless of their frequency (Feldmann, 1971). This proves that “masking” of tinnitus does not involve a mechanical interaction of basilar membrane movements, does not depend on the critical band principle and, therefore, has to occur at a higher level within the auditory pathways. Consequently, the elimination of the perception of tinnitus by another sound should be labeled suppression rather than “masking,” as is commonly used. Unfortunately, Feldmann’s fundamental discovery has been widely disregarded, resulting in focusing attention on masking rather than suppression and in producing tinnitus instruments tuned to the dominant perceived pitch of tinnitus.”

Tinnitus Retraining Therapy,
Pawel Jastreboff, 2004

Sonic Crumbs (Bread and Cheese) was created collaboratively by Eli Fiedlsteel and Kerrith Livengood. This is the first time either of us has composed a piece of music while working so closely with another composer. The process began as a game, passing bits of SuperCollider code back and forth over email, which we called “playing catch.” For each “toss,” the receiving person would fiddle with the code, add new bits, or remove old bits. Over several days, the game evolved into a more serious collaborative project. Aesthetically, the work is meant to evoke an image of “crumbs” of sonic material sprinkled over a surface, detailed and rich with stochastic processes. Occasionally, there are

bits of “cheesiness”, which are sometimes difficult to avoid in synthesized electroacoustic music. The “bread and cheese” analogy also reflects our different personalities and tastes emerging as distinct sounds that compliment each other throughout the piece. Listeners may speculate about which of us contributed certain sounds, and draw their own conclusions as to which composer is “cheesier” overall.

Follows From Hummingbird draws on imagery from artist Enrique Martínez Celaya’s set of small paintings, Hummingbirds (1997). The music is assembled from a group of interrelated gestures that suggest birds in flight, a passing thought, a ghostly memory. The sonic gestures are surrounded by silence, similar to the way Celia’s hummingbirds are surrounded by the space of the raw linen on which they’re painted.

10-11PM: CONCERT: OBERLIN SYNTHESIZER ENSEMBLE (OSE)

The Oberlin Synthesizer Ensemble is a semi-regular student ensemble that is made of students in the TIMARA department at Oberlin Conservatory. The ensemble changes in members and interests change from year to year, but consistently focuses on performing and improvising with the department’s unique collection of largely analog synthesizers collected from the last 50 years. This iteration features Will Bertrand, Autumn Culp, Jack Hamill, and Drew Smith, and is being coached by Tom Lopez.

Abby Aresty in collaboration with Drew Smith and Jack Hamill | *Oberlin’s Miscellaneous Electronic bits*

Alex Christie | *mouthfeels (iii)*

Kittie Cooper | *SUPERLATIVES*

Ayla Cosnett | *Communion*

Joo Won Park | *On Off Fade*

Oberlin’s Miscellaneous Electronic bits uses sonic improvisation as a tool for critical inquiry into the physical properties of the materials from which synthesizers are (or could be) built. The duet is composed of three movements, each named after the physical characteristic(s) of a chosen substrate—which might include a solderless breadboard, paper, and fabric, for example—, and each evoking related musical qualities: rigid, smooth & flexible, and soft, warm, & fuzzy. Miscellaneous electronic bits are embedded, arranged, and laid out upon these substrates to create an interactive, tactile graphic musical score.

One performer navigates freely through the substrates, electronic components, and other collected materials through touch. The objects serve as both score and interface: the performer manipulates handcrafted synthesizers assembled atop or embedded within a substrate. They use components strewn across each substrate to assemble new instruments or to transform existing ones. Their interactions with the score change its visual structure

and aesthetic as well as its sonic output.

A second performer is guided by the first. In response to their partner's movements, they trace the visual contours of the work—interpreting and performing the implied graphic musical notation—using a curated collection of vintage modular synthesizers. The relationship between the musical duo is further informed by a series of cue cards, unveiled at random intervals throughout the work. These cards provide a variety of different instructions that shift the relationship between musical voices and interactions over time.

Collectively, the performers explore the miscellaneous electronic bits and bobs of the score through sight, sound, and touch. They interpret, improvise, experiment, and ultimately listen for sonic remnants and audible traces of the electronic bits and physical materials from which the handcrafted synthesizers—and scores—are built.

mouthfeels (iii)

Recordings of synthesizer-inspired human mouth sounds are interpreted through human-driven electronics. At the same time, technology facilitates intervention as a mode of performance and creates a dynamic, hybrid network of power, action, translation, and collaboration.

SUPERLATIVES is about competition and music, and the spectrum between silliness and seriousness. The

score consists of 66 cells containing superlatives, which the performers move through according to their own paths and paces. The performers must balance between completing the cells to the best of their ability and trying to outdo the other performers.

Communion employs feedback both as a means of generating sounds and as a structural element, by building improvisations around the spontaneous directions of the performers as expressed gesturally. Through representing each performer's voice equally in the process of building a structured performance through a non-verbal consensus, the piece aims to simulate the social dynamics of communities of both the distant pre-linguistic and pre-hierarchical past, and anarchist visions of an egalitarian future.

On Off Fade

An electronic instrument can express a gradual or sudden change of timbre by twisting a knob or a slider. On Off Fade for an electronic ensemble is written to practice deliberately timed change in dynamics, density, and spectrum. The ensemble may consist of a percussion and three or more electronic devices. Specific models of electronic devices or previous experiences in an electronic ensemble are not required to perform this piece.

11-12AM: S21 CONCERT 06

Ryan Maguire and A.D. Carson | *Maybe Metaphors Are Easier*

A.D. Carson—voice
Ryan Maguire—electronics

Linda Jankowska, Kera MacKenzie, & Katherine Young | *boundarymind, Movement 3*

Linda Jankowska and Katherine Young—
conception & music
Kera MacKenzie—videography

Hunter Brown | *False Translations*
ASCAP / SEAMUS 2021 Finalist

Jon Fielder | *Think*

Mark Eden | *Mies*

Douglas McCausland | *Convergence*
ASCAP / SEAMUS 2021 Finalist
Aleksander Gabryś—double bass

Courtney Brown | *Lament: An Interactive Cabaret Song*

When violence is enacted against certain bodies, language breaks down. Perhaps language does not provide enough distance from such subjects to articulate them clearly. ***Maybe Metaphors Are Easier*** explores what it means to create distance, by way of metaphor and sound, to make some conversation, any articulation, possible.

boundarymind, Movement 3

This stereo audio piece work is the third movement of an evening-length electroacoustic sound piece and aggregating installation conceived and developed collaboratively over the course of seven years by sonic artists Linda Jankowska and Katherine Young. *boundarymind* explores and transgresses the geographical, cultural, psychological, and musical boundaries that impact how we share our past, present, and future selves with others

The film for this third movement is by Kera MacKenzie. When the work is presented in person, MacKenzie's film will be projected onto Molly Scranton's sculptural weaving. *boundarymind's* production partners are Experimental Sound Studio, 6018 North, RomanSusan and P.O. Box Collective. The work was scheduled to premiere in Spring 2020, but due to the pandemic it has been postponed. It is, therefore, our pleasure to premiere this stand-alone portion of the work at SEAMUS.

When the complete work does premiere, the public performances will include original, collaboratively composed music by Jankowska and Young presented within a multimedia environment. Throughout the performance space Jankowska and Young will install objects and materials - ceramic pots, plastic toys, wooden spoons, pine straw, sugar packets, and other things - chosen for their personal significance and power to evoke memories of places from our childhoods. For Jankowska, the space is a

cottage in rural Poland where she spent formative years. For Young, it is her early childhood home in Mississippi. On a series of visits in 2015, we gathered objects and sound recordings from these places.

The public will also be invited to contribute objects and sounds to this project. The artists will host social recording events at 6018 North, as well as at RomanSusan and P.O. Box Collective. With the contributors' permission, Jankowska and Young will incorporate the recordings people share into future versions of *boundarymind* and create a collective database of the recordings for all participants' use. A remote call-for-recordings has been launched online and in partnership with Chicago radio stations. Please visit <https://www.boundarymind.com/samples> to participate!

Working on this project, Jankowska and Young have become acutely aware of how sharing the history and the personal significance of the objects with which they are performing deepens their connection, building the trust needed to make music together. The collaborative process and *boundarymind's* unique soundworld become charged with emotional significance and shared meaning. Thus, in this project the unexpectedly musical sounds of household objects allow Jankowska and Young to investigate the formation of bonds forged by individuals from different backgrounds. Taking their collaborative musical relationship as a starting point, they invite listeners and other makers to contribute to the work,

sharing memories and sounds from their pasts, as well as their aspirations for our collective future.

False Translations explores how commercial transcription software fails to comprehend and accurately transcribe computer generated sounds. These algorithms are used to automatically transcribe a corpus of glitch based synth sounds into notated tenor saxophone material. As the saxophonist performs these notated "false translations," the saxophone's sound is processed by a real-time algorithm that attempts to translate the saxophone sound back into computer generated sound. This false computational translation between two mediums creates a mirrored and distorted shadow of the original collection of failed transcriptions, a fractured memory of forgotten sounds.

Think is an acousmatic text-sound composition based on experiencing a close friend going through a temporary schizophrenic breakdown. The text is derived from phrases and jumbled text that appeared on their social media profiles, which was the only way I was able to interact with her during that time. The posts began as mostly coherent, though delusional, and over time they were reduced to strings of nonsense, and ultimately became sequences of letters and gibberish. The only common thread was that the posts would often implore the read to "think..." followed by a word loosely associated with the idea being communicated - think psychiatric overreach, think police brutality, think medical

coma, think holistic medicine, and so on. The formal structure follows that experience of struggling to understand the initial posts, the meandering nature of them as they went on, and their eventual decline into unreadable strings of letters and numbers. The final section is a kind of elegy which represents my own acceptance that the friend I'd known for so long might not return, and even if they were to get better, there was a fracturing that had occurred during that time. Even with recognizable elements, our relationship would never quite be the same again.

Mies

A work dedicated to that most quotable of architects: Ludwig Mies van der Rohe.

Convergence is a work composed for augmented double-bass and electronics performer in third-order ambisonics, which explores numerous concepts including the interactivity and agency between acoustic / electronic elements, and the interplay of gesture and musical materials in three-dimensional space. *Convergence* is the second piece in a small collection of works developed for five-string double-bass and ambisonic electronics, in collaboration with bassist Aleksander Gabryś.

In order to perform *Convergence*, the bass is outfitted with eight microphones placed at various points across the body of the instrument. This causes the physical actions of the bassist to correspond not only to specific sounds / timbres, but also to

discrete points in space. However, this perceptual mapping is then manipulated and paired against new electronically generated materials in real-time by an electronics performer using a pair of bespoke electronic performance interfaces, MH & CH. MH is constructed out of a metal frame which mounts to the palm; this structure places five 2-axis control sticks at the performer's fingertips, as well as a ribbon sensor on the back of the hand, and a 3-axis accelerometer. Meanwhile, CH is constructed with flex sensors, which provide data about the bending of individual fingers, and another 3-axis accelerometer. Both of these controllers feed into machine-learning processes (made with the ml.star package for Max/MSP and Wekinator) which allow for the classification of a number of gestures, as well as shaping the sometimes chaotic control data.

All of these ideas collide in a densely chaotic and gestural work which encourages both performers to push their respective limits musically and technically while interacting with a performance system that encourages intricate and nimble musical interactions. In working with Aleksander, we developed a set of expectations and rules which governed the performance, and which allowed for occasionally subtle, and sometimes pronounced shifts in our musical roles. *Convergence* also makes use of an audio score paired with visual cues, which is visible to the performers on a small screen nearby. Ultimately, the chaotic nature of the work gives both performers

agency to explore the sonic and performative extremes of this complex system, as well as the liminal spaces which exist in-between.

Lament: An Interactive Cabaret Song

Lament is an interactive cabaret song in which skeletal upper body motion capture of the performer drives musical outcomes. The work draws upon my background both as a classically trained soprano and my informal experience in vernacular and experimental styles of vocalizing, including singing both in rock bands and in free improvisation ensembles. The movement-musical interaction facilitated by the motion sensors is an exploration of shifting musical and rhythmic cycles, which sometimes only suggest comprehensible patterns. The work is a structured improvisation, in which movement and voice determine much of the melodic and rhythmic content, with some fixed musical elements. Pitch, rhythm, and timbre of these notes are driven in part by dancer movement. During the composition of this work, a family member died, and in response, I began to shape the work as a lament, a kind of intimate documentation of the process of making sense of a loss.

SUNDAY 4/25

9-9:30AM: COFFEE/CHAT ON DISCORD

9:30-11:30AM PAPER SESSION III

9:30-10: Andrew Davis *Integrating SuperCollider with Jupyter Notebook*

10-10:30: Kel Smith and B.G. Madden *Co-Process: An Artistic and Musical Collaboration*

10:30-11: Michael Lukaszuk *Code, Sound and Power: A New Music Pedagogy Through Computer Music Improvisation*

11-11:30: Jon Christopher Nelson *Plugin Development using Csound within the Cabbage Framework*

9:30-10: Andrew Davis *Integrating SuperCollider with Jupyter Notebook*

ABSTRACT

Jupyter Notebook is a free, open-source, web-based tool for interactive execution of computer code across multiple programming languages. Jupyter Notebook's easy-to-use interface for running code, clear presentation of explanatory text, multimedia support, and converter for a variety of formats such as HTML make it an ideal platform for presenting code. sckernel, a newly designed extension to Jupyter Notebook, integrates SuperCollider, an audio programming platform

for real-time audio synthesis, and allows users to create and run audio code in their browser. By pairing SuperCollider with Jupyter Notebook, educators and composers now have a powerful choice for presenting audio programming code.

10-10:30: B.G. Madden, Kel Smith *Co-Process: An Artistic and Musical Collaboration*

ABSTRACT

We are a two-person collaboration. One is a visual artist working in sculpture and two-dimensional graphite drawings. The other is a composer who uses customized electro-acoustic tools to create music. We would very much enjoy bringing aspects of this work to the SEAMUS community.

Inspired by the dual influences of sculptor Richard Serra (the depicted "weight" of black graphite) and Japanese architect Tadeo Ando (the dichotomous tension between space and form), the work began as graphic notation. The drawings, intended to be a mash-up between Serra and Ando, transform the imaginary experience of Le Corbusier's brute aesthetic into delicate studies of ever-shifting light. The soundtrack for this hybrid is grounded in two dissonant forces: one in the high register; one lower, dissonant and opposing but also complementary.

Using the above as a creative guardrail, we composed a suite of pieces built almost entirely from audio scans of the raw artwork. The material

was then rendered into a computer algorithm that converts visual data into overlapping harmonics: static "dust" artifacts, relentless pulses, and even something resembling a pentatonic scale. These components were assembled using a suite of modified or homemade electronic instruments. You might hear an oscillator that converts light to sound, a haptic (gestural) controlled interface, or a 3D-printed custom MIDI device.

At times, this music brings to mind the surf crashing against the Pacific shores of Japan, where Tadeo Ando's museum is located in Naoshima. Other moments resemble audio pinpricks at varying distances from the listener, a planetary ecosystem of sonic dots and lines receding into the background.

One music editor described this work as "a study in contrasts: static against hum, broken melody against stately backdrop, gentle swells against fractured pulse, and overall a digital purity of sound that is employed to present materials whose cumulative chaos strives to approach that of the natural, analog, flesh-and-blood world ... it is at once quiet, peaceful to situate oneself amid—and yet in its attenuated quieting it makes the ear strain for every last, fading, fraying nuance."

With the emergence of COVID-19, we explored a more socially distanced form of visual expression: handmade postcards distributed via US Mail. These works were used as source material for

performing “quarantine concerts” in which the postcard art was scanned and processed in real time. Thus emerged a new form of musical creation: the rendering of live data, color, tone, shade and movement as raw sonic properties.

The intent of our proposal, then, is to provide an account of this work process as a shared experience. We’ll describe how the collaboration began, provide a historical account of our influences, demonstrate some of the tools we used, and finish with Q&A.

It is hoped that these contemplative efforts will prove that even during times of reclusion and distress, there still exist ways to explore the interplay between artistic disciplines: visual vs. audio, random vs. intentional, process-driven vs. outcome-driven, natural vs. synthetic.

10:30-11: Michael Lukaszuk Code, Sound and Power: A New Music Pedagogy Through Computer Music Improvisation

ABSTRACT

This paper discusses “Code, Sound and Power,” a research project that explores the manner in which creative coding and musical concepts can be taught through improvisation using laptops. It also promotes the idea that through musical improvisation, coding can be an approachable and highly expressive activity that allows for

social engagement and commentary on existing paradigms. This project initially took place through a research award from the Mitacs foundation in which training workshops were held for students and community musicians both in and outside of Queen’s University in Kingston, Ontario. Using duos and groups of up to 5 participants, discussions and improvisations used a combination of the Max/MSP, Miraweb and the rtcmix~ object (embedding the rtcmix language in Max) to allow users to send and evaluate rtcmix code using a shared web browser. The approach favoured teamwork and negotiation over virtuosity and complexity. The “Code, Sound and Power” project builds on the idea of research-creation as a form of intervention that can be used to challenge traditional “regimes of truth” within the academic world. Alexandra Cardenas describes live coding as a sanctuary in which individuality and expression are valued outside of old institutional paradigms (Cardenas, 2018). My use of group-oriented live coding and decentralized net-audio to learn, share and spontaneously compose challenges traditional methods of music performance, education and notions of text. In addition to contextualizing my project among other forms of computer music improvisation that focus on social interaction and discovery (e.g. certain laptop ensemble models), I will present video excerpts and give a brief live demo (likely 3-4 minutes) using myself and another remote performer.

11-11:30: Jon Christopher Nelson Plugin Development using Csound within the Cabbage Framework

ABSTRACT

Since my first adventures with Csound in 1984 (then Music11), it has evolved significantly into a sound and music computing system that provides extensive audio programing capabilities. When harnessed within the Cabbage framework, one can easily save Csound code as an audio plugin for widespread use within DAWs. Coding with Csound within the Cabbage framework, one can easily create both software synthesizers and signal processing effects and simply save them as VST or AU plugins as well as create modules for VCV Rack. This lecture/demonstration will provide an overview of Cabbage/Csound, providing several examples of simple synthesizers and effects. The lecture will also highlight some of the newer features of the programming environment and will demonstrate a number of plugins I have developed in the past two years, including:

- Decalog: 10 analog oscillators, 10 ADSRs, 10 LFOs, FM, AM, RM and effects
- Syncopath: 10 morphing digital oscillators, 10 ADSRs, 10 LFOs, FM, AM, RM and effects
- Granary: Granular Synthesis and soundfile granulation
- Scrubber: soundfile granulator with spectral effects
- MorFFT: an FFT-based soundfile

player with spectral effects

- MVerb and MVerb3D: closed waveguide mesh reverb effects
- CombKey: MIDI keyboard-controlled bank of comb filters with alternate tunings
- WaveMorphSynth: 3 constantly morphing oscillator synth with effects

Current ongoing development includes new scanned synthesis, wave terrain, physical modeling, and feedback FM and AM synthesizers as well as sample morphing, distortion/wave shaping, and spectral delay effects. These may also be demonstrated as time permits.

11:30-12:30PM: S21 CONCERT 07

Zach Howarth | *Algor (Or, Their Space, Our Star)*

Alex Tedrow | *Biff*

Allen Strange Award Winner, 2021
Jake Simons—saxophone

Eric Lyon | *The Man with the Golden Arm*
Alan Weinstein—cello

Kyong Mee Choi | *Until Heard*
Lawrence Axelrod—piano

Rachel Gibson | *Skyscapes // The Night Shines for You*
Allen Strange Award Winner, 2020

Kristopher Bendrick | *Black Tea*

Algor (Or, Their Space, Our Star)

The word algor is a now obsolete medical term referring to the chillness or coldness of a person—often, morbidly, in reference to rigor mortis. In this piece for vibraphone and tape, algor is in reference to the Earth. It is a sobering realization to accept that our planet will one day die—at least in a sense. The once-bustling system will become a rock in space. This is a solemn voyage telling the story of our planet--its life, its adventure, and its death—and accepting it.

Musically, the vibraphone represents the “living” life on the planet—not just humans, but anything and everything that lives on Earth, whether it supports or harms—and the tape, or computer audio, represents the planet itself. The two forces share common ground and fight, as both tracks will play harmoniously and dissonantly. One may overshadow the other. In addition to the themes of space, stars, planets, voyages, and life, there is a final and important representation--entropy, or disorder, chaos. Entropy lives everywhere, all the time. It is responsible, for lack of a better word, for anything from life-giving to planetary death. This concept, which has been used to theorize the eventual accepted end of most things, is portrayed musically as glitches, or audio flaws and defects. They show up sparsely and shortly in the beginning, increasing throughout in both quantity and volume.

In the climax of the piece, more sounds become present quickly and intensely, including an organ, additional synthesizers, and synthesized bass. This section represents the Earth and the life “fighting back”, so to speak. This segment ends abruptly when entropy, or glitches, envelop all sound. The musical concept continues throughout the latter half of the piece until it shrouds over the final notes, ending with a deliberate “click” of the motor on the vibraphone; after, all sound ends. This represents our acceptance of beginning and end—with a resulting appreciation of being here at all.

Biff

Male betta fish are surprisingly aggressive for their small size, and will attack any other males (and often females) in their vicinity. Despite their belligerent behavior, bettas are usually very beautiful and innocent looking to the human eye. This poses a really interesting juxtaposition of ideas in my mind, since we generally think of them as these tiny, colorful, harmless pets to keep in our homes. From the perspective of the fish, however, protecting territory daily is an arduous and dangerous task. This piece attempts to bring these ideas into the realm of music – mixing very serious, intense material inside the context of a sporadic and playful, sometimes melodious soundscape. The whole thing is meant to be loud and aggressive yet almost a bit silly, not unlike the personality

of my own pet betta, Biff. *Biff* is written for and dedicated to my good friend, Jake Simons, who has known and admired Biff almost as long as I have.

Enjoy!

The Man with the Golden Arm

This work takes its title from the 1949 Nelson Algren novel, “The Man with the Golden Arm” in which the character “Frankie Machine,” a gifted drummer and card dealer wrestles with personal demons. The work was created for my colleague and friend Alan Weinstein, a creative cellist with a different kind of “golden arm.” The formal structure of the work is generated anew on each performance by a computer program that applies randomized DSP structures to the live cello sound, presents oracular guidance to the improvising cellist, synthesizes both randomized textures and rhythmically structured sections based on pre-recorded cello, and records the results for future performances. Each new performance references recordings of earlier performances, creating a kind of palimpsest as the history of the piece unfolds over multiple performances.

Until Heard (for piano and electronics) depicts the awe of nature. Natural sounds such as rain, birds, thunder, ocean reflect our appreciation of the planet. The main piano melody that is recurring throughout the piece implies our awareness to recognize the beauty of nature. The composer hopes humanity to bring consciousness to conserve

the planet that has been damaged through human desire and greed. The piece is dedicated to Lawrence Axelrod for his 60th birthday.

Skyscapes // The Night Shines for You

The night sky
looks good on you.

Skyscapes // The Night Shines For You was composed for IRIS, or InfraRed Instrument of Stars, a dodecahedron-shaped instrument based on children’s star lamps. A simple melody and accompanying texture seeks to convey a sense of wonder and whimsy. IRIS has twenty infrared proximity sensors that are installed onto its panels. Each side has two sensors and features a laser-cut constellation map. The lights inside IRIS allow it to project its constellations onto the walls of the performance space. Wekinator, a machine learning software by Rebecca Fiebrink, was used to map the sensor data. It learns to recognize certain hand positions around IRIS, which are then mapped to specific sounds in the Max patch. Ultimately, IRIS creates an immersive visual and auditory experience for both the performer and the audience.

Black Tea

Everyday since the pandemic started, I ordered a black iced tea from Starbucks as a way to start my day and began associating it with being locked inside and isolated from my friends. On top of that, I felt creatively stunted and had trouble completing pieces

due to the anxiety and depression brought on by the pandemic. So, I decided to throw something together that was quick and stupid to just get some creativity out, but also an emotional outpouring towards an object that I have associated with stress and isolation.

12:30-1:30PM: S21 CONCERT 08

Tom Baker | *Traces: Sarah*
Melissa Achten—harp

Stewart Engart | *Sublimation*

Rodney DuPlessis | *Coacervate*

Daniel Swilley | *SlipGrid*

Michael Rhoades | *Inside the Crimson Castle—An Escher Multiverse*

David Gedosh | *Architecture of a Dream*

the Higgs whatever | *All You Need Is Lunch*

Traces: Sarah—for solo harp with live-electronics, is a meditation on loss, grief, and memory. It is a search for what remains in the absence of known things, real things, loved things. It began as an incantation to give voice to the inaudible and form to the imperceptible. It has become a trace, a remnant, that seems to be evolving into a requiem for things lost.

Sublimation

Sublimation is an endothermic process that occurs at temperatures and pressures below a substance’s

triple point in its phase diagram, which corresponds to the lowest pressure at which the substance can exist as a liquid.

Coacervate

Certain mixtures of polyelectrolytes can spontaneously form dense liquid droplets (called “coacervates”) suspended in water (dilute phase). These liquid droplets are often filled with complex molecules, proteins, polymers, and nucleic acids. Coacervate formation has been suggested as a possible mechanism through which the first simple cells formed on earth (Abiogenesis). In composing *Coacervate*, I worked closely with violinist and chemical engineer [redacted] to create a sonic narrative from this chemistry. Distinct musical motives are inserted into dilute textures where they compartmentalize, chain together like charged polymers, and erupt into the beginnings of life.

SlipGrid (2020), stereo electroacoustic music and video, was composed for the University of Northern Iowa School of Music Scholarship Benefit Concert in September of 2020. The work is an exploration of interactions between two contrasting ideas/materials in both the audio and visual domains. The first idea is the “grid” which is represented in the audio with percussive polyrhythmic repeated materials and generally more metrically quantized events. In the video, the “grid” is represented by rectangles of various sizes that skate around the screen. The second idea is more abstract and can be thought

of as “without grid.” This is reflected in the audio by gestural and texture materials more associated with acousmatic music. The video aspect of the second idea is represented through the manipulation of a particle system and ranges from evolving abstract shapes to noise.

The materials for *SlipGrid* were composed using Max, Ableton Live, and Final cut. This piece is part of the composer’s continued research into algorithmic mixing and manipulation of audio, live-reactive animation, algorithmic video manipulation, and laptop performance.

Inside the Crimson Castle—An Escher Multiverse

Inside the Crimson Castle is intended for high-resolution 3D (stereoscopic) / 360 degree visual and 3D high-density loudspeaker array playback. Nonetheless, the version presented here stands on its own as a low-resolution 2D version. On the other hand, if you have a head-mounted display at your disposal, here is a link for the 3D/360 version: <https://youtu.be/MGY1xrz0BMs>

The work attempts to place the viewer within a multidimensional, abstract, and non-representational spatiotemporal experience. As such it is intended to act as a catalyst toward breaking our fixated views.

Architecture of a Dream is an acousmatic composition inspired by the intrusion of real-world sounds into the fabric of dream imagery.

All You Need Is Lunch (2021) is a music video that is intended to be played immediately before the lunch hour.

1:30-3:15PM: DEI PANEL

Suzanne Thorpe, Sabrina Peña Young, Erin Busch, Adam Vidiksis, Silen Wellington

Cultivating a diverse and inclusive field of electroacoustic music practices has been one of the central focuses for SEAMUS in recent years. The past year of 2020 has highlighted and brought forward, locally and globally, the many systemic inequalities embedded within the human society, and prompted many discussions in regards to combating these issues as one sees in their immediate community. The 2021 Conference provides an unique opportunity for our own community to gather virtually to discuss some of the collective actionables we can initiate to bring about changes.

3:15-4:30PM: SEAMUS MEMBERS MEETING
AND AWARDS

5-6PM: S21 CONCERT 09

Taylor Brook | *Rhymes*

Robotic Instruments by WPI's MPR Lab
and EMMI

Ryan Olivier | *Will to Unite*

Fang Wan | *Double Shadows*

Kyle Shaw | *Tamboo*

Daniel Edwards—percussion

Joshua Tomlinson | *Ringlets*

Rebecca Levy—choreography

J. Andrew Smith | *Inquietude*

Ralph Lewis | *MoxTube*

Ralph Lewis—composer

Elisabeth Stimpert—clarinet

University of Central Missouri Clarinet Ensemble

Isaac Bickmore, UCM's Intro to Music Education

Class, and DuoBunch—laptops

Robin Meiksins—video

Rhymes was created in the Spring of 2021 for the SEAMUS 2021 Virtual National Conference in collaboration with Scott D Barton and the Music, Perception, and Robotics Lab at the Worcester Polytechnic Institute. This piece is

written for three robotic instruments: PAM, a monochord, Cyther, a polyphonic stringed instrument, and six robotic percussion arms striking the strings of an electric guitar.

I took this opportunity to write for robotic instruments to explore the human-computer creative loop. I used various algorithmic and quasi-AI techniques to generate music, which I edited intuitively and reflected upon to then generate more music and repeated the process through several iterations. This piece is the result of this experimental process with the computer software and my intuitive compositional tendencies folding into each other.

The robotic instruments are retuned in extended just intonation. The tuning is designed to include both highly acoustically consonant chords and highly acoustically dissonant chords, allowing for expressive harmonic contrast. Through these harmonic contrasts, the music attempts to embody emotional states with body-less performers. While this sense of alienation is inherent to the solo performance of robotic instruments, *Rhymes* foregrounds this characteristic through, at times, presenting overly sentimental or intensely emotional music.

Will to Unite

This semi-improvisatory piece explores the relationships between the imposing will of the performer and the organizational structures of a programmatic system. Throughout the work, the

performer makes decisions that inform the direction of the work. While the performer may choose to highlight and connect various musical elements within the work as it unfolds, so too does the system with which the performer is interacting.

Double Shadows, for two Blue Air controllers, Max custom software, and Kyma, is a stereo interactive composition based on the idea of imitation. The sounds controlled by the infrared sensors contained in the two Blue Air Controllers acted like shadows of each other. In their performative actions, my two hands alternated in leading and following the sounds to create an interactive contrapuntal musical experience.

Tamboo (2019–20)

Commissioned by the Barlow Endowment for Music Composition at Brigham Young University

The “tamboo bamboo” is an idiophone born out of necessity. When drums (French: tambour, whence “tamboo”) were banned in carnival celebrations of 19th century Trinidad and Tobago, slaves replaced them by beating bamboo stalks of various sizes. The tamboo bamboo was thus an important precursor to the steel pan, and as such is an important character in any creation myth constructed for the latter. This piece is a sonic retelling of just such an imagined creation myth. Pitch gropes its way out of primordial chaos and flourishes for a time before returning to the cold abyss of the deep future.

Ringlets became about answering questions to new circumstances and a longing for normalcy. We didn't know what collaboration, rehearsal, or performance would look like during quarantine. Initially the only direction for the project was a desire to work as a way to temporarily feel regular again—we didn't realize how thirsty we were for creativity and community until the project was nearly completed.

The ability to create music electronically and communicate online was essential. While we're grateful for the technology that made this collaboration possible, I can't help but wonder if the distance felt between us somehow seeped into the final result. We still have never met. We still haven't seen or heard each other's work live. And while this past year we have all learned just how much we can do remotely, *Ringlets* has served as a reminder of just how much we enjoy creating things together.

Inquietude

This piece was finished as the Covid-19 pandemic swept the world and transformed the way that we collaborate, communicate, and perform in the music community. Paradoxically, this piece represents an attempt to escape the kind of inquietude that became a common occurrence for many of us under stay at home orders and in quarantine. I hope that it offers the listener and the performer a moment of solace, thoughtfulness, or peace.

MoxTube is the part of an ongoing series of

indeterminate works that employs YouTube as an interactive instrument played within a person's typical internet browser at home or en masse in a concert space. The video also functions as its score, backing track, and instructions. Within the series, each work also engages with a specific collaborator's interests. In *MoxTube*, the featured performer's soloistic and pedagogical interests combine in a solo video performance that generates one of these interactive YouTube instruments and provides indeterminate wind parts. Please feel free to listen to the recording or play along with us.

6-7:30PM: CONCERT: UNIVERSITY OF NORTH TEXAS CEMI AND NOVA ENSEMBLE

In collaboration, with the Nova Ensemble under the direction of Dr. Elizabeth McNutt, the student-led Free Improv Ensemble under the direction of Kory Reeder, and many other generous performers at the University of North Texas, the Center for Experimental Music and Intermedia is pleased to present a concert focused specifically on music for instruments and electronics. This concert features music from around the country, performed and recorded in UNT's Merrill Ellis Intermedia Theater, by many excellent musicians at the University of North Texas. Though the pandemic has eliminated the possibility for in-person performance experiences around the world, a virtual mode of concert presentation has allowed us to provide performances, recordings, and collaborations that

would certainly not have happened otherwise. We are very happy to have the opportunity to participate in the SEAMUS 2021 Virtual National Conference. Enjoy the show!

Nova is the new music ensemble of the University of North Texas, directed by Dr. Elizabeth McNutt. Repertoire includes classics of the modern era alongside music by younger and less familiar composers, giving students the opportunity to perform fresh and exciting contemporary works. Nova's mission is to provide students and audiences with an engaging diversity of musical, aesthetic, and cultural experiences. Encounters with faculty and guest composers give students insight into the process of creating new music; Nova has worked with Jason Eckardt, Julia Wolfe, Chaya Czernowin, Augusta Read Thomas, Kunsu Shim, and Gerhard Stabler, among others. Performances this season have included music of Julius Eastman, Christine Burke, Frederic Rzewski, James Tenney, and Pete Stollery.

Panayiotis Kokoras | *Morphallaxis*

Elizabeth McNutt—flute

West Fox—percussion

Kourtney Newton—cello

Patrick Reed | *Surge*

Austin Richardson—trombone

Kory Reeder | *If the thought evaporates*

Connor Simmons—double bass

Kory Reeder—double bass
Brian Do—bass clarinet
Kathy Crabtree—violin
Michael Moore—viola
Alaina Clarice—flute
Kourtney Newton—cello

Mengmeng Wang | *Formulas*
Brian Do—clarinet

Steven Kemper | *Boyle Heights*
Robert Chapman—marimba

Diogo Carvalho (Audio samples recorded by
Brendan Catalano) | *Reveal*
Jake Thiede—alto sax

Willyn Whiting | *White Sky Over the Lake*
West Fox—percussion

Chin Ting Chan | *Fuse II*
Kory Reeder—no-input mixer /
electronics design
Aleyan Brown—flute / electronics design
Liz Fleissner—oboe / electronics design
Connor Simmons—double bass /
electronics design
Jessica Stearns—saxophone / electronics design

Morphallaxis (2008) for flute, percussion, violoncello and electronics. duration 9' minutes Morphallaxis was commissioned by IRCAM and premiered in 2008 by the ensemble Alternance in Paris. The

title of the piece means recreation/ rebirth of a part from a part. It refers to an ongoing model of macro and micro structure which is reborn from its own materials again and again. The piece eschews harmony, melody, even intervallic relationships. It is rather focused to form a solid unified sonic image composed by gestures, articulations, postures, rhythmical figures, textures and/or spectrum changes all grouped into a single composite sonic unit, a Holophonic musical texture. This piece was awarded the Prix Fondation Encuentros, Destellos compétition 2018 and an Honorable Mention at the Bourges - 35e Concours International de Musique et d'Art Sonore Electroacoustiques in France.

Surge explores the movements of ocean waves, navigating different phrases and gestures of musical wave shapes. The work splits into 4 sections, starting with a low rumbling of small swells of ocean waves leading into a large swell that comes crashing back down each time with more energy. The middle section represents my interpretation of a nice evening along the beachfront. The calmness of waves combine with bells from various harbors. This grows slowly over the course of the night, rising and swelling before revisiting the gestures from the opening. The trombone slowly begins to play a group of many notes, giving into a slow feel of constant rising with a larger nervous and stressful section creating the sensation of an endless, ascending wave. This finally crashes back down and makes way to the

calm sparkle of a relaxed coda, where the trombone plays a series of rising and falling waves fading into the distance. Surge also explores the dichotomy between a light, sparkling texture representing the calmness and wonder of coral reefs and the surface of the ocean, and the gritty, mysterious darkness found at the bottom of the ocean.

If the thought evaporates is an improvisation environment exploring harmony. A piece for instruments and interactive electronics, the MAX patch contains 6 instances of oscillators which listen to the performers, listen to each other, and make decisions on frequency, duration, amplitude, and some subtle effects based on the received information of the performance. With this piece, I'm more interested in creating a space, or a place for two (or more) to be together rather than providing a strict hierarchical relationship. On some level, I have attempted to give a general direction to this space. "It's over there." In summary, the piece is very quiet with long notes, some short notes, many pauses, and a specific harmonic framework. Still, this is only the vaguest idea: the details are left for you.

This piece, **Formulas**, is inspired by 3 chemical reactions, Hot ice, BZ reaction, and Copper and Nitric Acid reaction. The electronic track is divided into 3 sections in order to correspond to these 3 chemical reactions. The common structure of the molecules in the 3 reactions is 1 atom in the center and the remaining 3 atoms surround it. This common

structure also becomes a structure of the chords in the piece. The development of pitch materials depends on the process of atom binding in these chemical reactions. The breaking and recombining of chemical bonds make substance transform from one to another. The music language's changing and moving just mimic this process.

Boyle Heights (Rhythmanalysis II) for marimba and fixed media electronics explores the soundscape, history, and cultural identity of Los Angeles' Boyle Heights neighborhood. Boyle Heights is a predominantly Mexican-American neighborhood in East L.A. known for its central role in Chicano art and culture. In the first half of the twentieth century, Boyle Heights was home to large Jewish and Japanese-American communities. After World War II, the internment of Japanese-American residents, redlining, and freeway construction underpinned a demographic shift. By the 1960s Boyle Heights became the neighborhood that it is today, which is currently engaged in a battle to retain its Mexican-American cultural identity in the face of a wave of gentrification that is sweeping over East L.A.

Boyle Heights unfolds in three sections, each bookended by a sonification of traffic patterns. The first section evokes Boyle Heights' Jewish and Japanese cultural history through a marimba part inspired by the Jewish worker's song "Di Shvue" combined with the Hirajōshi Japanese scale. This is set against the backdrop of an electronic texture

comprised of recordings of radios processed to sound like they are from the early days of wireless broadcast. The second section explores Boyle Heights' current soundscape, which is shaped by its Mexican-American cultural identity. Sounds unique to this neighborhood include mariachi musicians for hire who gather at Mariachi Plaza and the sound of storefront radios on Cesar E. Chavez Avenue. The third section contemplates the future of Boyle Heights. A time-stretched siren and the sound of helicopters point to the community's fight against gentrification, while the minimalistic, repetitive rhythms represent the unrelenting pace of development in East L.A. Boyle Heights (Rhythmanalysis II) is the second piece in the composer's Rhythmanalysis series that explores urban soundscapes.

Henri Lefebvre developed the concept of Rhythmanalysis to analyze how the periodic sounds of urban spaces relate to the experience of a place. The electronic component of *Boyle Heights* is based on audio recordings taken in Boyle Heights, which are used in both raw and processed form. The most prevalent sound in these recordings, passing vehicular traffic, is analyzed using sonographic analysis and music information retrieval (MIR) techniques to produce timing, amplitude, and frequency information. This data is mapped to rhythm and pitch in the marimba part, producing a sonification of the ebb and flow of vehicular traffic

that creates a "rhythm" of the neighborhood. This piece was written for percussionist Mike Truesdell and is based on the work of LA Listens, a collective focused on urban sound co-founded by the composer.

Reveal

Deconstructing an instrument is a revelation, because it unsettles the myth, causing a change in the listeners' perception. The alto saxophone is the source for all the sounds presented in this piece, which emphasizes the ones that have been hidden by the instrument's technique and repertory, or unnoticed due to their low volume. The recorded part of this piece reveals saxophone sounds that normally are not clearly audible in a concert room. The computer enables processing the recordings, to enhance or highlight parts of the sound spectrum, timbres, peculiar sounds, and percussive elements. The breakage may result in a complete dysfunctional instrument, when the main resources for producing sounds are prevented by this organized malfunction. Reveal is a noun and a verb, and the piece expresses both meanings, because it reveals the rich universe of resources denied by the traditional technique and provides a new possible listening to a guitar, when the listener might achieve a whole new comprehension of the instrument—the piece brings to light a sub-known universe of sounds that was present, but not understood.

White Sky Over the Lake is a generative piece for soloist and electronics. Although the instrumentation is variable it is limited to mallet percussion and keyboard instruments to complement the electronic accompaniment. The performer reads a score that is generated in real time along-side an accompaniment that is also freely generated. Imagine a nearly still body of water and an empty sky. It is not obvious, to the eyes, where they meet or even if they are separate things.

fuse II is second in a series of controlled aleatory compositions that explore the idea of fusing different timbral materials into one entity. The performers are given non-pitched, notational but sometimes graphical rhythmic guidance in a timed improvisation. They are also given the freedom to choose the high, low, and non-pitched instruments, while amplification or live electronics can be added as an augmentation as well. Each performing quintet will eventually find their own way to “fuse” the materials.

7:30-8:30PM: S21 CONCERT 10

Christopher Luna-Mega | *Forestcover—Sonification of Deforestation Predictions Contributing to 4°C Warming by 2100*

Devin Maxwell | *PH 12*
Maya Miro Johnson—violin

Neil Rolnick | *Messages*
Julia Bengtsson—choreography

Chace Williams | *Hydrangea*
Austin Windau—videography

Andrew Davis | *Pastoral*

Anna Lindemann | *Ant Songs*
please see program note below for complete credits

Forestcover—Sonification of Deforestation Predictions Contributing to 4°C Warming by 2100

Forestcover combines climate science with musical composition. Through earth system modeling, we test how expanding forest cover based on biophysical and sociopolitical realities will impact climate as well as ecosystems and the services they provide, at the global and regional scale. We then translate the modeling outputs into sound, thereby transforming ecological climatology data into music. This interdisciplinary collaboration seeks to connect the sciences with the arts, specifically environmental science with music, in order to expand the possibilities of cultural engagement with environmental change and sustainability.

The video and audio in this piece feature a Business as Usual Scenario of deforestation leading to 4° Celsius global warming. The research variables are mapped to the following sound parameters:

Forest Cover (millions of km²): tempo (beats per minute); volume levels of forest recordings (decibels); pitches in synth 1 (Hertz)

Mean Surface Temperature (degrees Celsius): volume levels of recordings of carbon emitting machines (decibels)

Evapotranspiration (watts per m²): pitches and tempo in piano Albedo (% of reflectance): pitches in synth 2 (Hertz)

PH 12 is a short study on the concept of harmonic distance as coined by James Tenney.

Messages

My wife Wendy passed away in August 2018. Two days later, in a panic that I couldn't remember the sound of her voice, I found that I could un-delete voice messages on my phone. I found about a dozen messages from her there, dating from the beginning of her long illness until her final days. *Messages* is made of samples of those messages, and some of the music she mentions in them. It gives testament to her strength, graciousness, cheerful outlook, and ultimate acceptance of her fate.

Hydrangea is a multi-media playback piece composed in 2020. Wild hydrangea's come in a wide range of colors and shapes. The audio utilizes morphing drones changing in pitch, timbre, and color to represent the flower's natural variety. Similarly, the video uses a myriad of high contrast colors and light movement to emphasize the diversity present. The images shift kaleidoscopically in a consistent stream like the genes of the flowers.

Pastoral is a reimagining of Beethoven's Sixth Symphony. Excerpts from his first movement from an old public domain recording are woven together with sounds of nature to create a new narrative structure. Much of the symphony has been time-stretched creating long waves of string sounds that are punctuated by short fragments processed through several reverbs I have designed. The effect is a dreamy meditation of one of my favorite symphonies.

Ant Songs

ANT SONGS is a suite of three songs inspired by the social dynamics of an ant colony. Scored for soprano, digital instruments played on keyboard, fixed electronics, and animated projections, ANT SONGS combines through-composed music with musical textures developed using the Gene Network Music system, a generative approach to music composition. The composer and a collaborator created the Gene Network Music system based on the cyclical patterns of gene expression found in developing organisms, and the resonance these patterns have with rhythmic and harmonic cycles in music. Gene Network Music is developed using algorithms created in Matlab and sonified using a variety of musical synthesis techniques.

In ANT SONGS, the Gene Network Music system is applied to sampled human voices for the first time. Words and phrases from text sung live by soprano are stripped of semantic meaning and reconfigured into a "digital ant chorus." Through

this process, a different kind of meaning arises from percussive, non-textual, rhythmic patterns. Ultimately, the fragmentation of voices and text throughout ANT SONGS forms a kind of meditation on the communication methods of different species, specifically ants and humans.

The suite begins with "Emigration Column," an evocation of the army ant colony's massive migration in search of a new nest site known as a bivouac. The migration involves all of the female castes of the colony: the ant queen, the sterile soldiers, and the hundreds of thousands of sterile workers that carry the colony's immobile young—the pupae.

The second movement, "Ant Queen," is an aria from the perspective of the ant queen as she lays eggs. As the sole reproducer for the colony, the ant queen has the formidable task of laying 20,000 to 200,000 eggs. Her abdominal segments stretch apart, and her abdomen swells, to accommodate the next generation growing within her.

The final movement, "Ants Can Fix It," is a human attempt to interpret and learn from the communication of ants. The music and visuals depict an army ant swarm raid, with hundreds of thousands of ants venturing out from their bivouac in a coordinated search for food. But can the ants, so successful in their social existence, really solve our human social ills?

ANT SONGS is drawn from the concert-length art science performance THE COLONY, a work of opera-theatre exploring sisterhood and the evolution of communication in both ants and humans.

Music composed by Anna Lindemann, Libretto by Emma Komlos-Hrobsky, Soprano by Lucy Fitz Gibbon, Keyboard by Ryan MacEvoy McCullough, Stage Direction by Michael Hofmann, Animation by Sarah Shattuck and Anna Lindemann, Gene Network Music Algorithms developed by Anna Lindemann and Eric Lindemann, Costume Design by Brittny Mahan, Lighting Design by Sam Biondolillo, Sound Engineering by Katie Salerno, Audio and Video Editing by Anna Lindemann, Performance Cinematography by Hannah Lim and Mitchell R. Hekstra

8:30-9:45PM: CONCERT: TEMPLE UNIVERSITY: FUTURING THE PAST: CONTEMPORARY EXPLORATIONS OF TRADITIONAL PERFORMANCE PRACTICES IN TECHNOLOGY

Currency Audio | *Improvisation*
Currency Audio—electronic drum set

Aurie Hsu and Alice Blumenfeld | *Shifting Reflections*
Alice Blumenfeld, Aurie Hsu—dance
Aurie Hsu—music

yaTande Whitney V. Hunter and Adam Vidiksis | *Recursive Presence*
Boyer College Electroacoustic Ensemble

Project (BEEP)—music
Temple Dance Ensemble—dance
Adam Vidiksis & BEEP—composition and music
yaTande Whitney V. Hunter &
TDE—choreography
Cameron Bridgers—costumes
Hannah Borczo—lighting
Addison Marie Christiansen—editor and lighting
Moriah Ella Mason—videography

Marjani Forté-Saunders | *Memoirs of a...Unicorn:
A BLUEPRINT*

Conceived of and based on the performance work
of Marjani Forté-Saunders

Everett Saunders—composition and music

Currency Audio is an audio visual project started
by Brooklyn based drummer, producer and media
artist Rajeev Maddela, focusing on the unique
rhythmic phrasing found in bass-forward electronic
music genres such as jungle, drum and bass, UK
garage, and dubstep. A generative improvisational
performance using Ableton Live, Max/MSP and
MIDI percussion triggers (Alternate Mode DrumKAT
and Roland V-Drums), and by using Derivative
TouchDesigner for realtime visuals, the project aims
to explore the concepts found through mindfulness
meditation in a technologically enhanced, expressive,
and improvisational musical and visual environment.
Currency Audio aims to highlight the quality of
‘inspired spontaneity’, facilitated by stimulating sound
design and velocity-sensitive patch programming,
resulting in spontaneous and dynamic performances.

Stay tuned for his forthcoming EP titled ‘Humanism’
out on Exit Records UK this summer.

Shifting Reflections is a collaboration between
Alice Blumenfeld and Aurie Hsu. Combining
practices in Flamenco, contemporary belly dance,
and butoh, we explored themes of memory, visual
and sonic echoes, presence, distance, and ideas of
embodied, imagined, and yet to be experienced
nostalgia. Created in tandem with the choreography,
the electroacoustic music, flutter (2020), evokes
these states relying on transformations of sounds
recorded from the movement. The sounds include
the falling flamenco skirt transformed into a wash
of patterned white noise, delay lines on the fan
flutter, the iconic Flamenco shoe stomp reverbed
out, and layers of mingling timbral and harmonic
textures that echo one another. In performance,
the sounds from stage and fixed media interweave
to metaphorically reflect how experiences
of memory and nostalgia shift and sway.

Recursive Presence is inspired by African fractals
and processes of recursion that exist organically in
nature, mathematics, sound patterns, and particularly
in the weaving traditions of West African textiles.
Recursion, as embodied by dancers and musicians,
offers clear thematic connections between the
past, present and future, asking, where one ends
and the other begins. These corporeal and sonic
manifestations question how these time-states
convey meaning and offer stability.

Memoirs of a...Unicorn: A BLUEPRINT

10-11PM: S21 CONCERT 11

Elliott Lupp | *Erase-Repeat*
ASCAP / SEAMUS 2nd Prize Commission, 2019
performed by MOUTHS: Kristopher
Bendrick & Elliott Lupp—electronics

Eric Zurbin | *Evening’s Wave / Inner Noise*
Chia-Ying Chan—piano

Zach Thomas | *branch-splinter-moss*

Southeast of Rain 东南有雨 | *Day 8: Between
Fleeting Somethings*

Charles Nichols | *Time Garden: dawn replica*
Charloes Nichols—music
Zach Duer—visualization
Scotty Hardwig—movement
performance & choreography

David Nguyen | *Whale Song Stranding*
ASCAP / SEAMUS 2nd Prize Commission, 2020

Erase-Repeat is the first in a series of semi-
composed works written for the experimental
electroacoustic duo, MOUTHS. The work is mostly
comprised of overlapping sections that instruct the
performers to not only listen closely, but respond and
improvise given certain musical/sonic parameters.
More specifically, the work instructs the performers
to focus heavily on the blending, shaping, and

manipulation of localized feedback created within and between the two instrumental setups. These signals are mostly generated within the no-input mixer and a feedback loop created between the electric guitar and honey tone amp. The feedback loops are then manipulated, broken down, and built upon in real time via laptop as the piece progresses, with an erase/repeat-like approach.

Evening's Wave / Inner Noise (2020)

An evening wave, perhaps evokes quiet contemplation on a moonlit shore, contrasted with an inner noise, as in restless thought, residue from the stresses of mundane life. The evening may be greeting us with a wave. In any case, there is a dualism, an interior and exterior life, highlighted by this contrast. Inner noise can refer to something quite literal, as in the sounds one can make by playing in the interior of the piano, during a piece intended for greeting an audience in the evening, a nocturne, perhaps. However, it can also be seen as a combination of the letters that remain if we remove the letters A-N-A-G-R-A-M from the phrase 'never again means never again is now.' The evening is now an approaching darkness, its greeting a mockery—or a smug challenge—or is it waving us aside, while the inner noise turns into a foaming rage, partially at our own helplessness in the face of horrors.

These leftover letters can also be combined to form Sig/n/eWaveEnv/innerNoise, perhaps an alternate title. A protester can wave a sign, signe in French,

while a multitude of sine waves, most barely audible, sum together to form the sounds in the world. Env, short for envelope in codespeak, controls the amplitude structure of a sound, determining the shape of its life and death. It is also something you can use to mail a letter, or the way in which a large mass may surround and overcome a smaller one. Inner noise appears again, and it again may be interpreted in a quite literal way, as in the noise made by the empty belly of a refugee fleeing danger.

branch-splinter-moss

The materials in this work are objects desperately seeking abstraction; formal fragments collapsing into features, tangles into threads and fibers, reformed as contours and lines of a synthetic image. Sounds are continually resynthesized and compounded from their own matter as if shaped in a kiln. This work is a study of sound in a constantly shifting space, exploring the physics of material animated by its ever-changing environment.

Day 8: Between Fleeting Somethings, from our debut album 42 Days, is a composition for pipa (a Chinese string instrument), voice, field recordings, and electronics. The piece portrays the experience of being transported between the real and the imagined, the synthetic and the natural - a mythical sound world where voice, pipa, and field recordings of rinsing water and seaside insects morph into one another.

The making of this work began in 2019 at the Headlands Center for the Arts, north of San Francisco, where we were Artists in Residence. We began by improvising long phrases with voice and pipa in a 2000-square-foot abandoned gymnasium, interacting with its unique acoustics, which has a 4.2-second reverb. Located at a former military base, the Gym—our studio at the time, was once the place of service members' basketball games and bowling matches. The electronics were later layered, which includes multiple processed field recordings we collected around the Marin Headlands as real-time impulse responses to simulate the imagined soundscapes.

The juxtaposition of various sonic spaces embodies a magical realistic world where humans, animals, nature, and mystic beings can coexist and transform into one another. It also transports us into the realm of animist mythology, where the boundary between human and nature is porous. The piece intends to create an immersive experience and bring the reimagined history and soundscape of the Headlands in front of the audience and evoke their environmental awareness.

Time Garden is a choreographic work completely in virtual reality. The work exists at the intersection of physical and imagined virtual spaces where many hyperreal performance options become possible. The work hybridizes the human body and technology in digital space, where body and

movement become replicable and simulateable. The collaborative process between dance, music, and visual art has involved scanning the human body to transform it into digital landscapes, recording vocal sounds for processing into the musical score, retargeting movements onto virtual avatars through inertial motion capture, and mapping dancer joint motion and distance to audio synthesis and processing parameters.

The music was composed by expressively scaling and mapping performance gesture of a dancer, motion-captured in virtual reality, to digital audio synthesis and processing parameters. Data from the position of the head, sternum, wrists, elbows, hips, knees, and ankles of the dancer were mapped to parameters of granular synthesis and delay, applied to samples of a male voice singing pitches, speaking a poem, and performing vocal percussion. The result is computer music composed entirely from human performance.

Whale Song Stranding

Inflections as sound process to sound quality
Emanating otherness of the
Sound quality to sound process from the reflective

Resulting in an immersive rhizome-like sound world of the omnipresent of the dream like and the very literal

As different zones are successive, simultaneous, above, below, before, and after, to neither rise nor sink but only float

A longing as the friction, disputes of the literal and dream-like

And

A persistence of a pulse, heavy, through the literal as a constant movement and the abstract ingenuous stillness, a sound world of the discursive and the narrative

Chiastic process and quality is undermined as the reflections and inflections recur in rounded proportions. The immersive and form is only tangible through this insistence that is perceived as a dream occurring in real time

Figuratively

Whale Song suggests, quite literally, uncertainty that is

Stuck between the discursive and the narrative,
The moving streams/waves and the pure tones surrounding within,
Stranding

11-12PM: S21 CONCERT 12

Iddo Aharony | *breathwatersoundcannon*

Iddo Aharony—composition and electronics

Arom Choi—video

Shanna Pranaitis—bass flute

Layli Long Soldier—text and recorded voice

Mónica Sanchez—performance

Michele Cheng | *Doyennes' Diaries*

Dana Jessen & Eli Stine | *through a fragile traverse*

Dana Jessen—composition, bassoon

Eli Stine—video

breathwatersoundcannon

“Now / make room in the mouth / for
grassesgrassesgrasses” reads the epigraph opening Layli Long Soldier’s poetry collection “Whereas” (2017). This collaborative piece emerged from a thirst for some of the liminal spaces that these words seem to invite us to open—between voice and place, breath and earth, perhaps “now” and memory. “Whereas” is in part a response to the Congressional resolution of apology to Native Americans, a document of carefully crafted legal language signed by President Obama in obscurity in 2009. Long Soldier’s specific poem which both inspired this piece and is woven into its fabric, “Resolution 2,” is adapted from the language of this Congressional resolution itself. However, its text—“I commend and honor Native Peoples for the thousands of years that they have stewarded and protected this land”—is put into question as it is disassembled on the page before the reader’s eyes: its words are listed top to bottom, one by one, at the very left of the page; meanwhile, the rest of the page is made of empty space. Within this space two words float, reappearing in different placements—“this” and “land.” Each iteration of these two words seems to carry its own timbre, density, and frequency, carry its own questioning of how this language has been used in the past and present, carry its own defiance.

“breathwatersoundcannon” was created as a dipping of a toe into a fraction of the many streams

potentially flowing out of this poem's empty spaces. Merging sound with video, bass-flute with electronics and field recordings, images of the natural and personal—its creators hope only that it can make a little room in one's ears, eyes, mouth.

Doyennes' Diaries portrays modern womanhood through a custom instrument processing household objects and narrated diaries contributed by four women-identified artists.

through a fragile traverse is the result of a collaboration between performer-composer Dana Jessen and video artist Eli Stine. The 20-minute work travels through unexplored terrain with mesmerizing visuals and other-worldly sounds, all largely informed through themes of vulnerability and impermanence.

The piece was produced by Continuum Culture & Arts as part of its Soup & Sound Online program, made possible by public funds from the Greater New York Arts Development Fund of the New York City Department of Cultural Affairs and from the Decentralization Program of the New York State Council on the Arts.

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Biographies

Melissa Achten is a harpist, improviser, composer and interdisciplinary artist in Los Angeles devoted to revealing her unique expressive voice in contemporary and experimental music. By placing a future-orienting gaze at the foreground of her work, she seeks to untangle the harp from its classical traditions, along with dismantling its parochial image in current music performance. In service of immersive musical ritual, Melissa pushes the boundaries of harp technique, incorporating theater, design, and multimedia technologies to blur the relationship between bodies, instruments, and sounds. This multidisciplinary approach aims to restore the harp's storytelling tradition while simultaneously exploring meaning-making in contemporary music. Her work is heavily influenced by surrealism, fantasy, psychology, and the occult, themes which are explored in her solo compositions and in collaboration with other artists, performers, and composers.

Melissa is an alumna of McGill University in Montreal, QC (MMus) and Cornish College of the Arts in Seattle, WA (BMus). Upcoming projects include a residency at the Bang on a Can summer institute and the recording release of her latest commission for harp, "Traces: Sarah".

Composer and electronic musician **Iddo Aharony's** diverse body of work includes pieces for a variety

of ensembles, solo instruments, and electronics, along with compositions for contemporary dance, opera, and various multimedia projects. Aharony's acoustic and electronic music has been performed by ensembles and musicians in the United States, France, Italy, Britain, Spain, The Netherlands, Israel, and Australia, including Ensemble Dal Niente, Mivos Quartet, and Eighth Blackbird. It was presented at festivals such as The International Computer Music Conference, SEAMUS, NYC Electroacoustic Music Festival, Currents New Media, June in Buffalo, and the Valencia International Performance Festival. Among his awards are the 2019 Playground Ensemble annual composition prize and commission, the 2014 soundSCAPE festival first composition prize and commission, and fellowships from the MacDowell Colony, Ucross Foundation, and Atlantic Center for the Arts. He received a Ph.D. from the University of Chicago in 2016, and is currently an Assistant Professor of Music Technology at Colorado College.

Marc Ainger is active as a composer and sound designer. He has worked extensively in the area of computer and electronic music, using computers alone and in combination with traditional instruments, as well as in combination with other media such as film, dance, and theater.

Significant commissions and performances include

the Aspen Music Festival, the American Film Institute, the KlangArts Festival, Gageego New Music Ensemble, Guangdong Modern Dance, the Royal Danish Ballet, the New Circus, Streb, and Late Night with David Letterman. Awards include the Boulez Composition Fellowship, the Irino International Chamber Music Competition, Musica Nova, Meet the Composer, the Esperia Foundation, and the Ohio Arts Council. As a sound designer, Ainger has worked with such institutions as the Los Angeles Philharmonic, Tempo Reale, IRCAM, the Olympic Arts Festival, and Pacific Coast Soundworks.

He holds a PhD in composition from the University of California-Santa Barbara, and an undergraduate degree from California Institute of the Arts. As a student, he worked with a number of composers, including Stephen Mosko, Barry Schrader, Morton Subotnik, Karlheinz Stockhausen, John Adams, Morton Feldman, Earle Brown, John Cage, Steve Reich, Vinko Globakar and Bill Kraft. Before joining the faculty of The Ohio State University, he taught composition and computer music at the University of California-Santa Barbara.

John R. Akins, a Michigan native, received his B.M. and M.M. degrees in music theory/composition from Southern Methodist University and his DMA in composition from the University of Texas at

Austin. Now retired, he has taught at Southwestern Assemblies of God University, Texas Lutheran University, the University of Maine at Machias and, most recently, for 33 years at Evangel University. He has received two commissions from the Missouri Music Teachers Association (1980 and 2000) plus other commissions from the Machias Bay (Maine) Community Concerts Association, the Springfield (MO) Symphony Orchestra, and Lee University faculty member Ron Brendel. He has had performances of his works in numerous states and at Kennedy Center, plus Latvia and Japan. He has membership in the Society of Composers Incorporated (SCI), the Society of ElectroAcoustic Composers in the United States (SEAMUS) and the Christian Fellowship of Art Music Composers (CFAMC).

Alecto consists of **Kendra Wheeler** (saxophone) and **Kakia Gkoudina** (electronics, visuals, composition). The audiovisual nature of our work, as well as the way that we try to form our narratives — on the meeting point of musical and extra musical traditions — is a core part of who we are. We aim to provide a storytelling experience — one that incorporates informative sound and music, displaced from their normative roles. Our work is consciously political and we fully intend for it to be part of communal conversations — otherwise, we find no point in

making it. We want to express that as the world is becoming one universal society, time and space transform radically. The speed of information has allowed us to interconnect as humanity, like never before. As a result, we can try and use the new knowledge that comes with this new consciousness and produce works that can speak a language of solidarity that is so much needed in our times.

Brian Alexander is a transdisciplinary Artist, Designer, and Workflow consultant who strives for the realization of clarity and potential in all individuals. His persistently human-centric work has informed both product and process in an array of technical and artistic disciplines. His 31 year professional career continues with a growing emphasis on Systemics and Emergent Behavior as a more complete picture of need, creation, and fulfillment in our lives. He currently holds 26 technical and design patents as well as permanent works in MOMA NY, Cooper Hewitt, and Smithsonian.

Drake Andersen is Adjunct Assistant Professor of Music at Vassar College, where he teaches electronic music. As a composer and improviser, his music has been performed throughout the United States and Europe. He has also written about the performance of electronic and experimental music for journals including Organised Sound, Perspectives of New

Music, and Music Theory Online. He holds a PhD from the CUNY Graduate Center.

Ruth Anderson was born in Kalispell, Montana in 1928 and died in November 2019 at Calvary Hospital, New York. She enjoyed a long and multi-faceted career as a composer, flutist, teacher and orchestrator. She was a professor emeritus of Hunter College, CUNY, where she installed and directed the first operative electronic music studio in the CUNY system from 1968- 1979, one of the first studios in the US to be directed by a woman. As an orchestrator for NBC-TV documentaries and a Broadway season at Lincoln Center Theater for the revivals of *Annie Get Your Gun* and *Showboat* she was a pioneer in that field also, being the only female orchestrator working on Broadway at that time. She was a flutist during her twenties, primarily with the Totenberg Instrumental Ensemble, with one season as principal flutist of the Boston Pops touring orchestra.

Her establishment of the Hunter College Electronic Music Studio and her involvement with the downtown music scene in New York brought a burst of creative activity when her studies of psychoacoustics, Zen Buddhism and her teaching intersected, sparking a number of works for tape which are truly innovative, including the three works presented here: *SUM (State of the Union Message)* 1973, *Points* (1973-4) and

I come out of your sleep (1979). She wrote of her music *It has evolved from an understanding of sound as energy which affects one's state of being*. [These are] *pieces intended to further wholeness of self and unity with others*.

An album of her works titled *Ruth Anderson Here* was released on the Arc Light Editions label March 2020, with the three works mentioned above and two tape works never before released, *So What* and *The Pregnant Dream*.

Dr. Linda Antas is a composer, and flutist whose compositions have been performed around the world. She has been recognized by the Musica Nova International Competition of Electroacoustic Music, the Fulbright Foundation, the Bourges Electroacoustic Composition Competition, the Fifth International Congress on Synesthesia, and the International Computer Music Association. Her works have appeared on festivals including the International Computer Music Conference (ICMC), the Society for Electroacoustic Music in the United States (SEAMUS), The Sound and Music Computing Conference, the Città di Udine International Composition Competition (Taukay Edizioni Musicali), Electronic Music Midwest, and the Electroacoustic Barn Dance. She has performed as a flutist at SEAMUS and the National Flute Association Convention, among other venues. Her current research interests are sonification, visual music, real-time signal processing, and physical computing. She is an Associate Professor at

Montana State University, where she teaches music technology, interdisciplinary multimedia courses, and composition. In addition to—and sometimes in combination with—musical activities, she spends as much time in the wilderness as possible. Her life and music are heavily influenced by Buddhist philosophy and the natural world. She lives in the Gallatin Range just outside Bozeman, Montana. <https://www.lindaantas.com>

Dr. Abby Aresty is a sound artist, composer, and educator. Her community-based creative practice empowers individuals to work creatively with sound, and to share their stories while building community through collective making, integrated learning, and storytelling. Aresty has presented her research in the United States, Canada, Australia, and Hong Kong, in conferences including ICMC, Balance/Unbalance, ISEA, and Sonic Environments. She has held fellowships at the Studio for Creative Inquiry at Carnegie Mellon University, Grinnell College, and the Acoustic Ecology Lab at Arizona State University's Herberger Institute of Design and the Arts. Aresty is Technical Director and Lecturer for the Technology in Music and Related Arts (TIMARA) Department at Oberlin Conservatory. In 2019, in collaboration with Oberlin Center for the Arts and Oberlin Conservatory, Aresty founded the Girls Electronic Arts Retreat (GEAR), a STEAM summer camp for 3-5th grade girls hosted in the TIMARA studios.

A review in Opera News states that **Lawrence**

Axelrod is “a ... composer whose fresh and distinctive music deserves to be more widely known.” He is a composer, pianist and conductor. Mr Axelrod's musical activities have taken him around the United States, Europe, South Africa, Australia and New Zealand. Mr. Axelrod has had works done by ~Nois, the London Sylvan Ensemble, Clocks in Motion and The Chicago Composers Orchestra in recent seasons. His music for The Scroll of Morlok was included in the Sound of Silent Film Festival presented by Access Contemporary Music in 2018. Mr. Axelrod is a founder and current member of the Chicago Composers' Consortium. He is also the creator of Opera Adventures.

Alexis Bacon is a composer recognized nationally and internationally for both her acoustic and electroacoustic music. Her work draws inspiration from a diverse array of sound worlds, including vanishing American oral traditions, medieval Provençal poetry, Norwegian fiddle music, and Afro-Brazilian religious ceremonies. During her career, she has won awards including the IAWM Search for New Music Pauline Oliveros Prize, the Ossia International Composition Prize, the ASCAP/SEAMUS student composition commission, and an honorable mention in the 2018 Hildegard Competition. Alexis is an Assistant Professor of Music Composition at Michigan State University.

Tom Baker is a composer, guitarist, improviser, and electronic musician who has been a leader in the

Seattle new-music scene since arriving in 1994. He is the artistic director of the Seattle Composers' Salon, co-founder of the Seattle EXperimental Opera (SEXO), and founder of the new-music recording label Present Sounds Recordings. His compositions have been performed throughout the United States, Canada, and Europe.

Tom is also a scholar and researcher, and has recently presented work to the Society for Minimalist Music in Wales UK, and to the International Conference on the Arts in Society in Vancouver BC. He is a Professor of Music at Cornish College of the Arts where he teaches composition, music theory, and electronic music. He currently serves as the vice-president of the Northwest Chapter of the College Music Society, and his most recent article was published in Perspectives of New Music in July, 2020.

Tom is active as a performer and improviser, specializing in fretless guitar and live-electronics. His band TRIPTET recently released its fourth album, *Slowly, Away*, on Engine Records. His electronic-interactive-arts collaboration with visual artist Robert Campbell called *Manifold2* was featured in the MoxSonic festival in 2019.

Called “spellbinding” (Seen and Heard International) with “glow and poise and electric tension” (The Daily Telegraph), the music of composer **Katherine Balch** captures the magic of everyday sounds, inviting audiences into a sonic world characterized

by imagination, discovery, and stylistic variety. Often inspired by literature, nature, and science, she has been described as “some kind of musical Thomas Edison – you can just hear her tinkering around in her workshop, putting together new sounds and textural ideas” (San Francisco Chronicle).

Katherine's work has been commissioned and performed by leading ensembles including the Los Angeles Philharmonic, the London Sinfonietta, l'Orchestra Philharmonique de Radio France, Ensemble Intercontemporain, and the symphony orchestras of Minnesota, Oregon, Albany, Indianapolis, and Tokyo. She has been featured on IRCAM's ManiFeste, Fontainebleau Music Festival, and Festival MANCA in France, Huddersfield Contemporary Music Festival in the UK, Suntory Summer Arts and Takefu Music Festival in Japan, and the Aspen, Norfolk, Santa Fe, and Tanglewood music festivals in the United States. Her work has been presented in major global venues including Carnegie Hall, Disney Hall, and Tokyo's Suntory Hall.

Scott Barton composes, performs, and produces (electro)(acoustic) music; conducts psychological research; and develops musical robots. He founded and directs the Music, Perception and Robotics lab at WPI and co-founded Expressive Machines Musical Instruments (EMMI), a collective that designs and builds robotic musical instruments. His work in robotics explores the novel expressive capabilities of machines, and the ways in which robots can voice

and inspire human creativity. His research in rhythm perception and production has been published in journals such as *Music Perception* and *Acta Psychologica*. He fuses the worlds of psychology and robotics in software that allows robots to improvise with humans. His compositions and improvisations have been performed throughout the world including at SMC; ICMC; SEAMUS; CMMR and NIME. His most recent album *Stylistic Alchemies* (Ravello Records) features electroacoustic works that illuminate the creative potential of the studio in the synthesis and juxtaposition of musical genres. He is an Associate Professor of Music at Worcester Polytechnic Institute.

The Boyer College Electroacoustic Ensemble Project—**BEEP**—is a group for electroacoustic music creation in a collaborative environment. Founded in 2013 by Dr. Adam Vidiksis at Temple University, BEEP embraces a variety of aesthetics and styles, from EDM to the avant garde. We function in varied modalities: from a laptop orchestra, to fusion of computers and traditional instruments, to an electronic music band. Our main goal as an ensemble is to explore new musical paths and new technologies by uniting people of varying and complementary skill sets in the discovery of new possibilities of creating sound. BEEP has been featured at the ICMC in Daegu, South Korea, SEAMUS, the New York Electronic Arts Festival, and was the headlining band at the Andy Warhol exhibition opening at the M WOODS contemporary

art gallery in Beijing, China. The group has collaborated with renowned artists such as Nicholas Isherwood, Toshimaru Nakamura, Dan Blacksberg, and Susan Alcorn. BEEP regularly performs at venues around the Philadelphia area. BEEPlE involved in this performance: Alexander Tridico, Andrew Alcedo, Austin Daggy, Ben Mascioli, Destine Garcia, Dominique Kapiamba, Ethan Cantor, Gabe Preston, Joshua Spaet, Jack Maynard, Kevin Reeder, Kyle Rowe, Matt Hendry, Patrick Williams, Rebecca Pierre, Sara Pak, Steven Vidal, and Xavier Arana. (<http://www.beep.band/>)

Brian Belet lives in northwestern Oregon with his partner and wife Marianne Bickett. A CD containing ten of his computer music compositions, *Sufficient Trouble*, was published by Ravello Records (PARMA Recordings) in 2017. His music is recorded on CDs published by Capstone, Centaur, Frog Peak Music, IMG Media, Innova, New Ariel Recording, PARMA Recordings (Navona and Ravello imprints), SWR Music/Hänssler Classic, and the University of Illinois labels; with research published in *Contemporary Music Review*, *Organised Sound*, *Perspectives of New Music*, *Proceedings of the International Computer Music Conference*, and *Proceedings of the International Web Audio Conference*. Dr. Belet retired from San Jose State University as Emeritus Professor of Music in 2020, where he was named President's Scholar in 2017. (www.BeletMusic.com)

Jon Bellona is a sound artist and educator who specializes in digital technologies. <https://jpbellona.com>

Jon has received awards through the Mozilla Community Gigabit Fund, the Oregon Community Foundation Creative Heights Grant, the Jefferson Trust, the Oregon Arts Commission, the University of Oregon Center for Environmental Futures, and the Andrew W. Mellon Foundation. Jon has served as a University of Virginia Presidential Fellow in Data Science, an Environmental Resilience and Sustainability Fellow, and an Art & Environmental Action Scholar. Jon studied composition with Samuel F. Pellman, Matthew Burtner, Ted Coffey, Jeffrey Stolet, and Judith Shatin, earning degrees at University of Virginia (Ph.D., M.A.), University of Oregon (M.Mus.), Hamilton College (B.A.) and Conservatory of Recording Arts & Sciences (Dip.). Jon is a Career Instructor of Audio Production at the University of Oregon and co-director of Harmonic Laboratory, an interdisciplinary arts collective focused on art and technology collaborations (<https://harmoniclab.org>).

Kristopher Bendrick's compositions explore a balance between the seriousness of interpersonal vulnerability and the levity of absurdism. He asks his performers to create complex sounds with flailing gestures while his electronic music works with shaping harsh noise aggregation, which he intends to grate against the comfort level of his audience.

Thematically, many of his pieces deal with feelings of interpersonal discomfort and vulnerability that result from encroaching existential dread. His use of absurdism creates darkly whimsical and nonsensical narratives that bring light-heartedness to an otherwise dismal aesthetic.

Kristopher is a Philadelphia based composer pursuing a PhD in Music Composition at the University of Pennsylvania as a Benjamin Franklin fellow with a Master's of Music Composition from Western Michigan University and a Bachelor's of Music from Columbia College Chicago. In his time at Western Michigan, he studied with Christopher Biggs and Lisa Coons and is currently studying with Natacha Diels at University of Pennsylvania. He has worked with numerous performers and ensembles including the PRISM Quartet, the Dutch/American Trio Sonic Hedgehog, the Atar Piano Trio, members of Mocrep, members of Fonema Consort, and members of Ensemble Dal Niente. He is a winner of the MTNA National Composition Competition, the recipient of the Turner Award, a Hokin Award nominee, and the recipient of the 2019 & 2020 College of Fine Arts Graduate Teaching Effectiveness Award.

Julia Bengtsson is a Swedish dancer and choreographer based in New York. Her performances range from classical ballet, to experimental theater and opera. Her choreography has been performed at Carnegie Hall, Bruno Walter Auditorium at Lincoln Center, the UN Headquarters, Alvin Ailey Dance

Center, Opera Lafayette, Higher Ground Festival, Gelsey Kirkland Arts Center, and Sandler Center for the Performing Arts, VA.

Julia Bengtsson is a Board Member and Choreographer of Higher Ground Festival since four years and she is the choreographer of Bach Cello Suites Festival.

As a dancer, she performs both nationally and internationally with New York Baroque Dance Company. She also works seasonally with Connecticut Ballet in classical ballets such as Les Sylphides, The Nutcracker, Cinderella, and A Midsummer Night's Dream. She has performed as a guest with companies including Victoria Ballet, Vadstena-Akademien, and Artists by Any Other Name, as well as at Sweden's two nest theaters; the Gothenburg Opera and the Royal Swedish Opera House.

Julia Bengtsson received ten years of training from the Royal Swedish Ballet School and she was a Scholarship Student at the Jorey Ballet School in New York.

Julia has received awards from organizations including Anders Sandrew's Foundation (2014), Arts Umbrella (2014), Willinska Foundation (2012), Cecilia Rilton Ballet Foundation (2012), F. Barck Foundation (2012), and Carina Ari Foundation (2008).

Will Bertrand is a sonic artist and researcher based in Oberlin, OH. His work focuses on the situated nature of listening and sounding, exploring networks of animal communication, cybernetic organization, and the sonic forms embedded in environments both real and virtual. He is currently pursuing degrees in physics and music technology at Oberlin College and Conservatory.

Having lived most of his life with little exposure to "classical" music and with no formal musical training before the age of 21, **Anuj Bhutani** is quickly emerging as a unique and versatile composer. In the past year alone, he won 1st prize in Cerddorion Vocal Ensemble's Emerging Composer Competition, 3rd prize in The Choral Project's Composition Competition, was a Finalist in the RED NOTE Composition Competition as well as the Keene State College Call for Scores, and was selected for the Norfolk Chamber Music Festival's New Music Workshop at Yale School of Music, RED NOTE Festival Composition Workshop (2021), Nick Photinos' "1:2:1" string intensive, SCI National Conference and Student Mixtape, New York City Electroacoustic Music Festival, Verdant Vibes' sixth season, and the Sonic Murals and Electric LaTex festivals. His work has been commissioned or performed by Ashley Bathgate, Grammy Award-winning soprano Molly Fillmore, Inversion Ensemble (after winning the Happy Composer Commissioning Project), the William Paterson

University Percussion Ensemble, and more.

He is pursuing his bachelor's degree in composition at University of North Texas and received an Undergraduate Research Fellowship to study and write about the musical process/glitch in the music of David Lang under the guidance of Dr. David-Bard Schwarz. Since 2019, Anuj has also served as the Undergraduate Vice President of UNT Composer's Forum. His primary composition teachers have included Andrew May, Sungji Hong, Drew Schnurr, and UNT Composer-in-Residence Bruce Broughton. He also holds a BA in Psychology from UT Austin, where he graduated with High Honors and a Presidential scholarship in 2015.

Isaac Bickmore is Assistant Professor of Music Education at UCM. He is a music educator, researcher, narrativist, entrepreneur and interdisciplinarian. He taught kindergarten through 8th grade general music and choir for five years with an emphasis on project-based learning, multimedia performances, and collaboration with classroom teachers.

He holds a Ph.D. in music education from Arizona State University. During his time at ASU he was able to focus on technologically mediated musical engagement and learning as the teacher of the Digital Hybrid Lab for five semesters. His research interests include student-centered learning, project-based learning, critical pedagogy, narrative inquiry,

popular music in the lives of adolescents, popular music in young adult literature, and technologically mediated musical engagement. He has co-written two book chapters about popular music in young adult literature.

Doug Bielmeier creates commercial and experimental music tailored for boutique audiences and media. Bielmeier's music has been described as an extension of Xenakis's early tape pieces (American Record Guide, 2018) and "Gentle (Cinemusical)." Other reviewers explain Bielmeier's music is "drone work meant to shake you out of your shell of complacency (Midwest Record)" and "hypnotically static yet ever moving within itself (Classical-Modern Music Review)." Album releases include Monophonic (SEAMUS, 2020), Beast of Bodmin Moor (Noisy Buffalo, 2019), Mind & Machine (Ravello, 2018) and Betty and the Sensory World (Ravello, 2017), which have been performed internationally at Emerson Contemporary Gallery (Boston), Fuse Factory (Columbus, OH), Square Cat Vinyl (Indianapolis, IN), Circuit Bender's Ball (Nashville), Brooklyn Arts Gym (Brooklyn, NYC), and Muse Gallery (London). These works have been broadcasted on WMBR (MIT, Cambridge), KALX (Berkley, CA), WUTL (New Orleans, LA) and heard by over 10K listeners on Drone Zone (Somafm.com). His electroacoustic works have been performed in NYC by the Unheard// of Ensemble and the Hypercube Ensemble.

Bielmeier is a champion for experimental creators

and recording by working with Indie and start-up artists in Nashville, DC, Indianapolis, and Boston. Bielmeier designed/managed the C.L.E.A.R. Lab at Purdue School of Engineering: a state-of-the-art facility for creating, mixing, and mastering new electronic works. His work as a recording, mixing, and mastering engineer has helped fellow experimental creators release albums for Centaur, New Amsterdam, and Iridian record labels. Bielmeier studied under composer Robert Carl (grand-student of Iannis Xenakis) at the Hartt School of Music (Composition and Sound Recording BM) and Elainie Lillios at Bowling Green University (Composing MM). Currently, Bielmeier is a professor at Northeastern University and lives near his family in Boston.

Christopher Biggs is a composer and multimedia artist whose "original and unique musical language" blends dense, contrapuntal textures with direct, visceral expression. His music presents a "masterful combination between acoustic instruments and electronics" (Avant Scena), and has been described as "heartbreakingly beautiful" (Classical Music Review), and a "sonic foodfight" (Jazz Weekly). His recent projects focus on integrating live instrumental performance with interactive audiovisual media.

Alice Blumenfeld makes, performs, and teaches dances that aim to find new connections between people, places, and ideas. She is the founder and artistic director of ABREPASO flamenco, whose mission is to deepen appreciation for flamenco

and create original flamenco choreography. The Ohio Arts Council recognized her work with an Individual Excellence Award for Choreography (FY20). Blumenfeld grew up in Albuquerque, NM, immersed in flamenco culture. Graduating summa cum laude from NYU in Comparative Literature, literary & translation theories have shaped her approach to dance exploration. In 2012, she received a Fulbright to study choreography in Spain and upon her return to the U.S., Blumenfeld toured nationally with Flamenco Vivo Carlota Santana and has been a guest artist with many of the preeminent flamenco companies in the U.S. In 2017, Blumenfeld graduated from Hollins University with an MFA in dance, creating a site-specific piece for libraries that explores the spaces opened through translation. Fascinated by anatomy and teaching practices, she holds teaching certificates in Simonson Technique and Yoga. She is currently President of the Fulbright Association of Michigan/NW Ohio and a teaching artist at the Rainey Institute.

www.abrepaso.org

www.aliceblumenfeld.com

Michael Boyd, Associate Professor of Music at Chatham University, is a composer, scholar, and experimental improviser. His music embraces experimental practices such as installation, multimedia, and performance art, and has been performed in a variety of venues throughout the United States and abroad. His user-driven

installation Confessional won the 2016 FETA Prize in Sound Art. Boyd has published articles in Perspectives of New Music, Tempo, and Notes. He is active in his community, currently serving a third elected term on the Wilkins Township Board of Commissioners. Boyd often bikes to work and competes in mountain bike races.

Taylor Brook writes music for the concert stage, electronic music, music for robotic instruments, as well as music for video, theatre, and dance.

Described as “gripping” and “engrossing” by the New York Times, Brook’s compositions have been performed around the world by ensembles and soloists such as the Ensemble Ascolta, JACK Quartet, Mivos Quartet, Nouvel Ensemble Moderne, Quatuor Bozzini, Talea Ensemble, and others. He has won numerous SOCAN Young Composers awards, including two first-place prizes and the grand prize in 2016 for Song, for solo cello.

Brook studied composition with Brian Cherney in Montreal, with Luc Brewaeys in Brussels, and with George Lewis and Georg Haas in New York. In 2008, he studied Hindustani music and performance with Debashish Bhattacharya in Kolkata. His music is often concerned with finely tuned microtonal sonorities. Current projects include an album-length work for TAK Ensemble, a viola concerto for Marina Thibeault with Turning Point Ensemble, and a concerto grosso for the Del Sol Quarter with the PARTCH Ensemble.

In 2018 Brook completed a Doctor of Musical Arts (DMA) in music composition at Columbia University with Fred Lerdahl. He holds a master’s degree in music composition from McGill University. Currently Brook is a Core Lecturer at Columbia University. He is a 2020 Guggenheim Fellow and the technical director of TAK Ensemble.

Aleyna Brown is a contemporary American composer, multi-instrumentalist, and audio engineer based in Denton, TX. In her role as an artist and entrepreneur in the music industry, Aleyna is an advocate of inclusive concert programming and the exploration of feminism in music and art. As a composer, Aleyna has scored short films and composed concert works for chamber ensembles, solo instruments, fixed media, and live electronics. Much of her music serves to both celebrate and recontextualize ideas of beauty and femininity. Aleyna is also an active contemporary music flutist specializing in electroacoustic performance. She performs with the NOVA new music ensemble at the University of North Texas where she currently attends as a dual-masters student studying Flute Performance and Composition. She also works as a recording engineer and as the assistant for the Music Business & Entrepreneurship program at the UNT College of Music. Aleyna earned her three bachelors degrees from the Florida State University College of Music in 2018.

Becky Brown is a composer, harpist, artist, and web designer, interested in producing intensely personal works across the multimedia spectrum. She focuses on narrative, emotional exposure, and catharsis, with a vested interest in using technology and the voice to deeply connect with an audience, wherever they are. She is currently pursuing graduate studies in Composition and Computer Technologies at the University of Virginia.

Courtney Brown is a composer, software developer, and tango dancer. She creates new musical interfaces in which the act of creating sound is transformative in some way. People become dinosaurs by blowing into a hadrosaur skull, creating their own roar. Social dancers become musical ensembles.

Her work has been featured and performed in North America, Europe, and Asia including Ars Electronica (Austria), National Public Radio (NPR), Diapason Gallery (Brooklyn), International Computer Music Conference (Korea), ACM Movement and Computing Conference (Italy), Society for Electro-Acoustic Music in the United States (SEAMUS) Conference (Salt Lake City), New Interfaces for Musical Expression/BEAM Festival (London), Frequency Festival (Chicago), the Telfair Museum (Savannah) and Modified Arts Gallery (Phoenix). Her interactive sound installation and musical instrument, Rawr! A Study in Sonic Skulls received an Honorary Mention from the 2015 Prix Ars Electronica. She also received a Fulbright Fellowship to Buenos Aires, Argentina, where she began work

on her ongoing project, Interactive Tango Milonga, creating interactive Argentine tango dance.

She is currently an Assistant Professor at the Center of Creative Computation, Southern Methodist University. She received her D.M.A in Digital Media and Performance from Arizona State University and her M.A. in Electroacoustic Music from Dartmouth College.

Hunter Brown is a composer, music technologist, improviser, and percussionist based in Chicago, Illinois. His musical practice focuses on creating fluid musical spaces by enabling unpredictable, spontaneous, and idiosyncratic interactions between human performers and digital media. In particular, his music explores the aesthetics of digital failure, glitch, and sonic extremes within the contexts of electroacoustic music. As a music technologist, Hunter's research focuses on designing artificially intelligent computer music systems to be used within the context of human-machine free improvisation. Hunter has published peer reviewed articles about his practice-based research in the proceedings for the IEEE sponsored International Workshop on Multilayer Music Representation and Processing, and the proceedings for the New Interfaces for Musical Expression conference.

Hunter's music has been presented internationally at the following conferences and festivals: International Computer Music Conference, the IRCAM Manifeste,

the New York City Electroacoustic Music Festival, the Society for Electro-Acoustic Music in the United States, and New Interfaces for Musical Expression. In 2017, he was awarded the annual Allen Strange Composition Award at the SEAMUS National Convention. Hunter holds a Bachelor's of Music in Percussion Performance and Technology in Music and the Related Arts (TIMARA) from the Oberlin Conservatory of Music, a Masters of Arts in Digital Musics from Dartmouth College, and is currently studying towards a PhD in Music Composition at the University of Chicago under the tutelage of Sam Pluta and Augusta Read Thomas.

Russell Brown is currently serving as Associate Professor of Music at Georgia Southern University. He holds a PhD in Music composition and an MM in Music Composition from the University of Florida, an MM in Music Performance from The Ohio State University and a BM in Music Performance from Valdosta State University. He regularly performs contemporary music in various chamber groups and is currently a member of the Valdosta (GA) Symphony Orchestra, and has performed with the Albany (GA) Symphony Orchestra, Columbus (GA) Symphony Orchestra, The Florida Orchestra (Tampa), Gainesville (FL) Chamber Orchestra, and Ocala Symphony Orchestra.

Dr. Brown's compositions have been performed on programs for local, national, and international audiences in venues across the country. His music

has also been performed by the Jacksonville Symphony Orchestra (FL), R20 (Poland), Albany Symphony Orchestra, and various chamber groups.

Erin Busch is a composer and cellist residing in Philadelphia, where she is currently pursuing a Ph.D in composition at the University of Pennsylvania. She is the founder and Artistic Director of the Young Women Composers Camp, a two-week music composition festival for students who identify as female or nonbinary, and has been commissioned and performed by the Albany (NY) Symphony, the Philadelphia Orchestra String Quartet, the TAK Ensemble, the Philadelphia Charter – A String Theory School, Matthew Levy of the PRISM Quartet, and Network for New Music. Recent projects include a string quartet commission from cellist Yumi Kendall of the Philadelphia Orchestra, a new work for the 2021 Composers Conference as a Fromm Foundation Composer Fellow, and a percussion quartet for Sō Percussion. She maintains a freelance career as a cellist, and performs with local ensembles such as the Arcana New Music Ensemble and the Philly Pops.

Patricia Cadavid is an immigrant, artist, and researcher, born in Colombia. In her work, she looks at the relationships and effects of coloniality in new media from the migratory experience and decolonial & anticolonial thinking.

She is currently working on the vindication of the memory contained in the ancestral interfaces of

the Andes taken away by colonization, and their connections with art and science reusing them in new artistic processes related to video, NIMEs, tangible live coding, sound, and multimedia performance.

Student at the Interface Culture Lab (Kunstuniversität Linz), she received her BFA from the Universidad de Castilla-La Mancha and her MFA from the Universitat Politècnica de València, Visual arts & multimedia program. Her work has been exhibited in different festivals as Ars Electronica (Austria), ADAF (Greece), or the NIME conference as well as in several spaces in Mexico, Spain, Germany, and Colombia.
<https://www.patriciacadavid.net/>

A.D. Carson is an award-winning performance artist and educator from Decatur, Illinois. He received a Ph.D. from Clemson University in Rhetorics, Communication, and Information Design. His album, *Owning My Masters: The Rhetorics of Rhymes & Revolutions*, was recognized by *Green Left Weekly* as one of the best political albums of 2017. It was also named Clemson University's Outstanding Dissertation that year. His most recent album, *i used to love to dream*, is published with University of Michigan Press. Stream or download his music free at <http://aydeethegreat.com>.

Dr. Carson is currently assistant professor of Hip-Hop & the Global South in the Department of Music at the University of Virginia.

Born in São Paulo, Brazil, composer **Diogo Carvalho** writes engaging concert music that communicates to contemporary audiences. Carvalho stands out with his ample knowledge and musicality, having pieces performed all over the world, often performing himself at the guitar. Carvalho has worked with the Unheard-of\\Ensemble, Bold City Contemporary Ensemble, Orquestra Jovem Tom Jobim, Irvine Arditti, César Camargo Mariano, Jeremy Huw Williams, Boston String Quartet, Laurent Estoppey, Hermeto Paschoal, and many others. An active scholar, Carvalho presented his current research on Steve Reich and narratives of identity at musicology conferences in Europe, Asia, and in the US. As a leader, Carvalho facilitated the use of more than US \$150,000 in five years at the University of Florida as the President of the Fine Arts College Council. Carvalho also serves the international composition community as the Artistic Director for the São Paulo Contemporary Composers Festival and the Director of the Composers Forum at the Vienna Summer Music Festival. Website: www.diogocarvalho.com

Ernesto Cárcamo Cavazos is a composer and guitarist of contemporary acoustic and electronic music. Born in September 1987 in Mexico City, he has studied classical and electric guitar since age 9 and has been actively composing since age 15. He is interested in finding new approaches to composition through new music for acoustic and electronic ensembles, electronic improvisations, spatially-

dependent pieces, and combinations of all three. His current focus is to explore new compositional ideas based on (un)expectedness, indeterminacy, and improvisation in the performative setting. He often incorporates multi-channel and algorithmic systems into his electro-acoustic works to explore the quadraphonic plane as well as blurring the line between sound design and music, particularly in his work for theater. He currently lives in Berlin, Germany.

Pianist **Chia-Ying Chan**, originally from Taiwan, brings passion, vibrancy, sensitivity and creativity to her interpretations of classical music. She is an active soloist and chamber pianist, who has given solo performances and recitals across Taiwan, America and Europe, including at the Conservatorio Superior de Musica de Asturias (Spain); the Sala dei Notari (Italy); National Recital Hall (Taiwan); Carnegie Weill Hall (New York), and has been invited to perform at the Wiener Saal Mozarteum in Salzburg, Austria.

Chan has won top prizes in international competitions such as the 2018 American Prize (Third Prize) the 2017 Sinfonia da Camera Concerto Competition (Winner), the 2016 International Music Competition Salzburg Grand Prize (First Prize), 2016 American Fine Arts International Concerto Competition (First Place), the 2014 West Virginia University Keyboard competition (First Prize), 2014 American Protégé International Competition of Romantic Music (First Place), and the National University of Tainan (NUTN) Concerto Competition in Taiwan (Winner).

Her accomplishments led her to a live broadcast performance at Schubertiade in Chicago in 2017, a solo recital at the PianoForte Foundation in Chicago in 2016, Carnegie Weill Recital Hall performances in 2014 and 2015.

Chan received her Doctoral degree from the University of Illinois at Urbana Champaign, where she is currently finishing an artist- diploma and serving as the piano teaching assistant. Her DMA dissertation focused on the piano works composed by American composer Harold Shapero. Additional appointments include piano faculty at Blue Lake Fine Arts Camp, Community Center for the Arts, and instructor at Discover Melody—an international online-conservatory based out of New York, Beijing and Vancouver. She also serves as Vice-director and adjudicator at Chambana Music Competition. Her principal mentors including Timothy Ehlen at University of Illinois at Urbana-Champaign for Doctor of Musical Arts and Artist Diploma; Paul Schenly & Kathryn Brown at Cleveland Institute of Music for Master of Music; and Ching-Jen Wu at National University of Tainan, Taiwan for Bachelor of Music. www.chiayingchan.com

Hong Kong-American composer **Chin Ting CHAN** has been a fellow and guest composer at festivals such as IRCAM's ManiFeste (Paris, 2013/2018), the ISCM World Music Days Festival (Tongyeong, 2016; Tallinn, 2019), and UNESCO International Rostrum of Composers (Tallinn, 2015). He has worked with

ensembles such as Ensemble intercontemporain, ensemble mise-en, Ensemble Signal, eighth blackbird, Hong Kong New Music Ensemble, and Mivos Quartet, with performances in more than twenty countries. His works are published with ABLAZE Records, Darling's Acoustical Delight, New Focus Recordings, PARMA Recordings, Phasma-Music, RMN Classical, BabelScores, SCI Journal of Music Scores, and Unfolding Music Publishing (ASCAP). He is currently an Assistant Professor of Music Composition at Ball State University. He holds a D.M.A. degree from the University of Missouri-Kansas City, as well as degrees from Bowling Green State University and San José State University.

Christopher Chandler is a composer, sound artist, and a co-founder of the [Switch~ Ensemble]. He serves as Assistant Professor of Music at Union College in Schenectady, NY where he teaches courses in music theory, composition, and technology. His acoustic and electroacoustic work draws on field recordings, found sound objects, and custom generative software. His music has been performed across the United States, Canada, and France by leading ensembles including Eighth Blackbird, the American Wild Ensemble, the Oberlin Contemporary Music Ensemble, the Cleveland Chamber Symphony, and Le Nouvel Ensemble Moderne. His music has received recognition and awards for his music including a BMI Student

Composer Award, an ASCAP/SEAMUS Commission, two first prizes from the Austin Peay State University Young Composer's Award, winner of the American Modern Ensemble's Annual Composition Competition, and the Nadia Boulanger Composition Prize from the American Conservatory in Fontainebleau, France. Christopher received a Ph.D. in composition from the Eastman School of Music, an M.M. in composition from Bowling Green State University, and a B.A. in composition and theory from the University of Richmond.

Robert Chapman is a percussionist, marimbist, and educator who discovered his love for the percussive arts at a young age. As a symphonic percussionist, he has had the opportunity to perform in concert halls in countries all over the world, including Costa Rica, Poland, and Belgium, and has studied with some of the top musicians in their field. As a marimba soloist, he has received recognition internationally through his performances and competitions. He has placed in the finals of numerous marimba competitions, and took first place at the 2009 PASIC Marching Keyboard Competition, the 2016 PASIC International Marimba Solo Competition, and the 2018 Great Plains International Marimba Competition. Robert's passion for the marimba is matched only in his passion for non-Western percussion, having been a student of the steel pan tradition of Trinidad for many years, and is currently studying Carnatic and Hindustani music

with his teachers, Poovalur Sriji and Dr. Vivek Virani, respectively. Robert continues to explore ways to fuse these passions into a truly unique musical experience.

Jean-François Charles is a composer, clarinetist, and live electronics designer. After obtaining a MSc in Electrical Engineering at the National Institute for Applied Sciences in Lyon, he studied in Strasbourg with the Italian composer Ivan Fedele. He has collaborated with musicians for creations in the U.S.A., Canada, Europe, and China. As a clarinetist, he worked with Karlheinz Stockhausen for the world première and recording of *Rechter Augenbrauentanz*. He earned his Ph.D. in music/composition at Harvard, where he studied with Hans Tutschku, Chaya Czernowin, Julian Anderson, Michael Gandolfi, Helmut Lachenmann, and Gunther Schuller. He joined in 2016 the School of Music at the University of Iowa as Assistant Professor in Composition and Digital Arts. His recent works include the album *Electroclarinet*, the opera *Grant Wood* in Paris premiered in 2019 by the Cedar Rapids Opera Theater, and a Scientific Concert presenting new pieces created in collaboration with scientists.

Michele Cheng, a 1.5 generation Taiwanese American, is an interdisciplinary composer who uses music, experimental theatre, and other forms of media to engage with social issues and cultural identities. Through a journalistic approach to interview and research, she develops creative projects that

incorporate storytelling as a vehicle for expression to shine light on underrepresented figures and their disregarded narratives. Her work has been described as “daring” and “touching,” and was praised by *The Boston Musical Intelligencer* as “innovative” and “mesmerizing.”

Her works have been presented internationally at Musée des Beaux-Arts de Dijon (FR), Sonorities Festival Belfast (UK), eavesdropping London (UK), Irish Sound, Science & Technology Association Conference (IE), 26th Young Composers Meeting (NL), Montréal Contemporary Music Lab (CA), Seoul International Computer Music Festival (KR), National Theatre & Concert Hall, Taipei (TW), and throughout the United States at National Sawdust (Brooklyn, NY), Center for Computer Research in Music and Acoustics (Stanford, CA), Orange County Museum of Arts (Santa Ana, CA), Experimental Media Performance Lab (Irvine, CA), White Snake Project (Boston, MA), Resonance Works (Pittsburgh, PA), New Music On The Point (Leicester, VT), Vu Symposium (Park City, UT), New Music Gathering (Portland, OR), among others.

She has collaborated with ensembles including orkest de ereprijs (NL), Ensemble Instrumental de l’ESM Bourgogne-Franche-Comté (FR), Amaranth Quartet (US), Taipei Symphony Orchestra (TW), Baroque Camerata (TW), and Yunlin Sharing Chamber Orchestra (TW) where she has been a composer in residence since 2007. In 2020,

she received National Sawdust’s inaugural commission and was named a JACK Studio artist commissioned by the JACK Quartet.

As an improviser-performer, Michele plays multiple instruments and self-built electroacoustic devices and has shared the stage with S Percussion, Taiko Center of Los Angeles, Antenna Fuzz, and artists from various disciplines. She is a co-founder of fff, an interdisciplinary improv collective led by feminist media artists. She also co-founded the experimental pop duet Meoark and is a member of Stanford New Ensemble.

Upcoming projects in 2021-2022 include a solo work for percussionist Ian Rosenbaum and an intermedia opera for the JACK Quartet.

Michele is currently based in the San Francisco Bay Area. <https://www.michelecheng.com/>

Alex Christie makes acoustic music, electronic music, and intermedia art in many forms. His work has been called “vibrant”, “interesting, I guess”, and responsible for “ruin[ing] my day”. He has collaborated with artists in a variety of fields and is particularly interested in the design of power structures, systems of interference, absurdist bureaucracy, and indeterminacy in composition. He is currently based in Charlottesville, Virginia.

Recently, Alex’s work has explored the ecology of performance in intermedia art and interactive

electronic music. Through real-time audio processing, instrument building, light, video, and theater, Alex expands performance environments to offer multiple lenses through which the audience can experience the work. Alex has performed and presented at a variety of conferences and festivals whose acronyms combine to spell nicedinsaucesfeeeeemmmmmmmfogascabsplotnort.

Alex serves as faculty, Director of Electronic Music, and Academic Dean at the Walden School of Music Young Musicians Program. He holds degrees from the Oberlin Conservatory and Mills College and is currently pursuing a PhD in Composition and Computer Technologies (CCT) at the University of Virginia as a Jefferson Fellow. Other interests include baseball and geometric shapes.

Arom Choi is a film director born and raised in South Korea. She is also working at Colorado College as a full-time Visiting Assistant Professor in Fiction Filmmaking. Arom completed her MFA degree in Film Directing from California Institute of the Arts (CalArts). Before coming to the US, Arom has had many chances to interact with diverse individuals from various backgrounds while farming in Australia and traveling all around the world. These experiences have sparked her curiosity as an observer of places, people and events, ultimately contributing to her desire to be a filmmaker. Arom's works are deeply gesture-oriented, and use limited visual framing and offscreen sound to study characters through their

larger environment, examining mental health issues. Several short films she wrote, directed, and edited have screened at international festivals and venues including San Diego Asian Film Festival, REDCAT Los Angeles, and Ouchy Film Awards. She is currently working on her fiction feature-length script, *The Life Before Hana*.

Kyong Mee Choi, composer, organist, painter, poet, and visual artist, received several prestigious awards and grants including John Simon Guggenheim Memorial Foundation Fellowship, Robert Helps Prize, Aaron Copland Award, John Donald Robb Musical Trust Fund Commission, Illinois Arts Council Fellowship, First prize of ASCAP/SEAMUS Award, Second prize at VI Concurso Internacional de Música Eletroacústica de São Paulo among others. Her music was published at Ablaze, CIMESP (São Paulo, Brazil), SCI, EMS, ERM media, SEAMUS, and Détonants Voyages (Studio Forum, France). She is the Head of Music Composition at Roosevelt University in Chicago where she teaches composition and electro-acoustic music. Samples of her works are available at <http://www.kyongmeechoi.com>.

Praised for its “sharp and precise imagery,” (The Utah Review) the music of **Nicolas Chuaqui** has been recognized for its interest and imagination. Most recently, he was a winner of the 2020 Ortus International New Music Competition, as well as one of four finalists for the 2020 ASCAP/SEAMUS Student Commissioning Prize.

His acoustic music has been heard at many prominent showcases for young composers, such as June in Buffalo, and has been performed by such well-recognized ensembles as the Arditti Quartet and The Crossing. His music incorporating electronic media has been featured at several prominent venues, such as the International Computer Music Conference, New York City Electroacoustic Music Festival, and Diffrazioni Multimedia Festival (Florence, Italy). His vocal and operatic music has been awarded by various organizations, and his first opera, *The Forest of Dreams*, was premiered in a fully-staged production by New Voices Opera in 2016.

In addition to composition, Chuaqui is active as a vocalist and as a pianist. He is a doctoral candidate at the Eastman School of Music and holds degrees from Indiana University and Dartmouth College.

Alaina Clarice is a performer and teacher in the Dallas-Fort Worth area. Most recently, she was featured on a CD titled love songs/duets by composer, Kory Reeder, published by Edition Wandelweiser Records. As a performer, she made her Carnegie Hall debut in 2018 as a first prize winner of the Golden Classical Music Awards International Competition. Additionally, Alaina spent two summers as a Flute Apprentice at the National Music Festival in Chestertown, Maryland, and will attend the Mostly Modern Festival in Saratoga Springs, New York as a Fellowship recipient.

Currently, Alaina is pursuing a Doctor of Musical Arts degree in Flute Performance at the University of North Texas where she serves as a Teaching Fellow. While at UNT, Alaina has been principal flute of the UNT Symphony Orchestra and Wind Symphony, and maintains a large private flute studio of all ages in the DFW region. Prior to UNT, she received her Master of Music degree from Bowling Green State University where she was a Graduate Teaching Assistant in flute, and a Bachelor of Music degree with a minor in Anthropology from Southern Illinois University Edwardsville. Alaina's teachers include Terri Sundberg, James Scott, Elizabeth McNutt, Conor Nelson, Shelly Monier, and Kristi Hammiel.

Melanie Clemmons is an artist interested in the effects of new media technology on society, culture and the environment. She makes videos, net art, installations and VR experiences.

Nicholas Cline makes music for voices, acoustic instruments, and by electroacoustic means. Deeply influenced by the natural world, my music draws on a broad range of subjects and experiences with the belief that music reveals, challenges, and shapes the listener's understanding of the world. Upcoming projects include collaborating with The Crossing in a performance and recording of my work, Watersheds, for 24 voices, tenor saxophone, and live electronics.

I have collaborated with and been commissioned by The Crossing, Spektral Quartet, International

Contemporary Ensemble, Ensemble VONK, Bienen Contemporary/Early Vocal Ensemble, Northwestern Contemporary Music Ensemble, Jeff Siegfried, Jena Gardner, Square Peg Round Hole, Stare at the Sun, Constellation Men's Ensemble, VOICES 21C, and F-Plus. I studied at Northwestern University, Indiana University, and Columbia College Chicago. I live in the Blue Ridge Mountains of North Carolina with my wife Mallory, son Gareth, and teach composition and music theory at Appalachian State University. www.nicholas-cline.com

Kittie Cooper is a composer, performer, and educator based in Charlottesville, Virginia. She makes art that incorporates feminism and explores the spectrum between silliness and seriousness. Her work has been called "highly original and wonderfully fun". She is interested in text and graphic scores, improvisation, and DIY electronic instruments. She has performed and presented at a variety of festivals and conferences across the United States, and performs locally in Charlottesville as a guitarist, electronic musician, and improviser.

Kittie's music has been commissioned and performed by International Contemporary Ensemble (ICE), Ensemble Dal Niente, Splinter Reeds, Popebama, and Ghost Ensemble. She serves as Director of Composers Forums and Faculty for The Walden School, and also as a teaching artist for MIMA, a Charlottesville-based organization that provides collaborative songwriting workshops for young

people. She holds a BM from Northwestern University in music education and guitar performance, and an MEd in special education from George Mason University. In her spare time, she enjoys taking care of the stray cats in her neighborhood.

Rob Cosgrove is a percussionist, composer, and artist with a practice focused on experimental music and sound. Internationally exhibited and performed from Fridman Gallery to Carnegie Hall, his recent work focuses on novel uses of amplification, feedback systems, and complex textural strata. Rob is currently a doctoral candidate at SUNY Stony Brook in New York.

Ayla Cosnett is a Baltimore-based electroacoustic composer, currently studying under McGregor Boyle at the Peabody Institute. Her work centers on the use of analog electronics, feedback systems, and a measured balance of composition and improvisation, and reflects on themes of gender identity, the relationships of humans and their geographic environment, esotericism, and the queer experience.

Francisco Corthey was born in 1991 in Entre Ríos, Argentina. Since early childhood, the contact with music was very strong, participating in many different musical projects, especially popular Argentine music. At the age of 18 he moved to La Plata, Buenos Aires where he completed the degree in Music Composition and Orchestral Conducting. By that time, he was a member of the Teatro Argentino

Chamber Orchestra as a violinist. As a composer, he participated in several different conferences and festivals such as TACEC Generation (Argentina), with Simon Steen Andersen, Trio Catch and cellist Séverine Ballon, and, CEME Festival (Israel) with Mauro Lanza and Meitar Ensemble. Currently, he is finishing his Master's degree in Composition at Georgia Southern University under the guidance of Martin Gendelman.

A native of Colorado, violist and violinist **Kathleen Crabtree** is pursuing a Doctor of Musical Arts at the University of North Texas. She previously attended the Cleveland Institute of Music (MM) and the Eastman School of Music (BM). At Eastman, she won the concerto competition and a subsequent solo performance at the 2012 International Viola Congress. She has spent summers at Meadowmount, the Quartet Program, Chautauqua, and Colorado College. She is a founding member of the Denton, TX-based contemporary music ensemble Nu Atmospheres and the violinist for DFW Christian metal band Drive Thru Society. Before the pandemic, she performed with the Eagles, Josh Groban, Michael Bublé, and Trans Siberian Orchestra. Outside of music, Kathleen loves to ski and hike in the Colorado mountains with her violist husband Michael Moore.

John Crawford is a media artist, interactive performance director, technology developer and interaction designer. Intersecting software with digital media and theatrical performance, he uses

computers and video to create painterly animations and motion graphics closely integrated with dance. His projects explore embodied interaction, combining processed video and digital animation with motion capture, real-time motion tracking, image processing and telematic performance. He originated the Active Space concept in 1994 to describe his interactive performance systems that produce visuals and music in response to movement.

Autumn Culp is a composer, performer, improviser, and artist (sonic and otherwise) based in Oberlin, Ohio. She is also the co-owner/creative director of the industrial and electronic arts organization ____electronics. Recently she has worked primarily with tape loops, found objects, contact mic, synthesis, online found sound, and digital video. Much of her work focuses thematically on the internal conflicts inherent in the experience of womanhood and lesbianism, ecstatic religious experience, and the relationship of an individual to her body, the world, and faith under capitalism. Sonically, her process seeks to combine noise, industrial, and plunderphonics aesthetics with free improvisational and electroacoustic grammars. She is currently studying Technology in Music and Related Arts at the Oberlin Conservatory of Music in Oberlin, Ohio.

Currency Audio is an audio visual project started by Brooklyn based drummer and media artist Rajeev Maddela, focusing on the unique rhythmic phrasing found in bass-forward electronic music genres

such as jungle, drum and bass, UK garage, and dubstep. A generative improvisational performance using Ableton Live, Max/MSP and MIDI percussion triggers (Alternate Mode DrumKAT and Roland V-Drums), and by using Derivative TouchDesigner for realtime visuals, the project aims to explore the concepts found through mindfulness meditation in a technologically enhanced, expressive, and improvisational musical and visual environment. Currency Audio aims to highlight the quality of 'inspired spontaneity', facilitated by stimulating sound design and velocity-sensitive patch programming, resulting in spontaneous and dynamic performances.

Rajeev Maddela has been active as a drum set artist, electronic music composer, computer programmer, and rudimental percussion instructor in the New York City area since 2002. As drumset artist, he has performed with Jonathan Maron, Donny McCaslin, Karsh Kale, Anoushka Shankar, Tim Lefebvre, Max ZT (House of Waters), Chris Buono, and many others from the world and live electronic music scenes.

Under the producer name Maddela, he has released a host of singles and albums on labels such as Noisy Meditation (BM), High Chai Recordings (NY), and Reminiscence Audio (Serbia). His production work spans the genres of experimental drum and bass, future bass, and UK garage, with a focus on live performance elements and wide sonic palettes.

Rajeev holds a degree in Computer Science from

New York University. His career as a computer programmer spans nearly two decades, with expertise in enterprise level billing solutions, performance optimization, and generic design patterns. He is a dedicated music pedagogue, serving as an instructor at Msgr. Farrell High School's award winning Marching Percussion program since 1998. He continues in this role, specializing in developing students' technique, expression, and clarity.

Stay tuned for his forthcoming live performance EP titled 'Humanism' out on Exit Records UK this summer. [ig: currencyaudio]

Andrew Davis is a composer and electric guitarist from Boston, MA who has written for a variety of media both acoustic and electroacoustic. Davis' early experiences in music were in local concert bands where he played trombone and in rock bands where he played electric guitar. Fused with a strong background in popular music, his music seeks to explore a variety of different genres and musical aesthetics.

His works have been performed by groups such as the JACK Quartet, PRISM Quartet, Alarm Will Sound, Daedalus Quartet, the Argento Ensemble, loadbang, the Boston New Music Initiative, the Luna Nova Ensemble, the University of Texas Wind Ensemble, the Yale Concert Band, the Florida State Wind Ensemble, and the University of Texas New Music Ensemble. He has received honors from ASCAP, BMI,

The Lyra Society, and ISCM-Texas among others. Additionally, his music has been heard at a variety of festivals including the TUTTI Festival, RED NOTE Music Festival, Mizzou New Music International Composers Festival, New Music on the Point, and SEAMUS. He has held residencies at Atlantic Center for the Arts and ACRE.

He earned a B.A. in music from Yale University, an M.M. in composition from the University of Texas at Austin in 2012, a PhD in composition from the University of Pennsylvania in 2017, and M.S. in computer science from Stanford University in 2018. He currently teaches at Wellesley College.

As a double bassist and improviser, **Brad Decker** has been exploring the intersection of extended techniques, computer processing, and improvisation for over 15 years. In his practice, he explores the immediacy of expression through hands-on exploration of acoustic elements of the double bass and how they can be processed digitally to create an immersive, overarching sonic environment. Each project captures the essence of the moment, time and place, emotion, and life experience. These have been recorded in different capacities, and have led to a series of scored solo works for double bass and computer. He continues to perform as a double-bassist using structured improvisation and live computer processing in numerous capacities, namely solo works, group ensemble collaboration, video-art installations, and film soundtracks. Notable

performances have been in Mexico, Australia, Italy, France, Brazil, and Canada, as well as at numerous venues in the United States.

I'm **Xinglan Deng**, born September 19, 2000. I learned the piano when I was five, and started to learn composition when I was 12. I had studied in the middle school affiliate with Shanghai Conservatory of music and graduated in 2018. Now I'm a sophomore student in Jacobs school of music. In 2014, I participated in the New York Philharmonic International Works Exchange activity. The World Behind the Door won the third prize of the 4th "Golden Oriole Awakening Spring Dawn" National Composition Competition in 2016. In 2018, I received the winning prize in the Pudong Chuansha International Piano Art Festival, the Huangzi Cup Composition Competition with my work Bamboo. In 2018, my work 'Seven Glorification for the nature' won the first prize of 'YinZhong Cup' national composition competition for percussion music work.

Ryan Devens is a graduate student in the music technology program at Georgia Southern University. He programs plug-ins which can be found at <https://recluse-audio.com>

Dilate Ensemble are Carole Kim (S. California), Gloria Damijan (Vienna), Jon Raskin (N. California), Luisa Muhr (NY/Vienna), and Scott L. Miller (Minnesota). This audio-visual band explores virtual spaces. Seeking to find ways to still connect with other

performers during a pandemic, the members of Dilate Ensemble met while participating in the NowNet Arts Lab Ensemble led by Sarah Weaver. As a satellite to this ensemble we dove into an exploration of how we might be able to engage in audio/visual improvisation online. Kim has compressed her work in video installation to fit beneath her kitchen table. This intimate live “venue” provides an illusionistic physical space that readily accommodates a convergence of online live presence.

The ensemble collaboratively develops their work, which involves a shared visual element delivered over Zoom. They use Netty-McNetface to mix the audio in Scott’s studio, where he individually processed the various audio tracks in Kyma, which is then monitored by the ensemble in Netty. Scott uses Netty/Zoom/OBS to produce a live a-v work that is streamed to YouTube/Facebook/Zoom as preferred by the venue. By embracing the latent nature of telematic performance, the ensemble has developed an artistic practice that is idiomatic to the venue of networked audio-visual art.

Greg Dixon works as Assistant Professor of Music and Sound Design at DigiPen Institute of Technology in Redmond, WA, where he teaches courses in audio engineering, sound design, and music composition. Greg holds a Ph.D. in composition with a specialization in computer music from the University of North Texas, where he worked at

the Center for Experimental Music and Intermedia (CEMI). His music has been released on labels such as Kohlenstoff Records, SEAMUS, Irritable Hedgehog, New Adventures in Sound Art, Vox Novus, Pawlacz Perski, winds measure, Flannelgraph Records, and on his own label, noxious fumes.

Greg has worked extensively on interactive audio systems for video games, installations, concerts, and other forms of interactive media. He has helped create hundreds of published recordings spanning many genres as a performer and technician; including extensive work as a recording, mix, and mastering engineer. Greg currently works as a sound designer and composer for the collectible card game, Runestrike, by Making Fun Games and also helps to create interactive voice-driven soundscapes for popular children’s books with Novel Effect. Greg also contributed music composition and sound design to three DigiPen games: Subray VR, Suara, and Reprise.

Greg currently serves as the chair of the Pacific Northwest Section of the Audio Engineering Society (AES) and also as the chair of the Game Audio Education Summit for GameSoundCon.

Brian Do is a freelance clarinetist based in Dallas/Fort Worth. He is a clarinet instructor in Richardson School District where he teaches clarinet and coaches woodwind ensembles of all levels and backgrounds. In 2018, Brian joined the Artist-Faculty of Maryland Chamber Winds, a non-

profit organization that hosts the Maryland Wind Festival each summer to bring wind chamber music performances and educational workshops to the communities of Western Maryland. As a member of Maryland Chamber Winds, Brian actively commissions and performs newly composed works for chamber winds. In addition to serving Maryland Chamber Winds as a clarinetist and bass clarinetist, Brian is also the grants manager of the ensemble and has been awarded grants from numerous private and government foundations. Brian is currently pursuing a D.M.A. at the University of North Texas and has completed degrees from Michigan State University (M.M.) and Illinois State University (B.M.).

Alison Dobbins is a media designer focused on integrating elements of dance, media, music, medicine, theatre and computer science in performance. She is the project director and creator of Dance Engine and Shark!: interdisciplinary projects focused on exploring audience engagement in performance through the use of mobile applications. Recent performances took place at the Rose Wagner Performance Center, Salt Lake City (October 2019), Science Gallery, Detroit (June 2019) and Edinburgh Fringe Festival (August 2015). Her recent theatrical projection design work includes projection design for Mitch Albom’s Ernie and Hockey the Musical and world premieres at Williamston Theatre and Flint Repertory Theatre, where she is a resident associate artist. Alison is

an Associate Professor of Integrated Performance Media Design at Michigan State University.

Zach Duer is an Assistant Professor teaching in the Creative Technologies Program in the School of Visual Arts at Virginia Tech in Blacksburg, Virginia. His work lies at a series of intersections: sound and visualization; careful composition and improvised performance; intuitive musical spontaneity and structured digital systems.

duo B. vs. viDEO sAVant is an intermedia trio featuring live processed video by veteran media artist Charles Woodman (viDEO sAVant) and live acoustic music by the improvising percussion and acoustic bass duo of duo B. (Jason Levis and Lisa Mezzacappa). Based in the San Francisco Bay Area, duo B. vs. video sAVant creates revelatory moments where the distinction between music and video, sound and image melt away and a new whole emerges from the flow between individuals and media. The group's immersive performances explore layered audiovisual soundscapes, from frenetic juxtapositions to meditative fantasies. Moods shift from contemplative to chaotic, with slowly evolving visual and sonic narratives collapsing into psychedelic colorplay fueled by dynamic and electrifying ensemble interaction. The result is a live soundtrack to a film created in the moment—in front of a live audience, in response to a specific time, place and physical space.

DuoBunch is an ensemble co-directed by flutist Robin Meiksins, TJ Milne, and Ralph Lewis. It is comprised of people from around the United States and Ireland interested in performing DuoTube, MoxTube, and upcoming YouTube instrument works in this series. Members include percussionist Mike Minarcek, singer Liz Cochran, computer programmer Chris Cochran, hornist Anna Marshall, composers Benjamin Koller, Han Hitchen, Dave O Mahony, Joshua Mallard, P.R. Martin, Daniel McKemie, David Nguyen, and Eric Zurbin, and saxophonist/composer Nick Ortiz.

In his music and research, **Rodney DuPlessis** explores the intersections and boundaries of music, science, human-computer interaction, and novel synthesis techniques, among others. The sonic results are often equal parts visceral and cerebral, drawing inspiration from his background as a progressive metal vocalist/guitarist as much as from mathematics and science. In response to DuPlessis' music, one person said, "I thought I was dying, but then I realized it was just sound."

DuPlessis' has earned international recognition for his works, including prizes such as, among others, the Destellos International Competition 2020 (honorable mention), the Dorothy and Sherrill C. Corwin Award for Excellence in Composition (1st prize - Percussion, 2nd prize - Electroacoustic), and the 2020 SEAMUS/ASCAP award (finalist). He has collaborated with new music luminaries such as Los Angeles Percussion

Quartet, Formalist Quartet, Hocket, Henrique Portovedo, and Scott Worthington. His music has been performed in North America, Europe, Korea and in the middle of the Caribbean Sea.

As a programmer, DuPlessis is interested in preservation and reincarnation of preexisting software as well as the creation of innovative software that expands the creative toolbox for artists. He works most often in C++, Python, and Pure Data. In 2020, Duplessis, Curtis Roads, and Jack Kilgore released EmissionControl2, an interactive real-time application for granular synthesis and sound file granulation. Currently, he is developing software that facilitates his novel spectral processing methods as well as a signal generator based on the linear dynamics of a coupled oscillator network.

DuPlessis is also dedicated to presenting new music as a concert organizer, producer, and live electronics performer. In 2018 he was Director of the UCSB Summer Music Festival: a 2-day festival celebrating new music and diversity. As Technical Coordinator at the Center for Research in Electronic Art Technology (CREATE) from 2017-2020, he managed three electronic music studios and worked with Curtis Roads to present concerts and talks related to computer music.

DuPlessis' teachers have included Curtis Roads, Clarence Barlow, João Pedro Oliveira, and Martin Kutnowski. He completed his BA in Music and

Psychology at St. Thomas University (Canada) in 2013, his MA in Composition at UC Santa Barbara in 2019, and has attended the Chigiana Summer Academy (Alvise Vidolin, Nicola Bernardini), the Musiques & Recherches Summer Academy (Annette Vande Gorne), and the Bogong Centre for Sound Culture Field Recording Masterclass (Douglas Quin, Philip Samartzis). He is currently simultaneously finishing a PhD in Composition and a Master of Science in Media Arts & Technology at UC Santa Barbara.

Mark Eden — I have composed fixed media works for over 17 years. I have been fortunate to have had them played on four continents, featured in multiple venues ranging from a gallery in Tehran to recordings, public radio stations and prominent electroacoustic festivals and conferences nationally and internationally.

Dr. **Daniel Edwards** is a performer, educator, and advocate for the percussive arts. He is currently an adjunct faculty member at Brigham Young University-Hawaii, where he teaches classes in music theory, history, and world music cultures. Prior to his current position, he was a drummer for the Polynesian Cultural Center and performed with groups such as the Missouri Symphony, the Columbia Civic Orchestra, and various steel bands, salsa bands, community bands, and more. He also directed I-Pan, a steel band based at the University of Illinois at Urbana-Champaign, and co-directed the University

of Illinois Percussion Ensemble and the University of Missouri Steel Band.

His interests in contemporary steel pan music has led him to commission new solos for lead pan by composers José Martinez, Kyle Shaw, Daniel Bradshaw, and Akemi Naito. He has presented these commissions and other new music for steel pan in several concerts, recitals, and master classes across the United States. He has received awards such as a grant from the city of Urbana, Illinois, and the Barlow Endowment for Music composition prize with composer Kyle Shaw.

Dr. Edwards has degrees from the University of Illinois at Urbana-Champaign, the University of Missouri, and Brigham Young University-Hawaii. He is a member of the Percussive Arts Society and the American Federation of Musicians.

The Einstein Collective is made up of artists and scientists that include: Sara Mast, lead visual artist; Jessica Jellison, architect; Christopher O’Leary, animator and visual artist; Cindy Stillwell, filmmaker; Jason Bolte, composer/sound artist; Charles Kankelborg, solar physicist; Nico Yunes, astrophysicist; Joey Shapiro Key, astrophysicist.

Brooklyn based Soprano **Anna Elder**’s voice has been described as being, “ethereal” or “a voice that has blues, reds and purples in it” by The New York Times or “a voice that could match, pitch for

pitch, the grumble of a truck’s engine or squeak of a scooter’s horn.” —Wilmington Star News. She performs new music with her ensembles Kamrat n and wolfTrap. Most recently, Anna presented a voice and electronic set with Chicago’s Experimental Sound Studio as part of their Quarantine Concerts. She was a featured artist at The Tanglewood Music Center, where she sang Andrew Hamilton’s “Music for People Who Like Art” with The New Fromm Players for Tanglewood’s Festival of Contemporary Music. Other engagements have included performing with New Music Detroit and appearing as a guest vocalist with Quince Ensemble. She has appeared on Music on the Edge’s Beyond Microtonal Music Festival, The Pittsburgh Festival of New Music, and The Cleveland Uncommon Sound Project’s Re:Sound festival.

Stewart Engart (b. 1991, he/him) is a Southern California based composer, performer, sound artist, and creative coder working in the fields of experimental electronic music, audiovisual installation, and innovative chamber music. His work explores computer-assisted musical form and gesture, as well as experimental synthesis techniques.

Stewart is currently a PhD Candidate at University of California, Santa Barbara.

Noa Even is a versatile saxophonist whose work as a performer and educator is dedicated to the arts of today. In addition to creating new music through commissioning and close collaboration with living

composers, she interprets traditional concert music and improvises.

Noa is Lecturer and Head of Woodwinds at Rowan University. She was on faculty at Kent State University from 2013-2020 and has served as sabbatical replacement at the University of Oregon. She holds a DMA in contemporary music from Bowling Green State University, a master's degree in performance from the University of Illinois at Urbana-Champaign, and a bachelor's in performance and music education from Northwestern University. Additional studies include the Conservatoire à Rayonnement Régional de Boulogne-Billancourt, where she studied with Jean-Michel Goury. Her other primary instructors include John Sampen, Debra Richtmeyer, and Fred Hemke.

Arian Bagheri Pour Fallah is a poet, ethnographer and composer. He founded in 2011 and since 2013 has co-led, with Ashkan Zareie, The Blunder of a Horse, an acousmatic ensemble with recording sites ranging from Palau to Strasbourg. Arian's past and forthcoming works, including columns, reviews, portrait records, journal and conference papers, appear in All About Jazz, Organised Sound, Computer Music Journal, De trop, Goldsmiths, University of London, The Society for Musicology in Ireland (SMI), among others. He has produced over thirty original creative works varying from modular compositions to traditional fixed media and movements for stringed instruments and

aerophones. For his research and artistic work, Arian has been awarded scholarships, among others, by Queen's University Belfast, University of Porto, NRW Stiftung "Natur Heimat Kultur", the Ministry for Culture and Science of the federal state of North Rhine Westphalia.

Since the fall of 1991, **Matt Fallin** has taught applied percussion at Georgia Southern University. He received the Doctor of Musical Arts Degree in Percussion Performance from the University of Miami in Florida, having received the Master of Arts Degree in Music Education from Louisiana Tech University, and the Bachelor of Music Degree in Music Education from Georgia Southern College. In addition to teaching applied studio and class percussion, Dr. Fallin also conducts the University Percussion Ensemble. From 1991-2010, Dr. Fallin served as Director of the Georgia Southern University Southern Pride Marching Band and Hoop Troop Basketball Pep-Band. Currently, he performs regularly with orchestras in the Savannah and Hilton Head area, including the Hilton Head Symphony Orchestra, Savannah Philharmonic, and Hilton Head Choral Society. Other performance opportunities include freelance appearances on drum set and hand percussion with a variety of local groups. Dr. Fallin is endorsed by The Vic Firth stick and mallet company, as well as the Jupiter/Mapex/Majestic instrument company.

Alex Ferre is a graduate student in the composition

program at Georgia Southern University.

Jon Fielder — I'm a composer of electroacoustic and acoustic music, all of which shows a strong interest in timbre, texture, spatialization and narrative. My music is often inspired by my love of natural landscapes, various topics of science and mathematics, the human voice (spoken, sung or just noise), and literature, all of which is filtered through my own personal life experiences. Other interests include cognitive and experiential elements of music in terms of composing, performing and listening, specifically as they relate to perception of time and memory. My preoccupation with time is the result of self-discovery and awareness of my own mental health/illness, and a greater awareness of my own mental processes. My goal is to translate that temporal cognizance into notated instructions for the performer and a sonic experience for the listener. Above all, my music is primarily driven by my obsession with sound itself. I've always been intrigued by the nature and physics of sound, the morphology of limited sonic materials over long stretches of time, and the sonic possibilities of all sounds, musical or otherwise.

Eli Fieldsteel, serving as Director of the University of Illinois Experimental Music Studios since 2016, is a composer specializing in music technology with a diverse history of cross-disciplinary collaboration. He is the recipient of the 2018-19 Klingler Electro-Acoustic Residency at Bowling Green State University, the 2014 James E. Croft Grant for Young

and Emerging Wind Band Composers, first prize in the 2012 ASCAP/SEAMUS Student Commission Competition, as well as awards and recognition from other organizations, including the Bandmasters Academic Society of Japan and the Frank Ticheli Competition. His music has been performed nationally and internationally by ensembles such as the Dallas Wind Symphony, the North Texas Symphony Orchestra, the Kawagoe Sohwa Wind Ensemble of Tokyo, and the University of North Carolina Chapel Hill Wind Ensemble. His music is published under Lovebird Music, and has been recorded on the SEAMUS and Aerocade Music record labels. Eli's music and research engages with the intersection between music technology, instrument design, and performance, focusing on topics such as human-computer improvisation, interactivity, and sensor-driven music. Utilizing new technologies and real-time environments, his works are highly gestural, expressive, and richly detailed. As an active collaborator, he has worked closely with dancers, choreographers, lighting designers, architects, and video artists, resulting in a variety of unique and site-specific installations and performances. He is fluent in several contemporary music programming languages, and maintains an active teaching presence online through a well-trafficked series of SuperCollider tutorials.

Daniel Fishkin's ears are ringing. Composer, sound artist, and instrument builder. Completely

ambivalent about music. Daniel studied with composer Maryanne Amacher and with multi-instrumentalist Mark Stewart. He has performed as a soloist on modular synthesizer with the American Symphony Orchestra, developed sound installations in abandoned concert halls, and played innumerable basement punk shows. Daniel's lifework investigating the aesthetics of hearing damage has received international press (Nature Journal, 2014); as an ally in the search for a cure, he has been awarded the title of "tinnitus ambassador" by the Deutsche Tinnitus-Stiftung. Recent activities include Composing the Tinnitus Suites: 2016, a concert series about hearing damage, taking place in Philadelphia, PA, supported by a Project Grant from The Pew Center for Arts & Heritage. Daniel received his MA in Music Composition from Wesleyan University, has taught analog synthesis at Bard College. He is currently a PhD Fellow in Composition and Computer Music at the University of Virginia.

Elizabeth Fleissner is a freelance oboist and teacher currently located in North Texas. Her contemporary performance history includes premiering works at the Midwest Composers Symposium, winning the 2018 UNT Innovative Programming Competition, and commissioning works for various chamber and solo appearances. Fleissner has performed with the Waterloo/Cedar Falls Symphony Orchestra, the Southeast Iowa Symphony, the Lone Star Wind Orchestra, and the Amarillo Symphony. Ms. Fleissner

holds a B.M. from the University of Georgia and an M.A. from the University of Iowa. She is currently working towards her D.M.A. at the University of North Texas where she is an active member of the NOVA ensemble.

West Fox is a composer, percussionist and music educator based in the greater Dallas/Fort Worth and Austin areas. West is a master's composition student at the University of North Texas, and has studied with Panayiotis Kokoras, Andrew May, Kirsten Broberg, Joseph Klein, Mark Ford, and Christopher Deane.

Marjani Forte is a Mother, choreographer, performer, and community organizer. She is a 2020 recipient of the Foundation of Contemporary Arts Grants for Artists Award and an inaugural fellow of the UBW Choreographic Center, the Jerome Artist Fellowship, and the DanceUSA Fellowship. Marjani is a 2x Princess Grace Foundation awardee and a 3x Bessie Award winner for her latest work *Memoirs of a...* Unicorn and as part of *Skeleton Architecture*. Unicorn recently had its international premiere in Brussels, Belgium at the Beursschouwburg Festival, and will travel this fall to Berlin, Germany. Marjani collaborates with husband and composer Everett Asis Saunders as 7NMS|. Their new work, *PROPHET*, exploring the journey of Hip Hop's infamous Lyricist, will premiere at Abrons Arts Center 2021-22, and is a recent awardee of the MAP Fund 2020 and New Music USA. 7NMS| are also founding directors of the emerging platform ART & POWER. Humbly, she defines her

work by its lineage stemming from culturally rich, vibrant, historic, loving, irreverent conjurers!

Human as an artist, inventor, magician, curator, teacher — **Omar Fraire**'s work is inserted into reality by transducing it, and functions as an act of resistance. Fraire enjoys collaborative work, and his energies oscillate across disciplines. After having deserted from two universities in México, Fraire has gone on to specialize in Sonology (Koninklijk Conservatorium - Holland) and holds a Master's degree in Contemporary Art as auditor (Aguascalientes). He is the creator of Punto Ciego Festival, and artist of the Guggenheim Aguascalientes. Fraire is mostly self-taught, though he holds an M.A. from Wesleyan, having studied under R. Kuivila, and is currently a Ph.D. candidate at UVA.

Miles Jefferson Friday is currently pursuing a DMA in music composition at Cornell University where he studies primarily with Marianthi Papalexandri-Alexandri and Kevin Ernste. Miles holds a MA in composition from the Eastman School of Music where he studied with Oliver Schneller and conducted his graduate research under Robert D. Morris and also holds a BM from the Indiana University, Jacobs School of Music.

Miles has won awards and honors including the ASCAP Morton Gould Young Composer Award, the Wayne Brewster Barlow Prize, the Kuttner String

Quartet Composition Competition, and the Robert Avalon Young Composer Competition. Miles has also spent additional time studying at festivals such as IRCAM's Manifeste Academie, the Grafenegg (Ink Still Wet) Festival, June in Buffalo, the Splice Institute, and the Red Note Music Festival. In 2019 Miles was a guest artist at the Thailand New Music and Arts Symposium and in 2017 had a sound installation premiered at the SinusTon Festival. Miles has worked with and had his music played by prominent ensembles such as Ensemble Intercontemporain, International Contemporary Ensemble (ICE), Dal Niente, TAK ensemble, the Momenta String Quartet, the Fifth House Ensemble, and many others.

Aleksander Gabryś – Double-bassist, Performer, Composer, Prizewinner of Composers and Interpretation Competitions, works as a soloist for Orchestras and Chamber Music Ensembles like Klangforum Wien, Ensemble Modern, pre-art soloists, Collegium Novum Zürich, Österreichisches Ensemble für Neue Musik, Ensemble Aventure, X-Quartett, Ensemble Tzara, ox&öl or MW2. He has been a core member of the Ensemble Phoenix Basel since 2001. He performed in e.g. New York, Moscow, Buenos Aires, São Paulo, Cape Town, Montevideo, Tbilisi, Warsaw, Erevan, Zürich and many times at Festivals like La Biennale di Venezia, Maerzmusik and Ultraschall in Berlin or Wien Modern. Many Composers (i.e. Douglas McCausland, Piotr Radko, Edward Bogusławski, Jevgenij Iršai, Ryszard

Klisowski, Thomas Kessler, Ryszard Gabryś, Krzysztof Knittel, Junghae Lee, Michel Roth, Nicolas Tzortzis, Aram Hovhanissyan, Thomas Wally, Emre Sihan Kaleli, Zbigniew Karkowski, Andrew Leslie Hooker, John Duncan, Davor Branimir Vincze, Erik Ulman, Chris Lortie or Hassan Estakhrian) have written their double-bass pieces for him.

Gabryś' artistic Oeuvre includes solo works for double-bass, chamber music as well as computer music of the neo-expressionistic avant-garde with the tendency for paratheatrical forms. He experiments with the idea of permeation of arts. Dense concentration of expressivity is particularly palpable in his solo performances, conceived in the convention of one actor's theatre.

David Gedosh — Dave is a composer, guitarist, and audio engineer. His music reflects an interest in aperspectivity, physicality, gesture, soundmass, sound image, and place, and has been performed throughout North America and Europe, and in Latin America. His music has been released on the SEAMUS label and has received awards from Ars Electronica Forum Wallis, ASCAP, Bourges IMEB, Fresh Minds Festival, and Greater Denton Arts Council.

Garrison Gerard (b.1994) is an American composer of electroacoustic and concert music. Characterized by dramatic gestures and moments of arresting luminosity, his music is an exploration through

intimate sound worlds. His work builds on multiple traditions spanning from modern to classical. His music has been presented internationally with performances by groups such as [Mod] ular Ensemble, Fort Worth Symphony, and Nu Atmospheres Ensemble. An ardent collaborator, he has been commissioned by ensembles and soloists such as Andrew Cook, Spencer Byrd, the Avenue C Project, Atelier Piano Quartet, and Amorsima String Trio. In 2020 Gerard served as Artist-in-Residence of Padre Island National Seashore.

In addition to composition, Gerard is a conductor, pianist, trumpeter, improviser, and avid advocate for new music. He is a founding member of the Nu Atmospheres Ensemble and conducts the NOVA New Music Ensemble at the University of North Texas. Gerard completed his Masters degree in Music Composition from the University of North Texas and received a Bachelors in Piano from Harding University in Searcy, Arkansas. He is currently a PhD candidate at the University of North Texas in Denton, where he serves as a composition teaching fellow.

John Gibson composes acoustic and electroacoustic music that has been performed worldwide and is available on the Centaur, Everglade, Innova, and SEAMUS labels. He seeks to complement and extend the musical inflections of performers with electronic sound, sometimes generated in real time by the software he develops. His music embraces influences ranging from contemporary classical to jazz, funk,

and electronica. He has received significant awards from the Guggenheim Foundation, the American Academy and Institute of Arts and Letters, IMEB Bourges, the Tanglewood Music Center, and the Camargo Foundation. He teaches at the Indiana University Jacobs School of Music.

Rachel Gibson is a percussionist and music technologist from Tower City, Pennsylvania. She is currently attending the University of Virginia to pursue a Ph.D. in Music Composition and Computer Technologies. Rachel studied percussion with Michael Rosen and Bob Nowak and computer music with Aurie Hsu and Abby Aresty. She completed additional computer music studies with Edgar Berdahl and Stephen Beck. While at Oberlin, Rachel performed extensively in various orchestral and contemporary music ensembles, and was the recipient of several music awards. She earned her Bachelor of Music degree at Oberlin Conservatory of Music in Percussion Performance and Technology in Music and Related Arts (TIMARA).

Kakia Gkoudina — see **Alecto**

Avant-Garde Musician, Technologist & Theorist, **Manjunan Gnanaratnam** work's as an Interdisciplinary Artist within all contexts of Modern, Post Modern, Contemporary Concert and Experimental Dance.

With 13 evening length works, over 70 individual compositions and multiple experimental sessions

for/with Dance/Choreographers now spanning 35+ years, he has been referenced in “Making Music for Modern Dance: Collaboration in the Formative Years of a New American Art”, published in Movement Research’s Critical Correspondence, presented papers at Conferences, including on his research for forthcoming book, “Modern Dance [Western Movement Vocabulary]: The catalyst for deviation and extension in Post Structural Sound, Choreoperiodicity, Optimum Creative Dialog and the Dunnist Period in Music” and served on numerous panels on Dance and Music, which include “100 years of Sound and Choreography: The Evolution and Praxis of a Collaborative Art Form” for the SPARK Festival of Electronic Music and Art, “Music and Dance” for the National Association of Schools of Dance [NASD] and many others.

His current practice includes explorations in “The Kinesthetic Body: Physical Computing Methodologies and Multidisciplinary identities in Dance”, which are based on his initial work at the Computer Music Labs at the Department of Dance, State University of New York at Brockport in the early 90’s while a Faculty Musician there, and “Redefining the Moved Space: A Comprehensive Analysis of Dance and Music” at The Barker Center for Dance, University of Minnesota, Minneapolis in 2003/4 while a Composer/ Staff Musician there, leading to outcomes on The Optimum Creative Dialog Phenomenon in Dance and Music during live interactions; The Depth

of Engagement Value during Dance and Music Interactions; The Contemporary Dance Instrument: The 21st Century Kinesthetic Body- A symbiosis of Organic Processing Units & Electronic Processing Units; The development of The Open Source Dance Methodology; The development of the APTAR process; The Inner Workings of 21 Century Dance and Music- Beyond the Situational Constructs of 20th Century Collaborations etc etc

Only inspired by Complex Human Movement Structures, he is a product of the extensive multidisciplinary developments in Modern & Post Modern Dance in the 20th Century, and is now considered one of the foremost thinkers on the relationship between Western Music and Modern/ Post Modern/Contemporary Concert Dance, and a pioneering South Asian Artist for this work, now spanning 35+ years.

Conceived, born and raised in Sri Lanka by Tamil parents, he arrived in New York in 1983 as a University student, and, having inadvertently participated in the global migratory pattern known as the “Third World Brain Drain”, he has now lived, worked and paid taxes(✓) in the United States since then. His Erdos number is 7639517.

Andrew Grabowska is an American sound designer and composer for film and video games. Andrew crafts evocative soundscapes to synergize with the story and mood of visual media. His musical style

ranges from delicate piano to cacophonous synths to melodic strings and triumphant brass.

In 2016, Andrew graduated with an Interdisciplinary Studies degree in Music, Music Industry, and Film at Minnesota State University, Mankato. In 2017 he spent six months studying Video Game Design at HAN University, in Arnhem, The Netherlands, where he worked as the Sound Team Lead, sound designer, and composer for the game Ta’Va: Trials of the Sun God. He is currently pursuing a masters degree in Music Technology at Georgia Southern University.

Cathleen Grado's work is conceptually focused on recreating impressions of environment, memory and sense of place. She incorporates field recordings into compositions that are presented as sound installations in physical or virtual spaces. The majority of her pieces are intended for presentation in real-time. Sonic configurations are numerous but in practice, they are not duplicated to be played again in exactly the same way. She uses presentation opportunities for duration performances that involve repetition and degradation of sound quality or sound source identification.

With an eclectic background combining studio arts and computer science, **Ira Greenberg** has been a painter, 2D and 3D animator, print designer, web and interactive designer/developer, programmer, art director, creative director, managing director, art and computer science professor and author.

Born in Istanbul, Turkey, **Eren Gümrükçüoğlu** is a composer of acoustic/electroacoustic music, a professional guitarist, a music technologist, and an educator.

Eren holds a PhD in music composition from Duke University where he currently teaches electronic music composition. His doctoral research has focused on the dynamics of interaction between electronics and live instruments, generative systems, the utilization of non-western elements in concert music, jazz improvisation, and genre divisions with an emphasis on listening practices. Performers of his music include Quince Ensemble, Semiosis Quartet, Ensemble Suono Giallo, JACK Quartet, New York Polyphony, Mivos Quartet, Conrad Tao, Reuben de Lautour, Ulrich Mertin, Deviant Septet, yMusic Ensemble, Naked Drum Project, UNC Wind Ensemble, Istanbul State Symphony Orchestra, Metropole Orkest and many more.

Eren's music dwells at the intersection of diverse musical styles. As a concert music composer with a strong jazz background, he refrains from creating a crass amalgam of genres but rather incorporates the idiosyncrasies, contours, shapes, rhythms and paces of different styles into his music. His compositions evoke the sense of spontaneity and elasticity that are central to musical development in jazz, while at the same time maintaining a rigorous approach to managing musical form and texture that is typical of much contemporary concert music. As

he attempts to upend norms and provide context for diffusion of cultural barriers, Eren combines elements of Turkish folk music with the hallmarks of high-modernist concert music as well as utilizing culturally or politically charged materials to transform their meaning and broaden the scope of discussion that surrounds them.

His scores are published by Babel Scores in Paris.

Yingjia (Lemon) Guo — see **Southeast of Rain** 东南有雨

Nathaniel Haering is deeply interested in the use of live electronics to expand the artistic capabilities of traditional instruments and augment their timbral horizons while enriching their expressive and improvisational possibilities. This perspective is also highly influential and represented in the gestural power and extended sound worlds of his purely acoustic work. He has collaborated with and had works performed by Grammy Award-winning Vietnamese performer and composer Vân Anh Võ, Trio Accanto, Ensemble Mise-En, Mivos Quartet, and members of WasteLAnd, Ensemble Ipse, Ensemble Dal Niente, and the LA Phil. Winner of the 2019 ASCAP/SEAMUS Student Award, the 2019 PRIX CIME Residency Prize, the OSSIA New Music International Call for Scores, and the Mixed Media Award of Distinction from MA/IN festival in Matera, Italy, Nathaniel's work can also be found on Volume 27 and 29 of Music from SEAMUS, flux, vol.

33, and other publications. His pieces have recently been featured at the International Computer Music Conference in Shanghai, China, Seoul, South Korea, and NYC, the Toronto International Electroacoustic Symposium in Toronto, Canada, Noisefloor Festival at Staffordshire University UK, VIPA in Valencia, Spain, WOCMAT in HsinChu City, Taiwan, SEAMUS 2019 Conference at the Boston Conservatory at Berklee, and numerous other international venues. Nathaniel is currently pursuing a PhD in Music Composition at the University of California San Diego.

Kerry Hagan — see **the Higgs whatever**

Jack Hamill biobiobiobiobooiopipbiiobiobii ;:::; :::::_____+_____what is msot..iuh,, distlCNtive about jacks' Work as ANb Artist Is that nWHst I realky SWnat OYu do TOY DFOi with my Aary work is thTlnk abuit.. Tmhmmmm....nooo.... yea..w Soemtimes....Isitne..... lookgi I relly just string together some **THE FETISHIZATION OF EFFICIENCY, PURITY AND POLISH IS A STRUCTURALCHARACTERISTIC OF RIGIDLY HIERARCHICAL SYSTEMS OF POWER** ™*** thing about, alright alright, i've done...uhk ,,,,,,,,,,,,,, ""installations"" ""*(have u done an installation>?) afkldjaY well u have done something like myself at some pt when u...think i rly like going outside and listening to the sounds of frogs.....imagine ... **STATE-IMPOSED CONVENTIONS OF LANGUAGE FUNCTIONALIZE COMMUNICATIVE EXPRESSION™ TOWARDS PRODUCTIVE CLARITY**....nothing is really serious, everything comes together, you can listen to my music upside down,

speed it up, slow it down, put it in your toaster, wear it on top of your back like a dung beetle and fly around the hungry night sky searching for truth but you'll never find it because it has no smell ----- ok BIO: 1. "his work has employed a heterogeneous variety of aesthetic mediums, including light fixtures, vinyl records, a dysfunctional analog synthesizer, a computer kept at 5% battery, Disklaviers and acoustic ensembles" 2. "his work has been accepted into festivals including Delian, soundSCAPE, Cortona Sessions, highSCORE and SEAMUS" 3. he has been described by his teachers as a post-post-postmodernist, an ungrateful little shit and afraid to be pretty

Akiko Hatakeyama is a composer/performer of electroacoustic music and intermedia. Her music focuses on realizing relationships between the body and mind into intermedia composition, often in conjunction with building customized instruments and interfaces. Akiko's compositions and performances bridge boundaries between written music, improvisation, electronics, real-time computer-based interactivity, and visual media. In her compositions and performances, she interacts with sound, light, and haptic objects, making the dialogue between her inner self and environment perceivable. Akiko's experience of embodied time, including memories, emotions, and personal experiences, is communicated nonverbally to the audience. As a result, her compositions and performances carry

therapeutic effects for her, and Akiko aims to convey that to the audience in her performances.

Akiko obtained her B.A. in music from Mills College, M.A. in Experimental Music/Composition at Wesleyan University, and Ph.D. at Brown University. She is currently an assistant professor at the University of Oregon.

Scotty Hardwig is a movement-based creator and queer artist whose work investigates the spaces between the human and the technological, the real and the digital, the body and the environment, and the anatomical/evolutionary and the social. He is an active maker of contemporary works for stage and screen, and an educator teaching courses in movement, performance and integrated media at Virginia Tech.

Lauren Hayes (she/her) is a Scottish musician and sound artist who builds hybrid analogue/digital instruments and unpredictable performance systems. As an improviser, her music has been described as ‘voracious’ and ‘exhilarating’. Her research explores embodied music cognition, enactive approaches to digital instrument design, and haptic technologies. She is currently Assistant Professor of Sound Studies within the School of Arts, Media and Engineering at Arizona State University where she leads PARIESA (Practice and Research in Enactive Sonic Art). She is Director-At-Large of the International Computer Music Association and is a member of the New BBC

Radiophonic Workshop.
www.pariesa.com

Jeff Herriott (UW-Whitewater) is a composer whose music focuses on sounds that gently shift and bend at the edges of perception, featuring interaction between live performers and electronic sounds.

the Higgs whatever — Long-time friends, **Miller Puckette** and **Kerry Hagan** began focused collaborations on academic and musical projects in 2014. Together their duo has performed in North America and Europe. They have introduced novel synthesis algorithms through new performances. Their work explores timbre, spatialization, real-time computer processes, algorithms, interaction design, performance practice, and performance systems.

Holland Hopson is a sound and media artist, composer and improviser. A multi- instrumentalist, he usually performs on clawhammer banjo and electronics. Holland often augments his instruments with custom-designed sensor interfaces and performs with his own highly responsive, interactive computer programs. Holland has performed in Australia, Europe and North America along with notable experimental and outsider musicians such as Macarthur Genius Award winners Anthony Braxton and George Lewis, live electronics pioneer David Behrman, sonic meditator Pauline Oliveros, mutant- trumpeter Ben Neill, and others. Holland has held residencies at the Atlantic Center for the Arts,

Florida; The Hambidge Center, Georgia; LEMURPlex, Brooklyn; and Harvestworks Digital Media Arts, New York. Holland is Assistant Professor of Arts Entrepreneurship in New College at the University of Alabama and a Fellow of the Collaborative Arts Research Initiative (CARI).

Zachary Howarth is a graduate assistant, composer, teacher, and performer from Des Moines, IA. He is currently finishing up a M.M in Jazz Performance at the University of Nevada, Reno. Zach has been teaching and performing in the Reno area for two years. He has performed with the Reno Philharmonic, the Reno Jazz Syndicate, the University of Nevada, Reno’s Lab Bands, Wind Ensemble, Concert Winds, and Percussion Ensembles, the Des Moines Symphony, the Des Moines Metro Opera, and numerous ensembles and groups at the University of Iowa, University of Iowa State, Drake University, and Simpson College.

His works often include influences from minimalism, ambient, and multiple styles of jazz and improvisational music. He has written for solo electronic performance, prepared tape and vibraphone, prepared tape and drum set, and prepared tape and multiple percussion setups.

Hubert Howe was educated at Princeton University, where he studied with J. K. Randall, Godfrey Winham and Milton Babbitt. He was one of the first researchers in computer music, and Professor

of Music at Queens College, where he taught from 1967 until 2011. He also taught at the Juilliard School from 1974 to 1994. He is currently Director of the New York City Electroacoustic Music Festival and Executive Director of the New York Composers Circle. Recordings of his music have been released by Capstone Records, Ravello Records, Ablaze Records and Centaur Records.

Aurie Hsu is a performer-composer who creates instrumental and electroacoustic music, interactive systems, and collaborates with musical robots. Integrating music, movement, and technology, themes in Hsu's work include hybridized bodies between human and machines and "choreographing sound," or incorporating the embodied experience of performance in composition. Hsu performs with the Remote electroAcoustic Kinesthetic Sensing (RAKS) system, a wireless sensor interface for dance developed with composer Steven Kemper. Her pieces have been presented at NIME, ICMC, MOCO, Art Basel Miami, SEAMUS, SIGCHI, Ammerman Center for Arts and Technology, and internationally in Belgium, France, and The Netherlands. Her research on sonic-cyborg performance, gesture in sensor-based music, and mapping movement and timbre, has been published in Leonardo Music Journal and in several volumes of conference proceedings including the Special Interest Group on Computer-Human Interaction (SIGCHI), the International Workshop on Movement and Computing (MOCO), Ammerman

Center for Arts & Technology Symposium, and the International Computer Music Conference (ICMC). Hsu has received awards from the Ammerman Center for Arts and Technology Commission and the International Computer Music Association (ICMA). She appears on Oberlin Records and Ravello Records. Hsu holds degrees from the University of Virginia, Mills College, and Oberlin Conservatory, and is currently Assistant Professor of Computer Music and Digital Arts in TIMARA at the Oberlin Conservatory.

www.auriehsu.com

yaTande Whitney V. Hunter, PhD (he/him/his) is a Chicago-born and bred, artist/culture worker, committed to activating #cultureascatalyst. A BLACK SEED Native (art, activism, and community driven-apparatus) and new Philadelphia resident, his work centers around nurturing and cultivating individual and communal spirit through dance-performance, education and curation. yaTande's choreographic and performance art works have been presented through Kumble Theater, La Mama, Grace Exhibition Space, Panoply Performance Laboratory, Brooklyn International Performance Art Festival and in the streets of NYC, Chicago and Detroit. He has worked in performance with Martha Graham Dance Company, Rod Rodgers, Reggie Wilson, Martha Clarke, Fiona Templeton, Daria Faïn and Robert Kocik, John Jesurun, Kankouran West African Dance Company, Yass Hakoshima and others. He has also

directed performance collectives under Hunter Dance Theater and Whitney Hunter [Medium], was a Movement Research Artist in Residence (2013-15), a founding member/curator of Social Health Performance Club, and is currently co-creator of Denizen Arts with his life partner, theatre artist, Jude Sandy.

yaTande has been recipient of creation and exhibition commissions and grants from Providence Arts, Culture and Tourism; New York State Council for the Arts; Puffin Foundation; Harlem Stages; Thelma Hill Performing Arts Center; Brooklyn International Performance Art Festival; Lumen Festival and others. Recent actions and performances include *9Roads*; *Walk the (pink) Elephant*; *BIRTH RITE*; *OPEN PRACTICE*; *Body Count: Counting the Dead, #101* with Preach R Sun; *D.R.O.M.P.*, *Airing Dirty Laundry* with Andre M. Zachery; *1st American Shapist House...* and others.

yaTande has taught nationally and internationally at Performance Garage, Peridance Center, Deeply Rooted Dance Theatre, Harlem School of the Arts, The Ailey School, Dance Institute of Washington, Centro Nacional de Danza Contemporánea (MX), LaGuardia High School of Music & Art and Performing Arts, the Martha Graham School of Contemporary Dance, and as an Adjunct Professor at Long Island University. His academic degrees include: B.F.A in Theatre Arts/Dance (Howard University), M.F.A in New Media Arts and

Performance (Long Island University), and Ph.D. in Art Theory, Aesthetics and Philosophy (Institute for Doctoral Studies in the Visual Arts). yaTande currently serves as Assistant Professor of Dance and Coordinator of the African Diaspora Dance Series at Temple University.

Simon Hutchinson is a creator and teacher of music, audio, and things tangentially related. A voracious scholar of all aspects of music, his work synthesizes disparate ideas—European concert traditions and creative electronics; acoustic musical instruments and digital video games; East Asian folk and American jazz, rock and funk—and these combinations yield novel musical experiences, engaging with the relationships between technology and society.

Hutchinson holds a PhD in Composition with supporting coursework in Intermedia Music Technology from the University of Oregon, where he was named the Outstanding Graduate Scholar in Music. Hutchinson's studies in cross-cultural composition were supported by the Sasakawa Young Leaders Fellowship Fund (SYLFF), and his works are now performed across North America, Europe, and Asia.

Hutchinson teaches classes on a broad range of musical topics, including interactive media, composition, music technology, world music, and music theory. He has taught at the University of

Oregon, University of Montana, Gordon College, and he is currently Assistant Professor of Music Technology at the University of New Haven.

Nick Hwang (UW-Whitewater) is a composer and interactive artist whose research has involved networked performance and collaborative art-making.

Ryan Ingebritsen is a composer, sound designer, and live electronic performer whose work investigates the multi-dimensional aspect of sound to reveal the hidden nature of the universe in which we live. He studied composition at St. Olaf College and the University of Cincinnati with Richardo Zohn-Muldoon and Mara Helmuth, and spent a year on a Fulbright scholarship at the Akademia Muzyczna in Krakow, Poland studying electronic and interactive music with Marek Choloniewski and composition with Zbigniew Bujarski and Krzysztof Penderecki. His work uses spatialized sound systems as musical instruments, building virtual instruments that capture human kinetic movement and performance expression projected as sound in space and time. He has received awards and grants from New Music USA, CEC Artslink (NEA) The Illinois Arts Council, Illinois Humanities Festival, American Composers Forum, and the McKnight Foundation and has presented at the NATEAC and AES conferences as well as the TEI 2020 conference in Sydney Australia. He currently teaches music technology and the science of sound at the University of Illinois, Chicago and is pursuing

a PhD in Informatics at the University of Illinois at Urbana-Champaign.

Linda Jankowska (Poland/UK) is a musician whose artistic practice orbits around long-term collaborations and multifaceted modes of working with sound that stretch her limitations. Primarily a violinist, she works at an intersection of contemporary extended instrumental performance, sound art, improvisation and composition. She is also an active concert producer, contemporary performance researcher and educator. Linda is a founding member and co-artistic director of Distractfold Ensemble. Distractfold received the Kranichstein Music Prize for Interpretation from Internationales Musikinstitut Darmstadt in 2014. Together with Distractfold she held residencies at Harvard, Stanford and Columbia Universities. In 2017 she also curated and co-produced Cut & Splice Festival in collaboration with Sound and Music and BBC Radio 3. She performed internationally at festivals such as KLANG, rainy days, Kalv Festival, International Summer Courses Darmstadt, Le Bruit de la Musique, Nordic Music Days, Bludenzer Tage Zeitgemäßer Musik and at Kammer Klang (London) and Outer Ear (ESS Chicago) concert series, among others. She recorded for Kairos and Another Timbre. She has also performed in large-scale dance productions with Sadler's Wells, New Movement Collective and Nagelhus Schia Dance Company.

Praised for her diverse talents, bassoonist **Dana**

Jessen is in high demand as a soloist, chamber musician, improviser and new music specialist. Dana is the co-founder of Splinter Reeds, a San Francisco-based reed quintet, and has performed with the San Francisco Contemporary Music Players, Alarm Will Sound, Ensemble Dal Niente, Anthony Braxton's Tri-Centric Orchestra, S.E.M. Ensemble, Calefax Quintet, Rushes Ensemble, Pamela Z, Lucky Dragons, and the Amsterdam Contemporary Ensemble, among others. Her strong ambitions to explore free jazz and creative improvisation have led to performances throughout Europe, Canada, and the United States with such improvisers as Wilbert de Joode, Frank Gratkowski, Michael Vatcher, Joe Morris, Taylor Ho Bynum, Michael Moore, Mary Halvorson, Ab Baars, Anne La Berge, Erica Dicker, Fred Lonberg-Holm, Mike Reed and many others. Dana is currently the Director of Professional Development and Associate Professor of Contemporary Music and Improvisation at the Oberlin Conservatory of Music. She was the 2018 guest faculty artist at the SPLICE Institute, and taught for four summers at the Walden School Young Musicians Program where she can also be heard performing with the Walden School Players.

Maya Miro Johnson is a composer, performer, and interdisciplinary creator who considers her work philosophy not constrained to logic and reason.

Finalist in Beth Morrison Projects' 2021 Next Generation and recipient of both Schuman and Surinach Prizes in the 2020 BMI Awards, Maya made

her professional debut in 2019 with a commission from the SPCO.

Current projects include recordings with Inna Faliks and HOCKET; works for Zeitgeist, loadbang, violinist Johnny Gandelsman, and retuned piano artists B.K. Zervigon and J.T. Hassell; an installation with David Michalek and Norman Frisch via AOP's Helping Hands grant; and an artist residency at the Sarasota Music Festival.

Maya has studied at NYO-USA, Luna Composition Lab, BUTI, Fresh Inc Festival, soundSCAPE, Cabrillo, Miguel Harth-Bedoya's Conducting Institute, and Aspen's Conducting Academy.

She currently holds the Tureck Bach Research Institute Fellowship at the Curtis Institute of Music, studying with Richard Danielpour, Jennifer Higdon, Amy Beth Kirsten, and David Serkin Ludwig, and furthering her violin training in the CSO and with Juliette Kang, Associate Concertmaster of the Philadelphia Orchestra. Important mentors include Marin Alsop, Chaya Czernowin, Devin Maxwell, and Missy Mazzoli, among many others.

With Sarrah Bushara, she forms the performance art duo ~ [pronounced two].
mayamirojohnson.com
pronouncedtwo.com

The African American Museum of Philadelphia (AAMP) presented an afternoon performance of

the New York Dance and Performance | Bessie Award nominated work Plight Release and the Diasporic Body: Jesus & Egun by **Lela Aisha Jones** | FlyGround. At AAMP, the work was presented in conjunction with Fahamu Pecou's DO OR DIE: AFFECT, RITUAL, RESISTANCE. Together, these works speak to the diverse ways in which Yoruba rooted artistic, cultural, and spiritual practices are being expressed in U.S. black life. Today we are presenting the film of that work which is an artistic creation of its own.

Plight Release & the Diasporic Body is a series of works that bask in blackness as everyday diasporic phenomena and traverses, through the body and movement, what a diasporic orientation offers us as a guide towards individual and collective restoration and refusal. The purpose is to sustain practices of togetherness and solidarity by centering lived experiences and movement as fertile and effervescent resources.

Jesus & Egun works from the premise and concept expressed by Dr. Nzinga Metzger that "Jesus is an overworked ancestor (egun)," and we must look to all our ancestors and practices on the continuum to move into states of restoration. The work specifically looks at three states of being that include the Mothers of the church, the transcendent human potential of freestyle in the social dance form House, and matrons of Yoruba spiritual practice.

Steven Kemper is a composer, music technologist, and instrument designer. As a composer, Steven creates music for acoustic instruments, instruments and computers, musical robots, dance and video. Steven has received awards for his music from the Ammerman Center for Arts and Technology, Meet the Composer, the Danish Arts Council, and the International Computer Music Association. His first album, *Mythical Spaces*, was released on Ravello Records in 2018. Steven is a co-founder of Expressive Machines Musical Instruments, a collective dedicated to creating and composing music for robotic instruments. He also co-developed the RAKS (Remote electroAcoustic Kinesthetic Sensing) System, a wireless sensor interface designed specifically for belly dancers with composer and dancer Aurie Hsu. Steven's research has been presented at NIME, ICMC, and MOCO, and published in *Leonardo* and *Organised Sound*. Steven is currently Associate Professor of Music Technology and Composition at the Mason Gross School of the Arts, Rutgers University.

Diane Kessel (DMA, Univ. of South Carolina; MM, Western Michigan Univ.; BM, Univ. of Illinois) is the Senior Lecturer of Flute at Georgia Southern University. In addition to her teaching, she is an active freelancer and frequently performs with Savannah Philharmonic. As principal flute of the Contemporary Youth Orchestra (Cleveland, OH), she performed with Styx, Pat Benetar and Neil Giraldo, Graham

Nash (Crosby, Stills, and Nash), and Jon Anderson (Yes). She has performed at National Music Festival, Madeline Island Chamber Music Festival, Interlochen Arts Festival, and with Greenville Symphony Orchestra, Illinois Sinfonia da Camera, Sichuan Conservatory Orchestra and Chorus (of China), Ohio Light Opera, Palmetto Opera (SC), and the Teatro Lirico D'Europa (of Romania).

Diane has competed and received awards at regional and national competitions across the U.S. She was recently invited to present her dissertation research at the International Alliance of Women in Music and Feminist Music Theory Conference (Boston, 2019), and her current research explores music theory comprehension in students with dyslexia.

Jee Won Kim is a composer based in the United States and South Korea. She received her BM in Composition at Chung-Ang University in South Korea where she studied with In-sun Cho, and received her MM in Composition at Manhattan School of Music where she studied with Dr. Reiko Fütting. She is currently pursuing her doctoral degree at Indiana University Jacobs School of Music under the tutelage of Dr. Aaron Travers while teaching composition and music theory as an Associate Instructor.

She has received prizes, awards, and scholarships in South Korea and the United States. She gave her European debut performance in Ostrava by Studio Dan. Her pieces were performed in Czech Republic,

the United States, and South Korea by Studio Dan(Vienna), Unheard-of//Ensemble (New York), MSM Composers' Orchestra, and the musicians of the United States and Korea. Her new works for Double Bass Quartet and a ballet collaboration are planned to be premiered in spring, 2021.

An affliction for new music, a formal background in education, and an ongoing interest in the visual arts make percussionist **Jack Kloecker's** image uniquely his own. Jack currently works in the DFW metroplex as an educator, performer, composer, and videographer. His multifaceted career has allowed him to approach traditional education and performance practices with a unique lens.

Jack's ongoing interest in performing new music has been a constant guide for his musical career thus far. This has led Jack to performing concerts with members of So Percussion, performing at PASIC 2016 as a member of the University of Nebraska Percussion Ensemble, as well as being a featured soloist with the renowned University of North Texas Percussion Ensemble at the 2020 TMEA Convention.

In efforts to effectively help musicians and composers present new works for their mediums, Jack co-founded Blank House Media in 2019. Blank House Media is an audio/visual production team with a commitment to collaborate with artists in order to create unique and engaging representations of new and under-documented works. Jack and fellow

co-founder Ian Whillock utilize their backgrounds as percussionists and composers to help their clients create a product that best represents their musical and artistic visions. They have collaborated with artists and groups such as The University of Texas Percussion Ensemble, The University of Nebraska Percussion Ensemble, The Kraken Quartet, Adam Silverman, Mark Ford, and Paul Rennick. Their work has been featured by major press outlets such as NPR and I Care If You Listen.

Jack holds a Bachelors degree in Music Education and Percussion from the University of Nebraska. He is currently a graduate teaching fellow in The University of North Texas Percussion Studio. His primary instructors have included Christopher Deane, Mark Ford, Dave Hall, and Paul Rennick.

Christopher Knowlton, Ph.D., is a movement artist, research scientist, dancer and engineer who uses emerging technologies to investigate the nature of dance, choreography, health, cognition and audience engagement. While completing his degree in Bioengineering, Chris has acted as manager of the Rush University Medical Center Motion Analysis Laboratory and worked as a collaborative performer with numerous Chicago dancemakers. Chris is currently a 2020 Lab Artist with Chicago Dancemakers Forum.

Panayiotis Kokoras — Kokoras is an internationally award-winning composer and computer music

innovator, and currently an Associate Professor of composition and CEMI director (Center for Experimental Music and Intermedia) at the University of North Texas. Born in Greece, he studied classical guitar and composition in Athens, Greece and York, England; he taught for many years at Aristotle University in Thessaloniki. Kokoras's sound compositions use sound as the only structural unit. His concept of "holophonic musical texture" describes his goal that each independent sound (phonos), contributes equally into the synthesis of the total (holos). In both instrumental and electroacoustic writing, his music calls upon a "virtuosity of sound," a hyper-idiomatic writing which emphasizes on the precise production of variable sound possibilities and the correct distinction between one timbre and another to convey the musical ideas and structure of the piece. His compositional output is also informed by musical research in Music Information Retrieval compositional strategies, Extended techniques, Tactile sound, Hyperidiomaticity, Robotics, Sound and Consciousness. More information at <http://www.panayiotiskokoras.com>

Nate Krebs' (b. 1995) music is generated from multiple fields of interest that are often related to a greater human perspective, exploring the ways it can affect people on a sociological-personal level. These interests often extend into multimedia formats, where he collaborates with other artists and filmmakers in diverse projects. As a composer,

he has been recognized for several composition awards, including from NAFME, NFMC, and several Ohio regional competitions. He earned his Bachelor of Vocal Music Education from the University of Toledo while studying composition with Dr. Lee Heritage. He is currently pursuing his Master of Music in Composition studying with Dr. Robert McClure, as well as his Master of Arts Administration with Dr. Christi Camper-Moore from Ohio University.

Yuliya Lanina is a Russian-born multimedia artist, whose works exist at the intersection of visual, performing arts, and technological innovation, and explore social issues like gender perception, sexuality, loss, and motherhood. Yuliya arrived in New York as a political refugee. There, she established herself as a pioneering artist who turns the traditional medium of painting and sculpture into a multi-dimensional and immersive experience for the viewer, creating multimedia performances, installations, and animations based on her paintings.

Lanina has exhibited and performed extensively both nationally and internationally, including SXSW Interactive (TX), Seoul Art Museum (Korea), SIGGRAPH Asia (Japan), 798 Beijing Biennial (China), Cleveland Institute of Art (OH), Museum Ludwig (Germany), Creative Tech Week (NYC), Teatro Santa Ana (Mexico), Blanton Museum of Art (TX), and Moscow Museum of Modern Art (Russia). Lanina's honors include Fulbright (Vienna, Austria), Headlands Art Center (CA), and Yaddo (NY). Lanina's

collaborative projects were performed at the New Museum Festival (New York), San Diego Museum of Art (CA), National Museum the Palace of the Grand Dukes of Lithuania (Lithuania), National Sawdust (Brooklyn, NY).

Lanina holds an MFA in Combined Media from Hunter College and a BFA in Painting and Drawing from SUNY Purchase College. She is currently an Assistant Professor of Practice at the Department of Arts and Entertainment Technologies at The University of Texas at Austin. To see more of her work please visit <http://www.yuliyalanina.com/>

JP Lempke's works unashamedly embody the absurd, out-of-place, and purely bizarre. Unphased by his quirky style, renowned performers and groups like Philippe Spiesser, Juanjo Llopico, Kanae Mizobuchi, Unassisted Fold, and Oh My Ears have brought his strange soundscapes to life. His works have been performed throughout Europe, Asia, and the United States at events like the SEAMUS National Conference, RADIA, Forum Wallis, the International Computer Music Conference, Electroacoustic Barn Dance, and others. He is a winner of the American Guild of Organists Student Commissioning Project, as well as a nominee for the Destellos Foundation Electroacoustic and Video-Music Competition.

In 2020, he became the executive director of the Eugene Difficult Music Ensemble, which seeks to unite area academic and non-academic

experimental music communities through regular performances of new music and commissioned works. He initiated the Eugene Garbage Project within EDME the same year. As a theorist, his papers on subjects pertaining to music of the last thirty years have been presented at conferences throughout the United States and Canada.

Mr. Lempke earned his BM in Composition and Piano Performance with Pedagogy at the University of Nebraska – Kearney and his MM in Composition at Arizona State University, where he operated as the co-director of the laptop orchestra. Currently, he is completing a DMA in Data-Driven Instruments alongside a concurrent Masters in Music Theory at the University of Oregon. His instructors are Darleen Mitchell, Anthony Donofrio, Jody Rockmaker, Garth Paine, Kotoka Suzuki, and Jeffrey Stolet. He publishes with Leading Tones Music, LLC.

Rebecca Levy is a choreographer, performer and dance educator based in Jacksonville, FL. She is currently Professor of Dance and director of the dance repertory company at Florida State College at Jacksonville, where she earned the 2016 Outstanding Faculty Award and was chosen to give a TEDx talk. Rebecca also serves as a regional coordinator for the National Waterways Dance Project, a site-specific dance and movement project that was awarded an Art in Education Grant from the Florida Division of Cultural Affairs. Her choreographic work has been featured in festivals and concerts

internationally and throughout the country, including a recent commission for Mendocino College in California. A proponent of excellence in dance filmmaking, she was a contributing filmmaker for the seven-continent crowd-sourced Globe Trot, and in 2012 she produced an award-winning dance film while in attendance at the NES Artist Residency program in Skagaströnd, Iceland.

Ralph Lewis is a composer whose works seek meeting points between sonorous music and arresting noise, alternative tunings and timbre, and the roles of performer and audience. Lewis's music has been presented at SEAMUS, International Conference on Technologies for Music Notation and Representation (TENOR), Boston Microtonal Society, SCI National Conference, the Music for People and Thingamajigs Festival, and on radio broadcasts throughout the United States, Canada, Australia and the United Kingdom. He is currently a doctoral candidate in music composition at University of Illinois at Urbana-Champaign.

Born in Guangdong, China, **Zouning Liao** is a music composer currently in her senior year of pursuing a Bachelor's of Music in composition at Indiana University's Jacobs School of Music. She has studied with David Dzubay, John Gibson, Don Freund, Claude Baker, PQ. Phan, and her current teachers are Aaron Travers and Chi Wang. Zouning's music draws inspiration from explorations in technology and nature, blended with her constant curiosity

of the playing capacity of different instruments as she seeks to incorporate noise into her music. Throughout three years of music composition study, her music has been consistently performed and read by musicians from within the school as well as visiting ensembles and musicians such as Wet Ink Ensemble and pianist in residence Jihye Chang. In addition to receiving a major in composition, she will also earn minors in music history, theory and electronic music. Zouning is always interested in learning the different facets of music -- from analyzing music from the past, to incorporating contemporary technology into her composition. In her free time, she also enjoys fermenting kimchi and baking Soufflés at home.

Anna Lindemann calls herself an Evo Devo artist. Her work as a composer, animator, and performer explores the emerging field of evolutionary developmental biology (Evo Devo). In Anna's art science performances THE COLONY, THEORY of FLIGHT, and BIRD BRAIN projected animations and video combine with spoken performance and music for soprano, instrumentalists, and electronics composed using algorithms modeled on biological processes. Her work has been featured internationally at black box theaters, planetariums, galleries, concert halls, biology conferences, film festivals, digital art conferences, natural history museums, and in the book "Survival of the Beautiful: Art, Science, and Evolution."

Anna has presented her work on Evo Devo

generative music systems at the International Symposium on Electronic Arts (ISEA), the EvoMUSART International Conference on Computational Intelligence in Music, Sound, Art and Design, the ATLAS Summer Experimental Music Symposium at University of Colorado Boulder, and at the Cornell University Music Department. She has received awards for her music compositions from ASCAP, MTNA, and Collage New Music.

Anna graduated magna cum laude with honors from Yale with a BS in Biology before receiving an MFA in Integrated Electronic Arts from Rensselaer Polytechnic Institute. She studied music composition at The Walden School, the Boston University Tanglewood Institute, with her father Eric Lindemann (founder of Synful Orchestra and former director of the IRCAM Signal Processing Workstation Project), with Neil Rolnick at RPI, and with Kathryn Alexander, Michael Klingbeil, Yevgeniy Sharlat, and Orianna Webb at Yale. She is currently an assistant professor in the Digital Media & Design department at the University of Connecticut where she has pioneered courses integrating art and science.

For more about her work, visit:
www.annalindemann.com

Kerrith Livengood's works have been performed at ACO's SONiC Festival, June in Buffalo, Bargemusic, CCM's MusicX festivals, the North American Saxophone Alliance annual conference, the Atlantic

Music Festival, the Edmonton Festival of New Music, the Contemporary Undercurrent of Song series, the Cortona Sessions, and Alia Musica Pittsburgh's Conductors Festival. She has composed works for the JACK Quartet, Third Angle Ensemble, Duo Cortona, mezzo-soprano Jennifer Beattie and pianist Adam Marks, soprano Amy Petrongelli, and the h2 Quartet. Her works feature unexpected musical forms, complex grooves, lyricism, noise, and humor. Her string quartet This Is My Scary Robot Voice, performed by the Argus Quartet, features speech rhythms intoning an anxious inner monologue, which the New York Times described as "sketchy seeming." By contrast, her setting of poet Jennifer L. Knox's Hot Ass Poem for mezzo-soprano, flute, and piano features shouting, theatrical ogling, and pretty bird-like flute chirps. Currently, she is collaborating with Knox on a piece for two sopranos and oboe about starlings (the invasive and adaptive birds). Kerrith is also a flutist, drummer, and improviser. She has premiered many new works by young composers with members of the JACK Quartet, eighth blackbird and the American Modern Ensemble, and once played a wild duet in concert with Anthony Braxton. She is a native of Springfield, Missouri. Kerrith is also assistant director for the New Music On The Point Festival.

Fernando Lopez-Lezcano enjoys imagining and building things, fixing them when they don't work, and improving them even if they seem to work just

fine. The scope of the word “things” is very wide, and includes computer hardware and software, controllers, music composition, performance and sound. His music blurs the line between technology and art, and is as much about form and sound processing, synthesis and spatialization, as about algorithms and custom software he writes for each piece. He has been working in multichannel sound and diffusion techniques for a long time, and can hack Linux for a living. At CCRMA, Stanford University since 1993, he combines his backgrounds in music (piano and composition), electronic engineering and programming with his love of teaching and music composition and performance. He discovered the intimate workings of sound while building his own analog synthesizers a very very long time ago, and even after more than 30 years, “El Dinosaurio” is still being used in live performances.”

Michael Lukaszuk is a composer and computer musician from Kingston, Ontario. His music and research explores the use of creative coding to facilitate new modes of composition, performance and interactions with music of different eras and traditions.

He holds a Doctor of Musical Arts in Composition from the University of Cincinnati, College-Conservatory of Music where he later served as an instructor for composition and computer music courses. He received first prize in the 2015 SOCAN Foundation’s Hugh Le Caine awards for

electroacoustic music. His work has been presented at conferences and festivals across Canada, the United States, Europe and Asia such as the International Computer Music Conference, the Toronto International Electroacoustic Symposium, the SEAMUS Conference (Society for Electroacoustic Music in the United States) and the Conference of the Korean Electro-Acoustic Music Society.

Christopher Luna-Mega is a composer and improviser. Born in the United States and raised in Mexico City, he studied Composition at the Universidad Nacional Autónoma de México – UNAM (B.M.) and Mills College (M.A.), as well as Film/Communication Theory at the Universidad Iberoamericana –UIA, Mexico City (B.A.). Interested in focused listening, performance strategies, contemplation and interdisciplinary collaboration, his work analyzes sounds and data from natural and urban environments and translates them into notated music for performers and electronics in various forms of media.

His orchestral music has been performed by the Orchestra del Teatro Comunale di Bologna, BBC Scottish Symphony Orchestra, Iceland Symphony Orchestra, Montreal-Toronto Art Orchestra, and Orquesta Sinfónica Nacional de México, conducted by Tonino Battista, Ilan Volkov, Gregory Oh and José Luis Castillo, respectively. Ensembles that have performed his instrumental works include Splinter Reeds, the New Thread Quartet, Yarn|Wire, The

William Winant Percussion Group, JACK Quartet, and The Arditti String Quartet. His music has been featured in festivals such as the New York City Electroacoustic Music Festival, Seoul International Computer Music Festival (Gwanju), Angelica (Bologna), Tectonics (Reykjavik), Tectonics (Glasgow), L’Off (Montreal), Avant X (Toronto), Mills Music Now (Oakland, CA), and the International Forum for New Music “Manuel Enriquez” (Mexico City). His research on acoustic ecology and environmental sound-based composition has been presented and published in the proceedings of the Computer Music Multidisciplinary Research conference and the Jefferson Journal.

Luna-Mega has taught Composition, Musicianship, Theory, Orchestration and Electronic Music in the National School of Music in Mexico, Mills College, and the University of Virginia, where he recently obtained his PhD in Composition and Computer Technologies. He will be joining San José State University in the summer. Luna-Mega will be teaching Composition, Theory, and Electronic Music as an Assistant Professor at the School of Music and Dance.

Contact: ch.luna.mega@gmail.com

Elliott Lupp is a composer, improviser, visual artist, and sound designer whose work often invokes images of the distorted, chaotic, visceral, and absurd. This aesthetic approach as it relates to both acoustic and electroacoustic composition has led to a body of work that, at the root of its construction, focuses on

the manipulation of noise, extreme gesture, shifting timbre, and performer/computer improvisation as core elements.

Elliott has received a number of awards and honors for his work, including a 2019 SEAMUS/ASCAP Commission, the 2019 Franklin G. Fisk Composition Award for Chamber Music, and Departmental and All-University awards in Graduate Research and Creative Scholarship. His music has been performed at a variety of electroacoustic festivals including N_SEME, CHIMEfest, Electronic Music Midwest, MOXsonic, Fulcrumpoint New Music Project, SEAMUS, and Electroacoustic Barn Dance, and by such ensembles as the Dutch/American trio Sonic Hedgehog (flute, clarinet, and electric guitar), the Atar Piano Trio, Found Sound New Music Ensemble, various members of MOCREP, The Chicago Composer's Orchestra, Fonema Consort, and Ensemble Dal Niente.

Elliott is currently pursuing his PhD in Composition and Music Technology at Northwestern University.

Eric Lyon is a composer and computer music researcher. Lyon's publicly available software includes FFTease and LyonPotpourri, collections of audio objects written for Max/MSP and Pd. He is the author of "Designing Audio Objects for Max/MSP and Pd" (A-R Editions, 2012), which explicates the process of designing and implementing audio DSP externals. In 2016, Lyon was guest editor of the Computer

Music Journal, editing two issues (CMJ 40:4 and 41:1) dedicated to the subject of high-density loudspeaker arrays (HDLAs). Lyon also curated the 2016 Computer Music Journal Sound Anthology, which was the first binaural anthology published by the CMJ. Lyon's creative work has been recognized with a ZKM Giga-Hertz prize, MUSLAB award, the League ISCM World Music Days competition, and a Guggenheim Fellowship. Lyon currently teaches Composition and Music Technology in the School of Performing Arts at Virginia Tech.

Kera MacKenzie is an interdisciplinary artist working primarily in film, video, live broadcast and installation. Her work has explored radical subjectivities, the mechanisms of empathy, suspense, liveness, and control. She has screened and exhibited her work at spaces including the International Film Festival Rotterdam, Anthology Film Archives, and UnionDocs (New York City), the MassArt Film Society (Boston), Microlights (Milwaukee), Iowa City International Documentary Film Festival, Echo Park Film Center (Los Angeles), La lumière collective (Montreal), Cellular Cinema (Minneapolis), and the Onion City Experimental Film and Video Festival, the Museum of Contemporary Art, the Museum of Contemporary Photography, The Nightingale, and Chicago Underground Film Festival (all Chicago). Kera was recently a researcher in residence at Signal Culture (Owego, NY) and has been an artist in residence at The Luminary (St. Louis), ACRE (Wisconsin), and

Cultura (Berlin). Additionally, Kera is a an educator, a Founding Co-Director of ACRE TV (an artist-made live-streaming television network), and is currently in post-production on her first feature length 16mm experimental documentary, Path of Ghosts, which she is co-directing with Andrew Mausert-Mooney.

Artist **B.G. Madden** explores systems in nature as would a scientist, revealing hidden information and transforming meta-relationships into a new visual language. His work extrapolates these meanings into renderings of graphite, pigment and plaster, resting comfortably between avant-garde experimentation and traditional formalism. The pieces Madden creates are beautifully disquieting yet energetically precise. Data moves in and out of what Edward Tufte refers to as "flatland," the two-dimensional surface, and settles somewhere between a two-dimensional and three-dimensional experience.

Credited by SPIN with creating "a great new genre of ambient ghost music," the work of **Ryan Maguire** (1984-2020) articulates the limits of perception and memory through digital sound, image, and text. Maguire's multimedia works have received millions of digital plays in over 200 countries and territories. Ghost in the MP3 has been covered by the BBC, Deutschlandradio, CBC, NPR, Vice, and WIRED, with related awards and recognition from the International Computer Music Association, Public Radio Exchange, and the Raven Society. His work has been presented in Los Angeles, Berlin, London, New York, Toronto,

Copenhagen, and elsewhere. Compositions have been performed by such ensembles as JACK Quartet, Yarn/Wire, and Callithumpian Consort, and record music is available on Ravello Records, Bandcamp, and Spotify. His writing is published in the SEAMUS Journal and by ISSPA, SMC, and ICMC. He earned degrees from the New England Conservatory, Dartmouth College, and the University of Virginia. At the time of his passing in October 2020, Ryan was Visiting Assistant Professor of Music at Colby College, where he taught courses in composition, electronic and computer music, and theory.

Mexican percussionist, **Ivan Manzanilla** is a specialist in contemporary percussion music. He holds a bachelor's degree from Mexico's Autonomous National University and a Master and Doctoral degree from the University of California, San Diego.

Ivan Manzanilla's work centers on the exploration and dissemination of newly created music and art. His teaching practice and commissions for new works that explore sound, language and gesture reflect his commitment to new generations of percussionists, musicians and contemporary forms of art.

His work has been recognized by different institutions like the Rockefeller Foundation, the National University of Mexico, Mexico's National Fine Arts Institute, the National Fund for Culture and Arts and the Darmstadt Summer Course. Ivan Manzanilla is founder of Duplum together with Mexican clarinetist

Fernando Dominguez and member of ONIX Ensemble. He is invited regularly to perform with a wide variety of ensembles and orchestras in México.

Ivan Manzanilla is the head of the Percussion Department at the University of Guanajuato, Mexico and a recipient of the 2017 National Fund for the Arts' Established Artists Grant.

Anthony T. Marasco is a composer and sound artist who takes influence from the aesthetics of today's Digimodernist culture, exploring the relationships between the eccentric and the everyday, the strict and the indeterminate, and the retro and the contemporary. These explorations result in a wide variety of works written for electroacoustic ensembles, interactive computer performance systems, and multimedia installations.

An internationally-recognized artist, his music and installations have been presented across the United States as well as in Norway, Italy, Brazil, Denmark, and Canada. He has received commissions from performers and institutions such as WIRED Magazine, Phyllis Chen, the American Composers Forum Philadelphia, Quince Contemporary Vocal Ensemble, Toy Piano Composers, the Rhymes With Opera New Chamber Music Workshop, Data Garden, Maureen Batt, and the soundSCAPE International Composition Exchange. Marasco was the grand-prize winner of the UnCaged Toy Piano Festival's Call for Scores, a resident artist at Signal Culture Experimental

Media Labs, and a grant winner for the American Composers Forum's "If You Could Hear These Walls" project. His works and research have been featured at festivals such as New Interfaces for Musical Expression (NIME), the Web Audio Conference, the Toronto International Electroacoustic Symposium, the Society for Electro-Acoustic Music in the U.S. (SEAMUS), Electroacoustic Barn Dance, New York City Electroacoustic Music Festival, the International Computer Music Conference (ICMC), the National Student Electronic Music Event (NSEME), Mise-En Festival, Montreal Contemporary Music Lab, Electric LaTex, and Omaha Under the Radar.

Marasco is an Assistant Professor of Music Technology and Composition at the University of Texas Rio Grande Valley. His research focuses on topics such as web audio, hardware hacking, and creating hardware and software tools for networked music performance practices. He is a co-developer of Collab-Hub.io along with Nick Hwang and Eric Sheffield. His dissertation research centered on extending mediated and networked performance techniques to circuit-bent readymade devices through the creation of a hardware/software framework called Bendit_I/O.

Devin Maxwell is a Utah-based composer whose chamber music has been described as "amiably strident...clusters hammered insistently" by the New York Times and orchestral works "a beautiful puzzle, ... fitting between plucks and pedals that

build pyramid melodies” by the American Record Guide. Important commissions include MMM..., Bent Frequency, Ensemble Dedalus, the Deer Valley Music Festival Emerging Quartets and Composers for the Skyros Quartet and his music has been featured at The Stone, Abron’s Art Center, the Ontological Theater, BLIM, ARTSaha, the Wulf, Monkeytown, Dartmouth College, NYU, Columbia University, Kenyon College, Boston Conservatory, Tage Aktueller Music, SEAMUS, ICMC-SMC, and Ostrava Days, among others. He currently teaches composition and music technology at Westminster College, is the founder and chair of the VU Symposium for Experimental, Electronic and Improvised Music in Park City, directs the VU Music Technology Pedagogy Summit, is a member and founder of the ensemble Red Desert, and director of the Utah Youth Orchestras and Ensemble’s Young Composers Project. Dr. Maxwell is a graduate of University of Cincinnati College-Conservatory of Music, California Institute of the Arts, and the University of Utah School of Music. His creative work is published by Good Child Music New York and Éditions musique SISYPHE.

Douglas McCausland is a composer and performer of electro-acoustic music currently based out of the San Francisco Bay Area in California, USA. Fascinated with new sonic territories and processes for creating music, his work engages with the extremes of sound and the digital medium. As an artist, he has focused

in recent years almost exclusively on the creation of experimental electronic music and digital art. In particular, his current compositions / research explore the intersections of real-time performance of electronic music using handmade interfaces, higher-order ambisonics, interactive systems and performer agency, musical applications of machine-learning, experimental sound design, and DIY electronics / hardware-hacking.

His works have been performed internationally at festivals and symposiums such as: Sonorities (SARC), SEAMUS, San Francisco Tape Music Festival, Splice, MISE-EN, Klingt Gut!, Sounds Like THIS!, Electronic Music Midwest, NYCETF, Sonicscape, CEMEC, Eureka!, CEMICircles, and many more. Notable recent events include a performance and installation series at the Talbot Rice Gallery and the Fruitmarket Gallery in Edinburgh, UK, and an installation at Stanford University’s Anderson Collection as part of “CCRMA x Anderson: Sound Happenings”. Recent honors include winning the gold-prize for “contemporary computer music” in the Verband Deutscher Tonmeister Student 3D Audio Production Competition, and being awarded the runner-up nomination for the International Confederation of Electroacoustic Music’s 2019 CIME Prix. Additionally, his love of collaboration has led him to work with many incredible performers such as: the TAK Ensemble, bassist Aleksander Gabry , the Quasar Saxophone

Quartet, Duo Illegal, the T2 Duo, and many others.

Douglas is currently a doctoral fellow at Stanford University, working towards his DMA in Composition while studying with Chris Chafe, Patricia Alessandrini, Jaroslaw Kapuscinski, Fernando Lopez-Lezcano, and Mark Applebaum. In the year preceding his doctoral studies he completed a second master’s, an MSc in Digital Composition and Performance, at the University of Edinburgh under Martin Parker and Tom Mudd. Prior to that, he completed an MM in Music Composition at Michigan State University, studying with Mark Sullivan, Lyn Goeringer, and Ricardo Lorenz. Doug additionally holds a BM in Music Theory and Composition, Saxophone Performance, and Music Education from Southern Illinois University Edwardsville, where he studied composition with Kimberly Archer.

Robert McClure’s music attempts to discover beauty in unconventional places using non-traditional means. Visual art, poetry, the natural world, neurological and mathematical concepts are all elements that influence McClure’s works. His work has been featured at festivals including NYCETF, the Beijing Modern Music Festival, the Toronto International Electroacoustic Symposium, SEAMUS, IDRS, ISCM, and 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, Albany, and New Focus Record labels.

In addition to his composition activities, Robert is the host/producer of the ADJ·ective New Music podcast, Lexical Tones; a weekly conversation with a guest composer, performer, and/or artist creating new works of contemporary art/music that focuses on aesthetics, technique, process, meaning, perception, and the musical origins of the featured guest. Robert 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. Robert 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.

Daniel McKemie is an electronic musician, percussionist, and composer based in New York City. Currently, he is focusing on technology that seeks to utilize the internet and web browser technology to realize a more accessible platform for multimedia art. He is also researching and developing new ways of interfacing handmade circuitry, modular synthesizers, and embedded systems to various softwares, including the web browser. This recent work has allowed for complex, interactive performance environments to emerge, in which software generates compositional processes and actions in the form of control voltage generation sent to the hardware, and conversely can analyze control

voltage signals from the hardware to determine future activity.

Flutist **Elizabeth McNutt** is internationally recognized for her performances of innovative contemporary and electroacoustic music. She has premiered countless works and performed in Europe, Asia, and throughout the U.S. Her playing has been described as “commanding” (LA Times), “fearless and astounding” (Flute Talk), “high-octane” (Musicworks), and “spell-binding” (Computer Music Journal). Her solo CD pipe wrench: flute + computer is on the EMF Media label; her other recordings are on the CRI, Centaur, SEAMUS, and Navona and Ravello labels. Her chamber music groups include the Calliope flute and piano duo, and the feminist improvisation group Bitches Set Traps. McNutt founded and directs the Sounds Modern contemporary music series in Fort Worth, now in its fourteenth season. Dr. McNutt is committed to scholarly research, with articles and book chapters published in Organised Sound, Flutist Quarterly, Oxford University Press, and Music Theory Online. McNutt (DMA UCSD) is on the faculty of the University of North Texas, where she teaches flute and directs the new music ensemble Nova. For more information, visit elizabethmcnutt.com.

Robin Meiksins is a freelance contemporary flutist focused on collaboration with living composers. While Chicago-based, she uses the Internet and online media to support and create collaboration, as well as more traditional means of

performance. In 2017, Robin completed her first year-long collaborative project, 365 Days of Flute. In this project she performed 138 works by living composers, as well as works from the established flute repertoire. Each day featured a different work or movement and each video was recorded and posted to YouTube the same day. In 2018, Robin launched the 52 Weeks of Flute Project. This project builds on the ideas of internet performance and collaboration from the 365 project. Each week, Robin works with a different living composer to workshop a submitted work, culminating in a performance on YouTube. Robin has premiered over 100 works by living composers and has performed at SPLICE Institute, the SEAMUS national conference, Oh My Ears New Music Festival, and Frequency Festival. In 2018, she was a guest artist at University of Illinois for their first annual ‘24-Hour Compose-a-thon.’ Robin was awarded the Mrs. Hong Pham Memorial Recognition Award for New Music Performance at Indiana University in 2016.

Mark Micchelli is a pianist, composer, technologist, and scholar whose work bridges the jazz and new music worlds. Recent projects include developing software applications for a wearable motion sensor, arranging a set of jazz standards for piano and electronics, and compiling a detailed analysis of Cecil Taylor’s solo piano music. Mark’s music has been featured at ICMC, SPLICE, the Bowling Green New Music Festival, the Oh My Ears Festival, and New

Music on the Point. Mark is currently pursuing his PhD at the University of Pittsburgh, where he splits his time between the Jazz Studies and Composition/Theory departments; previously, he received an MA in Integrated Composition, Improvisation, and Technology from the University of California, Irvine, and a BA from Columbia University, where he studied music and computer science.

Modality is Charles Nichols on violin, bass, and computer, Clark Grant on guitars, Ben Weiss on keyboards, and Jay Bruns on electronics and video synthesis. This Montana and Virginia based collective swims through oceans of sound, conjuring immersive, psychedelic, beautifully strange worlds, sonic excursions for fans of drone, ambient, krautrock, and contemporary music. Their practice is to co-compose, through recording free-improvisation, harvesting material, and collaboratively arranging and rerecording. Since 2013, they have rehearsed, recorded, produced, and performed telematically between their four studios, in Missoula and Butte, Montana, and Blacksburg, Virginia. In 2016, the band toured Montana, Illinois, Indiana, Ohio, and Virginia, starting with a performance at the DAT Music Conference in Missoula and ending with a performance at the Cube Fest at Virginia Tech. In 2020, they performed telematically, streamed live to Newcastle Upon Tyne, England, for the Network Music Festival, and recorded live to be streamed from St. Petersburg, Russia, for the Theremin Fest.

Modality have co-composed and recorded four albums, Particle City, their debut, Under the Shadow of this Red Rock, a double LP, The Moruvians, a split with the band Lazertüth, and Megacycles, their latest album. These and other recordings can be found at <https://modality.bandcamp.com>.

Michael Moore, a native of Tulsa, Oklahoma, is currently a private instructor and freelance violist in the Dallas/ Ft Worth area along with his wife, Kathleen Crabtree. He graduated from Oklahoma State University (BM) and University of North Texas (MM), where he was active in both chamber and contemporary music. As a member of the Ombré Quartet, he won second place in the 2014 OMEA quartet competition and performed throughout the South/Central United States, as well as in masterclasses with the Takács and American String Quartets. A passionate orchestral violist, he has most recently performed with the Tulsa Symphony, Fort Smith Symphony, and as principal viola with the Sherman Symphony Orchestra.

Ted Moore is a composer, improviser, intermedia artist, and educator based in Chicago. His work focuses on fusing the sonic, visual, physical, and acoustic aspects of performance and sound, often through the integration of technology. Ted's work has been described as "frankly unsafe" (icareifyoulisten.com), "an impressive achievement both artistically and technically" (VitaMN), and "epic" (Pioneer Press). Ted's work has been performed by the International

Contemporary Ensemble, Jack Quartet, Talea Ensemble, Spektral Quartet, Yarn/Wire, Splinter Reeds, Quince Vocal Ensemble, HOCKET, Imani Winds, Civic Orchestra of Chicago, Line Upon Line, The Dream Songs Project, AVIDduo, and others, and has been performed around the world including at South by Southwest (Austin, TX), National Sawdust (NYC), The Walker Art Center (Minneapolis), STEIM (Amsterdam), Whatever Works nykymusiikkifestivaali (Finland), Internationales Musikinstitut Darmstadt (Germany), City University (London), Hochschule für Musik (Freiburg), Center for New Music (San Francisco), ESS (Chicago), World Saxophone Congress (Croatia), New York City Electroacoustic Music Festival, CubeFest (Blacksburg, VA), MASS MoCA (Massachusetts), Omaha Under the Radar (Nebraska), Pittsburgh Festival of New Music, Electroacoustic Barn Dance, Root Signals Electronic Music Festival (Georgia), SEAMUS, Punk Ass Classical (Minneapolis), MOXsonic (Warrensburg, MO), New Horizons Music Festival (Kirksville, MO), and the SPLICE Festival (Bowling Green, OH), among others.

Ted also frequently performs on electronics using his laptop, modular synthesizer systems, resonant physical objects, lighting instruments, and video projection. He has been featured as an installation artist at New York University, Northern Spark Festival (Minneapolis), Studio 300 Festival of Digital Art and Music (Lexington, KY), and St. Paul Public Library. As an improviser, Ted is one half of Binary Canary,

a woodwinds-laptop improvisation duo alongside saxophonist Kyle Hutchins. As a theater artist, Ted has worked with many independent companies, notably with Skewed Visions and Savage Umbrella.

Timothy Moyers Jr. is a composer and audio-visual artist originally from Chicago. He is currently an Assistant Professor of Music Theory and Composition at the University of Kentucky and supervises the Electroacoustic Music Studio. Prior to joining the University of Kentucky, Timothy was an Assistant Professor in the Department of Human Centered Design at IIIT-D (Indraprastha Institute of Information Technology), Delhi, India where he was the Founder & Director of ILIAD, Interdisciplinary Lab for Interactive Audiovisual Development, and GDD Lab, Game Design and Development Lab. He completed his PhD in Electroacoustic Composition from the University of Birmingham (England), an MM in New Media Technology from Northern Illinois University (USA), a BA in Jazz Performance and a BA in Philosophy from North Central College (USA).

Clarence Nanamori is a second-year Computer Science major at Michigan State University. In Krashkan, he has created the back-end coding for the audience interactions, so that he can access information from the audience and then transform it into forms that the audience can see and hear. In his free time, Clarence likes to dabble in video editing and playing games like Risk of Rain 2 or Terraria.

Lisa Naugle, Ph.D. is a Professor of Dance in the Dance Department of the School of the Arts at the University of California, Irvine. She is the recipient of the Cecil and Ida Green Honors Professor's Award, 2000. She holds a Ph.D and MFA in dance from New York University. Lisa was a member of the Nancy Hauser Dance Company and has performed with several dance companies in the United States and Canada. Her background as a dancer includes work with Hanya Holm, Alwin Nikolais, Merce Cunningham, and Eric Hawkins.

Jon Christopher Nelson (b. 1960) is currently a Professor of Composition at the University of North Texas where he is an associate of CEMI (Center for Experimental Music and Intermedia). Nelson's electroacoustic music compositions have been performed widely throughout the United States, Europe, Asia, and Latin America. He has been honored with numerous awards including fellowships from the Guggenheim Foundation, the National Endowment for the Arts, and the Fulbright Commission. He is the recipient of Luigi Russolo, Bourges Prizes (including the Euphonies d'Or prize) and the International Computer Music Association's Americas Regional Award. In addition to his electro-acoustic works, Nelson has composed a variety of acoustic compositions that have been performed by ensembles such as the New World Symphony, the Memphis Symphony, the Brazos Valley Symphony Orchestra, ALEA III, and others. He has composed

in residence at Sweden's national Electronic Music Studios, the Visby International Composers Center and at IMEB in Bourges, France. His works can be heard on the Bourges, Russolo Pratella, Innova, CDCM, NEUMA, ICMC, and SEAMUS labels. Recordings can be heard at his SoundCloud page: <https://soundcloud.com/jon-nelson/>

Kourtney Newton is a soloist, chamber musician, and improviser active in the North Texas area. Newton is currently pursuing a doctoral degree at the University of North Texas, specializing in contemporary performance. She is one of the founding members of the Amorsima String Trio which exclusively performs works composed after 1980 as well as several commissioned projects. Kourtney is also active with the feminist improvisation ensemble BST, which brings attention to cultural issues through improvisation, often performing at both concert halls and less formal venues. She also enjoys the unique combination of acoustic with computer-based timbres and has been a featured performer at several electroacoustic festivals and conferences.

David Nguyen — David Quang-Minh Nguyen is a composer of concert music. Along with the concert music that he composes, he also enjoys doing post production sound for film. His current interests lie in composing acousmatic works dealing with multi-channel loudspeaker expansion, sound spatialization, and immersive audio.

Being recognized nationally and internationally, David has had his pieces presented at the June in Buffalo New Music Festival, during which he received individual master classes with Harvey Sollberger, Martin Bresnick, Roger Reynolds and Brian Ferneyhough. David was an active participant for Festival DME under the direction of Åke Parmerud, Musique & Recherches Académie d'été de composition électroacoustique under the direction of Annette Vande Gorne and João Pedro Oliveira, and the Sounds Around Me Festival under Thomas Gorbach. Master Artist Robert Normandeau also has selected him for a residency at the Atlantic Center for the Arts.

Among others, his works have been performed at Electronic Music Midwest Festival, New York City Electronic Music Festival, SEAMUS, Toronto International Electroacoustic Symposium, International Computer Music Conference, 15th Sound & Music Computational Conference, 2018 MISE-EN Place Bushwick Open Studios, 2018 Third Practice Electroacoustic Music Festival, Spaced-Out Radia, Washington State Festival Of Contemporary Art Music, CEMI Circles, MOXSonic, and Diffrazioni multimedia festival. He has been published on ABLAZE records Electronic Masters Vol. 7 and received an honorable mention for the XII° Destellos Electroacoustic Competition 2019 for his work Misprints, and was a finalist for PRIX CIME 2019 and won 2nd for the ASCAP/SEAMUS award for his work

Weight Stranding.

David Q. Nguyen holds a BM from Old Dominion University where he studied with Andrey R. Kasparov and Mark Chambers. He has received his Masters and is pursuing a Doctor of Musical Arts degree at the University of Illinois Urbana-Champaign, where his primary teachers are Sever Tipei and Scott A. Wyatt.

Composer, violinist, and computer music researcher **Charles Nichols** (www.charlesnichols.com) explores the expressive potential of instrumental ensembles, computer music systems, and combinations of the two, for the concert stage, and collaborations with dance, video, and installation art. He teaches Composition and Creative Technologies at Virginia Tech and is a Faculty Fellow of the Institute for Creativity Arts and Technology.

Paul A. Oehlers is most recognized for his “extraordinarily evocative” film scores. (Variety) Films incorporating his music have won the Grand Jury Prizes at the Atlanta International Film Festival and the Hamptons International Film Festival. His music has also appeared in broadcasts on PBS, NBC, and other commercial venues.

As a composer of concert music, Paul’s compositions have received hundreds of performances in the United States and abroad. For his achievements in concert music composition, Paul was awarded the 2006 Margaret Lee Crofts Fellowship from

MacDowell. He is currently Associate Professor of Audio Technology at American University in Washington, DC.

Composer **João Pedro Oliveira** holds the Corwin Endowed Chair in Composition for the University of California at Santa Barbara. He studied organ performance, composition and architecture in Lisbon. He completed a PhD in Music at the University of New York at Stony Brook. His music includes opera, orchestral compositions, chamber music, electroacoustic music and experimental video. He has received over 50 international prizes and awards for his works, including three Prizes at Bourges Electroacoustic Music Competition, the prestigious Magisterium Prize and Giga-Hertz Special Award, 1st Prize in Metamorphoses competition, 1st Prize in Yamaha-Visiones Sonoras Competition, 1st Prize in Musica Nova competition. He taught at Aveiro University (Portugal) and Federal University of Minas Gerais (Brazil). His publications include several articles in journals and a book on 20th century music theory. www.jpoliveira.com

Ryan Olivier (b. 1985), who grew up in the southern United States, is a composer and multimedia artist. Ryan continues to compose for both traditional concert ensembles and fixed media, but his current focus is the real-time incorporation of visualized electronic music with live performers. His evening-length show, Imaginary Music, with performing partner Andrew Litts was described by Deb Miller

of DCMetroTheaterArts as, “a highly intelligent synthesis of the arts with science and technology,... an equally lofty aesthetic of transcendent beauty;... at once cerebral and emotive, intellectual and hypnotic.” Ryan is an Assistant Professor of Music at Indiana University South Bend where he teaches courses in music technology and interdisciplinary composition. Previously Ryan taught at St. Joseph’s University and Temple University where he earned a master’s degree and a doctorate after completing his undergraduate studies at Loyola University New Orleans. www.ryanolivier.com

Dr. Joo Won Park is an Assistant Professor of Music Technology at the Wayne State University. He studied at Berklee College of Music (B.M.) and University of Florida (M.M. and Ph.D.) and has previously taught in Oberlin Conservatory, Temple University, Rutgers University Camden, and Community College of Philadelphia. Dr. Park’s music and writings are available on MIT Press, Parma Recordings, ICMC, Spectrum Press, Visceral Media, SEAMUS, and No Remixes labels. He is the recipient of Knight Arts Challenge Detroit (2019) and the Kresge Arts Fellowship (2020). He also directs the Electronic Music Ensemble of Wayne State (EMEWS).

Maggi Payne obtained music degrees from Northwestern University, the University of Illinois, and an MFA in Electronic Music and Recording Media from Mills College. She taught at the Center for Contemporary Music at Mills College starting in

1970 and was Co-Director of the CCM from 1992-2018, where she taught recording engineering, composition, and electronic music. She also freelances as a recording engineer and editor. She is a composer, performer, flutist, installation artist, and video artist.

Her electroacoustic works often incorporate visuals, including dancers outfitted with electroluminescent wire and videos she creates using images ranging from nature to the abstract. She has composed music for dance, theatre, and video, including the music for Jordon Belson’s video Bardo. She has collaborated for several years with video artist Ed Tannenbaum in his Technological Feets performances.

She received two Composer’s Grants and an Interdisciplinary Arts Grant from the National Endowment for the Arts, and video grants from the Mellon Foundation and the Western States Regional Media Arts Fellowships Program. She was awarded four honorary mentions from Bourges, one from Prix Ars Electronica, and placed in the Barlow and “Luigi Russolo” per giovani compositor di Musica Elettroacoustica competitions. She was an Artist in Residence at the Exploratorium in San Francisco in the early 80s and Montalvo Arts Center in Saratoga, CA in winter, 2007/08.

Her works appear on Aguirre, The Lab, Lovely Music, Innova, Starkland, Music and Arts, CRI, Root Strata,

Ubuibi, Asphodel, and/OAR, Centaur, MMC, Digital Narcis, Capstone, Mills, and Frog Peak labels.

Tom Pearsall is Professor of Music at Georgia Southern University where he has been teaching group piano and piano pedagogy since 1993. A Past President of the Georgia Music Teachers Association and current co-chair of the Executive Committee for the National Group Piano and Piano Pedagogy Forum (GP3), Tom also maintains a private studio and is an active clinician, adjudicator, author, and performer.

Jean-Paul Perrotte’s artistic practice is very much established in performance and improvisation. Whether he is performing on traditional instruments or instruments that he has created to perform with his computer, he relishes the excitement and the immediacy of an improvised performance. Improvisation has always been a big part of his musical life as a performing guitarist since his teenage years to his undergraduate degree in Jazz Composition and now as a professor of Electronic Music Composition.

Sean Peuquet is a composer, sound artist, audio programmer, curator, scholar, and educator. He presents his work regularly at national and international venues for contemporary art and music such as the International Computer Music Conference (Daegu, Shanghai, Utrecht, Ljubljana, Belfast), Sound and Music Computing Conference

(Cyprus), Toronto Electroacoustic Music Symposium, Korean Electro-Acoustic Music Society (Seoul), Sines and Squares (Manchester, UK), Society for Electro-Acoustic Music in the United States, Society of Composers, Inc., New York City Electronic Music Festival, Electronic Music Midwest, VU Symposium, and more. Since 2015, he has served as Programs Director and Lead Music Instructor for the Madelife Creative Accelerator program, based in Boulder, CO. He has also co-founded two Colorado Front-Range companies: RackFX, an online platform for automated analog signal processing, and CauseART, a curatorial firm that advances the role of artists as cultural service providers within the business community through commissions, exhibitions, and participatory programming for local and multinational companies, including Google Boulder. In early 2018, Sean was in residence at the Atlantic Center for the Arts in New Smyrna, FL to work on multichannel sound spatialization and electroacoustic composition with Robert Normandeau. From 2012 to 2014, he served as Visiting Professor of Digital Arts at Stetson University while completing his PhD in Music Composition at the University of Florida ('13). He received his MA in Electro-Acoustic Music from Dartmouth College ('07) and holds a BA in Music, Psychology, and Astronomy (minor) from the University of Virginia ('05). Across his education, he had the privilege of studying computer music and composition with Paul Koonce, Larry Polansky, Jon Appleton, Matthew Burtner, Paul Richards,

Judith Shatin, Charles Dodge, James Paul Sain, Ge Wang, Newton Armstrong, and Marina Rosenfeld. His current research interests include immersive musical systems, self-reflexive listening practices, and identifying new paths for art as a socio-cultural determinant. His music is available through Ablaze Records and SEAMUS.

Kaitlin Pet is an Informatics PhD student at the Indiana University Luddy School of Informatics, Computer Science and Engineering. She holds a BA in Biology and Computer Science from Columbia University and a GPD from the Hartt School in Oboe Performance, where she concentrated on chamber performance.

Christopher Poovey (b. 1993) is a composer and creative coder based in Dallas Texas who creates music and software which produce rich and colorful sound and encourages interactive structures. Christopher's music has been played by members of Ensemble Mise-en, the University of North Texas Nova Ensemble, Indiana University's New Music Ensemble, and Indiana University Brass Choir. Christopher's pieces have been presented at conferences such as the Society for Electro-Acoustic Music in the United States, the International Computer Music Association, the New York City Electronic Music Festival, the Soul International Computer Music Festival, Inner SoundScapes, and the National Student Electronic Music Event. In addition to his reconditions, Christopher has taken

courses at the Institut de Recherche et Coordination Acoustique/Musique, at Princeton University in the Só Percussion Summer Institute, and has attended a residency at the Atlantic Center for the Arts. Christopher currently holds a master's degree in music composition from University of North Texas as has a bachelor of music in composition at Indiana University. He is currently pursuing a PhD in music composition from University of North Texas with a focus in computer music.

Flutist **Shanna Pranaitis** fearlessly expands the realm of sonic possibility for her instruments through innovative performances and educational projects, integrating new and historically reimagined works with multi-disciplinary elements to create seamless, immersive concert experiences. She travels the world regularly to perform and teach as a solo artist and with the chamber ensembles Memoria Nova and Collect/Project. She has received many accolades for her performances, including prizes at the Stockhausen Courses, Darmstadt Ferienkurse, and New Music USA project grants. She is the co-founder of FluteXpansions, and co-organized the first multi-day festival of Galina Ustvolskaya's music in the United States in 2017. Her debut solo CD of Claus-Steffen Mahnkopf's works for flute (NEOS) has been hailed as "remarkable" and a "virtuoso testimony." She performs on a Burkart flute and piccolo and Kingma bass and alto flutes. She is based in Chicago and when not traveling, she can be found

playing with her cat Cheddar, enjoying her plants or expanding her mixology skills. More info available at her website.

Jeremy dePrisco's artistic practice uses improvisation, collaboration, and noise to examine and re-contextualize the alienation inherent in media influence, socially constructed reality, conspiracy, and myth. He works with field recordings, guitar, electronics, synthesizers, radios, found sounds, home-made gadgets, and processed video.

Afroditi Psarra (GR/US) is a transdisciplinary artist and an Assistant Professor of Digital Arts and Experimental Media (DXARTS) at the University of Washington. Her research focuses on the art and science interaction with a critical discourse in the creation of artifacts. She is interested in the use of the body as an interface of control, and the revitalization of tradition as a methodology of hacking existing norms about technical objects. She uses cyber crafts and other gendered practices as speculative strings, and open-source technologies as educational models of diffusing knowledge. She holds a PhD in Image, Technology and Design from the Complutense University of Madrid. Her dissertation entitled Cyberpunk and New Media Art focuses on the merging of science fiction ideas and concepts with performative and digital practices, and offers a philosophical, sociological and aesthetic analysis of the influence of new technologies in the contemporary artistic process.

Her work has been presented at international media arts festivals such as Ars Electronica, Transmediale and CTM, ISEA, Eyeo, Amber, Piksel and WRO Biennale between others, museums like BOZAR, EMST and the Walker Art Center, and published at conferences like Siggraph, ISWC (International Symposium of Wearable Computers) and EVA (Electronic Visualization and the Arts). She has worked on Wireless Communications and Mobile Computing at Disney Research Zurich. She recently won the Bergstrom Award for Art and Science for the collaborative project Listening Space with Audrey Briot, and a Mellon Foundation Faculty Fellowship in the Arts for the collaborative research project Everyday Voices & Voids: Reclaiming our Data as Performance. She lives and works in Seattle, Washington.

Miller Puckette — see **the Higgs whatever**

The Core is a group of six musicians that formed when the lockdowns due to the coronavirus pandemic first started in March 2020. Since then, they have been live streaming weekly telematic concerts of electroacoustic improvisation. Their series, the Quarantine Sessions, has reached number thirty-four today and they have also performed at two virtual conferences. In their one-hour weekly sessions they have had over twenty guest musicians and visual artists from various countries, including the US, Canada, Ireland, Germany, Lithuania, Australia, and the UK.

The members of the group are:

- Constantin Basica — keyboards and live electronics (Stanford, CA)
- Chris Chafe — celletto, dilruba, and Stegasaurus (Woodside, CA)
- Henrik von Coler — hypermodular synthesizer (Berlin, DE)
- Fernando Lopez-Lezcano — synthesizers and live electronics (San Carlos, CA)
- Juan Parra — guitars (Ghent, BE)
- Klaus Scheuermann — modular synthesizer (Berlin, DE)

Christopher Raphael is a professor of computer science in the School of Informatics Computing and Engineering at Indiana University, where he heads the Music Informatics program. In 1991 he received his PhD in Applied Mathematics from Brown University, working in speech and language processing, as well as other recognition problems, before coming to focus on music research. Prior to his academic studies he pursued a career as an oboist including a fellowship at Tanglewood. His academic career has been driven by the desire to harness the power of computation for musicians.

Patrick Reed is a native of Dallas Texas, as a composer and educator he hopes to foster and teach an interest and love for contemporary music to people of all ages. His music style ranges from solo to large ensemble compositions, to works written for

beginners and young band ensembles. His work has recently been performed at ICMC in Daegu, South Korea, New York City Electroacoustic Music Festival, SEAMUS, NSEME national conferences and at SCI region six conference. Reed is currently pursuing a PhD. in music composition at the University of North Texas. Reed earned his Master in Music in composition at Bowling Green State University, where he has studied with Elaine Lillios Christopher Dietz and Mikel Kuehn. He holds a Bachelor of Music in Composition and Music Education from Texas Tech University, where he studied composition with Peter Fischer and Mei-Fang Lin.

Kory Reeder is a composer and performer whose music is often introspective and atmospheric, investigating ideas of objectivity, place, immediacy, situation, and interaction. Kory's music has been performed in concerts and festivals across North and South America, Asia, Australia, and Europe and recognized by The Kennedy Center American College Theater Festival, ASCAP, ACSM 116 (Tokyo), and Festival Stradella (Italy), among others. He has been artist-in-residence at Arts, Letter, and Numbers, The Kimmel, Harding, Nelson Center for the Arts and has been Artist in Residence in the Everglades. Kory has frequently collaborated with opera, theater, and dance programs. Scores and recordings of his music have been released on Edition Wandelweiser Records and has been heard on the BBC. Kory is currently pursuing a PhD. in music composition at the

University of North Texas, and holds a BM from the University of Nebraska at Kearney, and a MM Bowling Green State University. For more, please visit www.koryreeder.com

Leah Reid is a composer of acoustic and electroacoustic music. Her primary research interests involve the perception, modeling, and compositional applications of timbre. In her works, timbre acts as a catalyst for exploring new soundscapes, time, space, perception, and color. In recent reviews, Reid's works have been described as "immersive," "haunting," and "shimmering." She has received numerous awards and honors, including first prize in the Tesselat Electronic Music Competition 2020 for her piece Sk(etch), a commission from the Concavo & Convesso 2020 Competition, IAWM's Pauline Oliveros Prize for her piece Pressure, a Second Prize in the 13th International Destellos Competition for Reverie, the Film Score Award for Ring, Resonate, Resound in Frame Dance Productions' Music Composition Competition, and residencies from the MacDowell Colony, the Ucross Foundation, and the Virginia Center for the Creative Arts. She has worked with ensembles such as Accordant Commons, Blow Up Percussion, Ensemble Móbile, Guerilla Opera, the Jack Quartet, McGill's Contemporary Music Ensemble, Neave Trio, Sound Gear, Talea, and Yarn/Wire. Her compositions have been presented at festivals, conferences, and in major venues throughout the world, including

Aveiro_Síntese (Portugal), BEAST FEaST (England), EviMus (Germany), Forgotten Spaces: EuroMicrofest (Germany), the International Computer Music Conference (USA & Chile), IRCAM's ManiFeste (France), LA Philharmonic's Noon to Midnight (USA), the Matera Intermedia Festival (Italy), the New York City Electronic Music Festival (USA), the San Francisco Tape Music Festival (USA), Série de Música de Câmara (Brazil), the Sound and Music Computing Conference (Germany), the Tilde New Music Festival (Australia), the Toronto International Electroacoustic Symposium (Canada), and the Workshop on Computer Music and Audio Technology (Taiwan), among many others. Her works are published with Ablaze Records, New Focus Recordings, Parma Recordings, RMN Classical, and BabelScores. Reid received her D.M.A. and M.A. in music composition from Stanford University and her B.Mus from McGill University. Reid's principal teachers include Mark Applebaum, Jonathan Berger, Brian Ferneyhough, Sean Ferguson, Ana Sokolovic, and Brian Paul Harman. She has taught at Stanford University (Stanford, CA), University of the Pacific (Stockton, CA), and at Cogswell Polytechnical College (San Jose, CA). She is currently an Assistant Professor at the University of Virginia (Charlottesville, VA), where she teaches courses in music composition and technology. Additional information may be found at www.leahreidmusic.com

The foci of **Michael Rhoades'** current research and

creative practice involves the nexus of holography (stereoscopic), holophony, and super-computing utilized toward the creation of visual music compositions intended for 3D/360 presentation. Head mounted displays or 3D/360 projection screens, and high-density loudspeaker arrays are the venues of choice for these stochastically generated compositions.

Michael served as a 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 as well as used for pedagogical purposes. He is a published writer and also presents lectures on the subjects of algorithmic composition, score based sampling, sonification, spatialization, holography and holophony, visual music and creativity.

Michael received his interdisciplinary PhD from Virginia Tech in December of 2020. His areas of research and creative praxis involved holography and holophonic visual music using high-performance computing. He received a BFA in Creative Technologies from the School of Visual Arts at Virginia Tech in the spring of 2018.

Austin Richardson is currently a doctoral student at the University of North Texas, studying with Steve Menard. Previously, Austin studied with Hana

Beloglavec at Louisiana State University, as well John Marcellus and Larry Zalkind at the Eastman School of Music. He can be heard on the Eastman Wind Ensemble's latest album "Images: Music of Jeff Tyzik". Austin made his solo debut with the LSU Philharmonia after being a prizewinner in the LSU Concerto Competition, performing the Grondahl Trombone Concerto. He has also been a featured soloist with the LSU Trombone Choir, and recently was a finalist in the 2021 American Trombone Workshop National Solo Competition. As an orchestral performer, Austin has played with the Fort Worth Symphony Orchestra, Louisiana Philharmonic Orchestra, Baton Rouge Symphony Orchestra, Mobile Symphony Orchestra, and will be spending the summer as a fellow at the 2021 National Orchestral Institute.

Brian Riordan is a composer, performer, improviser, producer, and sound artist originally from Chicago, IL. He is currently an Andrew W. Mellon Fellow and a PhD candidate in Music Composition and Theory at University of Pittsburgh, where he teaches a class he designed called "Programming Environments in Music: An Introduction to Max/MSP". His research interests are in temporal discontinuity, delay-based performance, real-time digital signal processing, and laptop performance aesthetics. As an avid collaborator, he has performed in numerous ensembles ranging from rock, jazz, classical, and experimental throughout North American, Europe,

and Asia. His compositions have been performed by The JACK Quartet, The Callithumpian Consort, Wet Ink Ensemble, andPlay, The Meridian Arts Ensemble, Kamraton, Untwelve, The H2 Quartet, Alia Musica, Wolftrap, and his compositions have been featured at STEIM, SEAMUS, SICPP, New Music On The Point, SPLICE, and The Walden Creative Musicians Retreat. As a member of the Pittsburgh ensemble "How Things Are Made," he produced and performed on over 70 albums for the group and has commissioned 52 compositions.

Ben Luca Robertson is a composer, experimental luthier, educator, and co-founder of the independent record label, Aponia Recordings. His work addresses an interest in autonomous processes, landscape, and biological systems—often supplanting narrative structure with an emphasis on the physicality of sound, spectral tuning structures, and microtonality. Ben's current research focuses upon the intersection between actuated string instrument design and just tuning practices. Growing up in the inland Pacific Northwest, impressions of Ponderosa pine trees, channel scablands, basalt outcroppings, and relics of boomtown decay continually haunt his work. Ben holds an M.A. in Music Composition from Eastern Washington University, a B.A. from the Evergreen State College, and is currently a PhD candidate in Composition and Computer Technologies at the University of Virginia. In the Summer of 2015, he was appointed to a guest

research position at the Tampere Unit for Computer-Human Interactions (TAUCHI) in Finland and recently collaborated with biologists from the University of Idaho to sonify migratory patterns of Chinook Salmon in the Snake River watershed. Ben's work has been featured at New Interfaces for Musical Expression (NIME), Society for Electro-Acoustic Music in the United States (SEAMUS), Sound-Music Computing Conference (SMC), Northwest Public Broadcasting, MOXsonic, New York Re-embodied Sound Symposium, Third Practice, Magma-fest, and Olympia Experimental Music Festivals.

Brad Robin composes and conducts music in a multitude of styles for soloists and ensembles ranging from jazz band to contemporary chamber groups and orchestras. Compositions have also included a computer component designed to manipulate and augment the sound of acoustic instruments. As a pianist and keyboardist, he composes and performs music for dance, theatre, film and multimedia performance art. In addition to the United States, his music has been performed in Croatia, Mexico and New Zealand. Recent performances include Phase: Transmuted Agony for chamber ensemble, fixed media and dance, International New Directions in the Humanities Conference in Chicago, Texas Dance Improvisation Festival, and the Uzmah-Upbeat festival in Croatia. Having completed a PhD in Music Composition from the University of North Texas and Master's degree in

music composition at DePaul University, he currently resides in Chicago with his wife Nicole and continues his studies at Northwestern University.

Dr. **Tara Rodgers** (Analog Tara) is a multi-instrumentalist composer and historian of electronic music. She is the author of *Pink Noises: Women on Electronic Music and Sound* (2010) and numerous essays on the history of sound and synthesizers. Her music, from analog techno to generative sound installations made with SuperCollider, has been presented around the U.S. and internationally. www.analogtara.net

Composer **Neil Rolnick** pioneered the use of computers in musical performance, beginning in the late 1970s. Based in New York City since 2002, his music has been performed world wide, including recent performances in France, China, Mexico and across the US. His string quartet Oceans Eat Cities was performed at the UN Global Climate Summit in Paris in 2015. In 2016 he was awarded an ArtsLink residency in Belgrade, Serbia. In 2017 he was a fellow at the Bogliasco Foundation in Italy, and received a New Music USA Project Grant. In 2019 he received a NYSCA Individual Artist Grant. He has released 20 CDs of his music.

Rolnick's music has often included unexpected and unusual combinations of materials and media. His work ranges from digital sampling and interactive multimedia to acoustic vocal, chamber

and orchestral works. Throughout the 1980s and '90s he was responsible for the development of the first integrated electronic arts graduate and undergraduate programs in the US, at Rensselaer Polytechnic Institute's iEAR Studios, in Troy, NY.

Though much of his work connects music and technology, and is therefore considered in the realm of "experimental" music, it has always been highly melodic and accessible. Whether working with electronic sounds, acoustic ensembles, or combinations of the two, his music has been characterized by critics as "sophisticated," "hummable and engaging," and as having "good senses of showmanship and humor."

Neil Rolnick was born in 1947, in Dallas, Texas. He earned a BA in English from Harvard in 1969. He studied composition with Darius Milhaud at the Aspen Music School, and with John Adams at the San Francisco Conservatory. He earned a PhD in musical composition in 1980 from UC Berkeley. He studied computer music at Stanford with John Chowning, and was a researcher at IRCAM in Paris, France, from 1977-79.

Tyler Roquemore is a graduate student in the music technology program at Georgia Southern University. His World Class DCI Front Ensemble experience includes Spirit of Atlanta from 2014 to 2015 and Carolina Crown in 2016. His World Class WGI Front Ensemble experience has

been with Atlanta Quest from 2015-2017.

Jess Rowland is a sound artist, musician, and composer, and a 2018-20 Princeton Arts Fellow. Much of her work explores the relationship between technologies and popular culture, continually aiming to reconcile the world of art and the world of science. In addition to an active art practice, she teaches sound art at Princeton University and The School of Visual Arts in New York and continues to present her work internationally.

Esteban Ruiz-Velasco is a composer and pianist based in Mexico City. He has a particular interest in finding ways in which the composer of a piece can interact with the performer and the audience, and indeed ways in which that distinction can become diffuse. In that pursuit he worked on theater and experimental video games, and developed “Argax”, a VR software to spatialize audio sources and manipulate the simulated acoustic environment in real time. He is currently writing music for mixed ensembles and fixed media, researching ways in which the lines between soundscape and acoustic composition can be blurred.

Stephen Ruppenthal is Principal Trumpet and Contemporary Music Advisor for the Redwood Symphony (San Francisco, California), and has been Guest Artist-in-Residence at numerous universities in the US, holding courses in Electronic Music Studio Arts, Sound Poetry, and Composition at the Center

for Experimental and Interdisciplinary Art (San Francisco State University). Stephen was a founding member, along with Don Buchla and Allen Strange, of the *Electric Weasel Ensemble*, and more recently, with Brian Belet and Pat Strange, of *SoundProof*, and is known internationally for his performances and writings on text-sound composition and sound poetry. *Flamethrower*, a 2017 CD of electroacoustic works for trumpet and flugelhorn, by Allen Strange, Brian Belet, Bruno Liberda, and Elainie Lillios, and performed by Stephen is currently available from *Ravello Records*.

Everett Saunders is the founder and creative director of Flux Innovations, a digital media services company. Their recent clients include PBS, Sony Music, and Columbia Records. Saunders is a producer, composer, songwriter, and performer. He has specific knowledge and practice in audio post-production and multi track board operation. His work spans across genres with original compositions for numerous independent films and New York’s dance community, having premiered work at two notable dance venues- Dance Theatre Workshop (EGO 2010), and Dance New Amsterdam (Moments In Prayer 2008) and Raw Material (To Co-Exist 2009/2011). Everett has also mixed, mastered, and arranged for the internationally acclaimed dance company Urban Bush Women (Cool Baby Cool 2009). Saunders is also a talented and highly sought after web designer, with extensive

offerings through his company Flux Innovations.

Everett’s songwriting and performing career is also notable. His earlier work can be seen as cofounder of the Philadelphia based collective Dot.|Mental, creators of The P-Robe Syndrome – a musical tribute to renowned musician, athlete, and actor Paul Robeson. As a performer he’s shared the stage with legendary lyricists The Last Poets and recording artist Res. Saunders has recently produced, written, and composed *The Ugly*, featuring collaborations with vocalists Kirk Tyler and musician Ashley Phillips on tracks *Inside You*, *Post-Boat*, and *Beautiful*. This album has been performed at various festivals and venues across the country including Long Beach Music Festival and the Alexandria Hotel in Los Angeles, CA.

Everett is an avid vinyl collector and musicologist. His love of sound has inspired a diverse palette of favorites ranging from Pharoah Monch to composers Hans Zimmer and Ennio Morricone.

Isaac Schankler (they/them) is a composer, accordionist, and electronic musician living in Los Angeles. Their recent album *Because Patterns*, released on Aerocade Music in 2019, has been lauded as “beautiful, algorithmic, organic, dystopian.” They have also written music for critically acclaimed and award-winning video games, including *Ladykiller in a Bind*, *Analogue: A Hate Story*, and *Depression Quest*. Schankler is the artistic director of the concert series

People Inside Electronics, and Assistant Professor of Music at Cal Poly Pomona, where they teach composition and music technology.

With an interdisciplinary career blending classical training in cello and composition, sound/audio data research, and innovative computational arts education, Stony Brook professor **Margaret Anne Schedel** transcends the boundaries of disparate fields to produce integrated work at the nexus of computation and the arts. She has a diverse creative output with works spanning interactive multimedia operas, virtualreality experiences, sound art, video game scores, and compositions for a wide variety of classical instruments with interactive audio and video processing.

An ensemble of viola da gamba virtuosos (Doug Balliett, Kivie Cahn-Lipman, Loren Ludwig, and Zoe Weiss), **Science Ficta** tackles the thorniest polyphonic challenges, old and new. Longtime collaborators and friends, in 2016 the four were inspired to form an ensemble dedicated to music at least as difficult to play as it is to listen to (and hopefully more so!). Science Ficta's arcane but rewarding repertoire is comprised both of new commissions and a wealth of little-known sixteenth century works that have been unjustly neglected by modern performers and listeners.

Seth Shafer's artistic practice represents musical exploration at the extreme edge of performance. He

develops interactive installations and improvisational performance environments that are audience-involved meta-instruments. His work includes generative pseudo-hologram installations, interactive floor projection systems, and live data sonification exploiting privacy loopholes and feedback networks. He also looks for opportunities to explore ephemerality and multiplicity in live performance. This often involves performance situations that have limited or impossible rehearsal scenarios, purposeful impediments to ensemble coordination, live sight-reading, and unavoidable failure.

Alex Shaw is the Curator of Intercultural Journeys, Director of renowned ensemble, Alô Brasil, and Section Leader of the Spoken Hand Percussion Orchestra. Alex regularly lectures, teaches, and performs throughout the mid-Atlantic region, and has extensive experience as a teaching artist – working for over fourteen years in this regards. He joined the music faculty of the University of the Arts in 2010 and has received several competitive grants to support his music research and study in Brazil including the Independence Foundation Fellowship in the Arts and Arts International's Artist Exploration Fund Award. He was honored with the Emerging Legacy Award at the University of Pennsylvania MLK Commemorative Symposium for Social Justice in 2012.

Composer **Kyle Shaw** writes colorful, energetic music, in acoustic and electro-acoustic mediums,

tailored to the people and circumstances of their occasions and informed by his performance experience as a pianist and organist.

He has presented his work at the Intellectual Worlds of Johannes Brahms International Conference, the Grawemeyer Award's 30th Anniversary Conference, the University of Nebraska's Chamber Music Institute, Electronic Music Midwest, the Studio 300 Digital Arts Festival, the New York City Electroacoustic Music Festival, Electronic Music Eastern, and the SEAMUS conference.

He has been a finalist for the ASCAP Morton Gould Young Composer Award, a prize winner of the Belvedere Chamber Music Festival, the American Guild of Organists Composition Competition, and 1st-prize winner of the Iowa State University Carillon Composition Competition and the Vera Hinckley Mayhew Creative Arts Contest.

He has been commissioned by the Barlow Endowment, the 17th-annual 21st-Century Piano Competition, and has been a resident fellow at the Osage Arts Community's Mid-Missouri Composers Symposium.

He earned his DMA from the University of Illinois and is currently assistant professor of music theory and composition at California State University, Bakersfield.

Eric Sheffield (SUNY Broome) is a musician and

educator currently focused on physics-based modeling, networked performance, and popular music.

Sophia Shen — see **Southeast of Rain** 东南有雨

Stephanie Sherriff is an interdisciplinary artist and performer currently based in San Francisco, California. Their work with sound, video, and plants is ephemeral in nature and culminates as time-based installations and performances that deconstruct fragments of daily life through experimental processes. They received a BA from San Francisco State University in 2014 and an MFA in Art Practice from Stanford University in 2019. Their work has been featured at numerous cultural centers, including the Brooklyn Academy of Music in New York, the Sfendoni Theater in Athens, Greece, and a range of art and music spaces within California including Gray Area, The Lab, Artists Television Access, and the Center for New Music.

Conner Simmons is a double bassist and composer currently pursuing a dual degree in Performance and Composition at the University of North Texas. Possessing equal enthusiasm for both writing and performing new music, Conner has premiered a growing number of works for double bass, including solo, chamber, and large ensemble works.

Andrew C. Smith (he/him) is a composer and keyboardist living in Santa Cruz, California. He has

been producing concerts and recordings since 2011, and is currently the Executive Director of Indexical, a nonprofit organization based in Santa Cruz, California. He has previously produced events at Carnegie Hall, Lincoln Center (Alice Tully Hall), Bohemian National Hall, and other venues as Managing Director of the S.E.M. Ensemble (Brooklyn, NY), and has worked for the Seattle Symphony (Seattle, WA) and Issue Project Room (Brooklyn, NY).

Brian Smith is a musician, writer, and artist interested in exploring cultural practices, social forces, and technology through the medium of sound. As a co-founder of the ensemble ScreenPlay, he pursues a deep interest in experimental musical practices and improvisation with audio-visual works that merge animated notational schemes and artistic sonification practices based on large-scale data sets. Brian's current project, Human+, combines his interest in technologically-mediated sonic arts with a fiendish advocacy for new works by living composers to develop a repertoire of duets for musical robotics and percussionist.

Drew Smith (b. 1999, they/she) is a composer, improviser, and intermedia artist with roots in the midwest and the south. Starting in 2012, Smith has worked on a wide variety of solo and collaborative musical projects, releasing albums and playing shows that vary in style from noise to ambient to psychedelic rock. Since starting their undergraduate

studies at Oberlin Conservatory, Smith has moved primarily to writing chamber music for solo instruments and ensembles with electronics often derived from synthesizer improvisations, as well as working with video art, installation, circuit/instrument building and dance. Their chamber works have been programmed at national conferences such as SEAMUS, N_SEME and SPLICE Festival, and internationally at the soundSCAPE Festival in Italy. As a performer, Smith continues to play guitar(s), modular synthesizer and various electronics in their own pieces and with ensembles, including the Oberlin Improvisation and Newmusic Collective, the Oberlin Synthesizer Ensemble, Chroma Burst, and The Henry Nelson Ensemble. They are currently in their senior year at Oberlin, where they study Technology in Music and Related Arts with Eli Stine, and have had additional lessons with Peter Swendsen, Aaron Cassidy, and Amy Beth Kirsten.

A composer, electronic musician, and burgeoning vocalist from Atlanta, GA, **J. Andrew Smith** (b. 1992) is zealous about the intersections between poetry, acousmatic sound, and improvisation. His works often delve into personal narratives and how they can inform and enrich abstract mediums. Musical characteristics such as timbre, gesture, space, and form are often dictated by a delicate interlacing of autobiography with poetry and fiction in J. Andrew's music. He embraces the convergence of complex structures with elements of improvisation to give

performers agency without losing coherence or cogency in his music. As a vocalist, he maintains a passion for visceral, guttural, strange, and electrifying sounds.

Kel Smith is a composer, designer, author and technologist based in the United States. Mr. Smith composes and records as Suss Musik. The project is headquartered in North America, with various collaborators located throughout the world. Suss Musik began releasing material in the summer of 2015 and has since performed a number of commissions, including two pieces featured on the CHOQ Quebec radio program “La Rivière” and the Studio300 Digital Art & Music Festival at Transylvania University.

Southeast of Rain 东南有雨 — Yingjia (Lemon) Guo is a vocalist, composer, and interdisciplinary sound artist based in New York. Drawn to the visceral and evocative nature of the voice, she creates voice-based performances and installations that connect people to current environmental and cultural realities.

Sophia Shen is a composer, sound artist, pipa performer based in the San Francisco Bay Area. Her music often bridges the divide between cultures and breaks the boundaries between subjects. Both originally from Fujian, a small province in southeast China, they have been collaborating since 2012 when they were both at the University of Virginia, including multiple concert projects and field recording trips in China, Japan, and the United States. They developed a body of work that reevaluates their positions

in various ecosystems, experimenting with field recordings, live electronics, immersive theater, sound walks, and found objects. Embracing interdisciplinary collaborations, they frequently work with dancers, actors, and visual artists from different cultures and backgrounds, and aim to bring people together through cross-cultural collaborations and intimate human-human, human-technology interactions.

Jessica Stearns is currently pursuing a PhD in musicology with a minor in art history at the University of North Texas. Jessica’s dissertation research examines Christian Wolff’s notation and its context in the milieu of the New York School. Her research interests include music of the twentieth and twenty-first century, American music, notation, performance spaces, and sound studies. While completing her PhD, Jessica has remained active as a saxophonist performing in UNT’s Nova ensemble and in Sonoren, a free improvisation trio.

Elisabeth Stimpert is a founding member of the critically-acclaimed new-music ensemble Alarm Will Sound (www.alarmwillsound.com). She has performed across the country and internationally at major venues in New York, Philadelphia, St. Louis, Cleveland, Los Angeles, San Francisco, Los Angeles, Denver, Moscow, St. Petersburg, Amsterdam, South Korea and Germany. Dr. Stimpert works regularly with many of today’s leading and emerging composers, having presented world premieres of works by John Adams, Steve Reich, John Luther

Adams, David Lang, Wolfgang Rihm, Amy Beth Kirsten, Michael Gordon, Augusta Read Thomas, Carl Schimmel, Donnacha Dennehy, Stefan Freund, Robert Pound, John Orfe, David E. Chávez, and many others. A dedicated collegiate music educator, Dr. Stimpert serves as Assistant Professor of Clarinet at the University of Central Missouri where she teaches applied clarinet, aural training, woodwind methods, and woodwind literature and pedagogy. She holds a bachelor’s degree in clarinet performance and music theory from The Ohio State University, a master’s degree in clarinet performance and music education from the Eastman School of Music and a doctorate in clarinet performance from Shenandoah University.

Eli Stine is a composer, programmer, and educator. Stine is currently a Visiting Assistant Professor at Oberlin Conservatory. Stine received Ph.D. and Masters degrees in Composition and Computer Technologies as a Jefferson Fellow at the University of Virginia and bachelor’s degrees in Technology In Music And Related Arts and Computer Science from Oberlin College and Oberlin Conservatory. Stine’s work explores electroacoustic sound, multimedia technologies (often custom-built software, video projection, and multi-channel speaker systems), and collaboration between disciplines (artistic and otherwise). Festivals and conferences that have programmed Stine’s work include ICMC, SEAMUS, NIME, CMMR, NYCEMF, the Third Practice, Studio 300, and Threshold festivals, CubeFest, the Muestra

Internacional de Música Electroacústica, the International Sound Art Festival Berlin, the Workshop on Intelligent Music Interfaces for Listening and Creation, and the International Conference on Computational Intelligence in Music, Sound, Art and Design. Stine's film sound design has been heard by over a million people in The Amerikans web series, his sound design for the virtual reality installation VRWandlung, a VR adaptation of Franz Kafka's Metamorphosis, is touring around the world, with installation locations including Prague, Berlin, Madrid, Cairo, Oslo, Seoul, Tokyo, and Hong Kong.

Jeffrey Stolet is an American composer and virtuoso performer of electroacoustic and computer music. Stolet is a professor of music and director of Music Technology at the University of Oregon. He received a Ph.D. in Music at the University of Texas at Austin and was among the very first individuals to be appointed to a Philip H. Knight professorship at the University of Oregon. Stolet's work has been presented around the world and is available on the Newport Classic, IMG Media, Cambria, SEAMUS and ICMA labels.

Crossing the boundaries between audience and performer, vision and sound, motion and stasis, digital and analog, seen and unseen reality, **Cecilia Suhr**'s improvisational performance on the violin, voice, and cello often interacts with live electronics and video or fixed media. She often invites audiences' participation as a part of live performance

to heighten audiences' intimate and embodied experience while honoring unity and collective bonding. So far, her intermedia performance works incorporate interactive techniques such as face-tracking, color tracking and drawing with sound to create a unique audio-visual experience. She also carefully designs human focused interaction along with the art installation/camera installation. Overall, her creative practice yields a unique combination of various mediums such as performance art, movement, video, installation while an experimental improvisation/improvisation in an electro-acoustic style of music is the central element that anchors all mediums.

Daniel Swilley (b. 1980) is a German-American composer of acoustic and electroacoustic music. His music and research have been presented at festivals and conferences such as June in Buffalo, SEAMUS, Toronto Electroacoustic Symposium, Understanding Visual Music Symposium, NoiseFloor, New York City Electroacoustic Music Festival, Electronic Music Midwest, Studio 300, Audiograft, Electroacoustic Juke Joint, College Music Society, as well as Society of Composer's Inc. Swilley holds degrees in composition from University of Illinois Urbana-Champaign (DMA), Georgia State University (MM), and Valdosta State University (BM). His primary composition teachers have included Heinrich Taube, Sever Tipei, Robert Scott Thompson, and Scott Wyatt. Swilley is an Assistant Professor of

Music (Composition, Theory, and Technology) at the University of Northern Iowa.

A new music ensemble for the 21st Century, the **[Switch~ Ensemble]** is dedicated to the creation of new works for chamber ensemble: we bring bold new acoustic, electroacoustic, and multimedia projects to life. We believe that working directly with composers—in a medium where the score is a point of departure rather than a finish line—allows for new and thrilling musical possibilities.

Recent engagements include performances and residencies at Harvard, Cornell, Bard College, University of Chicago, Ithaca College, UC Berkeley, and University of Miami, as well as concerts at the Image/Sound Festival, San Francisco Center for New Music, VIPA Festival, MATA Interval Series, the Queens New Music Festival, and more. Upcoming projects include a broadcast series of new telematic works rehearsed and performed in quarantine, as well as performances in Fall 2021 at the DiMenna Center in NYC and the SinusTon Festival in Germany.

Commissioning projects include upcoming or recent premieres with Katharina Rosenberger, Zachary James Watkins, Leilehua (Anne) Lanzilotti, Anna-Louise Walton, Kelley Sheehan, and more. [Switch~] projects are generously supported by the Ernst von Siemens Musikstiftung, Pro Helvetia, New Music USA, MidAtlantic Arts Foundation US Artists International, the MAP Fund, and the Amphion, Ditson, and

Copland Foundations.

Asha Tamirisa [she/her/hers] works with sound, video, film, and researches media histories. Along with many colleagues, Asha co-founded OPENSIGNAL, a collective of artists concerned with the state of gender and race in electronic music and art practice. She now works with the organization TECHNE (technesound.org). Asha has taught sound and media production at Brown University, the Rhode Island School of Design, Girls Rock! Rhode Island, and Street Level Youth Media in Chicago. In 2019, she received Ph.D. in Computer Music and Multimedia and an M.A. in Modern Culture and Media from Brown University. Asha lives and works in Portland, ME and is currently an Assistant Professor at Bates College.

Alex Tedrow is a composer, musician, and educator who strives to connect performers and listeners of all backgrounds to fresh innovative music and technology. Offering a “vivacious and colorful” voice described as a “topography of beautifully integrated and deliberate sounds” (Eric Smedley), his diverse catalogue includes band, orchestra, choral, chamber, solo, electroacoustic, and sound installation pieces.

As an active member of the new music community, Alex’s work has been featured at the SCI Student National Conference, the Midwest Composers Symposium, NSEME, the Navy Band Saxophone Symposium, and the NMMEA All-State Conference.

In 2019, Alex studied at the Institut de Recherche et Coordination Acoustique/Musique in Paris where he premiered *Planet Playground* – an interactive, data-driven project incorporating crowd participation via mobile devices.

Alex is committed to assisting others through the arts. In 2018, he co- founded Composing for a Cause — a not-for-profit program in which members travel to hospitals for children to host songwriting workshops. In 2020, he joined the Jacobs Community Engagement Initiative focusing on cultivating sustainable development in rural Indiana communities through collaborative programming.

Alex is currently finishing a B.M. degree in music composition with minors in music education, electronic music, and conducting at the Jacobs School of Music where he serves as president of the IU Student Composers Association. He is an avid animal lover, biker, and spelunker — all themes that often inspire his work.

The Temple Dance Ensemble (TDE) is Temple Dance Department’s resident performance company, led by department faculty on a rotating basis. TDE offers a fully-produced performance program featuring original choreography by faculty, guest artists and ensemble members. The dancers display their artistry through an annual schedule of diverse performances that reflects the rich curriculum offered through the Dance Department. The overall mission of TDE is to

connect with the university and local communities through the art of dance. (<https://boyer.temple.edu/about/academic-departments/dance/tu-dance-ensemble>)

Jacob Thiede (b. 1992) is a composer and saxophonist from Murray, Kentucky, where the smell of tobacco barns and honeysuckle fill the air. His music captures a broad mix of contemporary and avant-garde styles with folk and improvisational roots. He received his BME at Murray State University and MM in music composition at the University of North Carolina at Greensboro. He has studied with Mike D’Ambrosio, Brian Ciach, and John Fannin at Murray State and with Mark Engebretson, Alejandro Rutty, and Steven Bryant at UNCG. As a saxophonist, he has studied with Scott Erickson and Steven Stusek. In May 2020, Thiede completed the PhD in Music Composition studying composition with Panayiotis Kokoras, Kirsten Broberg, and Andrew May as well as saxophone with Eric Nestler at the University of North Texas. His dissertation focuses on collaborating, composing, and creating interactive computer music for tap dancers.

Zach Thomas is a composer and media artist whose work is characterized by impulse, restlessness, and precision. He received his PhD from the University of North Texas where he worked as a teaching fellow at the Center for Experimental Music and Intermedia, while studying composition under Panayiotis Kokoras. As a researcher at the xREZ Art+Science Lab under

the direction of Ruth West, he works on projects combining big data, sonification, and VR. Since 2014, he has served as artistic director of the new music non-profit, ScoreFollower, producing content for the promotion of contemporary music; including a bi-annual call-for-works, a Featured Composer series, and a range of other projects aimed at increasing exposure of contemporary and experimental music to an online audience.

As a composer, he works often in mixed-media contexts, and is author of numerous concert works, installations, and software tools. His work and research have been presented at various international festivals and conferences including Warsaw Autumn Festival, Darmstadt Summer Courses, ICMC, SEAMUS, NYCEMF, NIME, Musicacoustica Festival in Beijing, SIGGRAPH, Forum Wallis, Audio Art Festival in Krakow, and others.

Jarrett Thompson is a graduate student at Georgia Southern University where he previously obtained his Bachelors degree in percussion performance. He is currently pursuing a Master in Music in Music Technology. His current work is in incorporating interactive elements into drumset performance. Find out more about him, his work, and how to contact him here: thejrummer.github.io

John Thompson is a composer and media artist. He holds a Ph.D. in music composition from the University of California, Santa Barbara, where he

studied music and media art with JoAnn Kuchera-Morin, Curtis Roads, Stephen Travis Pope, and Marcos Novak.

Following postdoctoral work under the National Science Foundation's IGERT interactive Digital Multimedia program, he joined the faculty of Georgia Southern University, where he heads the music technology program, through which he has structured a series of courses that range from introductory music technology classes to graduate courses in computer music.

He has published articles in the Computer Music Journal and the International Journal of Human-Computer Studies. His compositions have been presented at the International Computer Music Conference, the New Instruments for Musical Expression conference, the Spark Festival of Electronic Music and Art, SEAMUS, SIGGRAPH, the Inter-Society for the Electronic Arts, ACM Multimedia Conference. His recent creative work explores cross-modal techniques for combining multiple media in generative and interactive contexts.

Suzanne Thorpe is a composer-performer, researcher and educator who holds an MFA in Electronic Music & Media from Mills College, a Ph.D. in Integrative Studies from the University of California, San Diego, and is a Deep Listening instructor, having studied in depth with American composer and Deep Listening founder Pauline

Oliveros. She creates compositions with a variety of media and technology, and performs electroacoustic flute. Her career as a professional recording artist initiated as a founding member of the critically acclaimed band Mercury Rev with whom she produced numerous recordings for major and indie labels. As an electro-acoustic improviser she's performed with a wide array of inspiring musicians, and has appeared internationally. Her sound studies and creative research explore mechanisms that amplify collective negotiations and intersubjective experience in sound and listening, and take place in a variety of forms, including performance, installation and text. She has been awarded several residencies and awards for her research, such as the Frog Peak Collective Award for innovative research in technology, as well as grants from Harvestworks Digital Media Foundation, New Music USA, and the MAP Fund. She has also published and presented her work in various settings, including journals, conferences and lectures, visiting scholar and artistic residencies, museum and gallery exhibitions. Thorpe is currently a Mellon Teaching Fellow/Lecturer in Music at Columbia University, and co-founder/co-director of TECHNE, an arts-education nonprofit dedicated to nurturing generous practices in creative technology fields.

Originally from the Outer Banks of North Carolina, **Joshua Tomlinson** is a composer, sound designer, and educator specializing in electroacoustic music

and technology. He currently serves as Instructor and Area Coordinator of Music Technology at the University of North Florida. Lately, when he isn't composing or teaching, he enjoys surfing, reading, and cooking with his wife. If you're ever in Jacksonville, stop on by for crepes and lattes one morning!

John Toenjes is professor at the University of Illinois Urbana-Champaign (UIUC) Department of Dance. His interactive stage works incorporate improvisation through motion capture and audience interaction via cellphone networks. Works include Inventions Suite (featured at 2008 Cleveland Ingenuity Festival), and e's of water (University of Wisconsin-Milwaukee 2007). John programmed the generative score and designed the sensor networks for Astral Convertible (Re-imagined) at UIUC (2010) and FraMESHift (Turin, Italy 2011-12). While Technical Director for the international theater online organization Illinois-Japan Performing Arts Network, he staged Timings (2013) with dancers in three locations, including Tokyo. Kama Begata Nihilum (2104) featured dancers carrying networked iPads and an audience AR app called Mosho. Toenjes' primary interest now is using Mosho to integrate the audience into the structure and action of the dance. These works include Public Figure (2015), Critical Mass (2017), and Alternate Reality (2018), commissioned as a 21-st Century Seed project at UC-Irvine. Currently his research interest is in crafting contemporary dance as a game within VR.

Sam Topley's craft-focused projects are designed to be playful, engaging and accessible. She explores ideas in 'craftivism', considering how DIY textile handcrafts can be used to engage audiences with alternative and experimental ideas in music making.

Topley shares her work internationally through performances, exhibitions, workshops, and presentations. Her work has received recognition and awards: AHRC Cultural Engagement Award 2019; BBC micro:bit Featured Artist 2019; Dubai Maker Faire Featured Project Award 2019; Best Paper and Best Workshop prizes at New Interfaces for Musical Expression 2016 and 2020; and features in Nicolas Collins' Handmade Electronic Music (3rd Edition).

Sam is a doctoral candidate at the Music, Technology and Innovation - Institute for Sonic Creativity (MTI2), De Montfort University, where she also lectures in experimental music, creative music technology, and community arts practice. Her PhD is co-supervised by Nottingham Trent University and funded by the Arts and Humanities Research Council (Midlands4Cities Doctoral Training Partnership).

Samantha-topley.co.uk
social media: @samtopley

Paul Turowski is a composer, performer, and Lecturer in Music for Digital Games at the University of Liverpool. Paul's research examines intersections of game design/gameplay and musical composition/

performance. This includes the employment of digital games as interactive musical scores as well as the creation of video games that afford musical authorship to the player. His creative work has been performed by ensembles such as Dither, Ekmeles, and the Ligeti Quartet; has been presented at events such as the annual conference of the Society of Electro-Acoustic Music in the United States, the Kyma International Sound Symposium and the conference on Technologies of Notation and Representation; and has been featured on such websites as Cycling74.com and animatednotation.com. He has also given talks on game music at events like the North American Conference on Video Game Music.

Juan Carlos Vasquez (www.jcvasquez.com) is an award-winning composer, sound artist, and researcher. His electroacoustic music works are performed constantly around the world and to date have premiered in more than 30 countries across the Americas, Europe, Asia, and Australia. Vasquez has received grants and commissions from numerous institutions, including the ZKM, the International Computer Music Association, the Nokia Research Center, the Ministry of Culture of Colombia, the Arts Promotion Centre in Finland, the Finnish National Gallery, and CW+ in partnership with the Royal College of Music in London, UK. Some of the events and venues that have featured Vasquez's works include Ars Electronica (AU), the Ateneum

Art Museum (FI), The New York City Library for Performing Arts (Lincoln Center, NY, USA), the Berklee College of Music, Matera Intermedia Festival (IT), Sonorities Festival Belfast (UK), BEAST FEaST (UK) and the New Music Miami ISCM Festival (USA) along with a large number of academic events held by universities across the globe.

As a researcher, Vasquez's writings can be found in the Computer Music Journal, the Leonardo Music Journal, and the proceedings of all the standard conferences of the field. Vasquez received his education at the Sibelius Academy (FI), Aalto University (FI), and the University of Virginia (US). His scores are published by Babel Scores, and his music is distributed by Naxos, MIT Press (US), Important Records (US), and Phasma Music (Poland).

Mark Vaughn is a composer working primarily in electronic music and intermedia environments. He is currently ABD in Music Composition at the University of North Texas. Originally from Southwest Montana, he received his Bachelor's degree in Music Technology from Montana State University and his Masters degree in composition from UNT.

Artistically, he is concerned with the relationship between audience experience, compositionally determined materials, and external mediating structures, be they cultural, visual, musical, historical, political, architectural, etc. His music has been performed throughout the U.S at venues including

ICMC, SEAMUS, NYCEMF, and Electronic Music Midwest.

Adam Vidiksis is a composer, conductor, percussionist, improviser, and technologist based in Philadelphia whose music often explores social structures, science, and the intersection of humankind with the machines we build. Critics have called his music "mesmerizing", "dramatic", "striking" (Philadelphia Weekly), "notable", "catchy" (WQHS), "magical" (Local Arts Live), and "special" (Percussive Notes), and have noted that Vidiksis provides "an electronically produced frame giving each sound such a deep-colored radiance you could miss the piece's shape for being caught up in each moment" (Philadelphia Inquirer). His work is frequently commissioned and performed throughout North America, Europe, and Asia in recitals, festivals, and major academic conferences. Vidiksis's music has won numerous awards and grants, including recognition from the Society of Composers, Incorporated, the American Composers Forum, New Music USA, National Endowment for the Arts, Chamber Music America, and ASCAP. His works are available through HoneyRock Publishing, EMPIRE, New Focus, PARMA, and SEAMUS Records. Vidiksis recently served as composer in residence for the Chamber Orchestra of Philadelphia and was selected by the NEA and Japan-US Friendship Commission to serve as Director of Arts Technology for a performance of a new work by Gene Coleman during

the 2020 Olympics in Japan (now summer 2021). Dr. Vidiksis is Assistant Professor of music technology at Temple University, President and founding member of SPLICE Music, which includes the annual Institute, Academy, and Festival, a Resident Artist at the Renegade Theater company, and a founding member of the Impermanent Society of Philadelphia, a group dedicated to promoting improvisation in the performing arts. He performs in SPLICE Ensemble and the Transonic Orchestra, conducts Ensemble N_JP, and directs the Temple Composers Orchestra and the Boyer College Electroacoustic Ensemble Project (BEEP). He produces real-time generative improvised electronic music (a.k.a 4EA, Circadia). [www.vidiksis.com]

As a composer and field recording artist, **Nick Virzi's** current work explores music and the natural world through imagistic representation, orchestration of complex numerical systems, and use of original natural sound recordings. Inspired by an enduring curiosity and love of nature, his artistic practice emphasizes the use of live electronics to combine natural sounds and acoustic instruments in immersive electroacoustic environments. He has recorded hundreds of hours of natural soundscapes at over 30 wilderness locations worldwide, developing novel approaches to field recording through the experimental use of portable audio technology. As a performer, he has presented his work in various concert settings, including the use of electronic

instruments, live electronics, and laptop performance in solo and group improvisation, durational performance, and intermedial collaboration.

Jordan Walsh is a percussionist, audio engineer, and educator based in Austin, Texas. A proponent of electronics and theater in music, he strives in his solo career to perform the most absurd music with the most genuine fervor. Jordan frequently commissions and performs new works in both chamber and solo settings, with upcoming premieres by composers including Elaine Lillios, Akshaya Avril Tucker, and José Martinez. He has been the recipient of a number of awards and scholarships including the Presser Award, the University of Michigan EXCEerator Grant, and second prize in the 2017 PASIC Chamber Competition. He is a founding member of Up/Down Percussion (Artistic Director, GA), the Less Than 10 new music collective (Associate Director, TX), and is a member of the Austin based new music collective Density512. Jordan holds a Master's Degree from the University of Texas at Austin, a Bachelor's degree with honors from the Schwob School of Music at Columbus State University, and is currently a Doctoral Candidate and Teaching Assistant at UT Austin. Jordan's primary teachers have included Thomas Burritt, Tony Edwards, Paul Vaillancourt, Ryan Smith, and Erik Forst.

In addition to his performance career, Jordan maintains an active teaching schedule in the Austin area. His private students in both the Lake Travis ISD

and the Leander ISD frequently place at Texas All-State and Region band auditions as well as in the PASIC High School Individuals Competition (2018). He acts as a chamber music coach at UT Austin, where his students placed third in the 2018 PASIC Chamber Competition.

Jordan is also an active audio engineer and producer, working independently as well as for the University of Texas at Austin. He acts as Supervising Audio Engineer for the Vista Ridge High School Marching Band (UIL Texas State Champions 2018), and is in demand as a live engineer in the Austin marching band community. Some of his production credits include Colin McCall's Bloom, James Markey's Psychedelia, Peter Steiner's United, and Up/Down's Roots. Beyond traditional audio work, Jordan is proficient in both the Max/MSP and SuperCollider audio processing languages, and is a composer and advocate of electroacoustic music. He has acted as Technical Director for the 2020 New Media Art & Sound Summit, live audio engineer for the Austin New Music Co-Op "Listening In" series, and is the Director of newly minted DensitySOUND record label under Density512. His audio technology teachers have included Andrew Stoltz, Matthew McCabe, Russell Pinkston.

Andrew Walters' music has been performed at various conferences throughout the United States

and Canada including SEAMUS, SCI, ICMC, Spark, Imagine II, Electronic Music Midwest, Electroacoustic Barn Dance. His music appears on volume nine and sixteen of the "Music from SEAMUS" compact discs. Currently he is Professor of Music Theory and Music Technology at Mansfield University in Mansfield, Pennsylvania.

Fang Wan is an intermedia composer and performer. Fang's primary research interests are sound design and interactive composition. Her compositions have been performed internationally including performances in Asia, North America, and Europe, and at major music festivals, such as the Future Music Oregon Concerts (FMO), the Kyma International Sound Symposium (KISS), the Society for Electro-Acoustic Music in the United States (SEAMUS) National Conference, MUSICACOUSTICA-BEIJING, Turn Up Festival, and the International Computer Music Conference (ICMC) where, in 2017, she was awarded the top prize for a student composition. The quality of Fang Wan's musical composition was again acknowledged when her work Origin for Wacom tablet and Kyma was selected to be in SEAMUS compact disc series. Fang received her MM in Intermedia Music Technology and D.M.A. degree in the Performance of Data-driven Instruments at the University of Oregon.

Chi Wang is a composer and performer of electroacoustic music. Her research and compositional interests include sound design, data-

driven instruments creation, musical composition, and performance. Chi's compositions have been performed internationally including presentations at the International Computer Music Conference, the Society for Electro-Acoustic Music in the United States, Musicacoustica-Beijing, the New York City Electroacoustic Music Festival, New Interface for Musical Expression International Conference, Kyma International Sound Symposium, International Confederation of Electro-Acoustic Music, Electronic Music Midwest Festival, Third Practice Festival, and Electroacoustic Barn Dance. Chi's composition was selected for inclusion on the music from SEAMUS CD Volume 28. She is the recipient for the Best Composition from the Americas at the 2018 International Computer Music Conference. Chi received her D.M.A. at the University of Oregon. Chi is currently an assistant professor of music (composition: electronic and computer music) at the Indiana University Jacobs School of Music.

Mengmeng Wang is a DMA composition dissertator at University of Wisconsin-Madison and studies composition with Professor Laura Schwendinger. She received her Master of Music in Composition from Shanghai Conservatory of music. She is the winner of the Mead Witter School of Music Concerto Competition. She has won awards at 1st eARTS Digital Audio China Competition and the 4th Chinese National Music Exhibition and Performance etc. She was a residency composer of Atlantic Center of the

Arts in 2018. Her music was performed in June in Buffalo (NY), Atlantic Center of the Arts, Chicago Composers Consortium Electro-Acoustic Concert, Glasgow UK, Ithaca (NY), CCE concert at UW-Madison, Beijing Modern Music Festival etc.

Ilana Waniuk is a versatile violinist with interests ranging from improvisation to visual arts. Along with pianist Cheryl Duvall, Ilana is a founding member and co-artistic director of Tkarón:to (Toronto) - based contemporary music ensemble Thin Edge New Music Collective and Balancing on the Edge (multidisciplinary production company merging contemporary music and circus arts). Ilana has performed on concert stages across Canada, Italy, Argentina, Poland, Japan and most recently Germany and Greece. She has toured Cape Breton and Ontario with the Bicycle Opera Project, performed at contemporary music festivals including SoundOn in San Diego, Suoni per Il Popolo in Montreal, Open Ears in Kitchener/Waterloo and the Royal Conservatory's 21C festival as well as with the Madawaska String Quartet, Adam Rudolph's Go Organic Orchestra, and Chicago's Ensemble Dal Niente and Noise (San Diego). She has held artistic residencies at the Banff centre for the Arts, Avaloch Farms Music Institute and been a fellow at the Norfolk Chamber Music Festival New Music Workshop. Ilana was a winner of the 2014 Orford String Quartet Award and most recently is the curator/performer behind 'Filaments', an evolving

concert program dedicated to collaboratively creating and commissioning new interdisciplinary works for violin, electronics and multimedia made possible with generous support from the SOCAN Foundation, Canada Council for the Arts, Ontario Arts Council, and Canadian Music Centre. Ilana is currently a doctoral student in contemporary performance at the University of California San Diego.

Zachary James Watkins studied composition with Janice Giteck, Jarrad Powell, Robin Holcomb and Jovino Santos Neto at Cornish College. In 2006, Zachary received an MFA in Electronic Music and Recording Media from Mills College where he studied with Chris Brown, Fred Frith, Alvin Curran and Pauline Oliveros. Zachary has received commissions from Cornish College of The Arts, The Microscores Project, the Beam Foundation, sfsound, The Living Earth Show, Kronos Quartet and the Seattle Chamber Players among others. His 2006 composition Suite for String Quartet was awarded the Paul Merritt Henry Prize for Composition and has subsequently been performed at the Labs 25th Anniversary Celebration, the Labor Sonor Series at Kule in Berlin Germany and in Seattle, as part of the 2nd Annual Town Hall New Music Marathon featuring violist Eyvind Kang. Zachary has performed in numerous festivals across the United States, Mexico and Europe. Zachary releases music on the labels Sige, Cassauna, Confront (UK), The Tapeworm and

Touch (UK). Novembre Magazine (DE), ITCH (ZA), Walrus Press and the New York Miniature Ensemble have published his writings and scores. Zachary has been an artist in residence at the Espy Foundation, Djerassi and the Headlands Center for The Arts.

Alan Weinstein, cellist, performs across a wide spectrum of disciplines. He is a founding member of the Kandinsky Trio, winner of the Chamber Music America Residency Award, the NEA American Masterpieces Grant and a NEA Meet the Composers Award. He has performed in venues including Merkin Hall, Miller Theatre, Spivey Hall and the Kennedy Center. As an electric cellist he has performed at the Edinburgh Fringe Festival, soloed with the Virginia Tech Wind Ensemble at Carnegie Hall and is a member of the improv trio Nagging Mother.

His dedication to new music has led him to premiere compositions by artists such as Mike Reid (“Tales of Appalachia” performed in over 150 cities), Richard Danielpour, and Hilary Tan. His jazz collaborations have included performances with Larry Coryell, Kurt Rosenwinkle, Dave Samuels, John D’earth and as a harmonica player with Ray Charles. Virginia Tech has awarded Mr. Weinstein an Associate Professorship, the Alumni Teaching Award, the Certificate of Teaching Excellence Award and the Sturm Award for Faculty Excellence in the Creative Arts. He has recorded for Arabesque Records, Briosio and OmniTone labels.

Anna Weisling is a practice-based researcher who explores the relationship between sound and image and the performance possibilities shared by both.

Silen Wellington (they/them) is a sculptor of sound, artist of people, storyteller, witch, genderqueer shapeshifter, mercurial name collector, and lover, among other things. Avidly interdisciplinary, they like to combine music with other art mediums, be that spoken word, visual art, ritual performance, loud and fiery eye contact, otherworldly and melting trysts, or something else entirely. They have a BM in Music Composition and a BA in Psychology from University of Colorado Boulder. Internationally performed from Invercargill, Aotearoa New Zealand to Hyderabad, India, their work has won competitions from professional ensembles and organizations such as Ars Nova and the Playground Ensemble. They are the 2019 SEAMUS Allen Strange Award recipient and have received commissions from solo performers and ensembles such as Playground Ensemble, Resonance Women’s Chorus and Phoenix: Colorado’s Trans Community Choir. They have studied composition with Patricia Burge, John Drumheller, Daniel Kellogg, Carter Pann, and Nathan Hall. Besides music, they enjoy writing poetry, harvesting stories, unhinged-unfettered-unapologetic dance, and falling in love.

Sam Wells is a Los Angeles-based trumpeter, composer, and improviser who creates evocative and narrative multimedia performances.

Sam has performed throughout North America and Europe, as well as in China. He is a recipient of a 2016 Jerome Fund for New Music award, and his work, stringstrung, is the winner of the 2016 Miami International Guitar Festival Composition Competition. He has performed electroacoustic works for trumpet and presented his own music at the Bang on a Can Summer Festival, Chosen Vale International Trumpet Seminar, Electronic Music Midwest, Electroacoustic Barn Dance, NYCEMF, N_SEME, and SEAMUS festivals. Sam and his music have also been featured by the Kansas City Electronic Music and Arts Alliance (KcEMA) and Fulcrum Point Discoveries. He has also been a guest artist/composer at universities throughout North America.

Sam is a member of Arcus Collective, Kludge, and SPLICE Ensemble. Sam has performed with Contemporaneous, Metropolis Ensemble, TILT Brass, the Lucerne Festival Academy Orchestra, and the Colorado MahlerFest Orchestra. Sam has recorded on the SEAMUS and Ravello Recordings labels.

Sam is currently enrolled in the Performer-Composer DMA program at the California Institute of the Arts. He has degrees in both performance and composition at the University of Missouri-Kansas City, and graduate degrees in Trumpet Performance and Computer Music Composition at Indiana University. He is on faculty at SPLICE Institute, Molloy College, and the California Institute of the Arts.

Jeremy Wexler is a musician from Long Island, NY currently residing in the San Francisco Bay Area. Studying the drum set from a young age, Jeremy cites his deep immersion in rhythm, gesture, and timbres of non-pitched percussion instruments in his formative years as a strong influence on his current musical explorations. This has been the central basis of Jeremy's compositions, which feature complex timbres, improvisation, microtonality, and the derivation of musical content based on various aspects of the drum set. He aims to create music that sounds naturally visceral and gestural, rigorously structured, and encompasses a wide emotional landscape.

Kendra Wheeler — see **Alecto**

Wilynn Whiting (He/Him) was born in 1993, in Winnipeg (MB), where he studied piano and composition privately before pursuing music academically. Wilynn holds a Bachelor's Degree in Composition from the University of Toronto (ON) and a Master's Degree in Composition from the University of Western Ontario (ON). He is currently pursuing a Doctorate in the same field at the University of North Texas (TX). The composer's output consists mainly of solo and chamber concert music. These mediums are significant to the composer, in so much as they are practical and useful for expressing his ideas.

Chace Williams (b. 1996) is an active composer and audio engineer currently residing in Bowling Green,

Ohio. His music has been performed throughout the United States, as well as internationally, in Chile, China, Malaysia, Romania, and Singapore. Chace's primary focus is electroacoustic music, combining and processing the sounds of live instruments with their digitally manipulated counterparts.

He has written for ensembles such as the McCormick Percussion Group, National Repertory Orchestra, Quasar, and String Noise. Recently, Chace was the recording and production fellow for the National Repertory Orchestra where he was commissioned to write a fanfare as part of the Bravo! Vail Music Festival. His works have been featured on other festivals such as Ball State Festival of New Music, Electroacoustic Barn Dance, ICMC, NSEME, NYCEMF, and SEAMUS. This past summer, he completed a residency at the Xi'an Liangjiatan International School in Xi'an, China. Chace's works have been published on multiple labels including Zinnia for tuba and live electronics on the SEAMUS 2017-18 Interactions CD.

Chace has recently completed a Master of Music degree in music composition at Bowling Green State University under the tutelage of Elainie Lillios and Mikel Kuehn. He holds a Bachelor of Music from the University of South Florida where he studied with Baljinder Sekhon and Paul Reller.

Austin Windau (born 1996) is a filmmaker and screenwriter from Northern Ohio who strives to better understand emotion and human interpretation

through film and video. He graduated from Bowling Green State University with a Bachelor's in Film Production in 2019 and has since worked on short films and an in-development feature film. This piece is Austin's second time working with mixed media in music, with the goal being to blend abstract visuals with the interpretive nature of music. He hopes to continue collaborating with composers and artists to further blend the artistic mediums, with the effort being to understand the common ways humans interpret the world and communicate with one another. Austin currently is focused on screenwriting and hopes to write and direct feature films in the future.

Originally from Beijing, **Jiayue Cecilia Wu** (AKA: 武小慈) is a scholar, composer, vocalist, multimedia technologist, and audio engineer. Cecilia earned her Bachelor of Science degree in Design and Engineering in 2000. She then worked as a professional musician at EMI Records and Universal Music Group for ten years. In 2010, Cecilia produced her original album of electroacoustic music, Clean Your Heart, published by Taihe Music Group. In 2013, Cecilia obtained her Master of Arts degree in Music, Science, and Technology at the Center of Computer Research in Music and Acoustics (CCRMA) at Stanford University. In 2018, Cecilia obtained her Ph.D. in Media Arts and Technology from the University of California Santa Barbara. As an audio engineer, she received a two-year-long

grant award from the Audio Engineering Society (AES). As a musician, she received an award from the California State Assembly for being a positive role model in sharing Chinese culture. As a multimedia artist, she received the “Young Alumni Arts Project Grant Award” from Stanford University. Her work has been exhibited at museums and international arts and engineering societies such as the National Museum of China, Denver Art Museum, IEEE, ICMC, SEAMUS, NIME, MOCO, and ISEA. Her piece <Virtual Mandala> was selected by the Denver Art Museum for its permanent collection of Asian Art. Dr. Wu is also a U.S. National Academy of Sciences Sackler Fellow. Currently, she is an assistant professor at the University of Colorado’s College of Arts and Media. She has been an improviser since her time at CCRMA back in 2011 and most of her performance pieces are improvisations. She truly enjoys the excitements and human non-verbal communications via improvisation.

Will Yager is a versatile bassist/improviser committed to experimental music, improvisation, and collaborating with composers in the creation of new solo and chamber repertoire for the double bass. He is a founding member of both LIGAMENT, a duo with soprano Anika Kildegaard, and the experimental trio Wombat, with Justin Comer and Carlos Cotallo Solares. Recent appearances include performances at the Oh My Ears Festival, MOXsonic, Big Ears Festival, Feed Me Weird Things, Nief-Norf Summer Festival, New Music on the Point, Cortona Sessions

for New Music, and the Bang on a Can Summer Music Festival, where he was a Robert Black Double Bass Fellow.

Katherine Young makes electroacoustic music and sonic art investigating, challenging, and making the most of collaboration. The LAPhil, Chicago Symphony Orchestra’s MusicNOW, Internationales Musikinstitut Darmstadt, Third Coast Percussion, Ensemble Dal Niente, Bludenzer Tage zeitgemäßer Musik, and others have commissioned her music. She has worked closely with Wet Ink, Ensemble Nikel, WasteLAnd, Distractfold Ensemble’s Linda Jankowska, and Yarn/Wire. Her installation work has been commissioned by the University of Chicago’s Smart Museum of Art. As a bassoonist and improviser, Katherine amplifies her instrument and employs a flexible electronics setup. She has documented her work on numerous recordings, including her debut with Sam Scranton as Beautifulish (out December 2020 on Shinkoyo) and a duo with Anthony Braxton. Katherine teaches composition, improvisation, and electronic music at Emory University in Atlanta.

The music of composer **Nina C. Young** (b.1984) is characterized by an acute sensitivity to tone color, manifested in aural images of vibrant, arresting immediacy. Her experience in the electronic music studio informs her acoustic work, which takes as its given not melody and harmony, but sound itself and its metamorphosis. Her musical voice draws

from elements of the classical canon, modernism, spectralism, American experimentalism, minimalism, electronic music, and popular idioms. Her projects strive to create unique sonic environments that can be appreciated by a wide variety of audiences while challenging stylistic boundaries, auditory perception, and notions of temporality.

Young’s works have been presented by Carnegie Hall, the National Gallery, the Whitney Museum, LA Phil’s Next on Grand, and the St. Paul Chamber Orchestra’s Liquid Music Series. Her music has garnered international acclaim through performances by the American Composers Orchestra, the Milwaukee Symphony, the Minnesota Orchestra, the New York Philharmonic, the Philadelphia Orchestra, the Phoenix Symphony, Le Nouvel Ensemble Moderne, the Aizuri Quartet, Either/Or, the JACK Quartet, wild Up, and Yarn/Wire. Winner of the 2015-16 Rome Prize at the American Academy in Rome, Young has also received a Koussevitzky Commission, a Civitella Ranieri Foundation Fellowship, a Charles Ives Scholarship from the American Academy of Arts and Letters, the Salvatore Martirano Memorial Award, Aspen Music Festival’s Jacob Druckman Prize, and honors from BMI, IAWM, and ASCAP/SEAMUS.

Recent commissions include Tread softly for the NYPhil’s Project 19; a violin concerto for Jennifer Koh and the Philadelphia Orchestra, Out of whose womb came the ice (commissioned by the Carnegie Hall and the American Composer’s

Orchestra) for baritone, orchestra, electronics, and generative video, commenting on the ill-fated Ernest Shackleton Trans-Antarctic Expedition 1914-17; and a multimedia work for the American Brass Quintet and EMPAC's wavefield synthesis system: *The Glow that Illuminates, The Glare that Obscures*. Her debut album *Traced Upon Cinders*, a collaboration with Ensemble Échappé and Benjamin Grow will be out in 2021 on Innova.

A graduate of McGill University and MIT, Young completed her DMA at Columbia University. She is an Assistant Professor of Composition at USC's Thornton School of Music. She serves as Co-Artistic Director of New York's Ensemble Échappé. Her music is published by Peermusic Classical. ninacyoung.com

Sabrina Peña Young is an award-winning Latina composer and educator best known for her futuristic animated opera *Libertaria* and decades of women's arts advocacy. An international leader in internet collaboration and media technology, Peña Young gave a TEDx Talk on the importance of crowdsourcing, virtual spaces, and media arts. Her works have been featured on NPR, Art Basel Miami, Opera America NYC, and countless venues on six continents. Recipient of the prestigious Cintas Foundation Brandon Fradd Composer Fellowship and the Lois Weber Filmmaker Award. Peña Young has worked in social justice with houseless populations and taught nontraditional and at-risk students for two decades. A busy mom and first

generation American, Peña Young has a passion for equitable education for all, regardless of zip code. In 2020 Young started her business Bandwidth Media & Film and continued her political activism. With the pandemic Young left the private sector and entered national politics full time.

Marcel Zaes (b. 1984 in Bern, Switzerland), is an artist and artistic researcher. Currently, he is pursuing his Ph.D. in Music & Multimedia Composition at Brown University. Marcel investigates mechanical time with an interdisciplinary framework. His creative practice consists of assemblages of self-made software code that acts as mechanical timekeeper and human performers who they play "against," thereby creating an affective potential to re-think the gap between what is conceived of as "human" versus what is conceived of as "mechanical" temporality.

Marcel's work has most recently been performed and exhibited at ISEA Hong Kong (2016), the Center for New Music San Francisco (2018), the Biennial of Contemporary Arts Lisbon (2019), Cabaret Voltaire Zurich (2019), Columbia University in New York (2019), Dampfzentrale Bern (2018, 2020) and at Fridman Gallery New York (2020). www.marcelzaes.com

Ashkan Zareie is a composer, bioinformatician, multi-instrumentalist, and orchestrator. He has been the co-director of *The Blunder of a Horse* since 2013—an ensemble acclaimed for their "communal

investigations of free improvisation" and "innovative instrumentation". Ashkan's most recent creative endeavors comprise modular compositions, among others, for clarinet, microtonal mandolin and lap steel guitar, Akkordzither, monochord, and percussion, some in part carried out with Arian Bagheri Pour Fallah, Norman Westberg, and John Butcher. Ashkan is an alumnus of Aalto University and currently a bioinformatics scientist at the Czech Centre for Phenogenomics, Czech Academy of Sciences, where he researches topics at the intersection of data science, phenomics and machine learning.

Julie Zhu is a composer and carillonneur. She employs a variety of media, from mural painting and sculpture to performance and video, and collaborates with artists from different fields to create experimental chamber experiences. She has activated living rooms, concert halls, art galleries, bell towers, caves, copses, and once made a tiny house for just one harpsichordist's body and the keyboard. Her scores range from hair cast in clear resin to temporary tattoos to traditional orchestration. Zhu's music has been performed by Marco Fusi, Longleash, PROMPTUS, TAK ensemble, among others. Zhu performs carillon concerts around the world and was the resident carillonneur at Saint Thomas Fifth Avenue in New York City.

Eric Zurbin is an Urbana, Illinois-based composer, sound designer, and doctoral student in composition at the University of Illinois at Urbana-Champaign.

He works in acoustic, electroacoustic, and mixed mediums, finding inspiration from a variety of sources, such as sonic data, environmental sounds, and algorithms, among others. His works have been performed at MA/IN, SEAMUS, EMM, Dias de Música, Chime, and Sonic Illinois. He has studied with Paul Moravec, Erin Gee, Stephen Taylor, and Sever Tipei; and electroacoustic composition with Scott Wyatt and Eli Fieldsteel. His research interests include microtonality, psychoacoustics, spectralism, algorithmic composition, psychoanalysis and literature, and sound design.

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