

NEW YORK CITY ELECTROACOUSTIC MUSIC FESTIVAL



JUNE 20-26, 2022

Sheen Center for Thought and Culture



**NEW YORK CITY
ELECTROACOUSTIC
MUSIC FESTIVAL**

—

JUNE 20-26, 2022

—

**FULTON J. SHEEN
CENTER**

—

www.nycemf.org

CONTENTS

ACKNOWLEDGEMENTS	5
DIRECTOR'S WELCOME	6
STEERING COMMITTEE	6
REVIEWING	7
LOCATION	8
PAPERS	9
WORKSHOPS	11
INSTALLATIONS	13
CONCERTS	14
BIOGRAPHIES	62



ACKNOWLEDGEMENTS



GENELEC®

**STIM
FORWARD
FUND**



DIRECTOR'S WELCOME

Welcome to NYCEMF 2022. After two years of having virtually all live music in New York City and elsewhere completely shut down due to the coronavirus pandemic, we are delighted to be able to resume live concerts in 2022. We have seven days of programming, including 22 concerts over the course of the week. All events will take place at the Fulton J. Sheen Center for Thought and Culture.

We would first like to express our appreciation to the following organizations who have contributed support for this year:

- The Fulton J. Sheen Center for Thought and Culture
- The Genelec Corporation, for providing us with loudspeakers enabling us to play all concerts in full surround sound
- Queens College and Brooklyn College of the City University of New York, the State University of New York at Stony Brook, and the University of Central Missouri for lending us equipment and facilities.
- The STIM Forward Fund for providing travel support

We hope you will enjoy NYCEMF 2022!

Hubert Howe

*Emeritus Professor of Music
Queens College and the Graduate Center
City University of New York*

NYCEMF 2022 STEERING COMMITTEE

Ioannis Andriotis, composer and audio engineer.
<https://www.andriotismusic.com/>

Angelo Bello, composer. <https://angelobello.net>

Nathan Bowen, composer, Professor at Moorpark College (<http://nb23.com/blog/>)

George Brunner, composer, Director of Music Technology, Brooklyn College C.U.N.Y.

Daniel Fine, composer, New York City

Travis Garrison, composer, Music Technology faculty at the University of Central Missouri (<http://www.travisgarrison.com>)

Doug Geers, composer, Professor of Music at Brooklyn College (<http://www.dgeers.com/>)

Michael Gogins, composer, Irreducible Productions, New York City (<http://michaelgogins.tumblr.com>)

Elizabeth Hoffman, composer, professor at New York University (https://wp.nyu.edu/elizabeth_hoffman/)

Hubert Howe, Professor Emeritus of Music at Queens College (<https://www.huberthowe.org/>)

Howard Kenty, composer, Stony Brook University, Brooklyn, NY (<http://hwarg.com>)

Judy Klein, composer, New York City

Eric Lyon, composer, Professor of Music at Virginia Tech University (<http://www.performingarts.vt.edu/faculty-staff/view/eric-lyon>)

Akio Mokuno, composer and performer, New York City. (www.akiomokuno.com)

Michael Musick, composer, Assistant Professor, University of Montana (http://www.umt.edu/mediaarts/fwp_portfolio/michael-musick)

Dafna Naphtali, composer, performer, educator, New York City (<http://dafna.info>)

Daniel Pate, percussionist (<http://www.danielpatepercussion.com/>)

Tae Hong Park, composer, Music Technologist, New York University, New York
(http://steinhardt.nyu.edu/faculty/Tae_Hong_Park)

Izzi Ramkissoon, composer and performer, New York City

David Reeder, composer, developer, installation artist, New York City (<http://mobilesound.org>)

Paul Riker, composer, Lead Audio Development Engineer, Visualization Lab, King Abdullah University of Science and Technology

Meg Schedel, composer, Professor of Music at Stony Brook University
(<http://www.schedel.net>)

Madeleine Shapiro, cellist, New York City
(<https://www.madeleineshapiro.com/>)

Joshua Tomlinson, composer
(<http://www.joshuadtomlinson.com/>)

Mark Zaki, composer, Professor of Music at Rutgers University

Marianne Gythfeldt
Kerry Hagan
Fede Camara Halac
Mara Helmuth
Theo Herbst
Hubert Howe
Wilfried Jentzsch
Konstantinos Karathanasis
Judy Klein
Esther Lamneck
Wuan-chin Li
Andrew May
Dariusz Mazurowski
Akio Mokuno
Mark Phillips
Timothy Polashek
David Reeder
Leah Reid
Clemens von Reusner
Michael Rhoades
Margaret Schedel
Madeleine Shapiro
Jeffrey Stolet
Fred Szymanski
David Taddie
Akira Takaoka
Robert Scott Thompson
Sever Tipei
Joshua Tomlinson
YuChung Tseng
Kari Vakeva
Beatrix Wagner
Andrew Walters
Maurice Wright
Mark Zaki

REVIEWING

The New York City Electroacoustic Music Festival gratefully acknowledges the assistance of the following people, spread across six continents, who helped review the submissions to the festival:

Ioannis Andriotis
Christian Banasik
Angelo Bello
Nathan Bowen
George Brunner
Julius Bucsis
Maja Cerar
Eleonora Claps
Patti Cudd
James Dashow
David Durant
Gerald Eckert
Enzo Filippetti
Shiau-uen Ding
Javier Garavaglia
Travis Garrison
Douglas Geers
Michael Gogins
Joel Gressel
Ragnar Grippe

NYCEMF logo designed by Matt and Jeremiah Simpson.

LOCATION

THE SHEEN CENTER FOR THOUGHT & CULTURE

18 Bleecker Street
New York, NY 10012



PAPERS

Paper sessions will take place in Studio A at the Sheen Center, and they will also be streamed on Zoom at <https://nyu.zoom.us/j/98812027828>

Wednesday, June 22
10:30 - 11:00 AM

Ka Hei Cheng (remote)
Unobtrusive Auditory Display for Weather Reporting

The definition of contemporary sonification is essential in building relevance of the current societal norms, environmental phenomenon and political insight to listeners; while historical creative projects could arouse the collective remembrance and capture, interpret and elaborate the uniqueness of auditory display of data-driven sonification. The project aims to take reference to the features and undergo sonification of weather records by data retrieving in Open Weather API and Design an unobtrusive auditory display for weather reporting. In the process of music making, auditory icons, earcons, audification and parameter mapping would be considered as the techniques in sonification. Through writing a python script to retrieve and sort the data, it generates the unpacked data to different parameters of synthesizers, which includes parallel subtractive synthesis, waveshaping and FM synthesis and other synthesizers to undergo sonification. Developers of the project could further enrich the archival systems with computing and operate in different devices. The enhancement in fluidity and flexibility in the open-source systems would facilitate Ubiquitous computing.

Wednesday, June 22
11:00 - 11:30 AM

Jacob Leshnower (remote)
Calculating Emotion: The Mathematics Behind Music's Major-Minor Dichotomy

Western music can thank mathematics for its ability to enable composers to translate emotion into music. The major-minor dichotomy, defined through mathematics, has served as the backbone for Western music tonality for roughly the last few centuries. This dichotomy has been a prime force in enabling composers to translate emotion into music. Although the dichotomy relies on mathematics, composers do not need to make careful calculations or even be proficient at math to deftly employ major or minor tonalities in their music. In fact, composers and performers alike are typically unaware that math is helping them convey desired emotions in their music. Ironically, many people regard music as emotional and

exciting while mathematics too often earns a reputation for being dry or boring. However, music's major-minor dichotomy is a prime example of how mathematics can be the vehicle responsible for delivering the emotion in music that captures our hearts.

Wednesday, June 22
11:30 AM - 12:00 PM

Rob Mackay (remote)
Networking the Flight of the Monarchs Paper

Networking the Flight of the Monarchs is an audiovisual telematic performance. Soundscapes from monarch butterfly reserves in Canada, Mexico and the USA are live-streamed from open microphones installed by Rob Mackay in 2018 and 2019, and blended with improvised performances networked in real-time from California (David Blink - handpan/trumpet); Mexico (Rolando Ro-driguez - poetry); Canada (Jessica Rodriguez - video); and the United Kingdom (Rob Mackay - flutes and computer). Inspired by Tereasa Conors' creative practice, "ecological performativity" enacts a non-anthropocentric model, characterised as the dance of agency between living and non-living systems, human and non-human actors, and the complexity within which they are entangled (Conors, 2015). This model stems from the premise that artistic practice enables different perspectives of the world and becomes an apparatus for change, promoting what we consider "a long overdue ontological shift in the way we exist in the world" (Welsby, 2011). The performance is part of the project *Following the Flight of the Monarchs* which is an interdisciplinary acoustic ecology project bringing together artists and scientists, connecting with ecosystems and communities along the migration routes of monarch butterflies as they travel the 3,000 mile journey between Mexico and Canada each year. Streamboxes are being installed along the monarch butterfly migration routes between Canada and Mexico. These livestream the soundscapes of these different eco-systems 24/7 via the Locus Sonus Soundmap. The streams are being used for ecosystem monitoring as well as integrating into artworks which are raising awareness of the issues the monarchs face, whose numbers have declined by nearly 90% over the past two decades.

Wednesday, June 22

12:00 - 12:30 PM

Neil O Connor (remote)

**In Hindsight: The Impact of Xenakis's
Concret Ph (1958) on Contemporary
Microsound Music.**

The term microsound includes all sounds on the time scale shorter than musical notes and represents sound worlds that are not immediately obvious to the listener. Hidden, within the realms of the perceptual, is an approach that relies primarily on sound particles lasting less than one-tenth of a second. The work carried out by Xenakis during the late 1950s facilitated the dissolving of traditional building blocks in music (notes and their intervals) and led to the creation of what became known as microsound or pointalistic composition. Lasting less than three minutes, Xenakis's 1958 piece Concret Ph, is a seminal piece of electroacoustic music. In terms of its use of microsound and manipulation of musical time; in that the only sound source is burning charcoal, cut into one-second fragments, with numerous transpositions and overdubs. With such minimal materials, Xenakis created a granular texture and approach that would profoundly influence the language of electroacoustic and electronic music from that point onwards. This paper discusses the processes and techniques behind Concrete Ph and its influence on contemporary microsound music(s). In attempting to do so, this paper highlights Xenakis significant impact and influence on contemporary microsound music through its challenging of both psychoacoustic and aural normalities.

Friday, June 24

10:30 - 11:00 AM

Rodney DuPlessis

Physics-based musical control: CHON

Physical metaphor provides a visceral and universal logical framework for composing musical gestures. Physical simulations can aid the composer in creating musical gestures based in complex physical metaphors. CHON (Coupled Harmonic Oscillator Network) is a new cross-platform application for composing musical gestures based in Newtonian physics. It simulates a network of particles connected by springs and sonifies the motion of individual particles. CHON is an interactive instrument that can provide complex yet tangible and physically grounded control data for synthesis, sound processing, and musical score generation. Composers often deploy dozens of independent LFOs to control various parameters in a DAW or synthesizer. By coupling numerous control signals together using physical principles, CHON represents an innovation on the traditional LFO model of musical control. Unlike independent LFOs, CHON's signals push and pull on

each other, creating a tangible causality in the resulting gestures. In this paper, I briefly describe the technical and aesthetic underpinnings of CHON and discuss its use in composition through examples in my own works.

Friday, June 24

11:00 - 11:30 AM

Daniel McKemie

**Zero to 16383 Through the Wire:
Transmitting High-Res MIDI with
WebSockets and the Browser**

This paper outlines how to leverage the Web MIDI API and web technologies to convert data in JavaScript to MSB/LSB combos, stage data via dual concurrent CC messages, use WebSockets to send data to multiple endpoints, and wire the browser to other music software. These steps allow users to control their own native applications via 14-bit MIDI messaging, or the applications housed on a remote source. Because the technology utilizes WebSockets, the use case extends beyond that of local networks and opens the possibilities of remote software control anywhere in the world. While no shortage of options exist for running data from the web to the native music software, the Web MIDI API allows for a more streamlined end user experience utilizing core OS MIDI sync functionality. With the paper and presentation discussing web technologies, it should be noted that this session will be useful for anyone interested in learning more about 14-bit MIDI and its capabilities.

Friday, June 24

11:30 AM - 12:00 PM

Minjie Lu (remote)

**Taking Sounds as Cultural Symbol:
Discussion in the Integration Way of
Chinese Traditional Culture and
Contemporary Electroacoustic Music**

Taking sounds as cultural symbol, Chinese contemporary electroacoustic music integrated with Chinese traditional culture, as cross-culture, has abstracted more and more people around the world to observe both new art and integrated culture itself. This paper refers three issues about Chinese contemporary electroacoustic music. Firstly, for the cultural surface symbols, there are two types of sound material— (1) Sounds from Chinese instruments; (2) Sound materials and human voice or language with characteristics as culture surface symbols. Secondly, the ideas or themes of the electroacoustic music originate from Chinese traditional culture, directly from "cultural expression". Finally, the author points out that the digital media helps

deepening the cultural expression of sound symbols. Chinese electroacoustic music re-interprets and inherits culture from the perspective of modern society, enriching the expression of sound symbols as the "cultural surface".

Friday, June 24
12:00 - 12:30 PM

Emiliano del Cerro
Computer Aided Composition I

This paper presents a scheme for the composition of the piece for percussion *Broken Cane*. The process of the composition is derived basically from diatonic theory and mathematical operations exposed by John Clough. In addition, the work uses stochastic process and self-similarity ideas derived from new mathematical concepts. *Broken Cane* was composed with the idea of a live performance and a live signal processing of the basic material. This composition uses digital signal processing and effects with an overall plan to distribute the sound over a set of 8 or 4 loud speakers in the performance concert hall.

Friday, June 24
12:30 - 1:00 PM

Steven Lewis
Designing Interactive Systems for Non-Linear Drumset Improvisation

This paper describes a process of designing an interactive, computer-mediated system for a non-linear drum set performance, titled Ephemeral Particulate. In this improvisation, the performance is first augmented into an electro-acoustic solo. Motion tracking and audio analysis are used as input sources to control the real-time processing, wherein both the original and manipulated signals are recorded into separate buffers. The drummer is then enabled to further access and incorporate these previously played ideas. Through leveraging processed signals into sensor-controlled generative and sequenced material, a repurposing occurs, where a solo performance is transformed into musical accompaniment for the same soloist. This concept establishes a programmatic framework for computer-mediated improvisation premised on the concept of Non-Linear Gestural Augmentation.

WORKSHOPS

Workshops will take place in Studio A at the Sheen Center, and they will also be streamed on Zoom at <https://nyu.zoom.us/j/98812027828>.

Monday, June 20
10:30 AM - 12:30 PM

Brian Ellis
Applications of NFTs for Generative Music Paradigms

Abstract Non Fungible Tokens (NFTs) provide a unique and powerful opportunity for those with generative music practices. In this workshop, I would like to outline some of the opportunities presented by NFTs and blockchain technology to the computer music community, as well as provide background information, a technical grounding, and a survey of the current popular tools. This workshop will consist of a lecture portion and a hands-on portion. By the end of the session, participants will have minted and traded their first NFT and have a general understanding of the cultural, economic, and ethical implications of those actions.

The zoom link for Tuesday only is <https://nyu.zoom.us/j/98812027828>

Tuesday, June 21
10:30 AM - 12:30 PM

Filipe Leitão
Digital Orchestration Workshop

This workshop focuses on advanced techniques in creating realistic orchestral scores with sample libraries, as they are commonly used in media projects. Since the majority of film and game projects do not always have the budget to hire an orchestra to perform the score, it's important that composers know how to create fine orchestral mockups using virtual instruments. Technical considerations as they apply to MIDI programming, sample selection, and mixing will also be covered.

Thursday, June 23
10:30 AM - 12:30 PM

Elliot Inman
A Beginner's Guide to Making Musical Things

This hands-on workshop is for musicians, composers, artists, and others interested in learning how to build electronic circuits using microcontrollers. The workshop requires absolutely no experience with electronics or microcontrollers. The goal is to empower participants with the skills to create a working prototype of a musical instrument of their own design. In the workshop, we will use CircuitPython to program a microcontroller to gather human gesture data via a variety of sensors. We will cover how to program the device using Mu, an open source editor, how to use digital and analog inputs on the microcontroller, how to connect the device to sensors, and how to program note and timing controls and other MIDI messages. We will use the Adafruit Trinket M0, a small, inexpensive, but powerful embedded computing board built around the Atmel ATSAMD21E18 chip. The workshop will teach all of the necessary basic electronics skills: how to use a breadboard, how to supply power to the microcontroller, setting up voltage/ground wiring, using parts like resistors, and how to debug an electronic circuit without the use of expensive test equipment. We will experiment with potentiometers, light sensors, tilt sensors, and ultrasonic distance sensors to gather human gestural data in real time. We will show how, in a few lines of code, these data can be translated into MIDI commands to make music. But our focus will be on how to realize the construction of a working prototype of your own design for making music. We will discuss how to define and implement your design, moving from an idea to a working circuit. We will discuss how to manage and document different versions of your circuits and programs as you experiment. And we will, throughout the workshop, discuss how to design a device that accommodates the cognitive limitations of the human mind while, at the same time, inspiring you and your users to make music.

Saturday, June 25
10:30 AM - 12:30 PM

Michael Gogins
Advanced Csound

This is a workshop on the advanced use of Csound. The intended audience is anyone using Csound to actually make music, whether they are a beginner or an experienced user. The focus is on "best practices" using built-in features of the current release of Csound. Topics covered include the basic nature and history of Csound, setting up a working environment for Csound, best practices for high resolution audio in Csound with exercises, best practices for modular software design in Csound with exercises, advanced spatialization in Csound with examples, and useful plugins for Csound with exercises (including the SoundFont opcodes and the streaming phase vocoder opcodes). The workshop concludes with an introduction to embedding Csound in other languages, and embedding other languages in Csound.

INSTALLATIONS

Studio B

Monday, June 20 - Wednesday, June 22

Miles Friday, *i dreamt i heard them blooming*

In this installation, loudspeaker drivers, emitting instrumental and synthetic sounds, are suspended over spherical resonant objects. Small motors pull and release the loudspeakers into and out of the resonators, causing them to twitch, jump, float, and fall at differing speeds. This shifting physical relationship between the loudspeakers and their resonators creates subtle changes in the sound—an unstable physical ‘filter’ that reveals the dynamic nature of loudspeakers as sound-producing objects. Together, the group of loudspeakers move inside and above their containers at their own rates, forming a variable environment of sounds that waver and bloom along with them.

Dilenschneider Gallery

Thursday, June 23 - Sunday, June 26

Sean Hallowell, *Neap Tide*

Neap Tide is an interactive, immersive audiovisual installation for 2-8 channels of audio, 1 channel of digital video, and 2-5 channels of analog video. It combines documentary footage of ocean beaches with patterns generated by a custom audiovisual synthesizer, designed by the composer and installed in the space. Projected onto a wall is the digital video dimension, which is a pre-cut mix of the above; displayed live on 2-5 CRT monitors (depending on how many I can source in the NYC area) will be the synthesizer patterns generated in real time. Sonifications of those patterns, as well as external fixed audio, to be delivered via a computer running the audio patch for the work to the loudspeakers in the space. Interactive elements in the circuit include light-dependent resistors, which alter the frequency of the oscillators generating its patterns depending on the amount of light that strikes them, and audio-reactive transistors, which translate incoming sound waves into analog video waveforms.

Dilenschneider Gallery

Monday, June 20 - Sunday, June 26

André Rangel, *A Mar (The Sea)*

Love is the sea, and the sea is love. In *A Mar (The Sea)* the undulation - energy carried by the ocean - measured by the ondograph along the Leixões harbour, is transmuted into sonorous and luminous movement. The data - maximum height and peak period - relative to the last reading of the ondograph maintained by the Hydrographic Institute are obtained every minute through an API (Application Programming Interface) from APDL (Administration of Douro and Leixões Harbours) and allow the calculation of the energy of the waves that break on

the coast of the beaches of Porto and Matosinhos. An original display device - consisting is a stereo PA and 56 tubular lamps placed vertically, equidistantly along a 15-metre-long wall controlled by relays and an Arduino Nano interface instructed by a computer connected via the internet to the ondograph - displays the transmutation of wave energy into light movement. The mass of sound and light that make up the luminous spot is directly proportional to the energy of the waves breaking on the Atlantic coast. This mass pans/moves from left to right, at a speed of approximately 4m/s, mimicking the west to east direction and the speed at which the energy carried by the sea waves moves. Two sound wave oscillators combined with filtered white noise build the soundscape of the sea. *A Mar (The Sea)* celebrates life, love, and movement. The moving patch sound and light in *A Mar (The Sea)* represents our movement: how we pass through life, how life passes through us. The author would like to dedicate this artwork to the Architect Anne-Kathrin Siegel, which ashes are free in the Atlantic Ocean, for her legacy.

Dilenschneider Gallery

Monday, June 20 - Sunday, June 26

Annie Aries, Brian House, and Marcel Zaes, *Metric Displacement*

Three electronic musicians, quarantined in different cities across the globe, each records a series of short rhythmic loops. Each loop is subsequently cut into a lock groove on a vinyl record and played back on a turntable in each location. Video and audio from the turntables are streamed to a Zoom meeting so that the rhythms can be heard together, but only as transformed by the temporal distortions inherent to Zoom and to online relationships. Each day, new lock grooves are selected after the previous ones begin to physically degrade from continuous playback.

Dilenschneider Gallery

Monday, June 20 - Sunday, June 26

Cândida Borges, *Palm Hand*

A installation of sound and video that explores the cultural impressions made upon somebody's accent and appearance, as a carrier of their DNA expressions. For this work, the DNA is considered in a metaphoric meaning of family heritage, cultural, historical and territorial background.

CONCERT PROGRAMS AND NOTES

Concert 1

Monday, June 20

1:00-3:00 PM

Loreto Theater

Program

works are fixed media unless otherwise specified

Eric Davis <i>Pareidolia</i>	8:06
Zhaojun Yan <i>The Final Temple</i>	5:17
Oliver Kwapis <i>Talk-back</i> Oliver Kwapis, performer	9:53
Mark Petering <i>Mountain Walk</i> video	3:17
Jason Palamara <i>Dysphonia</i> Jason Palamara, electric violin and laptops video	15:14
INTERMISSION	
Fernando Curiel <i>Escenasonica</i>	7:55
Jinglong Wang <i>Clouds·Dyeing</i>	10:07
Andrew Davis <i>Mechanical Thaw</i>	4:28
Yu Ren Huang <i>Mutant</i>	4:57
Timothy Schmidt <i>Recesses of the Deep</i> video	9:38

Program Notes

Eric Davis, *Pareidolia*

"Pareidolia" refers to the tendency for humans to find familiar elements and patterns within a seemingly random or abstract texture, such as finding faces in the clouds or voices from within the noise of an air conditioner. This fixed-media piece aims to capture this phenomenon using sounds which were originally recorded on a French horn, before being transformed into an abstract soundscape which nonetheless contains organic and recognizable elements for the listener to identify.

Zhaojun Yan, *The Final Temple*

The work was inspired by temples. Temples are sanitariums for the soul. People in the world are surrounded by fame and fortune, five desires and six dust, which always stimulate the senses and inevitably fatigue of body and mind. The main purpose of the work is to express, keep a quiet life philosophy in the hustle and bustle.

Oliver Kwapis, *Talk-back*

Since my early teens I've dealt with a severe anxiety of performing, or even listening to a piece of mine being performed. In the audience, I fidget uncontrollably in my chair, dizzyingly nauseas, sweating profusely, clutching the program so tightly that by the end of the concert it is just a crumple of unreadable pages. I am petrified that I might throw up in my seat, or faint, or something equally embarrassing. When I perform, my anxiety only amplifies. I think that everyone is watching me in the audience; I know that everyone is watching me on stage. *Talk-back* is an attempt to face my anxiety head-on through my music. The piece is a performance of a small panic-attack. Using recordings of both my real anxiety-statements (triggering thoughts) and talk-backs (short, positive mantras that I can think or say to dispute my irrational thoughts) the piece shows how my anxiety builds in performance situations and how I work to lessen my worries through cognitive restructuring.

Mark Petering, *Mountain Walk*

As a response to the pandemic, using algorithmic composition methods, the composer created a musical work that accompanies the composer's original film featuring no dialogue celebrating the natural world. It is dedicated to anyone who struggles with isolation, anxiety or the need to reconnect with nature during Covid. The film was named Winner in the music video category for May 2021 by the Golden Sparrow International Film Festival in Tamil Nadu, India.

Jason Palamara, *Dysphonia*

Dysphonia was born of a collaboration with choreographer (name redacted) and composer/performer Jason Palamara, examining the dangers of using technology without questioning the total cost to human well being. In the video performance, the dancers seemingly participate in a number of increasingly violating medical experiences involving a gurney, culminating in some manner of technology being applied to the arm of one dancer, who quickly turns on the others to disruptive effect. The music is played on electronic instruments with laptops, and in the live performance with the dancers some of the sounds are triggered by the prosthetic sensor device worn by one of the dancers.

Fernando Curiel, *Escenasonica*

Scenic scene, takes you to an imaginary listening that passes through different layers of polyphonic timbres, with events involved in non-uniform movements, in dreams that cross our sound memory to absorb everything in the form of accusatory scenes but with a future reference to the daily.

Jinglong Wang, *Clouds·Dyeing*

As one of the four treasures for study, Xuan paper has been the best carrier for calligraphy, painting and ancient book printed since the Tang Dynasty. The work takes the sound of rice paper as the main body, sampling the sound form through different methods such as playing, tearing, kneading, shaking and rubbing, and adding samples of the Chinese folk instrument pipa. Trying to visualize the ink painting with sound, let the audience feel the artistic characteristics of "ink can express a variety of colors" with ears as eyes.

Andrew Davis, *Mechanical Thaw*

Mechanical Thaw is a short work. The idea for the piece came from developing slow, synthetic, icy chords that grow and develop over time. The chords are punctuated with recordings of radio and other natural sounds. The piece reflects an attempt to reach the outside world, a feeling common to so many of us during this pandemic.

Yu Ren Huang, *Mutant*

Acoustic guitar is a popular instrument, plucking strings is a familiar way to make sound with guitar. What if we can make it in other ways? All the sounds in *Mutant* were sampled from an acoustic guitar. I tried to dig out unpredictable sounds from it. To pluck, scratch, knock, rub with its original textures including metal and wood, then use the computer to modulate the sounds. This work talks about seeking phenomenal. At the start, music is peaceful and pure, but becoming chaos and insane in the end.

Timothy Schmidt, *Recesses of the Deep*

This fixed media soundscape is inspired by the sights and sounds one might experience on a high-risk descent into the deepest trenches of the ocean. Programmatic in construction and execution, the work makes use of

various pipe organ sounds – from conventional manual playing to more experimental sounds such as blowing into pipes and rattling the sheet music ledge – to communicate an engrossing deep-sea journey. The listener begins near the ocean's surface staring down into the depths before sinking down into the dark, the cold, and the pressure. At the very bottom of the ocean floor, the listener explores his/her surroundings, discovering several anomalies and a host of alien life. The piece concludes with the listener's splashing return to the surface, energized by the otherworldly sights far below.

Concert 2

Monday, June 20

3:30-5:30 PM

Black Box Theater

Program

works are fixed media unless otherwise specified

Varun Kishore <i>E[MYR]GENCE.200</i>	video	13:35
Larry Gaab, <i>Indisputably Alive</i>		6:00
Kim Hedås <i>Nu</i>		11:30
Adib Ghorbani <i>What Happened in Panop?</i>	video	12:07
Patrick Hartono <i>Antithesis</i>		8:39
INTERMISSION		
Yu Fu <i>Her Voices</i>	video	5:41
Carlos Toro-Tobon <i>Time Crystals</i>		6:10
Marie-Hélène Bernard <i>Variations pour des arbres et leurs soupirs</i>		14:10
Leonardo Espejo Santis <i>DE LUMINE</i>		10:16

Program Notes

Varun Kishore, *E[MYR]GENCE.200*

E[MYR]GENCE.200 tracks the last 200 million years of Earth's geological history—from the breakup of Pangaea to the present—at a scale of 4s = 1 myr (4 seconds = 1 million years). The piece consists of an 8-channel drone (electric guitar + ebow), with each channel representing a major tectonic plate. Each channel shifts incrementally out of phase and tuning with the others based on the average velocity of the tectonic plate it represents. This evolving drone is punctuated by significant evolutionary, extinction, and climate events in the form of composed musical vignettes created using tape-music techniques and analog synthesis. At the scale of the piece, the last 300,000 years of human history (the time of the earliest known homo sapiens) occur in its final second, highlighting humanity's place in geological timescales.

Larry Gaab, *Indisputably Alive*

Living. The piece spreads a turbulent liveliness over vast sonic terrains. Percussive attacks ignite spirited exchanges extending evolving sound clusters. Sparkling, shearing swirls encompass a sound field riddled with movement and tonal variations and emerging departures. The work eventuates a deep aural massage that animates internal vibrations.

Kim Hedås, *Nu*

The electroacoustic work *Nu* (translated to English: Now) is spatially composed for twenty-nine channels, originally to be played in Klangkuppen's immersive sound system in 29.4, with speakers in four levels above the listeners. Three alternative mix versions exist: for sixteen channels, for eight channels and for stereo. Both the harmonic structure and the form in *Nu* (2021) are based on a material that is shared with the choral work *Som om* (2020) for mixed choir in eight parts. The voices of the singers are multiplied and mixed in a dreamlike weave, as if we were dreaming, as if all our time is a dream. The dreamlike has in *Nu* become even more spread and elongated, both spatially and temporally, but here are also sequences of contrasting material and even if they are characterized by rhythm and direction, in strong contrast to the floating voices, the dreaming is still accentuated. The electroacoustic work *Nu* (2021) was premiered at the festival Between 2021 at KMH in November 2021.

Adib Ghorbani, *What Happened in Panop?*

This interdisciplinary project is a musical mime performance that utilizes the mime's movements to generate sounds in real-time. For this purpose, the performer wears a glove with wireless motion sensor. The receiving data from the sensors generate real-time sounds through a MAX/MSP patch and creates the required music for the performance. This section is an episode of the film *Silent Music*, and it portrays a prison.

Patrick Hartono, *Antithesis*

This piece is composed during the 6th Melbourne lockdown. All the sound materials are based on the recording of the surrounding object that interacts with me daily. Since I lived in a small apartment, my movements are constrained within particular premises (bedroom, living room, kitchen, balcony) that created a unique pattern, inspired me to interpret it into two compositional approaches: Sonic structure and sound spatial. There are four movements in this composition, and although there are structurally "separate," but sonically bound. This connection is present through scratching sonic texture morphing over time and existing within each movement. In terms of spatiality, each sound (track) is moved either clockwise or counter, creating an immersive layer of aural experience. Through these composition approaches, I'm trying to reflex on how the current social circumstances affect us. And how, as a composer overcoming these uncertainties in creative ways.

Yu Fu, *Her Voices*

This work depicts people's inner struggle and uneasiness when faced with difficult decisions. One word in the title means self-reflection, which expresses the hesitation and distress of making difficult decisions. Another expresses the inner voice when thinking and weighing. In the process of thinking and making choices, many different voices will appear inside people to tell them how to balance and choose. However, when many voices emerge, people often fall into deeper confusion and disorientation. After a painful struggle, people gradually regain their composure, try to analyze the opinions expressed by different voices, and finally make a decision that suits them, without fear of the road ahead and without further struggle. This kind of inner introspection and reflection is a necessary process for a person to grow up, through which people can be braver and less hesitant.

Carlos Toro-Tobon, *Time Crystals*

The time crystal is a new category of phases of matter, expanding the definition of what a phase is. The time crystal is the first "out-of-equilibrium" phase: It has order and perfect stability despite being in an excited and evolving state. Like a perpetual motion machine, a time crystal is a quantum system of particles in repetitive motion that forever cycles between states without consuming energy. *Time Crystals* explores traditional techniques of montage and mixage with new techniques known as "stutter" used mainly in EDM. The piece follows a series of processes involved in the physics of time crystals, which seemed to me very linked to processes used in music. These systems present time translations, symmetries, dot arrangements, symmetry breakings, critical points, among others, which I linked to transpositions, symmetric - asymmetric patterns, granular synthesis, climax or turning points in musical discourse, etc.

Marie-Hélène Bernard, *Variations pour des arbres et leurs soupirs*

During four seasons, I put my microphones towards the trees in a remote area of Southern France. This work of field recording produced almost all the sound material of this piece. Some of these Variations also welcome sounds of cello, an instrument made of fir tree and maple tree. The piece is an invitation to immersing himself in this enigma constituted by the world of the trees
Four Variations: 1 Endgame for the Burrs,
2 Woodpecker's Jig, 3 Invernio
4 Spirit of the Lightning-struck Chestnut Tree

Leonardo Espejo Santis, *DE LUMINE*

How does light sound?, of course light and sound are completely different phenomena and light does makes no sound, or at least not one that our ears can perceive, except when it has been seen by an artistic eye.... This work was created taking into account some of the characteristics in the behavior of light and it was divided into four parts, 1- Introduction, 2- Speed of light in vacuum, 3- "Duality" (wave), 4- "Duality" (particle).

Concert 3

Monday, June 20

8:00-10:30 PM

Loreto Theater

Program

Andrew Hannon
Confab 8:26

Colin Babcock, *trombone*

Ragnar Grippe
The Collision 13:35

fixed media

Kerry Hagan
Memento Mori 8:42

Kerry Hagan, *live electronics*

Marc Ainger
Ghost Light 14:00

fixed media

Matteo Giuliani
Oliver's dream 6:58

Eleonora Claps, *soprano*

INTERMISSION

Hector Bravo Benard
Nowhere 10:13

fixed media

Orjan Sandred
"A Ghazal" for soprano and live electronics 15:45

Eleonora Claps, *soprano*

Daniel McKemie
Decontrol for Live Electronics and Audience 9:00

Daniel McKemie, *performer*

Caleb A Westby
Shots Fired 12:13

Dr. Kathryn Vetter, *Bb Clarinet*
Laurette Roddin, *Tenor Saxophone*

Sapphire Haze
Asphyxiation 11:06

Aysha Dulong, *electronics*
Cindo Kao, *violin*

Program Notes

Andrew Hannon, *Confab*

Confab explores the intersection between live and recorded music. Modern culture is changing at a rapid pace and the way in which we consume music and experience life has changed. In this piece, the solo trombonist performs with an audio track of previously recorded samples (created entirely from the trombone) as a means of unity, as well as contrast between the live and recorded sounds. The interaction between the two sound sources can be heard as a complex conversation between the past and future.

Ragnar Grippe, *The Collision*

Mirror of our time.

Kerry Hagan, *Memento Mori*

'Remember that you die.' Although there are many objets d'art and musical forms arising from the macabre reminder of death, the Renaissance practice of the memento mori or vanitas still life is, perhaps, the most replete with symbolism. Common images include the obvious, such as skulls or skeletons, but also represent other fleeting, fading themes: decaying fruit, cut flowers, recently snuffed candles (the smoke still present but the flame extinguished), hourglasses in mid-count, soap bubbles floating above a skull, spilled chalices, and so on. In this work, the entire form derives from a near-infinite reverb of a complex, layered impulse. The impulse lasts mere 10ths of a second, but the remainder of the work is the prolonged reverberation tail, freezing the impulse in time. As the piece dies away, elements of the complex sound swell in and out of the foreground, allowing time to investigate each symbol in the still life.

Marc Ainger, *Ghost Light*

Ghost Light is a sound mass that, "will flow as a river flows" (h/t to Varese). A ghost light is an atmospheric light seen by travelers at night. It resembles a flickering lamp and is said to recede if approached.

Matteo Giuliani, *Oliver's dream*

In *Oliver's dream*, excerpts and elaborations of various Kyries composed by Hildegard together with (and opposed to) a single Kyrie chosen from the Roman Graduale (sung by the performer and developed through real time filters) build the composing material of the piece. This way, different musical sources (Hildegard, the Roman Graduale) and different media (recorded sounds, live ones, ...) explore - through the unifying frame of the human voice - the meta-idea of Kyrie: an invocation, at first personal and collected, that becomes - just like in a vision - anguished and desperate. The works was written in memory of neurobiologist Oliver Sacks (1933-2015) who dedicated a whole chapter of his book "Musicophilia" to Hildegard Of Bingen (1098-1179) a German composer, writer and mystic woman whose visionary experiences are explained by Sacks as multi-sensory allucinations, probably the result of the heavy migraines from which she suffered.

Hector Bravo Benard, *Nowhere*

This piece is built up of sounds produced with different household objects and processed using delays, filters, and spectral techniques. The sounds are arranged in 3D space and rendered using a third order Ambisonics setup.

Orjan Sandred, "*A Ghazal*" for soprano and live electronics

Fröding's life was characterized largely by his mental illness and alcoholism. His poem *A Ghazal* was written during a period when he was admitted to Suttestad institution in Lillehammer, Norway. The poem paints an idyllic landscape full of life and joy, as seen from the eyes of someone who is unable to participate. In my musical setting of the poem, I wanted to highlight how the mind of a viewer colors impressions of the images that are described - how the unattainable idyll becomes more idyllic in the eyes of the viewer, and how the laughter and the joy enhances the feeling of alienation. The electronic part expands the vocal part with text and voice sounds, and supplements these with sounds derived from a piano. The sung part is broken down to short whispered fragments, intensifying the feeling of inadequacy. The poem builds an almost desperate feeling of wanting to be involved, where the viewer is not able to break out of the isolation.

Daniel McKemie, *Decontrol for Live Electronics and Audience*

Decontrol is a work for live electronics and audience originally written for livestreaming performance. Now that we are (mostly?) out of the livestreaming world, it is adapted here for the concert hall. A corresponding web page is provided to the viewing audience that allows direct control over the soloist's instrument. The page is an interface of sliders and buttons that when interacted with transmit high resolution, 14-bit MIDI data via WebSockets to the performer's computer. This data converts to control voltage signals and are sent to points in a modular synthesizer. Almost as if inviting the audience directly on stage to turn knobs. The performer does not know how

the audience will engage with the web page, what information it will transmit, or when it will be transmitted. The audience may access the web page on your computer, phone, or tablet.

Caleb A Westby, *Shots Fired*

Shots Fired is an emotional meditation on the school shootings that have taken place in America during my lifetime. Being born in the early 1990s, there have been shootings going on in American schools for almost as long as I can remember – the earliest significant example in my life being the Columbine massacre in 1999. At first, school shootings were simply unimaginable – a unique tragedy that no one would ever forget, events that brought our nation together in mourning as so few things do. But as I aged, these types of shootings became more and more commonplace. High schools, colleges, and eventually, elementary schools were subject to the same macabre reality that had permeated our existence – where the 1950s had duck-and-cover drills, my generation got lockdowns and ALICE training. Though every new shooting brought about the cycle of grief, mourning, politicization, and argument, I continued to hope that eventually we would reach a tipping point.

Sapphire Haze, *Asphyxiation*

This piece embodies human relationships with nature and our growing dependence on technology. Through the juxtaposition of tense and serene sounds – synthesized and natural – we want to encompass the preciousness of water and the power of resistance against what corrupts it. What do we have to unlearn to reverse corruption?

Concert 4

Tuesday, June 21

1:00-3:00 PM

Loreto Theater

Program

works are fixed media unless otherwise specified

Qiujiang Lu
Listen, Move, and Speak 11:18
Qiujiang Lu, performer

Gordon Delap and Eoin Smith
Stave 7:32
video

Enrico Francioni
...e sempre di mirar faceasi accesa 8:00

Jia-Jiun Wu
Golden Light 7:16

Joshua Mallard
Detritus 5:45

INTERMISSION

Steven Lewis
Ephemeral Particulate 5:48
video

Zachary Daniels
Service, Please! 3:11

Timothy McDunn
Grains of Sand 7:14

Jing He
Memories of the battlefield 3:52

Connor Scroggins
If I Could Do It All Over Again 10:00
Connor Scroggins, voice

Theodoris Lotis
Silent Landscape II - Elder Tree 7:14

Anthony Marasco
SHP of Theseus 10:00
video

Program Notes

Qiujiang Lu, *Listen, Move, and Speak*

Listen, Move, and Speak is a live electronic improvisation with a self-designed microphone-speaker feedback system. This performance requires a microphone system, running through a computer with MAX/MSP and Ableton Live installed, and a touch-screen mobile device with TouchOSC and GyrOSC installed. The amplified microphone outputs sound through one speaker (for feedback only). The performance space can have as many speakers as possible, though a surround sound system is preferred. I use an audio interface for microphone input and speaker output. The feedback signal between the microphone and the speaker is processed by the computer using MAX/MSP and Ableton Live, which are controlled by TouchOSC and GyrOSC. During the performance, the solo performer holds the microphone in one hand and the phone in the other. The entire performance should be improvised after the performer is comfortable with using the system.

Gordon Delap and Eoin Smith, *Stave*

Stave was conceived through the capture, through video and audio, of a set of improvisations performed by the double bassist Bryan Quigley. Additional audiovisual material was introduced through perceived formal concordances, and can be beheld as an extension of preliminary ideas introduced via the improvisations. The work as comprises four aspects which are interlinked by common material and dispersal of energy, yet contrasted through concern with interior space/ exterior space, expansion/ contraction, lightness/darkness.

Enrico Francioni, *...e sempre di mirar faceasi accesa*

The work attempts to reconstruct and then restore the sound image evoked in the mind of the great poet (Dante Alighieri) when in Paradise he was overwhelmed, without perhaps understanding, by the strength of the one who, through "l'Amor", "move il sole e l'altre stelle". The dynamic crescendo wants to correspond to the approach to the divine [0'00"-6'26"], up to a dense and blinding sound texture of light that I like to approach the indescribable real encounter with the Immanent [5'00"-6'26"], an unspeakable state of grace which, in my interpretation, is suddenly suspended and interrupted [6'26"] to lead us elsewhere; perhaps to human reality [6'26"-to end]? In this sense, the proposed framework tries to make its own and synthesize concepts such as "Inaudible" and "Thresholds of perception", but also of continuous flow, circularity, harmony, song and dance, the latter, well described by William Mahrt in one of his speeches.

Jia-Jiun Wu, *Golden Light*

Golden Light comes from a passage in *The Lotus Sutra's Universal Gate Chapter on Avalokitesvara Bodhisattva*: "...If the hundreds of thousands of myriads of kotis of beings who seek gold, silver, lapis lazuli, mother-of-pearl, carnelian, coral, amber, real pearls, and so forth enter

the great sea, an evil wind may toss their boats into the territory of the rakshasha ghosts. But if among them there is even one person who calls out the name of Gwan Shr Yin Bodhisattva, they will all be saved from the difficulty of the rakshashas..." *Golden Light* composes the image connection between people, ghosts, gods, and treasures through the image of the scriptures, promotes the spatial atmosphere through the scattered frequency distribution, creates a focused listening sacred space, and uses electronic synthesis to portray personal beliefs and space abstract representation of the world.

Joshua Mallard, *Detritus*

Detritus: a product of disintegration, destruction, or wearing away. *Detritus* explores the concept of destructive sound design. This is accomplished through the heavy processing of relatively inconspicuous source material. A single balloon sample is altered entirely to create a dynamic and varied soundscape. This is embellished to the point of not being able to identify the original character of each sound. The resultant sounds are then mixed into an amalgamation of synthetic sound design.

Steven Lewis, *Ephemeral Particulate*

In *Ephemeral Particulate*, motion tracking and audio analysis are used to control real-time processing, where both the original and manipulated signals are recorded into separate buffers. The drummer is then enabled to further access and incorporate these previously played ideas. Through leveraging processed signals into sensor-controlled generative and sequenced material, a repurposing occurs, where one solo improvisation is transformed into musical accompaniment for the same soloist. The improvisation passes through three sections, distinguished by the processing modules used within each respective part: Part 1: Drum Granulator, Part 2: Grain Sequencer, Part 3: Generative Drum Machine.

Zachary Daniels, *Service, Please!*

Service, Please! was written using tools developed in Max/MSP. The piece is a sonic exploration of a service bell and its' various components that make such a simple, widely used sound throughout the world every day. This piece also acts as a narrative that raises the question we all ask as we've rung the bell impatiently once, twice, and even a third time: "What's going on back there?"

Timothy McDunn, *Grains of Sand*

This composition sets a fragment of text from Psalm 139:17-18:

How precious to me are your thoughts, O God!
How vast is the sum of them!
If I would count them, they are more than the sand.
I awake, and I am still with you.

(ESV)

To convey a sense of vastness, the composition uses a fractal on the 11-limit lattice. The 11-limit lattice is a geometric space that represents the tuning of pitches in just intonation by plotting them along 4 dimensions, each dimension representing a different prime number in the

harmonic series up to the 11th harmonic. The shape of the original 5 pitches in 11-limit space is replicated on larger scales of the pitch structure, creating a shape that is self-similar across different scales. In other words, a vast structure derives from a small original motif. The visual component of the piece plots a 3 dimensional projection of this 4 dimensional fractal, to render the formal elegance and self-similarity of the harmonic content more apparent.

Jing He, *Memories of the battlefield*

Memories of the battlefield is a piece of acousmatic music. It mainly expresses the desolation and silence of the battlefield. The main audio sample comes from Chinese Guqin. Because the sound of the guqin has a calm and peaceful feeling, I hope that in this chaotic time, this work can bring a trace of tranquility and peace to the world and also tries to remind people that war is cruel and will only leave a piece of desolation after the war.

Connor Scroggins, *If I Could Do It All Over Again*

Fragments and utterances of vocal syllables, whispers, hums, and whines form the basis for this piece's language. This language translates into the varying aural environments of the electronics. In some moments, the electronics and voice meld together. In other moments, they grow toward or apart from each other, contrast yet live with each other, or even abruptly shift the direction of the piece. Though moments of stability emerge, uncertainty still pervades like morphing memories. In these memories, words are a blur yet tone of voice and feelings are poignantly vivid. Just as one cannot take back the words of the past or travel back in time and change their actions, the piece does not return to an aural environment already visited. Instead, the music weaves forward with an ever-shifting focus like compounding experiences molding and distorting each other yet reinforcing an obstinate inner drive to enact change.

Theodoris Lotis, *Silent Landscape II - Elder Tree*

Silent Landscape II: Elder Tree is part of a series of soundscapes called *Silent Landscapes*. It uses sounds of the island of Corfu, Greece as well as piano sounds.

Anthony Marasco, *SHP of Theseus*

SHP of THESEUS is a collaborative audiovisual composition that draws inspiration from the Greek myth of Theseus. Over time, Theseus' ship was gradually renewed as every piece of original wood rotted and required replacement. We navigate this philosophical quandary of identity through collective control of performance setups in combination with an open score that affords individual interpretation. The score is generated randomly from a series of 10 images. These images are categorized as either 'Sound' or 'Control' instructions and presented sequentially to each performer. A 'Sound' image is interpreted through sonic gesture, while 'Control' images prompt each performer to send control data to other performers, intervening in the

local control of the remote performance setups. As instruments are altered over time, each performer relinquishes some aspects of control over their own performance as they continue to steer forward with their individual interpretation of the score.

Concert 5

Tuesday, June 21

3:30-5:30 PM

Black Box Theater

Program

works are fixed media unless otherwise specified

Armando Vanzi
Surface Tension 5:54

Zach Thomas
husk (#2) 8:32

Nikki Krumwiede
Fey-led 8:30

Erin Demastes
C Foam 3:34

Julius Bucsis
Transformations 9:54
video

Ivica Ico Bukvic
4th beat 12:43
video

INTERMISSION

Timothy Crist
the long waves, on the surface and in dreams 6:46

Young Hsin Cheng
Disorder NO.1 – Polar - Prologue 2:09

Julian Ward
Distances in Between 5:00

Tomoe Kojima
grainy 8:15

Antonio Carvallo
Viz 5:33

An-Hui Zheng
Recursive 4:58

Alyssa Wixson
InterConnected 4:24

Noah Berrie
BLOCK 6:42

Program Notes

Armando Vanzi, *Surface Tension*

Surface Tension is a particular property of fluids which operates along interface, between the fluid itself and a material of another nature. The idea behind the composition is to represent the capacity of this force. It seems to be precarious, ready to yield, but in reality it's a stable force with its motions of tension and resolution.

Zach Thomas, *husk (#2)*

Husk 2 is a study of sound dissection and mutation, building on the trajectory of the original work in the series. The piece begins with the sound of a bell which is continually transformed throughout the duration of the work. Samples from various percussion instruments, animals, and environmental field recordings are morphed into another using a variety of processing techniques.

Nikki Krumwiede, *Fey-led*

A traveler, walking home at dusk, notices a small, shadowy figure ahead of him holding a bright light. He starts after the figure, but no matter how he quickens his pace, he never seems to draw any closer. Suddenly, he finds himself at the edge of a vast chasm; one more step could have meant his death. Looking up, he sees the figure on the far side of the chasm. It laughs, then extinguishes its light and vanishes, leaving the traveler miles from home and hopelessly lost. This is a common cautionary tale of the will-o'-the-wisp, also known as a pixy-light. In English folklore, these mischievous fey spirits often take pleasure in leading travelers over cliffs or into bogs or caves. *Fey-led* is loosely based on this folk tale, using processed vocal and piano sounds to depict what someone might experience if they were unlucky enough to be the target of the fey's game.

Erin Demastes, *C Foam*

C Foam is a two-channel, fixed-media piece written with physical modeling and granular synthesis entirely in C Sound.

Julius Bucsis, *Transformations*

Transformations was inspired by reflections on some of the changes we experience in our perceptions about how our lives unfold. The three sections in successive order are titled, The Anticipation, The Exuberance, and The Nostalgia. Each movement is based upon a different musical genre, integrating elements from spectralism, New Complexity, and neo-romanticism respectively. Each movement also makes use of techniques from varying compositional approaches, incorporating practices associated with sonification, soundscape recording, and live performance respectively. Audio software included Pro Tools, Ableton Live, Reason, and many plug-ins. Video software included Final Cut Pro X, Motion, Painter, Ultra Fractal, and Jitter. The piece was composed in 2020.

Ivica Ico Bukvic, *4th beat*

4th Beat is the ensemble's second crowdsourced work written for the Tweeter platform that was developed in response to the COVID-19 pandemic. It continues to explore qualities of a pulse-based electronica in a synchronous telematic (online) format while leveraging a unique environment in which each composer-instrument-builder-performer is responsible for a small component of the overall musical fabric. *4th Beat* is absolute in its conception, driven purely by the collaboratively developed musical ideas. Its three-part form is infused with improvisatory sections evocative of a crowdsourced live DJ session. *4th Beat* leverages Tweeter's unique ability to defy the latency and sync limitations associated with live online collaborative performance to test creative and technological limits of the ensemble.

Timothy Crist, *the long waves, on the surface and in dreams*

This work was originally loosely constructed in the form of three variations with an extended terminal section. The form was processed to become less rigid by allowing certain sectional constraints to migrate and become more continuous. Most of the sonic content was derived from a single acoustic source which may suggest aspects of phenomenology at work. A number of granular processing tools were used including and featuring Output's Portal.

Young Hsin Cheng, *Disorder NO.1 – Polar - Prologue*

I attempt to incorporate unconventional music techniques into the series of *Disorder*. The idea is inspired from the questions during composing, such as "how do we solve the problems during composing" and "why do we apply this compositional technique?" I tried to leave the shoulders of giants and find a balance between order and disorder. This piece is the first work in the series "Polar". The sound materials came from the analog synthesizer MicroBrute, which combines the sounds with the primitive waveforms, mimicking the various appearances in the polar. Quadraphonic speakers in binaural are set for listeners to experience the unpredictability of sounds from the polar region.

Julian Ward, *Distances in Between*

I realized *Distance In Between* (2016) in Pro Tools, a program for sound mixing and sound production. All of the sounds that you will hear are altered forms of just a handful of samples that I recorded in the studio, such as hitting keys against the desk. These sounds have been filtered, expanded, and detuned. Composing in Pro Tools allowed me the opportunity to play around with the location of sounds in a stereo space to create a sense of placement. As I was working on the piece I had gotten to the point where I knew how I wanted it to end, I knew how I wanted it to begin, and I knew how long I wanted it to be. I did not know how I wanted to fill the gap formed between those sections. The resultant piece came to be as I tried to fill out the spaces in between two parts to create a coherent whole.

Tomoe Kojima, *grainy*

I composed this piece focusing on the texture of sound, especially the graininess. I used various sounds from instruments such as kalimba and acoustic guitar, which have temporarily become more popular for people due to the corona disaster. I tried to utilize sound from those instruments that are no longer in electroacoustic music. Technically, I used spectral morphing and spectral EQ programs with MAX8 to generate the sound materials in my piece.

Antonio Carvallo, *Viz*

Viz is a four channels acousmatic composition and is constructed from vocal sounds modified through analysis and re-synthesis, filters and AM synthesis. The syntactic structures aim to constitute a unitary form, presenting multiple sounds that gradually transform their timbres and internal articulation.

An-Hui Zheng, *Recursive*

Recursive is inspired by the sound of small factories in my hometown. The combination of repetitive mechanical sound and swaying rice ears form a unique scene, creating a mixed soundscape of harmony and conflict between industrial manufacturing and natural circulation. The title of the work arrives from mathematics and computer science. It refers to using a function (computer science) itself to define a function. The composer conducted a series of sound exploration and quantification based on this concept. The music materials of this work are mainly from office supplies such as staplers, supplemented by paper, glass, and string materials. The stapler symbolizes a repetitive and cyclical old society as a whole, while other materials symbolize new and transformed independent individuals. The composer expresses the compromise and hope of life through the dialogue between the two voices.

Alyssa Wixson, *InterConnected*

InterConnected is a piece for fixed media electronics. It is inspired by the ways the internet connects us, both to information, and to one another. To obtain the raw materials for the piece, I asked friends and colleagues to send me recordings of themselves reading excerpts of Wikipedia articles on topics that were meaningful to them. I then edited these materials in various ways, playing especially with the concepts of texture and crowd noise. I composed this piece prior to the lockdowns and periods of isolation necessitated by the COVID-19 pandemic, but given the events of the past couple years, ideas of connection through a digital space, of virtual crowd noise in the absence of the real thing, have become especially meaningful to me. Thank you to everyone who contributed their voices to this project.

Noah Berrie, *BLOCK*

“Everything yielded and invisible holes opened everywhere. However, the overall structure did not disappear; even if you suddenly found yourself alone somewhere, you could feel things tugging and tearing at you. [...] You could call it music; you felt elevated by it. I

did not feel as if I were moving on my own legs. I felt as if I were in a resonant wind.” –Canetti

BLOCK experiments with conflict between strict formal organization and the disorganization of natural sound. The act of composing mirrors the ordering of bodies. Beginning with the “block” – identical cells arranged by a few basic rules – the structure inevitably loosens, becoming more like fields of sound and space. Voices overlap and ascend; pitch variations beat against each other. The friction pulls the entire structure upwards and gradually apart. The block dissolves. Sixteen equidistant voices – derived from oboe, clarinet, and cello—are fixed in space around the listener. *BLOCK* is the first half of a two-part piece.

Concert 6

Tuesday, June 21

8:00-10:30 PM

Loreto Theater

Program

Chris Mercer
Found in Translation 9:50
Patti Cudd, *percussion*

Kari Vakeva
Void iv 9:57
fixed media

Cort Lippe
Duo for Tamtam and Computer 14:00
Douglas Nottingham, *percussion*

Tyler Bradley Walker
The Witch 6:15
Patti Cudd, *percussion*

Henrique Portovedo
Slippery Singularity 1 8:00
fixed media

INTERMISSION

Eva Sidén and Christian Rønn
Transmissions 15:00
duo Eva Sidén SE and Christian Rønn DK,
piano, sound objects and electronics

Kyong Mee Choi,
Flowering Dandelion 8:10
Sarah Plum, *violin*

Joel Gressel
UpStarts 11:27
fixed media

Gene Pritsker
Melting Pot 7:00
Patti Cudd, *percussion*

Timothy Polashek
Machineworks: Mothership 10:00
Matthew Polashek, *tenor saxophone*

Program Notes

Chris Mercer, *Found in Translation*

The percussionist plays a guitar on a table using mallets, guitar slide, rubber ball, and triangle beater. The electronics place the percussionist in an imaginary "chamber" in which her actions elicit responses from an orchestra hidden in the walls, as it were. I played all the orchestral samples myself, doubling or harmonizing parts (and creating instrument sections) by physically moving to appropriate locations within the stereo field. The electronics allow the performer to interact with and control her orchestral accompaniment. The notation uses a precise method for varying a given set of gestural materials, which gives the performer some freedom in shaping the accompaniment at a given moment.

Kari Vakeva, *Void iv*

Void iv (2021) is a piece with computer-generated sounds of primarily stringed-instrument qualities. In this work I wanted to explore the sounds from different playing-techniques, and therefore I programmed a realistic physical model into my synthesis environment. I chose Cordis (Cadoz, et al., 1979) and implemented its basic functionality into my own C++ system, and that gives me the possibility to play arco/pizz., sp./st., harmonics, fingered trill, etc., like playing a real stringed instrument. I explored the use of parameter values that make the vibrating string not uniform (inhomogeneous), or applied damping the string heavily at varying points while plucking, and so on. Some of the resulting sounds are radically different from the vibrating string with a standard set of parameters. Also, I modelled the effect of the resonances of the body of the instrument, and the acoustics of the surrounding space. The work *Void iv* is written with C++ and a software built by the author.

Cort Lippe, *Duo for Tamtam and Computer*

Duo for Tamtam and Computer (2019) was commissioned by Douglas Nottingham. The computer part was created at the Hiller Computer Music Studios, University at Buffalo, with the software Max/MSP. The synthesis algorithms focus on a variety of FFT-based techniques, including analysis/resynthesis, filtering, reordering, delay, feedback, and spatialization controlled by LFOs, along with time-domain techniques of various types of synthesis, sample playback, etc. The computer tracks parameters of the performance as to when the tamtam is struck, how loud it is struck, and the timbre of each strike. This information, from larger scale rhythmic and phrase tracking down to micro-level frequency band information, is used to continuously influence and manipulate the computer output by directly affecting synthesis and compositional algorithms in real-time, giving the performer an active role in shaping the computer part. The piece is dedicated to Larry Austin, who passed away on December 30, 2018.

Tyler Bradley Walker, *The Witch*

The Witch, scored for stereo electronics and solo percussion, draws on the fertile storytelling arena of folklore while simultaneously juxtaposing elements of meditation, musique concrète, sampling, and live performance.

Henrique Portovedo, *Slippery Singularity 1*

Slippery Singularity 1 belongs to a series of pieces written by Henrique Portovedo for multiple saxophones. These pieces were developed over the specialised algorithmic composition software named Slippery Chicken developed by Michael Edwards, written in and functions on the principles of the Common Lisp Object System (CLOS), the Common Lisp facility for object-oriented programming. *Slippery Singularity 1* for alto saxophone and electronics explores microtonal relations of tone pitches and layers of multiphonics permutations. The multiphonics were organised into layers of tremolos, producing timbral changes and being selected through a process that uses two different methods and softwares. The first method was implemented through a patch named SaxMultis and allows the recording of all multiphonic timbral permutations and its cataloging. It gives, as well, the possibility of aleatoric positions of key combinations for saxophone sounds. This software is organised in following order: Selection of Key Position, Position of Tremolo, Indication of Dynamics, Creation of Buffer with positions code, Recording. The second method, Multi2Chord is a software as well, that analyses the spectrum of each multiphonic permutation and translate it to musical notation using ZSA and BACH Max/MSP Libraries.

Eva Sidén and Christian Rønn, *Transmissions*

Transmissions is a meditative piece which creates an atmosphere for reflection. A lament for the time we are in now.

Kyong Mee Choi, *Flowering Dandelion*

The piece paraphrases an intriguing part of J.S. Bach's Violin Sonata in B minor, Adagio, and showcases the evolution of musical expression incorporating timbral and textural evolution. The gestures of musical ideas portray the images of flowering dandelion.

Joel Gressel, *UpStarts*

UpStarts has several sputtering splatters of sound that move on to various resolutions. A slower middle section features cymbal-like lines against backgrounds of various white-noise clusters. UpStarts was composed in 2021 on my home computer using an updated version of the Music 4BF program, an ancestor of CSound, that presumably no one else has used since the 1980s. All the sounds were digitally synthesized.

Gene Pritsker, *Melting Pot*

When writing *Melting Pot* for ghatam and Samplestra (pre recorded electronics) I was presented with a challenge to compose music for this ancient Indian clay pot instrument and combine it with electronically manipulated material

that will compliment its unique sound. I decided to write 3 movement, each contains a female voice from various musical styles/cultures. In movement 1 we sample an r&b female voice, the 2nd movement has a Serbian female singing and in movement 3 an operatic female voice. The ghatam rhythms I wrote work of the melodic fragments from these voices and grooves with the various electronic percussion sounds and effects.

Timothy Polashek, *Machineworks: Mothership*

Machineworks: Mothership is the most recent collaboration by Timothy Polashek and Matthew Polashek intersecting eletro-acoustic and jazz musical aesthetics. In this case, Timothy Polashek creatively programmed and pushed to the limit a Moog Grandmother Semi-Modular Analog Synthesizer to provide a diverse ecosystem of sonic terrain for Matthew Polashek's virtuosic and lyrical improvisations on tenor saxophone.

Concert 7

Wednesday, June 22

1:00-3:00 PM

Loreto Theater

Program

A Musical Tribute to Joel Chadabe

works are fixed media unless otherwise specified

Svjetlana Bukvich
The Beginning 6:21
Susan Aquila, *electric violin-viper*

Richard Lainhart
Cranes Fly West 6:14
video

Warren Burt
A Zoom for Joel 5:02

Bob Gluck
Lost Requiem 4:53

Marc Battier
AudioScan 8:42
video

Laetitia Sonami
Migration 1978 (remix) 3:05

Mary Simoni
C-H-A-D-A-B-E 5:09
Madeleine Shapiro, *cello improv*

Ben Chadabe & Tom Beyer
You 6:07
Ben Chadabe and Tom Beyer, *percussion*
video

INTERMISSION

Chi Wang
Impressions of the Pagodas 6:00
Chi Wang, *performer*
interactive video

Minjie Lu
Do Not Go Gentle into That Good Night 9:40
video

Scott Barton
Mechanophore 7:19
video

Eric Lyon
The Man with the Golden Arm 9:00
Alan Weinstein, *cello*

Program Notes

Without question, the life of Joel Chadabe has had a profound impact on electronic music: from his interactive compositions and performances from his seminal book on the history of electronic music, *Electric Sound: The Past and Promise of Electronic Music*. Joel passed away on May 2, 2021 and this concert, curated by the Directors of the Electronic Music Foundation Institute, recognizes his pioneering work. Through the performance of historical compositions, the use of historical technologies to realize the performance of works, and listening to the musicality of Joel's spoken words, we will honor his memory and lasting contributions to the field of electronic music.

Svjetlana Bukvich, *The Beginning*

The Beginning, for electric violin-Viper and tape, can be traced back to Svjetlana Bukvich's 1997 multimedia performance *the Voyage*. Dubbed as a "sci-fi space fantasy", the show's soundtrack was released as part of Electronic Music Foundation (EMF) records under the curatorship of Joel Chadabe. The piece was reimaged in 2020 as the opening track on *EXTENSION* (Navona Records) and was recently featured on WNYC New Sounds with John Schaefer.

Richard Lainhart, *Cranes Fly West*

In memory of Joel Chadabe, teacher, mentor, friend. Joel encouraged Richard to experiment with the Kyma system which resulted in a series of works combining Kyma processing with live performance. As described by Frans de Waard, *Vital Weekly* #740, July 2010, "Lainhart is a master of drone music from the end of modern classical music. Playing a Steinway grand piano with nine e-bows, or the Kyma System on the electric guitar, Lainhart works extensively with the overtones generated by these 'simple' actions." *Cranes Fly West* (2005) is for solo performer on electric lap steel guitar with Kyma processing. The piece is accompanied by Lainhart's film, *Colorfield*, originally created for a NYSCA-awarded project "No Other Time" in 2009.

Warren Burt, *A Zoom for Joel*

A Zoom for Joel is a live interactive computer improvisation made with the Arturia Pigments synthesizer and sequencer. Technologically, it's a nostalgic look back at the days of composition using analog sequencer modules, using contemporary updates of those modules. Musically, it's a reminiscence of the very early days of interactive composition. Presence-wise, it's up to date, using the latest

technology to do an over the digital ether, at home composition.

Bob Gluck, *Lost Requiem*

Joel was an important mentor to me in the 1970s, a collaborator in historical documentation in the 2000s, and a good friend. My background as a rabbi and Joel's Jewish descent periodically led to provocative conversations that are reflected in my first CD, *Stories Heard and Retold* (1998). The album, produced by Joel and released by EMF Media, draws upon historical and personal audio fragments to address issues of lost and reimagined Jewish legacies. *Lost Requiem* reshapes some of this material as a memorial to Joel. My subsequent live performance focus began with a 1993 conversation with Joel when he introduced me to Max and M software.

Marc Battier, *AudioScan*

This piece was played in a concert organized by Joel at Harvestworks on June 4, 2007. *AudioScan* is one in a series of musical pieces based on nine paintings by Roberto Matta, well-known surrealist painter (1911-2002). I've had the privilege of working on this musical project with Matta's consent and support, and the sounds are all directly derived from his paintings: Areas of a painting were scanned and transformed into sound. The video, created by Ramuntcho Matta, Roberto Matta's son, is based on a few snapshots of the artist in his studio in Tosacana, Italy, where he died in 2002. *AudioScan* is a memorial to the late Roberto Matta. Here is the process by which I realized several pieces based on paintings by Matta. I look at a painting. This painting is a work by Matta.

I look at a painting.

This painting is a work by Matta.

As the eye moves freely from one area to another, I keep track of the time spent on each spot. I make a note of where each area is located within the surface of the painting. That process is how I started working on *AudioScans*, with 9 paintings by Matta. Each painting is analyzed visually, but the analysis is highly personal. No two persons will look at a painting the same way. Each area is then scanned and the scanned file is further processed to ensure a smooth transition to what will become a temporal score. The graphical file is turned into sounds (pixel to frequency and duration). The raw soundfiles are now ready to become the material of a music entirely based on my own way of looking at a Matta painting. The artist had a chance to listen to and comment on this musical work before illness took him away.

Laetitia Sonami, *Migration 1978 (remix)*

When I first met Joel in 1976, it was with Eliane Radigue who was introducing me to him in the hopes that he would accept me at SUNY-Albany to continue my studies in electronic music. Joel asked me then as an "entrance exam", what is CV? I could not reply which greatly embarrassed Eliane (I was supposed to have read her

copy of Allen Strange's *Electronic Music* book) and felt like disappearing under the table... He laughed as he so often laughed, and still took me in. This short piece came from my time at SUNY-Albany and exploring the many sequencers in the Moog studio. I think of the various rhythms as passages of birds migrating in the late summer skies and recall Joel's optimism and support during these early days. Instrument: Moog synthesizer.

Mary Simoni, *C-H-A-D-A-B-E*

This work was composed to honor the memory of Joel Chadabe and his contributions to the field of electroacoustic music. His inscrutable humor and seriousness of purpose are juxtaposed in spoken word recordings of Joel and his many musical influences. These memories are organized according to the musical alphabet of Joel's last name- a nod to the J.S. Bach motif.

Ben Chadabe & Tom Beyer, *You*

M was developed in the late 1980s by David Zicarelli, a student of Joel Chadabe's, and marketed at Intelligent Music, a company founded by Chadabe. M represents a lot of the computer improvisation ideas developed by Chadabe, and was used in his compositions on the album *After Some Songs*.

Chi Wang, *Impressions of the Pagodas*

Pagoda as a piece of architecture reflects history, aesthetics, religion, philosophy among many other cultural elements. Pagoda as a concept reminds me of each unique yet contemplative journey visiting different temples. The rituals of recitation and chanting practice in the temples offer the observers interfaces connecting themselves and the surroundings in different ways. In this piece, the impressions of the three pagodas are depicted in different audiovisual approaches through the real-time interactive performance.

Minjie Lu, *Do Not Go Gentle into That Good Night*

The composer is a lover of Christopher Nolan's *Interstellar*. The film extracts the sonnet *Do Not Go Gentle into that Good Night* written by Dylan Thomas. In the fierce exploration of mankind in the face of huge crises, it reflects the value of life and human nature. Mainly based on the poem *Do Not Go Gentle Into that Good Night* and the sampling of the Koshi wind chimes in France, the work showing its musicality through a number of sound processing techniques, and using electronic music language to show a thinking of sound texture in composition. The planet of human survival has developed into a global village of community of destiny. From the perspective of the wild universe, the composer tries to express the indomitable resistance and cherish attitude of life in the face of the crisis of life and death. Especially during the global epidemic period, we, as the community of human destiny, should maintain a kind of aware and reflection on the global village on which we live.

Scott Barton, *Mechanophore*

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 communicate their state (e.g. color change) or even heal themselves. The music represents a particular mechanophore, spiropyran and its internal interactions as it experiences stress, transformation, and healing. 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 relation between organic and synthetic into focus, the music mirrors this continuum through virtual and robotic 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.

Eric Lyon, *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.

Concert 8

Wednesday, June 22
3:30-5:30 PM
Black Box Theater

Program

works are fixed media unless otherwise specified

Rikhardur H. Fridriksson <i>Kri-Kri (Sterna paradisae)</i>	6:30
Filipe Leitão <i>String Samba</i>	3:50
	<i>video</i>
Junhong Zhang <i>EGO</i>	5:16
	<i>video</i>
Anders Flodin <i>Il settimo cerchio</i>	7:20
Yehun Shin <i>Poong-Gyeong no.2</i>	8:00
Ryo Ikeshiro <i>Composition: White Square, White Circle – extended version</i>	4:44
	<i>video</i>
Benjamin Fuhrman <i>Malleability</i>	5:45
INTERMISSION	
Nikos Stavropoulos <i>Claustro</i>	7:51
Isaac Ward <i>Motivational Speakers (2015)</i>	5:18
Aida Shirazi <i>Night Landed</i>	17:00
Massimo Fragalà <i>VoceST II</i>	3:42
Gabriel Zalles <i>Chaqu</i>	4:39
	<i>video</i>

Program Notes

Rikhardur H. Fridriksson, *Kri-Kri (Sterna paradisae)*

Kri-kri is the verbal interpretation of the sound of the arctic tern (*sterna paradisae*). The piece is based on the sound of attacking arctic terns in Northern Iceland. Their highly aggressive tendencies were the inspiration for the piece. The original recording wasn't exactly without risk, and Eyglo Hardardottir gets big thanks for risking her head.

Filipe Leitão, *String Samba*

String Samba is an interdisciplinary, multimedia piece featuring three violins, viola, and digital choreography. The music uses a variety of articulations, textures, string manipulated sounds, as well as complex, syncopated rhythms to evoke Brazilian music and dance. By using rotoscoping animation techniques, a series of gestures is composed and decomposed to create a screen dance of lines, colors and movement. The visual aims to reflect the music through a layered choreography of figures dancing digitally through vibrant hues, swiftly changing with the complexity of sound.

Junhong Zhang, *EGO*

"In the philosopher Freud's theory, the three parts of consciousness, namely the id, the ego, and the superego, constitute a person's complete personality. Simply put, the true self is human instinct, and the superego is Our idealized goal is that the ego is somewhere in between, the regulator is the id, and is subject to the superego." In reality, we often feel anxiety, fear, hesitation, and hesitation. It seems that there are two different selves living in our bodies.

Script

Section A (00:00:00-00:01:28) Two of my first contacts

This is my first attempt to touch "I". We are familiar but unfamiliar, similar but different. This "I" is a little confused, panicked and uneasy, "I" wants to catch me.

Section B (00:01:29-00:03:02) Explore another "I"

I began to understand the inner heart of this different "I".

We tried and perceived each other, and I tried to re-recognize "I" in a roundabout way.

Section A1 (00:03:02-00:04:23)

Anders Flodin, *Il settimo cerchio*

In the composition *Il settimo cerchio* (2018) I have tried to cast a wild and sprawling material in a well-defined and balanced form. The material consists mostly of convolution processed sounds where the sound borrows characteristics from each other—a journey from slow pulsating sounds to high floating sound structures with reiterated transients. The piece is intended to be intercepted at high volume.

Yehun Shin, *Poong-Gyeong no.2*

The title *Poong-Gyeong* means "Korean wind-bell."

Poong-Gyeong is a small bell that announces the wind and guests under the eaves or door. Poong-Gyeong is generally known as a bell for blessing. I took six wind-bell samples and composed them using various audio editing.

The original bell sounds continue to transform. It loses its original shape as it moves towards the climax. The original source is shown again at the end. These Poong-Gyeong sounds resonate in various ways in the sound space made by 4 channels and wish for good luck. I hope this sound will bring you many blessings after the pandemic times.

Ryo Ikeshiro, *Composition: White Square, White Circle – extended version*

Composition: White Square, White Circle is a fixed-media screening/installation work. It is an "audiovisualisation" – simultaneous data sonification and visualisation – where the same data and process generate both the sound and the moving image. Simple abstract designs are used, based on folding into a square and stretching into a circle, much like kneading dough. These shapes are moved to and from, and gently transformed into complex structures and then back again. It is a homage to the Russian Suprematist artist Kazimir Malevich.

Benjamin Fuhrman, *Malleability*

Malleability is a piece about physical manipulation. From the recording of the source sounds (small pieces of metal, clothespins, a rubber band, a metal bowl, and isolated instruments), to the electronic sounds (sine waves generated on a touch controller), to the mixing (mapped MIDI controller and joysticks), everything is created and placed by hand. As the piece progresses, the sounds are shaped and warped using more "hands on" control, gradually forming into larger structures of sound and blurring the lines of their sources before merging into sine waves. In a similar manner to sculpting clay, shapes form and reform throughout, giving way to more and more refined forms.

Nikos Stavropoulos, *Claustro*

Derived from the Latin, "claustrum," meaning "shut-in" or "enclosure." *Claustro* is the third composition in a series of works which explore aural micro-space. A sounding place of improved intelligibility through greater aural intimacy. The work is an invitation to come in and listen out for the thin line between philia and phobia that such places evoke. The discontinuous and non-homogenous nature of acoustic space inspires the arrangement of sound materials here. Recordings of original sound sources were conducted using a micro multichannel array designed and built in collaboration with Huw McGregor.

Isaac Ward, *Motivational Speakers* (2015)

Motivational Speakers was made for the final project of my second semester of electronic composition class, during my sophomore year at East Carolina University. The music itself is taken from a spoken motive, which was developed through filtering and other editing in Pro tools software. The design of the piece was informed by its title, with the main material being a spoken motive, the music being literally delivered by speakers, and the phrase, “everything is going to be okay”—being something a motivational speaker might say—is the basic material of the piece. The overall dramatic shape in the music grows to a tense apex and then dies away while the spoken motive delivers a repeated, final consolation, “everything is going to be okay.”

Aida Shirazi, *Night Landed*

Night Landed is based on a poem entitled *Echo* by the Iranian contemporary poet, Sohrab Sepehri. I have chosen different fragments of it and recorded myself whispering them in Persian. I have deconstructed some of the words and asked the flutist to whisper them while playing. In addition to the text, the electronic part includes the prerecorded bass flute, some electronically generated drone layers, pre-recorded and processed thunder tube sounds, bells, and humming voice. In *Night Landed*, the flauto d’amore has a soliloquy that turns into a dialogue with the bass flute in the electronics. The other electronic sounds set the atmosphere and provide the musical representation of the poem’s imagery. The whispered lines are not meant to be comprehensible and only function as another layer of sound that interacts with the rest of the parts in different ways.

Massimo Fragalà, *VoceST II*

All the sounds that form this composition derive from the elaboration of vocal sample. Starting from this very small sample (0.1756 seconds) I tried to change the original characteristics in order to generate a range of sounds more or less different compared to their original variety. This was possible using particular technique of sound processing such as time and spectrum stretching, morphing, harmonisation, freezing and sustaining a sound on an explicitly specified grain, transposing copies of sound on top of one another, etc.

Gabriel Zalles, *Chaqu*

en la noche espera, un gran cazador
es puro el silencio, a su alrededor
no se escucha nada, ni un solo latido
estará en lo profundo, pero jamás perdido

espera paciente, con arma en mano
rogando que todo, no sea en vano
sobreviviendo, a pesar de la ayuna
iluminado, solo por la luna

su mente esta en blanco, mantiene el enfoque
siempre alerta, sin quedarse roque
sigue su instinto, sin ninguna razón
cuando de repente, escucha un corazón

invaden el aire, lamentos profundos
los años pasaron, ahora difuntos
no existe retorno, ni condición
aun así espera, en busca de canción

English translation:

in the night waits, a great hunter
the silence is pure, around him
nothing is heard, not a single heartbeat
he will be deep but never lost

wait patiently, with gun in hand
praying that everything is not in vain
surviving, despite fasting
illuminated, only by the moon

his mind is blank, he maintains focus
always alert, without staying rock
he follows his instinct, for no reason
when suddenly he hears a heart

invade the air, deep wails
the years passed, now deceased
there is no return, no condition
still waiting, looking for a song

Concert 9

Wednesday, June 22

6:00-7:17 PM

Program

Steven Travis Pope

Secrets, Dreams, Faith and Wonder

1:16:57

Program Notes

Steven Travis Pope, *Secrets, Dreams, Faith and Wonder*

Secrets, Dreams, Faith and Wonder is a feature-length abstract music/video ritual of thanksgiving in five parts: (1) a lament of surrender (Jerusalem's Secrets), (2) the reading of the lesson (Leur Songe de la Paix), (3) the celebration of the ritual (Evigtdröm), (4) the recitation of the creed (Credo), and (5) a hymn of benediction (Ora penso invece che il mondo...). When looked at this way, it follows the structure of rituals of gratitude celebrated throughout the ages and across cultures and religions (and especially the Catholic Mass). The five pieces of music incorporate voices in Latin, English and Arabic (texts from the Bible, by M. L. King and M. K. Gandhi) as well as bird and whale songs. Each of the videos was made to fit the music of the respective movement. Each of the five parts has its own tonal and timbral language, and yet they fuse into a whole when viewed as a single large-scale work. The two inner parts (Leur Songe de la Paix and Credo) have text subtitles incorporated into the videos (texts by Martin Luther King, Jr. and Mohandas K. Gandhi, respectively), while the other parts each has a related text of some sort. The motivation for *Secrets, Dreams, Faith and Wonder*, for making a new mass for the new millennium, is summed up in the following paraphrased quote from the late Joseph Campbell, "Those who have heard the rhythms and hymns of the angels, who have understood any of the words of the angels, will try to recite those hymns in such a way that the angels will be attracted."

Concert 10

Wednesday, June 22

8:30-10:30 PM

Loreto Theater

Program

works are fixed media unless otherwise specified

Tao Li
Tres Aurorae for solo clarinet and electronics 6:00
Scot A. Humes, *clarinet*

Hiromi Ishii
Time Crystals 6:57
video

Jeremy Muller
Blackwater for snare drums, mobile devices, and animation 9:45
Jeremy Muller, percussion

Jeffrey Stolet
In Desperate Times 8:30
video

Xuwei Wu
Derivative For Piano and Electronics 7:00
Shinya Lin, *piano*

Mickie Wadsworth
I'm So Cold 7:43
Mickie Wadsworth, soprano

INTERMISSION

Mark Volker
Echoes of Yesterday 5:30
Lucy Hatem, clarinet

Yu Chung Tseng
Fluctuations Between-The Mutual Arising Ying and Yang-- An Acousmatic Music 8:40

Fang Wan
Huadan's Whisper 9:10
video

Michael Gogins
Red Leaves Version 8.4 12:05

Seth Shafer
Liquid Encryption 11:04
Bradley Robbins, performer

Program Notes

Tao Li, *Tres Aurorae for solo clarinet and electronics*

This piece draws inspiration from the sculpture *Bust* by Nevine Mahmoud. The surrounding auroras created by light diffused through the many complex surfaces of *Bust* immediately drew my attention and lead to the title of this piece *Tres Aurorae*. The human subject of the work and the abstract light effects create a strong contrast of real and surreal. These abstract auroras, represented by electronic textures "surrounding" the acoustic clarinet, symbolize the feminine power and its inclusivity and strength. In this way, *Tres Aurorae* adopts this concept of contrast between live acoustic sounds from solo clarinet and processed electronic sounds also derived from clarinet.

Hiromi Ishii, *Time Crystals*

This work was conceived as a Audiovisual (Visual Music) with 3D acousmatic. The materials for music are sounds of Sanukite stones and voices. They were chosen from my field-recording collections. The Sanukite, very hard lava stone, has a clear tone and a long resonance. The voices consist of everyday's family chat and a phrase of Buddhist male Chant which were recorded on a family ceremony day. These two different kinds of voices make a contrast. All sound materials were transformed, were extracted their characteristics, or were processed together to create new character of sounds. The processed sounds were diffused and recorded in 3D virtual space. For visual part, a picture of colorful brooches was transformed in fractal way. It develops to produce multi-layered planes which are variations of the beginning, but independent in time-streams and movements from each other. All processed sounds&images are characterized as fragments of time, or crystals of time.

Jeremy Muller, *Blackwater for snare drums, mobile devices, and animation*

Blackwater is based on Erik Prince's secretive mercenary army and its role in waging war around the world. Snare drums are used as the solo instrument for its long history of use in battle and an additional musical texture is added with the help of audience participation using web audio on their mobile devices. The audience texture mimics the snare drums often by generating different types of noise, filtered noise, and down-sampled noise. Audience members are encouraged to participate in the piece by using your mobile device as part of the musical texture. Turn your volume up, turn off vibrate and auto-lock, and please visit the website below on your mobile device to join:

<https://jeremymuller.com/blackwater>

Jeffrey Stolet, *In Desperate Times*

In Desperate Times was composed in 2020 while I was in COVID isolation and only virtually connected to the world. During this sequestration I watched George Floyd get murdered on TV and frontline Latinx citizenry disproportionately die executing essential services for others. *In Desperate Times* is a real-time performance composition for Kyma, Max (simple computer vision), a Wacom tablet, and a Logitech webcam.

Xuwei Wu, *Derivative For Piano and Electronics*

The concept of this composition is to explore the sound by experimenting with the sound of the piano and its derivatives, the digitalized morphing transformed from the acoustic prepared-piano interacting with the sound of a regular tuning piano shows the limitless possibilities, extending the boundaries of the art of sound.

Mickie Wadsworth, *I'm So Cold*

I'm So Cold came from a collaboration with poet Lily Eager. The texts drew me towards electronics in an effort to create a desolate and echoing environment. When we are trapped in our thoughts, our minds become distorted and we often lose sense of reasoning. The voice seeks to find logic within chaos of emotion.

“Cold
June 4th, 2020

It's my hormones, I swear,
I tell myself as I hold back tears
Thinking about being held.

Today I took a walk in the 90° sun.

I'm so cold.”

— Lily Eager

Mark Volker, *Echoes of Yesterday*

Dedicated to my friend and mentor in electro-acoustic music, Howard Sandroff, *Echoes of Yesterday* is a musical tribute to the mystery of memory: our past joys, sorrows, fears, loves, and triumphs. These memories are never really past. In fact, they make us who we are.

Yu Chung Tseng, *Fluctuations Between-The Mutual Arising Ying and Yang-- An Acousmatic Music*

Fluctuations Between was created and finished in 2019 at Sound Lab at National Yang Ming Chiao Tung University in Taiwan. The source of the work was drawn from limited fragments of vocal recording. The primal ideas of the composition are: (1) dig out “inner voices” of human voice to rediscover its inner power and beauty, and the virtual music potential, (2) organize (Varese) the processed micro-sounds (Rounds) with original source in a manner of “micro-montage mixage” (Vaggione) to create artistic interests of the work, (3) juxtaposing original sounds with processed ones to compose a work *Fluctuations Between* concrete and unreal, thus, a sense of beauty of Mutual Arising Ying and Yang was created.

Fang Wan, *Huadan's Whisper*

Huadan's Whisper is an interactive composition for Leap Motion, custom software created in Max, and Kyma. The main sound materials were based on audio recordings of bells, the Chinese instrument pipa, and a singing phrase from Huadan, a female role in Chinese opera. By physically engaging the invisible three-dimensional performance area provided by the Leap Motion, position data of the two hands were sent to Kyma to control its sound-producing algorithms, and I was able to control musical parameters in real time. Through this interactive composition, the audience was encouraged to travel through multiple sonic worlds.

Michael Gogins, *Red Leaves Version 8.4*

This piece is another in my “Leaves” series of pieces of electroacoustic concert music, algorithmically composed, available on electronic distribution. This is the first piece in the series that I have attempted to spatialize. The complete source code for this composition is available at https://github.com/gogins/michael.gogins.studio/blob/master/2022-NYCEMF/Red_Leaves_v8.4.csd. This piece is algorithmically composed using a deterministic iterated function system (IFS), implemented using my CsoundAC library for algorithmic composition. The C++ code for the score generator is embedded in the Csound .csd file and compiled and run using my Clang opcodes, which embed the Clang/LLVM just-in-time C++ compiler into the Csound runtime. The IFS uses operators upon chord transposition and upon the K and Q operators of the generalized contextual group of Fiore and Satyendra to generate chord progressions.

Seth Shafer, *Liquid Encryption*

Molten flows of public keys burning rivulets through the cipher's hillside as they make their way to the salty brine of the cold boot authentication sea.

Concert 11

Thursday, June 23
1:00-3:00 PM
Loreto Theater

Jonathan Wilson
Epoxylips

Esther Lamneck, *tárogató*

7:30

Program Notes

Program

Nathan Bowen
15 Days 8:08

Yeji Park, Flute, Young Woo Jeon, clarinet
Yeji Pyun, violin, Yuha Lee, cello

Mikako Mizuno
Stone Theatre2 5:57

fixed media

Christina Oorebeek
Streamlines I (remix 2021) 13:16

Jellantsje de Vries, *violin*
video

Liu Zhilan
end and beginning 4:58

Lucy Hatem, *clarinet*

Gintas K
Eternal 10:00

video

Enrique Mendoza Mejia
Ground Beatings 8:00

Esther Lamneck, *tárogató*

INTERMISSION

Brett Masteller
BowMu STUK MoBue 8:41

Patti Cudd, *percussion*

Burton Beerman
Transfiguration 7:00

video

Shuyu Lin
Who are you, a composer, conductor or singer? 7:49

Shuyu Lin, *live electronics*

Andrew Walters
Given to Rust 3:45

JiangTao Fu
Hysteria – for piano and electronic music 6:00

Wan Hong Shan, *piano*
video

Nathan Bowen, 15 Days

In 2021 there were only 15 days when police in the United States did not kill someone. In pondering the data of nationwide police violence, it is overwhelming to consider the circumstances in which these killings occur, the omnipresence of guns in the U.S., the danger police face, and the danger the police create. Crime rates do not explain police violence, as many killings begin as mental health checks and traffic stops. In this piece, each second represents a day. Each percussive sound correlates to one death. Amidst the steady stream of activity, one struggles to maintain or find a sense of humanity. How can we take care of another better?

Mikako Mizuno, Stone Theatre2

Dry air in the desert of Anatolian region makes solid and less reflected sounds even surrounded by tall walls. Under the hard and dense rocks, there can be found some spaces where human live their lives and prey for the peace. Solid impression of the synthesized sounds in the first part is inspired by the visual image of stone walls of the medieval Turkish palace. This piece Stone Theatre is an electroacoustic music for 8ch audio system. The sound materials originated from the composer's instrumental pieces and synthesis generated on Max/MSP. Multi-channel diffusion will help to evoke the sound and visual image of the piece; depth, timbral change depending on distance, movement of sounds and so on. In the time process of the piece, several rhythm patterns are produced by repetitive motives, tremolo effects, contrast between kinetics and statics and the musical phrases themselves. Rhythms are sometimes clarified by the sounds gradually shifting in pitch.

Christina Oorebeek, Streamlines I (remix 2021)

Through imaginary lines stream data, electricity, regrets, fantasies, memories - physical and virtual. The processed violin is heard in a conversation, an orchestration with and of itself - sometimes against fields of long vibrating noisy lines, sometimes as ascending or descending microtonal glissandi, sometimes in repeated patterns of circling melodic motives traded off with sharply bouncing ricochets. 'Serpentines' is a static field of harmonics, played on the bridge, alternated with long chromatic-multiphonic lines. 'Riffles' describes a more vertical field, spiralling higher and lower and increasingly adding iridescence to the palette of bowing. I've ventured into what I call experimental imagery to add many size, transparency and coloration layers of a basic set of glitch images as a slow moving visual environment, sometimes interacting with the audio, sometimes as a static field.

Liu Zhilan, *end and beginning*

In the acoustic instrument part, the core pitch material of the whole piece is the six-tone set [0,2,3,4,6,9], which is penetrated throughout the whole work through various creative techniques. In the electronic music part, the acoustic instruments' sound is sampled and deformed, so that the electronic music and acoustic instruments blend with each other. "I walk in a circle, and the nearer I come to the end the nearer I come to the beginning," Charles Dickens, the greatest Novelist of the 19th century, famously said. The whole song is divided into two parts: the first part is "ending", the second part is "beginning". By the end of the theme of the motivation of the brief representation, to express the end of a stage in life is also the beginning of the next stage.

Gintas K, *Eternal*

Electroacoustic live electronics performance made using my own created instrument made from computer, Plogue Bidule software & midi controller assigned to VST plugins.

Enrique Mendoza Mejia, *Ground Beatings*

"The interconnection of all created things to each other, brings it about that each simple substance has relations that express all the others, and consequently, that each simple substance is a perpetual, living mirror of the universe".

- G. W. Leibniz, *The Monadology*, 1714

Brett Masteller, *BowMu STUK MoBue*

The performer is allowed to choose the instruments used in this piece. The sections of the piece define the instrumentation that can be used based on how the performer can interact with the instruments. The sections are: Bowed, Muted, Struck, Muted, Bowed. The performer is given a generative graphic score to view and interpret during performance. The sonic results of the performance are sent to a computer for analysis. The computer resynthesizes some of the data obtained during the analysis, in addition to some real-time transformation on the input provided by the performer. The computer processes the sounds created by the performer's interpretation in a variety of ways. The performer is also encouraged to react to and modify their interpretation of the graphic score based on the sonic results, which will vary for every performance of the piece.

Burton Beerman, *Transfiguration*

The immersive visual and sonic environment of *Transfiguration* invites the participant to engage in evocative contemplation, confrontation, or meditative enlightenment. The music companion to the video *Transfiguration* is composed almost entirely of the sounds of flutes, although few of the sounds are generated from flute samples; but from the flute digital sources in the GeoShred app on ios; then processed with a variety of sources, almost all in the ios format. The piece was particularly built around the ios Digital Audio Workstation AUM, allowing multiple audio sound and MIDI control sources. Eventually, it all finds its way to the desktop environment. The video draws its sources from the

development of abstract visual imagery and poignant video dance images derived from the International touring Concerts of Berger and Friends Dance Ensemble, Celesta Haraszti and University of Iowa. focusing on the concept of introspection, tranquility and transformation presented in constantly changing mixtures, transforming the tentional storyline to match the tentional scheme of the audio timeline.

Transfiguration, in its own way tells a story that is unspoken, up-close and personal.

Shuyu Lin, *Who are you, a composer, conductor or singer?*

The sentence "a composer who doesn't want to be a conductor is not a singer" is a joke, and also the original inspiration of this piece. During the piece, the "conductor" controls the electronic music's timbre, volume, and other characteristics using the Leap Motion, which is a device that senses the hand's gestures; the "singer" sings and reads in the middle of the piece; the "composer" improvises the music according to the score. These three roles — conductor, composer, and singer — exist in one person. The triple-role is the main idea of this piece. In the music, the audience will hear three kinds of media: electronic sound controlled by hand, processed sound from a live microphone, and fixed media sound, which can't be changed on stage. So, who's on the stage? A conductor who leads the music, or a singer who sings the music, or a composer who improvises it?

Andrew Walters, *Given to Rust*

Given to Rust is a set of variations based on sounds from the art installation (rust) Echoes by Zeke Leonard of the Syracuse University School of Design recorded during a recording arts class. The installation consisted of five sculpture/instruments including a railroad spike xylophone, a nailing stump, fire extinguisher gongs, a dilapidated piano played with a shovel and nails, and a recreation of a Luigi Russolo Intonarumori. For Leonard, these instruments evoked the sounds of a previous age when trains rolled across the country. In these variations, I wanted to create a surreal web of sound that evokes an imaginary Rube Goldberg machine that may or may not be holding it together. In general, sounds progress from their original state to one of aural enhancement and destruction. Many thanks to my students Kaitlyn Dabulewicz, Trevor Jackson, and Charles Pykus for help with the performances and the recording.

JiangTao Fu, *Hysteria – for piano and electronic music*

The whole work describes a state of hysteria in the heart, using the piano's very high range and very low range to express music images with different personalities and rich content. This work attempts to integrate electronic music organically by using modern creative techniques and traditional musical structure. For this song, whether it is the sound of acoustic instruments or electronic sound, in the author's eyes, these are just a symbol, that is, sound. Although there are different combinations of musical instruments and electronic music in music form,

the creative idea of the work is to use the creative technique of auditory hallucination music.

Jonathan Wilson, *Epoxylips*

"Epoxylips" (pronounced "E-pox-ee-lips") was realized for Esther Lamneck. The title is a play on the word "apocalypse," but it can also refer to the connection of air that escapes the lips to other elements of this composition, such as the electronics. "Epoxy" is also known in chemistry as an organic compound that consists of chains of carbon that are linked to other elements such as oxygen, nitrogen, and hydrogen. It is often used as a two-part adhesive in which resin is combined with hardener to form a gel-like paste. In other words, a very strong kind of glue.

Concert 12

Thursday, June 23

3:30-5:30 PM

Black Box Theater

Program

works are fixed media unless otherwise specified

Shuoyi Li <i>Organic City</i>	7:06
Héctor U. Vera <i>Se evapora, quiebra. Tu existencia.</i>	7:00
Xinglan Deng <i>Prisoner of time</i>	5:50
Denny Cavalloni <i>Begone Dull Care (A Phantasy in Colors)</i> <i>video</i>	7:51
Eli Stine <i>Where Water Meets Memory</i>	11:00
Chris Arrell <i>Seven Trumpets</i>	6:01
INTERMISSION	
Michael Flynn <i>"Pop Song" No. 2 - SparklePhase</i>	6:44
Fu Lu <i>The Light of Sichuan</i>	4:26
Christian Banasik <i>Voices from below</i> <i>video</i>	14:48
Dante Tanzi <i>Nonius</i>	6:00
Bokyung Shin <i>Masking</i>	5:48
George Brunner <i>Transform 1 (17.1, 17.2, 17.3)</i>	8:00

Program Notes

Shuoyi Li, *Organic City*

The work is a four-channel electroacoustic music. The author sampled sounds in the city her live as materials to express the following topic in form of soundscape: The routine of urban dwellers just like substances get into each organ to take part in vital movement through blood. The first part, the sounds inside the subway and the hammering sound are taken as the main sampling materials to make a micro-living environment. The second part, human voice samples are introduced to form a mutual echo relationship. The third part evolves from the first part to reflect a three-part structural logic.

Héctor U. Vera, *Se evapora, quiebra. Tu existencia*

("It evaporates, it breaks. Your existence.")
Acousmatic work inspired by sunset.

Xinglan Deng, *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.

Denny Cavalloni, *Begone Dull Care (A Phantasy in Colors)*

Begone Dull Care is a 1949 movie directed by Norman McLaren and Evelyn Lambart. Produced by painting directly on the film stock, this movie create a visual representation of Oscar Peterson's jazz music. Denny Cavalloni reverses this idea: he creates a new soundtrack for the movie based only on the moving pictures. The rythm in the work changes many times and the music speed alters the perception of the pictures speed. The timbr is based on colors and characters in the film, just like melody, harmony and form of the entire new soundtrack.

Eli Stine, *Where Water Meets Memory*

During the summers of 2018 and 2019, I spent time at the Anheuser-Busch Coastal Research Center (Oyster, Virginia, USA), recording sounds including oyster reefs. Since that experience, I have revisited my lifelong relationship to water: trips to the beach as a child, a fear of deep, dark water (thalassophobia), recent collaboration with environmental scientists researching sea life, and, of course, the rising of our oceans as a function of global

warming. This work has four sections:

- I. The Bay (Of Trains and Shorebirds) w/ solo violin
- II. The Reef (Of Predator and Prey) w/ cello, piano, glockenspiel
- III. The Ocean (The Lull of the Sirens) w/ soprano soloists, choir
- IV. The Deep (Beneath the Rain) w/ string quartet, orchestra

Chris Arrell, *Seven Trumpets*

Seven Trumpets is an electroacoustic work created in Csound and Open Music. The number 7 plays a significant role throughout the piece, including the sounding of 7 spectral chords, or trumpets, which inform the work's architecture and narrative.

Michael Flynn, "Pop Song" No. 2 - SparklePhase

The second in a planned series of acousmatic works, "Pop Song" No. 2 - *SparklePhase* combines the harmonic language and production style of contemporary pop music with classically minimalist process. Throughout the work, a series of Reich-inspired phasing processes are sonically adorned with glittering flourishes and booming bass. Originally conceived as a two-channel work to be listened to with headphones, the octophonic version retains a sense of left-to-right symmetry while adding a front-to-back dimension, presenting the piece in a sort of "super stereo."

Fu Lu, *The Light of Sichuan*

Inspired from the Chengdu universiade which is going to be held soon, the swimming, fencing, archery, rowing, basketball were recorded respectively. Meanwhile, some unique cultural symbols of Sichuan Province such as Sun Bird, Sichuan Opera, hot pot, to the Throne on his Expedition by Zhu Gelignite were musicalized. The above two were combined and dealt with electronic acoustic technology, thus, it will reveal the enthusiasm, intense of the games as well as Sichuan unique culture.

Christian Banasik, *Voices from below*

The audiovisual work *Voices from below* is based on performance material and extraceted contents of my music theater *Metropolitan-Trilogy* (2017-2019 / 2021) - both on visual and sonic level. The starting point for this series are three subway stations with individual architecture and art concepts for a new metro line in the city of Dusseldorf / Germany. Numerous recordings of surroundings in public spaces, singing voices (solo soprano and choir parts) as well as the actual musical implementation determine the material for this electronic soundtrack. The three-part structure was also used and compressed into 15 minutes composition mixed with sounds of analog synthesizers, simple waveforms or noise. My interest was to bring the material to a further level of a purely electronic composition combined with visual aspects which process significant shapes and colors of the respective metro station in an abstract manner and continue to design new forms of moving images.

Dante Tanzi, *Nonius*

Made in 1984 in additive synthesis with the Alpha Syntauri music system, the piece was re-generated and edited in 2021. In *Nonius* the predominant element is made up of sinusoidal sounds accompanied by fragments of overlapping cyclic structures and by clusters that govern the states of condensation and rarefaction of the sound matter. The title, *Nonius*, refers to a measuring instrument with a graduated scale: the vernier (nonio), invented in 1942 by Pedro Nunes. Manufactured in 1982 by Syntauri of Palo Alto, California, Alpha Syntauri uses a Mountain Computer board with 16 oscillators installed on the Apple II.

Bokyoung Shin, *Masking*

We live in a pandemic, where the worldly disease lead ourselves into a contact-free society. Therefore, the composer decided to use texts that weren't used as much as nowadays due to the pandemic such as "Can you hear me?", and sound phenomenon like 'feedback' that were also not heard as much before the pandemic to describe and differentiate the life before and after the virus. The voices used in the piece emulates the sound as if it were filtered through a telephonic platform. Also, a masking effect occurs in the texts of the piece which derived from the virus mask itself, to articulate more of a hiddenness. As the texts referring to our daily lives get a stronger emphasis, the texts referring the virus will grow to encroach the former texts. The language used in the texts vary from English, Korean, and Deutsch, but mostly Korean. The piece was sponsored by Arts Council Korea.

George Brunner, *Transform 1 (17.1, 17.2, 17.3)*

Three short works created using a temporal and timbral kaleidoscope.

Concert 13

Thursday June 23

8:00-10:30 PM

Loreto Theater

Program

Mara Helmuth
Water Birds 10:43

Andrea Vos-Rochefort, *clarinet*

Madelyn Byrne
Flood 4:26

Emmalie Tello, *clarinet*
Sarah Song, *cello*,
Shiau-uen Ding, *piano*

Michael Rhoades
Inside the Crimson Castle (An Escher Multiverse) 7:35
video

Greg Haynes
Sky Meditation 3:45

Greg Haynes, *steel pan*

Christopher Cree Brown
Sound Cylinders for Flute and Tape 8:15

Beatrix Wagner, *flute*

Youngmi Cho
Dharani 7:45

Shiau-uen Ding, *piano*
Eleonora Claps, *soprano*

INTERMISSION

Michael Blandino
Breathing Banner 8:43

Michael Blandino, *performer*

Lars Bröndum
Mirrors and Reflections 5:49

Lars Bröndum, *theremin*

Zuriñe Gerenabarrena
LYSE 8:05

fixed media

Sue Jean Park
The Veil for horn and electronics 8:59

Kate Warren, *French horn*

Malte Leander
Blood & Breath: The Virus Moves 9:11

fixed media

Kwan Leung Ling <i>Midden</i>	Kwan Leung Ling, <i>suona</i>	13:09
Gina Biver <i>GASP</i>	Gina Biver, <i>director</i> Edgar Endress, <i>video</i>	4:25
Chi-Yen Huang <i>Tsa^ˊng t_ˊTai(tAI)XLaa</i>	<i>video</i>	7:37

Program Notes

Mara Helmuth, *Water Birds*

Water Birds is a structured improvisation for clarinet and computer created by the composer and clarinetist. The piece was composed around 2010 with the original clarinetist, using an interactive wireless network sensor system. Several performers have contributed unique versions of the work, with the most recent revision in 2019 adding new sounds and bird movements to the visual aspects.

Madelyn Byrne, *Flood*

Flood is a composition for clarinet in Bb, cello, piano, and live interactive computer. The piece is written in response to our current climate crisis and Annie Dillard's *Pilgrim at Tinker Creek*, particularly the "Flood" chapter. Dillard's writing is intensely present to the natural world, and her accounting of this event vividly describes the unrelenting power of the water, its destruction, and the community's eventual acceptance of and resignation to its damage. The community surrenders to the reality of relinquishing their past lives and taking on the challenge of building a new life.

Michael Rhoades, *Inside the Crimson Castle (An Escher Multiverse)*

Inside the Crimson Castle (An Escher Multiverse) is an exploration of the nexus of holography, holophony, and super-computing toward the creation of visual music compositions intended for head mounted displays or large scale 3D/360 projection screens and high-density loudspeaker arrays. Presented here is the 2D version, which is an entirely different from the holo experience and yet is nonetheless viable as an allusion to it. The viewer is placed into a non-linear space that consists of different rules and relationships than our "normal" perspectives of temporal and spatial perception in an attempt to expand consciousness.

Greg Haynes, *Sky Meditation*

Sky Meditation is a work for steel pan, synchronized video, and 2-channel fixed media. Imagery is sequenced from public domain B-reel video acquired from the U.S. National Park Service. Aesthetic influences include impressionist and minimalist compositions in addition to

solo steel pan artists and cinematic works.

Christopher Cree Brown, *Sound Cylinders for Flute and Tape*

The tape part in *Sound Cylinders* consists mainly of flute sounds that have been altered or modified with the help of a computer. This not only provides a way for the spectral qualities of the flute to be extended in the tape part, but also allows for a singularity in the overall timbral character of the work. The flute part utilises several extended techniques (such as tongue rams). The work attempts to incorporate each of these extended techniques as an integral and integrated part of the overall sound world of the piece. The opening inhale/exhale breathing sounds establishes the nature of the dialogue between the flute and tape parts in the work. *Sound Cylinders (for Flute and Tape)* was written for Tony Ferner over the summer of 1996 and 1997.

Youngmi Cho, *Dharani*

The title, *Dharani* indicates a mystic Buddhist formula derived from Sanskrit. The words are made up of exorcising scriptures, a kind of implicative and long incantation not to be interpreted as a language. The demonstration of the words goes through the process that the sound comes in me and then myself enters Buddha. The work represents such transmissions of sounds, and their alternations and combinations for a soprano, an electric piano, and the interplay of electrics. *Dharani* is generally sung with the repetition of short tunes accompanying occasional pulses by a few percussion instruments. The composer employs and develops them as the source ideas to imaginably enhance its sonic expression.

Michael Blandino ***Breathing Banner***

Breathing Banner (2021) draws from a fixed sound source using granular synthesis and is performed with an array of continuous control sensors.

Lars Bröndum, *Mirrors and Reflections*

Mirrors and Reflections is a live electronic piece with fixed media part. The fixed media part was recorded with modular synthesizers, while the live part is performed on a Theremin interfaced with a semi modular synthesizer and effect pedals. The piece is in two parts. Part one, "Mirrors", is improvisational and fluid in character and part two, "Reflections", is centered around asymmetrical rhythmical gestures using random voltages. The piece revolves around a Buchla bass line that behaves like a passacaglia, but is interrupted by short episodic parts.

Zuriñe Gerenabarrena, LYSE

This work is based on the interaction between the voice and an imaginary environment, with actions in different directions, using the space of the sound and poetic landscape as a place for the listener to enter, and immersed in a mobile space, and move with the sound. I explored in this work the relationships emerging as pure sound and I searched a constructive relationship between the internal and outside sound, where the possibilities, the stimuli of nature are linked with technology resources produced and processed in studio.

Sue Jean Park, *The Veil for horn and electronics*

The Veil is written for horn and electronics, and commissioned by Stacey Eliason, a USA horn player. This work is inspired of a story of Hwarang, known as an elite knights and warrior group of male youth in Silla dynasty in Korea. This piece is written in the three-story telling structures: 1) atmosphere in the Silla dynasty times, and introducing of Hwarang (beginning to 04:33), 2) Hwarang's various skills (04:34~ 06:17), and 3) Hwarang's minds for the king (06:23~end). Technically, electronic track includes manipulated sounds of Chloe Upshaw, alto flute and Stacey Eliason, horn as well as electronically produced sounds.

Malte Leander, *Blood & Breath: The Virus Moves*

Blood & Breath: The Virus Moves is a multi-disciplinary piece featuring a wide array of techniques and sound sources (field recordings, vocal excerpts, synthesized and processed textures, to name a few). An elaborate and continuous process of addition, modification and exchange of materials, coloured by the individual artistic preferences and abilities of the five members of the collective, produced an end result that takes the listener through layers upon layers of sound spawned from deep reflections and feelings within the group, transducing them into complex and captivating waveforms.

Kwan Leung Ling, *Midden*

People, objects, and incidents pass by us everyday and we may not even notice their existence. However, they might appear chaotically in our dreams – like a midden of our participation in life. This piece is introduced by a collection of sounds that are taken from the composer's daily life. Representing the people, objects, and incidents that have appeared within it. This collection of sounds become the themes and motifs of the piece, recycled by the ensemble. The leading instrument – Suona is the tour guide of this journey, working as the brain of this anarchic dream.

Gina Biver, GASP

Gasp is an electroacoustic work of chamber choir and multi-channel fixed audio by composer Gina Biver and video by media artist Edgar Endress. Video footage of Joan of Arc mix with stethoscope-made recordings from 2021 of the breaths of first responders, community members; people who lost homes in the wildfires; breaths snatched from between the words of Martin Luther King and Malcolm X add to the heart-wrenching pleas of the

forsaken bystanders at George Floyd's murder. His own cries for help ring out along with the racket of ventilators, oxygen masks and newborns - all there, representing. An ancient hymn that sings of the river is the backdrop to this cacophony of breaths and cries. The collected breaths manifest not only our fragility in this moment in time, but our ability to recover, heal and go forth, and this mass of interconnectedness -- the effects of which ripple well into 2022 -- is codified and captured in the wideness of our collective action of breathing.

Chi-Yen Huang, *Tsa⁻ng t₋Tai(tAI)XLaa*

The title of the piece is various segments from the Chinese traditional Drum Patterns. In the traditional performance, the performers read the text on the score to determine which instruments should be played. Also, the different patterns and combinations of instruments indicates the various rhythm to control the atmosphere on the stage. Inspired by the thought described above, the composer deconstructs the Drum Patterns to become the title of the piece. Moreover, the different combinations of the part in a word, such as constants and vowel, connect with heterogeneous elements to create a unique sound and word in this piece between the instruments and the electronics.

Concert 14

Friday, June 24

1:00-3:00 PM

Loreto Theater

Program

Ben Hochster
Modulus 3:09

fixed media

Emiliano del Cerro
Elaborated Ellipsis 8:12

Eleonora Claps, *soprano*

Leah Reid
Ring, Resonate, Resound 7:23

fixed media

Mei-ling Lee
Summoner 5:20

video

INTERMISSION

Marcela Pavia
La gabbia di K (K's cage): monodrm w/o voc 7:04

Beatrix Wagner, *flute*

Lucy Hatem, *clarinet*

Enzo Filippetti, *tenor saxophone*

Michael Lukaszuk
Habitats - V - Bromeliads 6:49

fixed media

Ursel Quint
Moritat from Fairness in the World 10:00

Ursel Quint, *speaker and hurdygurdy*

Francesco Bossi
Poplite 5:57

fixed media

Zouning Liao
Water, Bowls and Rocks 7:30

Zouning Liao, *performer*

Jesse Austin-Stewart
miss u, RD1 – woof woof lol 8:13

fixed media

Adam Mirza
Snared, Wired, Crashed 11:00

Josh Perry, *percussion*

Program Notes

Ben Hochster, *Modulus*

Modulus is a process piece incorporating bells, Ableton's Operator instrument, and the composer's vocals as source material.

Emiliano del Cerro, *Elaborated Ellipsis*

This piece was composed as a work based in self-similarity theory and new mathematics derived from set theory. Extended theory includes micro tonality and extended techniques for instrumental writing. Electronic in live real time processing includes micro tonality extension and filters and equalization to control and modulates color of instrument. The instrument plays with space as parameter. The cells and motives from the composition are distributed over a space as a conversation with different sound planes. The rhythmic structure is derived from the melodic lines that are designed in the diatonic circle of 12 notes and in some parts with extension of micro tonalities of the instrument. The modules are derived from some aspects of modern poetry and are based on the prosody and musicality of the words.

Leah Reid, *Ring, Resonate, Resound*

Ring, Resonate, Resound is an acousmatic composition written in homage to John Chowning. The piece tips its hat to Chowning's *Stria, Turenas*, and the beautiful sonic landscape Chowning explored through his research and discovery of FM synthesis. *Ring, Resonate, Resound* is dedicated to him. The composition explores timbre through dozens of bell sounds, which provide the harmonic and timbral material, structure, foreground, and background for the piece. The composition comprises five sections, each examining a different set of bells and materials that interact with them. The piece begins thin and bright, then gradually increases in spectral and textural density until the listener is enveloped by a thick sound mass of ringing bells. The bells gently fade into waves of rich harmonic resonances. The piece was composed using a multidimensional timbre model Reid developed while at Stanford University. The model is based on perceptual timbre studies and has been used by the composer to explore the compositional applications of "timbre spaces" and the relationship between reverberant space and timbre, or rather the concept of "timbre in space."

Mei-ling Lee, *Summoner*

Being elusive and mysterious, owls, with their nocturnal nature have been associated with magic, mysticism, and the occult. In spite of their symbols of wisdom and fortune, their presence is considered a harbinger of death and destruction. On the other hand, peacocks are seen as symbols of divinity, royalty, and immortality, and manifest their lives with majesty and charisma. Their beauty and vibrant colors are praised as a gift from divine beings. *Summoner* explores the notion of mystery associated with these two members of Class Aves.

Using peafowl recordings made at my mother-in-law's home, where more than two dozen peafowl lived, this composition transforms the sounds of peacocks calling and owls hooting, and takes an excursion into the enigmas, mythologies, and necromancy of these creatures.

Marcela Pavia, *La gabbia di K (K's cage): monodrm w/o voc*

"Is it the cage of K or it is K in a cage? And in the latter case is it a prisoner from one's own biology, from one's own circumstances or from one's existential conditions?..." We face a limen (threshold that separates but allows the passage) and In this limen, the sounds of the instruments, which range from rational to semblances of irrationality (teeth on the reed, growling, multiphonics, etc.) are modulated by non-human sounds (such as concrete whales and hawks sounds and human screams representing madness. The idea of the cage pervades structurally the piece. All the musical ideas as well as spatialisation and "architecture" of the space were thus connected structurally.

Michael Lukaszuk, *Habitats - V - Bromeliads*

This piece is the fifth in a series experimental sound works that explore the idea of digital ecologies. Each piece consists of a generative composition program that records the interactions of various sound-making objects. This particular piece is inspired by the idea of bromeliads in nature, and their ability to function as within a larger habitat while acting like a self-contained ecosystem at the same time.

Ursel Quint, *Moritat from Fairness in the World*

The Moritat descends from the traditional Troubadours, who traveled across Medieval Europe entertaining the simple people with their ballades. Later they were accompanied by Hurdy-Gurdy players (later: Organ Grinders) and their sung stories were illustrated on large billboards. These often gruesome tales were an attempt to educate the masses morally. "The Moritat from Fairness" is fashioned after this music theater form. It presents in seven short films of different animation techniques and musical styles, some aspects of "Fair Play". When the Organ Grinder turns his crank, it influences the speed and direction of the audio-visual material by means of an analogue-to-digital interface. At this point, special thanks to Christian Foltin in Berlin for his Python programming. Following each film, the "Moral to the Story" is proclaimed in a short statement from the two performers.

Francesco Bossi, *Poplite*

The idea that a continuous tone can be broken into smaller amounts of time derives from the ancient atomistic philosophies. In this way, I have always been influenced by a particular approach to algorithmic composition and sound synthesis. The focus is mainly on the expressive potential of the processed sounds and then the grouping of phonic materials into new sequences. Furthermore, this work is more on the side of

the whispers than on the side of the shouts. In addition, spatialization and convolved reverberation play a key role. This formula produces musical sense by expanding and shortening times and frequencies from the original waveforms. The synthesizer was designed and built with Max-MSP.

Zouning Liao, *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.

Jesse Austin-Stewart, *miss u, RD1 – woof woof lol*

miss u, RD1 – woof woof lol is a video work of "agricultural spatial audio" filmed in Pirongia (rural Waikato, Aotearoa New Zealand). "Agricultural spatial audio" is deemed by the artist author to be a work of spatial audio that engages with agricultural sounds or imagery with the primary intended audience to be those within rural areas. The work uses a fixed camera position that captures a farmer directing some dogs and sheep in a choreographed pattern around a paddock. As the animals and farmer move around the paddock, you hear them move around your head if wearing headphones. As the dogs bark at the sheep, there is a clear correlation between the position you see and hear them in. As they move, you hear them move across the spatial field.

Adam Mirza, *Snared, Wired, Crashed*

Snared, Wired, Crashed is a new composition for percussion and live electronics, created in collaboration with percussionist Josh Perry. The composition is built around a hybrid acoustic-electronic-digital instrument that places contact mics and transducer drivers on a snare and cymbal (with an extra pair of drivers on a kick drum and thunder sheet) and various delay and feedback presets built into a Max patch controlled by the percussionist with his feet.

Concert 15

Friday, June 24

3:30-5:30

Black Box Theater

Program

works are fixed media if not otherwise specified

Johannes S. Sistermanns
indeterminate 5:20

Matteo Tomasetti
Njörðr 9:25

Chen Yi Xuan
The other side 5:47

Peter VZ Lane
Prolation Study in Metal 5:06

INTERMISSION

David Berezan
Tongue Drum 10:00

Mark Ferguson
Machair Impressions 10:05

Shahrokh Yadegari
Morphosis 4:19

David Q. Nguyen
Whale Song Stranding 11:03

Eduardo Nespoli
Vestigios 6:07

video

Stanislaw Bromboszcz
Symmetriads 15:16

Program Notes

Johannes S. Sistermanns, *indeterminate*

who are we when we hear? When we hear into a sound, does it hear us at the same time? Is the sound playing us? what all do we not hear because we are not resonant to many sounds involved in the composition? Certainty is a concept like all other words of intangible perception. To detach oneself into a sound, into a hearing, is that a way? I know no word, no abstraction of a concrete as well as abstract sound.

Matteo Tomasetti, *Njörðr*

Njörðr is an electroacoustic composition for multi-channel format that represents a real meeting between human imagination and nature, with one of its most powerful symbols: the sea, which is alluded to through the sounds of waves, storms, drops and its structural metamorphosis. The composition presents an exploration of the essence of these environmental sounds, which are modified, recreated with different materials and amalgamated with traditional processed instrumental sounds and synthetic sound objects, in an attempt to create a surreal and evocative perceptive atmosphere. The initial idea of the piece is based on sound recordings made in Portugal, at the "Praia Do Banho" and "Praia Do Meco", on the south coast of Lisbon. A key feature of the piece is its octophonic spatialization and the resulting spatial images, a symbol of movement and fluidity of the sound sources, which interconnect with the very nature of the soundscapes used. Contrasts and synthetic sound combinations are substituted for ambient and instrumental sounds, alternating the perception between abstract and realistic environments. The manipulations of a spectral and movement type are combined to create dreamlike soundscapes always defined by a sort of articulation of transformations and juxtapositions.

Chen Yi Xuan, *The other side*

The unconventional sound of the piano and voices are the main component of the work. I attempt to create a soundscape that exists between the physical and spiritual worlds, which are implied by the sound from the inside/outside of the piano. Every subtlest detail plays an essential role in this work. The work begins in slow pacing. The subtlest details are then present one after another in the rhythm of our natural breathing. In contrast to the beginning of the work, the middle section contains more splendid dramatic and contrasting elements. These elements fused into one whole sonic picture via timbral and spatial transformations.

Peter VZ Lane, *Prolation Study in Metal*

A prolation canon of wind chimes serves as a ritornello for a larger exploration of motion and immersion through metallic samples (also including samples of waterphone, thundersheets, singing bowls, and an unusual iron spiral-staircase from my parent's home in rural Vermont). In composing this piece, I explored techniques I would

describe as “analog spatial sampling”; much of the 3D spatial elements were achieved through soundfield recordings –setting up objects around/above/below a soundfield mic, then improvising– rather than the more conventional approach of panning/mixing non-environmental sampled sounds into the soundfield in the studio.

David Berezan, *Tongue Drum*

Tongue Drum explores the sounds of a steel tongue drum, a pitched percussion instrument.

Mark Ferguson, *Machair Impressions*

Machair (Gaelic; roughly pronounced ‘mah-hur’): fertile, wildflower-rich grassland habitat found on the northwestern coastlines of Scotland and Ireland. Five sonic impressions, composed out of source materials gathered around the Hebridean Island of South Uist in August 2019: Open grassland with red clover and knapweed, from Daliburgh to Askernish. Thistle, burdock, ragwort and Yorkshire fog grass internals. Great yellow bumblebee queen (reconstructed nest interior). Bumblebee mating activity (reconstructed nest entrance). North Atlantic surf under dark clouds, from the ancient burial grounds at Cladh Hallan. *Machair Impressions* was realised in the Electroacoustic Music Studios at the University of Birmingham between November 2019 and February 2020, with support from the Midlands4Cities Doctoral Training Partnership (AHRC). A Midlands4Cities Student Development Fund award facilitated all fieldwork for the piece.

Shahrokh Yadegari, *Morphosis*

A timbre melody about change and evolution. Even though all the material are pitched, the story is told by the morphosis of timbres. This piece tells the story of an angel born out of the eruption of a volcano on earth. She falls in love, and is tortured for her earthly desires. She bears a child called poetry, whose life struggle is to be more than words. All the sounds have been synthesized by the Recursive Granular Synthesis method.

David Q. Nguyen, *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

Eduardo Nespoli, *Vestigios*

Vestigios is an audiovisual work in which images are reactive to sounds. The piece results from my research on hybrid art and the possibility to create audiovisual computer instruments that produce relationships between sounds and images. Starting from the context of electroacoustic sonorities and techniques, in this piece I explore the notion of audiovision and synesthesia to integrate the audible and visible information in a live cinema work. The artistic process consists in making collections and rearrangements of audiovisual materials. Thus, in *Vestigios* audiovisual fragments were organized in inventories that are brought back not as objective signs, but instead as ghostly spectra that reappears adrift. I evoke them in order to create a dreamlike environment which may lead the spectator to perceive the condition of memory in the era of digital technology.

Stanislaw Bromboszcz, *Symmetriads*

Symmetriads is a part of the piece *Solaris / landscapes, paraphrases* based on Stanislaw Lem's novel *Solaris*. The description of a symmetriad alludes to the main theme of the novel. However, unlike the sense of defeat resulting from the inability to understand the activity of the ocean, alien to humans in its essence, the complexity of the symmetriad – exceeding our possibilities of comprehension – evokes a feeling of euphoria in the observer. It results from the awareness that standing before this astounding construct, we only see “...a fragment of the process, the trembling of a single string in a symphonic orchestra of supergiants, and on top of that we know—we only know, without comprehending—that at the same time, above us and beneath us, in the plunging deep, beyond the limits of sight and imagination there are multiple, millionfold simultaneous transformations...”. The piece was commissioned by the Polish Composers Union. English translation of the novel – Bill Johnston.

Concert 16

Friday, June 24
8:00-10:30 PM
Loreto Theater

Akira Takaoka
Violin Concertino

Maja Cerar, *violin*

6:30

Program Notes

Program

Robert McClure
bloom 13:15

Justin Snyder, *piano*

Clemens von Reusner
Ideale Landschaft Nr. 6 11:12

fixed media

Konstantinos Karathanasis
Medusa In Somno 11:05

Madeleine Shapiro, *cello*

Wilfried Jentzsch
Between Heaven and Earth 10:10

video

Maurice Wright
Phoenix 5:08

Chelsea Meynig, *flute*

Hubert Howe
Inharmonic Fantasy No. 15 7:17

Enzo Filippetti, *tenor saxophone*

INTERMISSION

Gerald Eckert
Diaphane 10:51

fixed media

Andrew May
Les Souvenirs-Reunis 12:00

Madeleine Shapiro, *cello*

Matteo Tundo
Spazio inclinato 7:50

Enzo Filippetti, *alto saxophone*

Judith Shatin
Blue Air 4:59

SoHyun Bae, *video*

Benjamin Broening
Final Light 6:32

Beatrix Wagner, *flute*

Robert McClure, *bloom*

bloom, for piano and electronics was commissioned by and written for pianist Justin Snyder. The title references several images that contributed to the compositional process. It's the tangled, rising bloom of jellyfish. It's the soft, hazy blue glow emanating from fish and invertebrates from the ocean depths and bioluminescent algae shimmering on the surface. It is the vision of light surrounding, but not touching.

Clemens von Reusner, *Ideale Landschaft Nr. 6*

Ideale Landschaft Nr. 6 ("ideal landscape no. 6") is inspired by the constructed still landscapes of European landscape painting of the 17th and 18th centuries as well as by an etching by the artist Ernst von Hopffgarten. This is the 6th sheet of his cycle "Variations in G", which has no title of its own. Although the composition is not about setting a graphic template to music, there are structural similarities between the two works. The sound material is abstract sounds generated with the synthesizer and with Csound, a programming language for sound synthesis, which are created by additive and subtractive sound synthesis.

Konstantinos Karathanasis, *Medusa In Somno*

Medusa, the sublimely beautiful monster of antiquity. Mysterious, seductive, apotropaic and lethal. Ambiguity personified. Femme fatale, or the tragic victim of the desire and wrath of two gods? Living in exile in a desolate place after her purge, turning anything alive to stone with her gaze of death. Bearing in her belly the seed of her rape, the winged horse Pegasus, the lofty symbol of poetic inspiration. Killed while sleeping by Perseus. What she was dreaming? Almost all of the electronic sounds are produced live via custom made algorithms. This piece is commissioned from and dedicated to Madeleine Shapiro. Many thanks to Ioannis Andriotis for sharing with me his SANDBOX~ frame for the realization of this piece. *Medusa* received the First Prize in Category B (works for instrument and live electronics) of the Musica Nova International Competition of Sonic Art in Prague, Czech Republic.

Wilfried Jentzsch, *Between Heaven and Earth*

A verse by the Chinese philosopher Laotse (from the Tao the King) was a source of inspiration. It is based on a cosmic idea, beginning with the words: The space between heaven and earth. The music is based on three basic materials: a Chinese cymbal, bird voice and medieval sacred vocals. These three materials come from different cultures, different eras and omnipresent nature. With the help of digital methods of sound synthesis, new sounds are created. The visual design is based on motion graphics. All images were generated

with the help of certain algorithms in the computer. The design is based on particles, just as our cosmos is composed of tiny particles. The spherical shape of the Earth and the Sun form the visual center in which granulating sound and image clouds move in complex configurations of a virtual 3D space.

Maurice Wright, *Phoenix*

The soloist, reacting to a terrible series of events, wants the world to begin anew, a fresh start. To this end she serenades the spirit of the Phoenix, thinking that if the Phoenix would rise, it would mark the end of the time of suffering and usher in a new age of beauty and understanding. At first the phoenix shuns her, even ridiculing her from its resting place. But the bird is affected by her pleading, and welcomes her into the underground chamber. Emboldened, the soloist insistently implores the Phoenix, who emits a beautiful shriek and rises on the morning breeze. Sadly, the Phoenix takes the youth-spirit from the soloist, who remains on the earth, wiser for her sacrifice.

Hubert Howe, *Inharmonic Fantasy No. 15*

In recent works, I have explored different ways of structuring inharmonic partials of a sound. This work employs frequency shifting so that each partial above the fundamental is 13/24 of that of a harmonic spectrum. The amplitude of each partial is controlled separately, so that there is a continually shifting timbre. The tenor saxophone represents a fixed element over this continually changing backdrop of sound components fading in or out. In the middle part of the piece, the inharmonic components change from continually fading in and out to being attacked individually, and the instrument contributes to these little points of sound that drop in and out. The work was written in the winter of 2020-21 during the coronavirus pandemic, and the fixed media part was generated by Csound.

Gerald Eckert, *Diaphane*

Diaphane (Diaphanous) for 2-track tape was composed in 1995 at the ICEM at the Folkwang-University of the Arts. The title (cf. diaphan - diaphanous) is to be understood as a concept. A stratum which is in itself complex and has been composed using various means is overlaid by several different strata or expressed as an association: a surface changes its form due to the simultaneous appearance of different-coloured lights refracted by a prism. The result is the overlapping of two different kinds of structures comparable to the interference of two pieces of film laid over each other. This happens in *Diaphane* at carefully chosen points which, temporally, are uniquely related. This work was composed using various kinds of technology. The "concrete" sound material was won from the sounds of percussion, speech and machines and was digitally revised using various programmes. The sound structure was created with the synthesiser programme Csound. Each individual process in the piece is different from the next in that, in some cases their sound results only appear in fragmentary form. The first rest structure can be taken as an example (2:00 to 2:30). This part,

which was actually generated without a rest, was more or less cut out. i.e. only a fragment of the original structure remains. In other cases, only the initial moments of the processes form the sound strata. For example, in the final quarter of the piece is dominated by an echoing sound structure, which is repeated four times with periods of varying lengths. Further structural changes are a result of differing transpositions, which sound at the same time as the "looped" originals, resulting in varying running times.

Andrew May, *Les Souvenirs-Reunis*

An exploration of memory, anachronism, and the intricate web of connections between the personal memory of a musician and the collective memory of a musical practice, *Les Souvenirs Reunis* is based on two movements from Francois Couperin's *Les Gouts-Reunis*, which have been part of the daily practice of the work's dedicatee since childhood (in a quirky and anachronistic arrangement from the early 20th century). The cellist improvises music and spoken words within a shifting framework of aesthetic and personal terrains; the computer, with its prodigious memory and complete lack of mind, attempts to organize and connect the dots between these points of intense personal meaning, and may succeed in raising ghosts by accident.

Matteo Tundo, *Spazio inclinato*

This composition is born from a thought on the essence of the movement and tries to explore the perceptive possibilities of different types of dynamism. Sound is naturally perceived as a dynamic material and the space in which it is diffused can be inclined to favor the tendency to a perceptive characteristic rather than another. Through the management of this inclination, it is possible not only to organize the direction of sound, but also to modify its timbre characteristics in relation to time.

Judith Shatin, *Blue Air*

Artist SoHyun Bae and composer Judith Shatin first met at the Virginia Center for Creative Arts. They were moved by each other's art and developed an enduring friendship that led to this collaboration. Judith recorded SoHyun painting as well as the two of them in conversation. SoHyun then sent paint marks to Judith to which she responded with musical phrases based on the recordings. SoHyun in turn visualized the music and responded with paint marks made while creating her *Nature of Water* series where she explores the precariousness of life and its fragility. The process was collaborative and iterative. Judith also added elements of acoustic instruments as well as processed recordings of her immediate environment. Over a period of months, they responded to each other's music and images, finding ways to carry on the conversation. Finally, they merged, as described in Edith Wharton's poem *A Meeting* where they '...drink the blue transcendent air together....'

Benjamin Broening, *Final Light*

Final Light explores the liminal light of dusk as shadows lengthen, the bright colors of day darken, and the familiar world is gradually transformed. A comparable transformation takes place in *Final Light*: the flute and electronics slowly descend to lower registers over the course of the piece as flute sounds are gradually replaced by whispering percussion sounds in the electronics.

Akira Takaoka, *Violin Concertino*

Violin Concertino (2019) comprises six sections, A1-B1-A2-B2-B3-A3. The harmonic materials consist of constantly transformed pitch-class sets so that they explore the entire 12-tone pitch space in various ways. The transformations of pc-sets and melodic figures are strictly regulated by Lindenmayer systems, mathematical models of the growth of plants developed by theoretical botanist Aristid Lindenmayer. The rule systems are implemented in my own computer program for algorithmic composition written in Java. The Java program generated the violin part and the score files for the sound synthesis and processing software RTcmix, written by Brad Garton and his associates. Its instruments of channel vocoder, additive synthesis, and various filter instruments produced all the synthesized sounds.

Concert 17

Saturday, June 25

1:00-3:00 PM

Loreto Theater

Program

James Dashow at 75+2

works are fixed media unless otherwise specified

James Dashow

***Soundings in Pure Duration n.5 for harp
and octophonic electronic sounds***

Lucia Bova, harp

11:40

James Dashow

***iPiece for guitar
and octophonic electronic sounds***

Arturo Tallini, guitar

17:00

James Dashow

***Soundings in Pure Duration n.10
for octophonic electronic sounds***

25:07

INTERMISSION

Frank Felice

... of Glass

6:30

Patrick Gibson

***Improvisations based on Noah Berger's "Justin
Sullivan Shooting Low, Camp Fire, 2018"***

5:42

Antonio Scarcia

Continuum

6:27

Berk Yagli

Ideological Distortion

11:08

Program Notes

James Dashow at 75+2

This concert has been twice postponed due to covid. It was supposed to take place in 2020, but as we know, everything locked down for a couple of years. Hopefully the current surge (April 2022) will have abated by the time we land in NYC. Dashow has been making music with electronic and pre-recorded sounds since 1966. He took Hubert Howe's course in MUSIC4BF at NYU in 1967 and saw immediately that the computer was where electronic music was going, eliminating all that tape cut and splice, multiple mixes of sounds that increased noise levels (notwithstanding the dbx), and the instability of most analog sources. Well, the then chairman of the graduate music department, upon hearing Dashow's enthusiastic recommendation that the department start doing electronics with computers, uttered those sadly famous words: "What? Ya wanna punch cards for the rest of yer life?" So much for computer music at his graduate school.

Dashow arrived in Italy on his Fulbright in 1969. A chance meeting with Graziano ("Giuliano") Tisato at a summer music festival resulted in an invitation to be a permanent guest at the computer center of the University of Padova, where, thanks to Tuck, he promptly installed MUSIC4BF, and shortly thereafter Barry Vercoe's MUSIC360. Tisato allowed Dashow unlimited computer time which permitted him to do a great deal of sonic research (as well as learning to program in IBM assembler). He composed the first all digitally synthesized works in Italy using those two programs, but then Padova developed some bureaucratic problems, and Dashow wound up working in his home studio in the Sabine Hills north of Rome with an accelerator board (by Sonitech) based on the T.I. TMS320C30. Dashow then invented and developed first his own synthesis language, MUSIC30, and then his Dyad System.

The Dyad System allows for embedding specific pairs of pitches in the electronic sounds whose characteristics would then be the result of where in the audio spectrum - on which of the frequencies generated by the chosen algorithm - the pitches were required to be created. The pitches and their spectral positions determined the sound, the electronic sounds become functions of the pitch structure. The breakthrough moment for this procedure came with the then much adopted FM algorithm. Dashow found he could input a pair of pitches (one could even be a negative, or phase reversed, value) and their sideband number, and the computer then calculates the carrier and the modulator from this information. It was entirely unnecessary for the composer to know the values of the carrier and the modulator. What counted was the kind of timbre Dashow achieved when a specific pair of pitches were generated on a specific pair of sidebands. And the timbres he was looking for were the inharmonic types. This approach was expanded to ring modulation and finally to a group of about 20 different algorithms that produced frequency collections for additive

synthesis...each frequency collection would have the designated dyad as two of the components at specified positions in the generated audio spectrum. The same (generating) dyad can pilot a single algorithm to realize a wide variety of sounds, all of which had that same pair of pitches in the audio result...what Dashow refers to as the prolongation of the generating dyad via a sequence of electronic sounds. This proved ideal for combining electronic sounds with live instruments, where the latter's notes were always present in the audio spectrum, producing a very convincing mix of the two elements in the concert hall.

But...at a certain point Dashow began to feel the need for a much wider variety of timbral quality. The floodgates opened when the composer was loaned an Eventide Harmonizer (the DSP4500). The results were extraordinarily rich. Talk about being a kid in a candy shop! The second part of the Dyad System offers the composer means for structuring the pitches of a work in terms of dyads. A work is created within the immense variety of small or large scale pitch structures that can be generated by the system. The composer chooses the forms of the dyads which suit his compositional requirements, nothing automatic. The pitches are embedded in the electronic sounds, again the composer choosing which of the many possible sounds is desired for the musical context, and the work takes form. And that's where things stand today.

The three pieces on this concert represent Dashow's major later works, mainly within the series of compositions called *Soundings in Pure Duration*, all using different structural possibilities generated by the Dyad System.

James Dashow, *Soundings in Pure Duration n.5 for harp and octophonic electronic sounds*

Soundings in Pure Duration n.5 (2012) for harp and octophonic electronic sounds was composed for Lucia Bova, one of the leading harpists in Europe for contemporary music and author of the definitive book on contemporary harp technique which includes a well researched introduction to the history of new music and an encyclopedic collection of specific examples (both audio and instructions) of the various advanced harp techniques developed over the last 60 years. Bova will perform *Soundings n.5* in today's concert.

James Dashow, *iPiece for guitar and octophonic electronic sounds*

iPiece (2018-19) for solo guitar and octophonic electronic sounds, is in two versions. The first is in the form of a sort of satire with video, some all too familiar electronic gadgets (cell phones) and even including a famous Spike Jones gag, all of which requires the guitarist to do a bit of acting as well as playing. The second, or concert, version, which will be played today, is just the music for guitar and electronics without the theatrical interventions. Composed for Arturo Tallini, especially well known in Europe for his extraordinary performances

of contemporary music, iPiece today will be performed by Tallini himself.

James Dashow, *Soundings in Pure Duration n.10 for octophonic electronic sounds*

Soundings in Pure Duration n.10 (2020) is for octophonic electronic sounds, with no live soloist, and is the last of the *Soundings in Pure Duration* series. This extended composition is perhaps the most elaborate and in many ways the definitive presentation of Dashow's ideas of composing with timbre, energy levels and sound spatialization, all as equally important elements in the work's elaboration. The spatialization is particularly important as it is the placement and movement of the sounds in space that significantly increase the perception of lines, phrases, gestural energy, timbral transformations and the very manipulation of space itself. Dashow continues working here with the twin concepts of audio movement IN space as well the movement OF space. And as he has so often stated: whereas music up to our own time has been a question of What happens and When, now with precise control of space and spaces, music now becomes a question of What happens, When and Where. We are indeed living in a fascinating and (r)evolutionary time.

Frank Felice, ... of Glass

I have always enjoyed writing musique concrète, especially when the pieces can be really made from a minimum of materials: one or two recordings, or around a theme such as this one. Each of the movements use up to three individual samples or recordings of "glass;" i.e. rubbing (like a glass harmonica or wine glasses), resonating, rolling or breaking. The three movements of ... of Glass are played without pause.

Patrick Gibson, *Improvisations based on Noah Berger's "Justin Sullivan Shooting Low, Camp Fire, 2018"*

Improvisations based on Noah Berger's "Justin Sullivan Shooting Low, Camp Fire, 2018" is a fixed media work comprised of various improvisations by the composer on analog and digital synthesizers, subsequently processed in Logic Pro and Ableton Live, and all inspired by the eponymous photograph by the photojournalist, Noah Berger. This work was originally undertaken and offered as part of a virtual exhibition at the California Museum of Photography in the Spring of 2020 entitled, "Facing Fire: Art, Wildfire, and the End of Nature in the New West," and is available at

<https://www.youtube.com/watch?v=NDDhR64XEdc&t=133s>. This piece represents an attempt at capturing the bravery of the firefighters and photojournalists who fight and document wildfires in the West, as well as the ongoing, slow-moving tragedy of climate change and its affect on our environment and every day lives.

Antonio Scarcia, *Continuum*

Continuum was originally created to support a visual work "Incidental Occidental" premiered at EMuFest in Rome. As autonomous piece, it is focalized on aural and

temporal perception levels and can be considered as a sort of acoustic scenario without actors. The work was realized in 2013 with treatments of concrete sounds and by synthesis in time and frequency domains with some synthesis efforts. The formal organization and its materials are finalized to create at same time a slowly evolving, but intense, acousmatic work or an acoustical space. The native stereo format of *Continuum* is ideally intended for indoor multi-phonetic projection with an interpreter at the mixing console.

Berk Yagli, *Ideological Distortion*

Ideological Distortion is a piece which explores the dark side of today's media, dilution of ideologies, and constant bombardment of confusion. It invites the listener into reflecting on the issues and feel the horror and hate that is constantly imposed on society whether we individuals are lucid about it or not.

Concert 18

Saturday, June 25

3:30-5:30 PM

Black Box Theater

Program

works are fixed media unless otherwise specified

Paul Oehlers <i>Winter 2020</i>	6:58
Stewart Engart <i>Usynlig</i>	9:43
David Durant <i>Vessel of Gloom for fixed audio</i>	5:05
Massimo Avantaggiato <i>Oniros</i>	6:18
Rob Mackay <i>Sea Songs</i>	7:17
Nicola Fumo Frattegiani <i>Polvere nera</i>	5:47
Omar Guzman Fraire <i>palimpsest erased Gavotte</i> <i>(Himno de los durmientes II or Los Olvidados)</i> <i>video</i>	5:15
Joshua Biggs <i>block</i>	5:04
John Nichols III <i>PTERO</i> <i>fixed media</i>	9:12
INTERMISSION	
Brian Hernandez <i>Queue R</i> <i>video</i>	11:22
Verena Hentschel <i>Escalation</i>	5:02
Yi Lun Huang <i>Amniotic Fluid</i>	7:21
Mitchell McDermott <i>trueSilence</i>	2:40

Kramer Elwell <i>What Sleeps Beneath</i>	7:34
John Wiggins <i>MAX OBJECTS TWO - MAX OBJECTS FOUR</i>	2:50
Sever Tipei <i>CAGEquad</i>	3:00

Program Notes

Paul Oehlers, *Winter 2020*

Using primarily piano samples, this composition uses resonant filters to explore the juxtaposition of short versus sustained timbres.

Stewart Engart, *Usynlig*

Usynlig is an acousmatic piece that was made by first analyzing 64,533 audio files through MIR corpus analysis and then constructed from the bottom up by means of querying, clustering, classifying, measuring similarity/dissimilarity, navigating latent space, and musical intuition. The piece was commissioned by Carolina Performing Arts for Compose Carolina 2021 with the prompt of "In The Now". The piece addresses this prompt through constructing gesture of concrete iconic and referential sounds. These sounds have consistent inner logic through the MIR analysis and the piece asks the listener to listen past recognizable sounds and listen to the larger phrase and structural construction.

David Durant, *Vessel of Gloom for fixed audio*

Vessel of Gloom for fixed audio (2022) is a five-minute stereo composition. It is constructed from a very limited number of audio samples which are used "as is" and with a variety of manipulations. The piece was mixed using Pro Tools. One of the main items sampled was a metal bowl. The title is derived from the dark and disturbing sounds created using this bowl.

Massimo Avantaggiato, *Oniros*

The musical piece *Oniros* is based on the use of samples of sax recorded with Manley microphones, in particular key clicks, Flatterzunge and other sounds that are not particularly comfortable from the point of view of a placement in a piece through mixing processes. The sounds are relocated to create new textures, new gestures, new intermediate situations between the two, with the aim of creating a completely different sound universe from what the samples would have suggested. I used appropriate Max Map original interfaces to create musical structures.

Rob Mackay, *Sea Songs*

This piece was commissioned by Invisible Dust for Sea Songs, part of the Wild Eye project. The piece opens with the ghostly wailing of grey seals, perhaps evoking the memories of mariners' tales of mermaids and selkie. We then move to a rock pool on the beach at South Bay where we can hear the release of oxygen bubbles as

some seaweed photosynthesises, revealing the often hidden sound of this process. We're then introduced to human voices, but from the listening perspective of the rockpool. The piece then transitions to the howling din of a jetski recorded underwater which then moves to the constant hum of a boat engine, reminding us of our entangled and often invasive relationship with our environment. Through this morass of sound comes the unmistakable clicking sound of bottlenose dolphins as they communicate and echolocate underwater. The sound piece ends with the crackling texture of snapping shrimp as they stun their prey with the powerful sound waves.

Nicola Fumo Frattegiani, *Polvere nera*

The totality of the acoustic material. Excavated, mutilated. Sublimated and deposited. The One that is fragmented and reduced to dust. Chalk blocks engraved and carved through the space and elasticity of time. *Polvere nera* is divided into four sections, bounded by sudden stops and static poses, in which there is an incessant dialogue between two opposing formal poles: bands and points. In the end the dialogue becomes union through a process of massification of the material that does not however cancel the intrinsic differences of the models employed. *Polvere nera* was constructed using noise, synthesis sounds and percussive sounds.

Omar Guzman Fraire, *palimpsest | erased Gavotte (Himno de los durmientes II or Los Olvidados)*

Several layers of a particular mode of piano performance of Bach's BWV 807: V are sculpted here as an octophonic sound piece. This mode of performance involves depressing the piano keys at tempo while trying not to activate the sounding strings. Recordings document this process. Where this re-performance isn't entirely successful some pitches appear accidentally. Removal of what has traditionally been understood as the work's principal musical content reveals evidence of a marginal activity, one that belongs to the encounter of my body with the sound machine. What persists is the work's enunciation in the dimension of labor. The basic materiality of the work steps into the foreground, amending the calculus of what is assumed to be worthy of culture and the hidden human mechanics required to achieve that culture.

Joshua Biggs, *block*

block (2021) is constructed from three recorded improvisation sessions with a bass clarinet and double bass duo. The performers were offered a variety of iterative prompts – from graphic scores to earpiece cues containing material they had recorded previously – and with these, improvised extraordinary portraits of their respective instruments. This ambisonic realization of the work is my love letter to the expressive power of low and loud sounds. Several thousand samples come together to form dense contrapuntal shapes from which a lifelike organicity emerges. I imagine small, busy creatures navigating and interacting with a demanding, and sometimes overwhelming, environment.

John Nichols III, *PTERO*

PTERO is an 8-channel composition completed in 2019. The title literally translates to "feather, wing." While no overt narrative connections are intended in this work, it is open to interpretation. *PTERO* suggests non-associative listening of new sonic contexts. Both transitive and conative treatment of audio resources contributes physically plausible phenomena as well as the impossible. Just as feathers overlay each other, *PTERO* proposes imbrications of timbre, resulting in numerous instances of stylized electroacoustic counterpoint. Close your eyes, listen, and ask yourself: Can I fly? ...maybe you will

Brian Hernandez, *Queue R*

In the beginning, the human evolution was contingent upon natural evolutionary processes. Because of advancements in science and technology, a growing faction seeks to take control of the evolutionary process and intentionally alter the human being. The composition attempts to shed light on the subject by using figurative and abstract symbols and gestures.

Verena Hentschel, *Escalation*

Escalation is an electroacoustic composition based on field recordings. It deals with fragments, disorientations, escalations and integration. The piece is mixed for 8 channels.

Yi Lun Huang, *Amniotic Fluid*

This work is dedicated to every great mother, and I hope every new life in the coming life will be well. Composer collects the sound of waves on the beach, the sound of running water by the stream, the sound of daily rain, and the sound of self-made water. The composer takes "water" as the main body, change various postures and appearances to present the vitality of the fetus with multi-level lines and frequencies. The work uses the conversion of high and low frequencies, as well as the changes of timbre and rhythm, to highlight the dramatic tension of the music and lead the listener into an immersive atmosphere.

Mitchell McDermott, *trueSilence*

McDermott's work here aims to establish narrative and meaning through the creation and manipulation of sonic motives, collections, and sequences. The first two main sections of the piece, each thirty seconds in length, establish one particular sonic motive: attack, continuant, evolve continuant, expand the spectral range, attack. They are bookended and stitched together by smaller six-second moments of "silence." The subsequent sections, markedly more varied in respective length, break the listener's expectations by means of early interruption, lack of interruption, and compound sounds. McDermott's timbral palette is focused and well-defined, characterized by sentiments of dryness, combustion, and friction. The composer believes the piece could be placed in two conceptual categories: existentialism and environmentalism; and invites the listener to explore how the piece may relate to their experience with phenomena

surrounding those topics.

Kramer Elwell, *What Sleeps Beneath*

"A mother bear and her two cubs were driven away by a raging forest fire. The bears swam for many hours, but soon the cubs tired. Mother bear reached the shore first and climbed to the top of a high bluff to watch and wait for her cubs. The cubs drowned within sight of the shore."

What Sleeps Beneath is inspired by the Anishinaabe creation myth for the Sleeping Bear Dunes National Lakeshore and the Manitou Islands in Lake Michigan, and is composed of sound source materials recorded in the field at the Lakeshore. Sound sources include: Lakeshore soundscapes (waves, foliage, rocks and sediment, various species of fauna, grasslands), antique metallurgy or mechanisms found within historic lakeshore farmhouses, and various fire starting implements (matches, campfires, torches, etc).

John Wiggins, *MAX OBJECTS TWO - MAX OBJECTS FOUR*

real sounds modified in Max/MSP and organized as "acousmatic sound design"

Sever Tipei, *CAGEquad*

CAGEquad is a reworking for quadraphonic sound of an older piece's structure using new materials. Similar to John Cage's Number Pieces, attacks and durations are selected by chance within defined ranges. There are five layers, each of them characterized by a particular range of densities, durations, sets of pitches, spectra, etc. and by their placement in the audio field. *CAGEquad* is a manifold composition and the present variant will only be performed in public once. It was produced with software for both composition and additive sound synthesis developed by the composer.

Concert 19

Saturday June 25

8:00-10:30 PM

Loreto Theater

Program

Ceferino García <i>¡escucha el viento!</i>	7:30
Beatrix Wagner, <i>flute</i> Madeleine Shapiro, <i>cello</i>	
Dariusz Mazurowski <i>VIVA L'autunno</i>	5:00
<i>video</i>	
Benjamin Baker <i>PRIMORDIAL</i>	8:45
Enzo Filippetti, <i>tenor saxophone</i>	
Claudia Robles-Angel <i>Wandering in Morelia</i>	11:44
<i>fixed media</i>	
Constantin Basica <i>Post-Music #33:2.2</i>	15:00
<i>video</i>	
Mark Phillips <i>Dream Dance</i>	7:20
Mark Phillips, <i>EWI</i>	
INTERMISSION	
Alejandro Colavita <i>Broken China</i>	8:45
Esther Lamneck, <i>tárogató</i>	
Austin Franklin <i>Bloom</i>	7:34
Madeleine Shapiro, <i>cello</i> Austin Franklin, <i>live electronics</i>	
Mikel Kuehn <i>Thirteen Ways of Looking at a Blackbird *</i>	10:07
Deborah Norin-Kuehn, <i>soprano</i>	
Barry Moon <i>Drrrive!</i>	4:33
Madeleine Shapiro, <i>cello</i> Beatrix Wagner, <i>flute</i>	

Xiao Hu
Fantasy Scene 9:00
Beatrix Wagner, *flute*

Javier A Garavaglia
BTHVN (Beethoven and his inner sonic cosmos) 15:10
fixed media

* World Premiere

Program Notes

Ceferino García, *¡escucha el viento!*
("Listen to the wind!") Emanating from afar, over the horizon and out of sight, ethereal music is easily mistaken for the sound of the wind... (David Toop - Sinister Resonance)

Dariusz Mazurowski, *VIVA L'autunno*
VIVA L'autunno was commissioned by the Screen&Sound film festival and composed for string ensemble and fixed audio track (tape). Orchestra (conducted by Maciej Koczur) was recorded at Radio Krakow. Many films were created for this piece and with a video by Remigiusz Wojaczek it won a Grand Prix of above mentioned festival. This piece is inspired by Vivaldi's The Four Seasons, especially the third movement. Musical inspiration is much more complex and not so direct, as it may be expected. In this piece I focused on sounds typical for European autumn (fall). Like cold winds, rains, breaking trees, decreasing temperature. To avoid simple allusions, I decided to express everything using mostly transformed instrumental sounds. These concrete textures were also processed through phase vocoder algorithms and used for additive resynthesis.

Benjamin Baker, *PRIMORDIAL*
PRIMORDIAL is a condensed musical representation of the beginning, end, and rebirth of the world. The word "primordial" means first created, and/or existing in or persisting from the beginning. In this piece, I use it to refer to the formation and growth of a planet from stardust, to the first sprouting of vegetation and life, and all the way to the rise and fall of humanity. It is fact that every planet – including our own – will end and other planets will be born again from the debris, though it is solely up to us as a species to decide how much longer we want our world to survive.

Claudia Robles-Angel, *Wandering in Morelia*
This octophonic acousmatic piece was composed and produced during an artist in residence at CMMAS (Mexican Center for the Music and the Soundarts in Morelia, Mexico) using sounds recorded in the city. Although the composition features the original recorded materials, there are moments however, during which the recordings are transformed via diverse DSP processes, with the purpose of inviting the audience to immerse themselves into the imaginary

universe of the composer.

Constantin Basica, *Post-Music #33:2.2*
In a post-apocalyptic world, a man scavenges for sound-making objects to soothe his child. This is a shortened version of Post-Music #33, originally commissioned and premiered by BRD Scene9 Residency, Bucharest (RO) in March 2020.

Mark Phillips, *Dream Dance*
Dreamy vocoders give way to an algorithmic synth groove, but only partially ... and not for long. It's composed for EWI and Kyma.

Austin Franklin, *Bloom*
"A flower does not use words to announce its arrival to the world; it just blooms."
— Matshona Dhliwayo

Bloom is a piece for violoncello and live electronics that explores tension, using the metaphor of a blooming flower as the basis from which the musical material and form are derived. The work begins with a very simple melodic idea using natural harmonics. These harmonics are developed throughout the piece, eventually blurring the line between pitch and noise, meter and aleatory, and acoustic and electronic elements. The electronic element of the piece is realized using live input from the cello only. This relies on specific musical parameters (namely amplitude and frequency) to control how the input is processed. The piece concludes with a quasi-recapitulation of the opening, this time incorporating non-harmonic tones. This is the most mature statement of the original melodic idea in the piece, which signifies completion of the flowering process.

Mikel Kuehn, *Thirteen Ways of Looking at a Blackbird*
Thirteen Ways of Looking at a Blackbird (2022, soprano and ambisonic fixed media electroacoustics) is based on Wallace Stevens' 1917 elusive poem of the same name. In its 13 haiku-like stanzas, Stevens paints contrasting images, scenes, or "sensations" of the blackbird set in a larger theme of "humans vs. nature." Contemporary with the writing of this poem was the rise of Cubism and Stevens is perhaps offering a poetic version of the Cubists' technique of presenting multiple simultaneous viewpoints of the subject. In contemplating the poem's shifting perspectives and elements of narrator, blackbird and the theme of "human vs. nature," I've modeled the sonic palette on three components: recorded environmental material, sounds made from the processing of the female voice, and purely synthetic timbres.

Barry Moon, *Drrrive!*

This is a 2019 reworking of a piece from 2005 written for guitar and voice with computer audio and video processing. It was reworked for the BeMad duo featuring Madeleine Shapiro and Beatrix Wagner and premiered at NYU 2019. That seems like a long time ago!

Xiao Hu, *Fantasy Scene*

The sound element is the source of the composition. It is divided three parts, Wind like language, Speech such as a tone and Voice of the night. Through the three modalities of the Voice of Nature, the Sound of Reality and the Voice of Fantasy to reveal the artistic expression. Different flute play techniques attempt to blur the critical relation between the musical and the noise in order to show a fairyland musical implications.

Javier A Garavaglia, *BTHVN (Beethoven and his inner sonic cosmos)*

The composition works with 2x recurring leitmotifs: on the one hand 4x evenly repeated rhythms, which can be found rather obsessively in several of Beethoven's compositions, especially in his 5th Symphony (Op. 67), but also in the Sonata 'Appassionata' Op. 57 (I), the Piano Concerto Op. 58 (I), the Cello Sonata Op. 69 (I), the Violin Concerto Op.61 (I), the String Quartet Op. 74 (III), etc.; on the other hand, the melody and accompanying words that appear before the 'Grave' movement of his String Quartet Op. 135: "Must it be? It must be, it must be!". These words can be interpreted in different ways: While they could refer directly to the 'Grave' movement of the quartet, they could also be seen as a comprehensive expression about its fate. The first leitmotif (4x evenly repeated rhythms) is not only quoted from these works by Beethoven in the composition, but also by 4 door knockers, suggesting a possible inspiration for this repeated rhythmic motif.

Alejandro Colavita, *Broken China*

Broken China for tárogató and electronic fixed media is one of the five pieces included in the new album of Esther Lamneck and Alejandro Colavito. This is the world premiere of the piece and the second album edited by Cero Records in 2022.

Concert 20

Sunday June 26

1:00-3:00 PM

Loreto Theater

Program

works are fixed media unless otherwise specified

Yi-No Chen <i>Mahanaim II</i>	4:22
Epameinondas Fassianos <i>Metamorphosis</i>	14:14
Courtney Brown <i>Hadrosaur Variations</i> Courtney Brown, <i>performer</i>	12:40
Akiko Hatakeyama <i>Madara</i> <i>video</i>	8:23
Simon Hutchinson <i>Hiraizumi Memories</i>	5:12
INTERMISSION	
John Liberatore <i>Something Like Images</i> John Liberatore, <i>piano</i>	7:40
Shu Huang Chen <i>Spiritualized</i>	5:00
Maowen Tang <i>Qian-Rong</i> <i>video</i>	8:43
Olive Haugh <i>Solar Winds</i>	7:26
Wayne DeFehr <i>Visible Currents: The Light Sound</i> <i>video</i>	11:11
Christopher Cook <i>Motor</i>	5:08

Program Notes

Yi-No Chen, *Mahanaim II*

Mahanaim II is a work that combines real-time interactive music techniques and acoustic instruments. It's for Cajon and computer music. I use Max/MSP as the main performance software. The whole work uses various Cajon sounds as the material, and reshapes them into new sounds through Ableton Live, and designs a patcher for real-time processing in Max/MSP, adding Ring Modulation, Delay, Reverb, vb.stretch~ ... etc. Real-time processing effects. In addition, I also used a special device "Mogeess" during live performances. The Mogeess sensor captures every vibration you create as you play any object to which it is attached. So I use this device to perform sounds similar to Djembe. Make the work more interesting.

Epameinondas Fassianos, *Metamorphosis*

Metamorphosis (2021) is an Electroacoustic Music work (Stereo/Fixed-Media) which explores transformed soundworlds emerging from Traditional Greek Instruments (Baglamas, Floghera, Santouri). In this work I attempted to explore the characteristics of the instruments and their relation to history, mythology and Greek Culture via acousmatic music. In addition, I aimed to explore the possibility of producing real-world soundworlds via the sound manipulation of the Traditional Greek Instruments sounds (e.g. a significant part of the water soundworlds in *Metamorphosis*, emerge from heavy transformations of the Santouri original sounds, and not from original water sounds recordings). Baglamas is a traditional Greek instrument which has its roots to an Ancient Greek instrument called Pandoura. The santouri is mainly used for traditional ceremonies such as weddings or Greek islands' local feasts. The floghera is a type of flute utilised in Greek folk music.

Courtney Brown, *Hadrosaur Variations*

Hadrosaur Variations is a work for hadrosaur skull instrument, soprano, and live electronics. The hadrosaur skull instrument is a musical instrument created from a replica of a subadult Corythosaurus skull and nasal passages. A Corythosaurus is a duck-billed dinosaur, a lambeosaurine hadrosaur that scientists hypothesize used its large head crest for sound resonance. The live electronics were created with both SuperCollider and Ableton Live. The work is structured improvisation in three sections. The first section, "things that breathe" is a revision of an earlier work. It reflects on constant computer use and being cut off from the rest of the world. The pandemic brought this same feeling of being removed. At the same time, I was beginning a new phase of dinosaur sound research and also exploring the possibilities of the instrument that I had already made. The contrasts and similarities between this older piece and the new work I was doing became an engine for this work.

Akiko Hatakeyama, *Madara*

Being pretty, womanly, only to be stolen and buried by others for greed. We appear and disappear, come back and go away. *Madara* is a lament for the dead and alive whose souls have been taken away. The word "Madara" is a Japanese word metaphorically indicating a phenomenon that is sometimes appearing and sometimes not appearing. *Madara* expresses the hardship that many women and minorities in society experience. We always face the risk of being stolen, whether our ideas, resources, sexualities, health, or lives. Medical and social discrimination and racism toward people of color became worse, or rather reinforced, during the pandemic. The threat of being attacked has stolen our freedom to live normally, too. More people recognized aggression during the pandemic, but it has always been there. There are a number of missing indigenous women in the U.S., and there are silenced women who are in misogynistically oppressed cultures. The music and visuals of *Madara* together represent the current condition, and a lament and anger toward that.

Simon Hutchinson, *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.

John Liberatore, *Something Like Images*

The title of this piece comes from Barbara Guest's "Dissonance Royal Traveler," a poet whose ability I admire to form vivid imagery from disparate and surprising connections of often mundane objects. This segment of the poem, I believe, speaks for itself:

"sound opens sound
shank of globe strings floating out
something like images are here
opening up avenues to view a dome
a distant clang reaches the edifice."

Shu Huang Chen, *Spiritualized*

The materials for the whole piece are all feedback from various audio equipment, combined with on-site real-time sampling modulation and four-channel mixing, to explore the origin of consciousness in the inorganic telecommunication noise. I think electric current has the element of life like blood flows. In addition to using the

on-input Mixer, I also use different samplers to let them teach themselves back, so I get the material between many different equipment, and then arrange them into a piece.

Maowen Tang *Qian·Rong*

"I shall dedicate myself to the interests of the country in life and death irrespective of personal will and world." is cited from "Poems Dictated to My Family When Starting My Garrison Town Journey" by LIN Zexu, the Chinese Poet. It expresses the poet's magnanimous mind and patriotic sentiment. The sound design of the work is mainly based on Peking Opera Tsing Yi singing and percussion. The visual design incorporates the elements from poetry and Chinese ink painting. The composer uses sound and visual four-channel electronic acoustic music to try to not only express the poet's boldness and handsomeness, but also his feelings about the family and the country.

Wayne DeFehr, *Visible Currents: The Light Sound*

The climate crisis can be understood through scientific data, but also through creativity and sound design that responds to the conditions of the environment out of which the art is created. By creating experiences that reach audiences emotionally, people can get a feeling for the conditions of the earth's environment in ways that are not possible by reading a table of data or viewing a graph. The goal of this piece, *Visible Currents: The Light Sound*, is to bring the listener into a place of quiet contemplation to hear and see some features of the earth in new ways, drawn from the light sparkling off of western Canada's largest river, the North Saskatchewan. Likewise, NASA's Parker Solar Probe is sending back incredible images of the sun these days. But then to be able to experience the sun's energy as it reaches the earth, with the ears and the sense of hearing also creates new more personal experiences of the power of the sun to invigorate the still fragile ecosystem of the earth.

Olive Haugh, *Solar Winds*

Solar Winds was developed in the midst of the pandemic during an extended home visit to Surrey, England. The original recordings that make up the basis for the piece are of a broken Irish tin whistle played through various guitar pedals. After listening to the shrill and piercing sounds that this broken flute was capable of, the idea emerged to perform an improvisation depicting the breath and pained yells of an injured animal in their last moments. From these visceral improvised sounds, the idea of using the final work, developed over the course of that month, as a transcendent journey to the afterlife for this imagined animal took hold. In the face of overwhelming death and the often unheard anguish of the current pandemic, *Solar Winds* hopes to bring to you a feeling of transcendence and, at times, an overwhelming sense of space and where we are within it.

Christopher Cook, *Motor*

Motor is inspired by the complex sounds generated by the internal combustion engine. The piece uses various

sound sources including the human voice and saxophone which are crafted to simulate explosions, electrical sounds, and mechanical motion of gears and flywheels. These sounds are shaped into beat patterns that become very focused at points. Distortion is used to create a sense of intensity and closeness to the source.

Concert 21

Sunday June 26

3:30-5:30 PM

Black Box Theater

Program

works are fixed media unless otherwise specified

Maria Mykolenko <i>Sorrow – A Sound Mosaic</i>	5:26
Bowen Shi <i>Yan Yue</i>	6:15
Orson Abram <i>Travelogue (Overstimulation)</i>	5:02
Jiayue Cecilia Wu <i>Heart Sutra</i> Rebecca Nie, <i>video</i>	8:26
Sarah Keirle <i>Our Ancient Woods</i>	9:30
Mengzhumei Yang <i>Da Tuan Yuan</i> <i>video</i>	10:22
INTERMISSION	
Qiancheng Ding <i>The Sound of the Strings Under the lens</i>	6:34
Zhang Kewanchen <i>Rabbit In Wonderland</i>	5:51
Yen Hao Tu <i>I was there, 4 pm, at Jiamuzi Bay</i>	5:05
Matthew Barnard <i>Illuminations I: Calibration</i>	4:32
Chen Liu <i>Feathers</i>	4:29
Rodney DuPlessis <i>Psi</i>	11:06
Bradley Green <i>Suppression</i>	6:34

Program Notes

Maria Mykolenko, *Sorrow – A Sound Mosaic*

The materials include recordings of sound performances and text as well as field recordings of human and nature sounds. The recordings used include recordings made by myself as well as recordings downloaded from free sites on the internet. The main elements of the piece are a melodic motif which is an abstract rendition of a lament, text spoken both individually and by several voices simultaneously and the sounds of outdoor and indoor human activities. Much of the piece contains small bits of sound and hints at what they represent.

Bowen Shi, *Yan Yue*

The works are inspired by the State-Level Non-Material Cultural Heritage List Chinese Sichuan dishes. Sichuan cuisine is one of the four traditional Chinese cuisines. Food is not just the ingredients themselves, but also carries hundreds of thousands of cultures, etiquettes and customs. The composer uses washing, cutting, frying, eating, and enjoyment to express the process of making food and the scene of people drinking and having fun after cuisine. It is intended to wake up the listener's sense of hearing through sound, but also wake up the taste buds of the listener.

Orson Abram, *Travelogue (Overstimulation)*

A reflection on what it means to be a percussionist with Asperger's syndrome and a musical reinterpretation of a sensory overload taking place whilst performing with others.

Jiayue Cecilia Wu, *Heart Sutra*

Heart Sutra is an augmented reality audiovisual composition of the most widely recited Buddhist texts, integrating chanting traditions in Chinese, Japanese, and Korean, as well as electroacoustic music and network audio technology. The musicians collaborated across 3 states, through 9 remote recording sessions using jacktrip and Netty-McNetface. The piece was commissioned by Stanford University as an invite for the Stanford community to come together and collectively process all they have been through in isolation during the pandemic. The audiovisuals were precisely mapped onto the Western sacred art wall in mosaic, stained glass, and neoclassical architecture at Stanford's Memorial Church. Overall, *Heart Sutra* incorporates layers of cultural complexity and spiritual symbolism. It has initiated multifaith conversations and exchanges at large. It narrates the contemplative concept of "play of reality"—understanding all suffering and happiness are passing, temporary, and transformative.

Sarah Keirle, *Our Ancient Woods*

Welcome to Britain, thousands of years ago. Walk through our ancient woods, our rivers and wetlands, our open meadows and dense forests, all thick with the sounds of nature. Hear the calls and movements of

animals that roamed this landscape. Every sound you hear was created using recordings taken at Wildwood Trust, a centre for the conservation of British wildlife that features both past and present species. Twenty-seven of these species appear in Our Ancient Woods. Our Ancient Woods is part of a wider project exploring the use of animal communication within electroacoustic music in order to create new sonic means for conservation awareness, public engagement, and nature connection.

Mengzhumei Yang, *Da Tuan Yuan*

Da Tuan Yuan - For Kyma and Wacom Tablet is inspired by Peking Opera "Suo Lin Nang" which a story about reunited. The sound techniques used in this composition contained with granulation, reverberation and so on. The Wacom tablet also produces very detailed data streams that can be effectively used to control music, including "playing the piano" motion, and "writing" motion.

Qiancheng Ding, *The Sound of the Strings Under the lens*

The inspiration of the work comes from the composer watching the launch process of "Shenzhen XIII". From the macroscopic perspective of the universe, human history is but a drop in the ocean of the universe, a moment in a long time. From the micro perspective, various human individuals are concrete and clear, writing the long history of mankind together and influencing the development of the history. The sound materials of the work all come from piano sampling, and the composer mainly expresses the sound world from the perspective of "micro" and "macro" through the contrast and transformation of "point-line-plane" sound shapes.

Zhang Kewanchen, *Rabbit In Wonderland*

The work was inspired by the character White Rabbit in *Alice in Wonderland*. He tried to seduce Alice fell into a rabbit hole, where is a magical underground world. The composer used marimba samples as the main sound material for sound design, trying to express the theme through marimba's flexible and light tone characteristics, and follow "White Rabbit" into the fantasy world of sound. This piece was premiered at the 2021 Sound Theater of Time-Space Sonic Mirror in Chengdu.

Yen Hao Tu, *I was there, 4 pm, at Jiamuzi Bay*

With smartphones and those social networks, our civilization evolve into nothingness. We kept sticking into the digital world and loss the ability to live without them. We are so afraid if life goes unexpected, trying to control everything, every breath, every moment, and every reaction from people around us. Our daily life, just as natural as the ocean. Just like the natural waves, everything is so easy to predict but unexpected as well. We always thought things could be controlled at the beginning, so far so good. But when there's anything unexpected bumped into, we get panic and anxiety. Suppressing those emotions seems to help, but brings chaos to the end.

Matthew Barnard, *Illuminations I: Calibration*

Sound as excitation of space
a flash through the unlit quiet
earshot illuminations
as shimmering series of spark

Comprising multiple personal binaural room impulse responses (BRIRs) - samples of space in the human spatial register - this piece explores the modulation and dynamic of the spatial image via predominantly abstract materials. The space-less, abstract synthesis and feedback is given architectural animation through convolution with the BRIRs, imparting the composer's peculiar, cumulative directional filtering: an echo of occupied space now intaglio, a nebulous anatomical topography, a spatial mould through which the sonics are extruded and tamed.

Chen Liu, *Feathers*

Feathers is a 4-minute-29-second electroacoustic composition piece using a collection of samples and DSP tools written in Csound. The combination introduces several creatures and gestures that live and develop over each other. The evolvement and retrospection of each sound object constantly guide listeners with similarities and variations. The syncopation and contrasts of the rhythm, pace, pitch, space, and timbre offer uncertainty and freshness to the listeners in a predictable and motivational manner. The soundscape describes the existence and behaviors of tiny unobtrusive things in lives that unexpectedly draw attention from time to time, like feathers coming and leaving softly and subtly but impressively. Crowds and "feathers" reflect the macro and micro, the consciousness and unconsciousness. Meanwhile, the intention preserves the ambiguity that leaves space for listeners to imagine and connect with the beauty of the inappreciable - their own unique "feathers".

Rodney DuPlessis, *Psi*

Classical objects push and pull in tangible and deterministic gestures. A Newton's cradle collides on one side, energy courses through the system, and it erupts on the other side. Quantum objects mystify the imagination with erratic and unpredictable behavior. Psi guides the listener from a classical mechanical sound world into a quantum soundscape populated by quantum harmonic oscillators. For these quantum sounds, I created a software, QHOSYN, that sonifies evolving wave functions using the time-dependent Schrödinger equation. Psi is the culmination of years of compositional work and research into the sonification of classical and quantum systems.

Bradley Green, *Suppression*

Most things can only be suppressed for a time.

Concert 22

Sunday June 26

8:00-10:00 PM

Loreto Theater

Program

Eric Lemmon
toy_3 5:30

Ensemble Decipher:
Niloufar Nourbakhsh and
Eric Lemmon, *performers*
video

Daria Semegen
Vignette Transfigurations 5:45

Ensemble Decipher:
Eric Lemmon, *laptop*
Niloufar Nourbakhsh, *piano*

Yi-De Chen
The Deep Ocean 6:41

Jonathan Howe, *piano*

John Mallia
Within 10:45

video

INTERMISSION

Monteith McCollum
Rabbit in the Sand 12:00

Monteith McCollum, *performer*

Kyle Shaw
Vidi Aquam 6:00

fixed media

Erik Peters
Skyltar och pilar 5:13

fixed media

Henry Haoyu Wang
Henrypedia 9:00

Henry Haoyu Wang, *performer*

George Brunner
Transform 1 (17.1, 17.2, 17.3) 8:00

Program Notes

Eric Lemmon, *toy_3*

This piece for locally networked laptop ensemble and visuals titled *toy_3* was written over a few days in Ajax SoundStudio's PYO and a python-based TCP/IP chatroom. The visuals were created by Masakazu Matsumoto based on data generated by a molecular dynamics simulation performed on the K-super computer at the Riken Advanced Institute for Computation Science in Kobe, Japan. The graphically rendered model shows the peculiar ways in which water's hydrogen-bonding network behaves when in a supercritical state. The audio and chatroom produced sounds were coded to reflect the visuals.

Daria Semegen, *Vignette Transfigurations*

Vignette Transfigurations was developed in collaboration with Ensemble Decipher members from Daria Semegen's *Vignette* for solo piano. The original work explores the expressive qualities of the piano through the resonance and decay characteristics of the concert grand. Semegen's fascination with the sonorous potentials of the concert piano grow from her long-standing involvements with electronic music and its open-ended timbral possibilities.

Yi-De Chen, *The Deep Ocean*

This piece is written for piano and live electronics. The electronics part involves sixteen pre-recorded piano fragments, live-processed in Max. While playing, the pianist presses the MIDI sustain-pedal to trigger the fixed media. To elaborate on his image of the deep ocean, the composer uses thick chords to make the piano part more resonant and expand the electronic music part. On the other hand, the transformed fixed media may sustain a relatively long time to support and blend with piano sounds. The piece starts from a motive in the low register and gradually grows into significant passages. The electronic and piano parts complement and mix in texture and musical emotion.

John Mallia, *Within*

Extreme spectral reductions of speech sounds were explored in order to uncover inner details ordinarily masked by spectral complexity and to prime the sounds for processing techniques that added (substituted) richness — distortion techniques and convolution-based modeling of enclosures, spaces, and loudspeakers. The resulting sounds are harmonic extractions that do not retain much in the way of recognizable speech-like qualities. I was interested in exposing a more remote essence; a hidden inner harmony. These sounds, as well as other pitch and noise-based materials, are interpolated and juxtaposed with processed field recordings. Spaces and associated energies emerge from within one another, throughout, as a formal narrative slowly unfolds. Nick Ruhlmann, a graduate of

Mass Art's Studio for Interrelated Media, conceived of the video "as a way of visualizing sound into colors and moving forms; avoiding obvious representational imagery with zoomed macro video footage of objects."

George Brunner, *Transform 1 (17.1, 17.2, 17.3)*

Three short works created using a temporal and timbral kaleidoscope.

Monteith McCollum, *Rabbit in the Sand*

Constructed from scraps of analog waveforms and agricultural pen & ink illustrations. "Rabbit in the Sand" uses a dental camera in combination with a 1970's Hearn video processing system located at the Signal Culture residency to form a series of hazy, delicate, and ruptured imagery. Loosely inspired by Rorschach's studies and the ink blot, the performance / film prompts the viewer to form their own impressions

Kyle Shaw, *Vidi Aquam*

Vidi Aquam ("I saw water"), an antiphon in Christian liturgy using imagery from the book of Ezekiel. This piece reimagines the submersion in water alluded to as a surround sound experience exploring the acoustical properties of water.

Erik Peters, *Skyltar och pilar*

Skyltar och pilar (Signposts and Arrows) is a fixed media piece that draws inspiration from a text by Astrid Scott, 13 years old at the time of writing. The text is one of the winning entries of a competition arranged by The Swedish Association of the Visually Impaired, where the contributors were asked to describe an artwork that they would like to encounter. A group of composers and sound artists were then asked to make a realization of the artwork in the medium of sound. At a gallery or a museum people with visual impairment usually get a verbal description of artworks that they can't fully experience, and the idea was to turn this around in a gesture of empowerment. The text is about breaking free from society's expectations and finding your own way. *Skyltar och pilar* is commissioned by The Swedish Association of the Visually Impaired and has been performed at several occasions in The Sound Bench, a touring public sound art installation conceived by Auditorama.

Henry Haoyu Wang, *Henrypedia*

Performance program note: *Henrypedia* is a performance project that uses body movements and pre-recorded motion capture data to explore my own personal history, as found in a decade of archived conversations. In the performance, I view this personal past through a present perspective; I would often answer questions from my friends, and have recorded some of these questions to a Unity game engine, which I will re-answer in a live "Q&A." Various sections of the virtual world each represent different past social relationships. The motion capture data shows how my body reacted when I received these messages while recording and the visual effects represent how I feel about the data throughout the performance. It's a performance given alone, alongside my virtual counterpart, about a dialogue with my past self.

BIOGRAPHIES

Marc Ainger (USA) is a composer and sound artist who works with concert music, computer and electronic sound, film, dance, and theater. He is interested in the relationships between the real and the imagined - the ways in which the visceral world of sound and sound production inform our imagined worlds of sound, and the ways our imagined worlds, in turn, inform our concrete experiences. Performances of Ainger's works have included the New York Philharmonic Biennial; the GRM; the Royal Danish Ballet; CBGB; Late Night with David Letterman; the Goethe Institute; the American Film Institute; Guangdong Modern Dance; the Palais de Tokyo (Paris); FolkwangWoche NeueMusik; (Essen); Gaggego! (Gothenburg); the Joyce Theater (New York); and New Circus artists. Awards include the Boulez/LA Philharmonic 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 he has worked with the Los Angeles Philharmonic, the Olympic Arts Festival, Pacific Coast Soundworks, and the Waveframe Corporation, among others.

Vocalist and electric violinist **Susan Aquila** is one of the heartbeats of New York's music scene with over 250 performances at Madison Square Garden and Radio City Music Hall. Trained at Juilliard and Rice University, Susan has traveled extensively throughout the world performing with Michael Bubl , Josh Groban, Billy Joel, and Steven Tyler. She has also appeared in concert and on recordings with artists such as Paul McCartney, Billy Joel, Elton John, Led Zeppelin, Metallica, Whitney Houston, Britney Spears, Kanye West, Steven Tyler, Robert Plant, Alicia Keys, John Mayer, Tony Bennett, Andrea Bocelli, K.D. Lang, Barry Manilow, Deep Purple, Johnny Mathis, the Trans-Siberian Orchestra, and Lita Ford. As a sought-after instrumentalist, she was invited to perform for President Bush and President Clinton at the White House and Heads of State in Spain, France, Turkey, Italy, and Russia. Susan continues to bridge the gap between her successful rock and classical careers in theater; her Broadway credits including *Wicked*, *The Lion King*, *Annie Get Your Gun*, and *Rockers on Broadway*.

Annie Aries produces music with her instrument, a modular, custom-made analog synthesizer. She focuses on how her instrument fosters the interplay between generative musical approaches and improvised live performance. In her work she aims at a minimal, reduced, yet complex textural sound world, which is also reflected in the rhythms that she makes for Metric Displacement.

Chris Arrell takes inspiration from acoustics, coding, synthesis, found sounds, and process. A recipient of the Ettelson Composer Award, Arrell holds additional prizes from Ossia Music, the League of Composers/ISCM, the

Salvatore Martirano Competition, the MacDowell and ACA colonies, and the Fulbright-Hays Foundation. His invitations include a portrait concert at the Alte Schmiede (Vienna, Austria), selection as the Featured Guest Composer for the Ball State University Festival of New Music, and appointment as Composer-in-Residence at the University of Nevada Las Vegas. His commissions include those from the Alte Schmiede (Austria), Boston Musica Viva, MATA, Spivey Hall, Cornell, and the Fromm Foundation. Arrell is an associate professor at the College of the Holy Cross. Chrisarrell.com.

Jesse Austin-Stewart (he/him) is a sound artist based in Wellington, New Zealand. He is an early-career emerging artist and is currently completing his PhD focusing on accessibility in spatial audio, looking particularly at barriers of finance, education, and disability and hearing. As an active sound artist, Jesse has written works for contemporary dance and film, created performance art works and made installations, among other works which have been exhibited in New Zealand and abroad. As a producer and audio engineer, he has recorded work for short films, orchestra, solo artists and bands, small ensemble, opera, and various other configurations. As a person with a disability, accessibility is core to Jesse's work and his artistic curation.

Massimo Vito Avantaggiato is an Italian composer, writer and artist. He holds a degree (Catholic University) and a specialization in Economics (SDA BOCCONI); a Bachelor in electronic music and electroacoustic composition with full marks at the Verdi Conservatory in Milan and then a Master Degree with full marks at the Arrigo Boito Conservatory in Parma. Graduated as a Sound Engineer in Milan, he specialized in his city and abroad in compositional studies with important masters on the international scene. He is interested in programming language applied to music.

SoHyun Bae is an American visual artist living and working in New York. She is the recipient of the John Simon Guggenheim Memorial Foundation Fellowship in Fine Arts, 2007; the New York Foundation for the Arts Fellowship in the field of Painting, 2002; the Pollock-Krasner Foundation, Inc. Grant, 2000; a Fellowship at Montalvo Art Center, 2019; a Fellowship at The Corporation of Yaddo, 2000; the National Endowment for the Arts Fellowship in conjunction with Virginia Center for Creative Arts, 1996; and a full scholarship to the Skowhegan School of Painting and Sculpture, 1993. SoHyun Bae received a Bachelor of Fine Arts from the Rhode Island School of Design, 1990; a Master of Fine Arts from Boston University, 1994; and a Master of Theological Studies from Harvard Divinity School in 1997 having studied with the Nobel Laureate, Elie Wiesel. Her works have been exhibited in North America, South America, Europe and Asia and are in the Permanent Collections of The Asian Art Museum of San Francisco, The Peabody Museum of Archaeology and

Ethnology at Harvard University as well as corporate and private collections throughout the world.

Benjamin Baker is a composer and performer currently based out of Kansas City, MO. Ben's music comes from a place at the intersection of spontaneous improvisation and traditional storytelling structure and includes works written for both concert ensembles and popular music groups, drawing influence from a multitude of genres and styles. Using contemporary jazz language with modern compositional techniques Ben's works paint serious atmospheres while still remaining playful and uplifting. As a performer Ben appears on multiple freelance recording works, and has performed with multiple jazz groups and ensembles such as the Mid-Atlantic Collegiate Jazz Orchestra and Largemouth Brass Band of Columbus, OH. He has written for performers such as the Quince Ensemble and Patchwork Duo, and received his undergraduate degree in music composition from Ohio University under the direction of Robert McClure. Ben is currently attaining his MM in Composition at the University of Missouri–Kansas City.

Christian Banasik (1963) is a Dusseldorf (Germany) based composer and lecturer. He studied composition with Gunther Becker and Dimitri Terzakis at the Robert Schumann University of Music and Media in Dusseldorf and with Hans Zender at the University of Music and Performing Arts in Frankfurt. His instrumental and electronic works have been featured in concerts and radio programs throughout Europe as well as in the Americas, Asia, and Australia. He has received national and international music awards and scholarships. Banasik is lecturer for Audio Visual Design (media composition / sound) at the University for Applied Sciences / Peter Behrens School of Arts. He is a member of the Institute for Image and Media at the PBSA and artistic director of the Computer Music Studio of the Clara Schumann Music School in Dusseldorf. Beside live electronics and instrumental music he has produced fixed media works, radio plays, musical theater and film soundtracks.

Matt Barnard is a composer primarily interested in the spatial parameter of sound in both binaural and ambisonic domains. He previously studied under Joseph Anderson, and is now a lecturer and researcher at the University of Hull and member of the Hull ElectroAcoustic Resonance Orchestra (HEARO).

Scott Barton composes, performs, and produces (electro)(acoustic) music; conducts psychological research; and develops musical robots. His interests include rhythm, stylistic heterogeneity, perceptual organization, instrument design, machine expression, human-robot interaction, improvisation, creativity, and audio production. 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 music has been performed throughout

the world including at NIME, SMC, ICMC, SEAMUS, NYCEMF, CMMR and MUME. He is an Associate Professor of Music at Worcester Polytechnic Institute.

Constantin Basica is a Romanian composer living in the San Francisco Bay Area, whose current work focuses on symbiotic interrelations between music, video, and performers. His portfolio includes pieces for solo instruments, chamber ensembles, orchestra, electronics, and video. His works have been performed in Europe, North America, and Asia by artists and ensembles such as Ensemble Dal Niente, Ensemble Liminar, ELISION Ensemble, Distractfold, Mocrep, JACK Quartet, Spektral Quartet, kallisti, RAGE Thornbones, line upon line, Retro Disco, Fresh Squeezed Opera, Séverine Ballon, Tony Arnold, Karen Bentley Pollick, and Olga Berar. Among the festivals and conferences that have featured his works are the MATA Festival (NY), Currents New Media Festival (NM), the International Week of New Music (RO), InnerSound New Arts Festival (RO), the International Festival for Video Art and Visual Music (MX), Aveiro Síntese Biennale for Electroacoustic Music (PT), Eureka! Musical Minds of California (CA), the 2017 and 2018 International Computer Music Conference (CN and KR) and the 2016 Sound and Music Computing Conference (DE). He received the ICMA Award for Best Submission from Europe at the 42nd ICMC in Shanghai (CN). Constantin earned a DMA in Composition at Stanford University under the guidance of Jaroslaw Kapuscinski, Brian Ferneyhough, Mark Applebaum, and Erik Ulman. His previous mentors were Georg Hajdu, Manfred Stahnke, Fredrik Schwenk, and Peter Michael Hamel during his MA and Erasmus Scholarship at the Hamburg University of Music and Theatre (DE), as well as Dan Dediú, Nicolae Coman, Doina Rotaru, and Bogdan Voda during his BA studies in Composition and Conducting at the National University of Music Bucharest (RO).

Marc Battier is a composer of instrumental and electroacoustic music. After twenty years at Ircam, Paris, he became full professor of musicology at Sorbonne University, Now emeritus, he joined Shenzhen University in China as distinguished professor. He also taught at the University of California at San Diego, New York University, the University of Montreal and the University of Music and Arts of Aichi, Japan. He funded a research network devoted to electronic music from Asia, EMSAN, and is co-founder of Electroacoustic Music Studies Network. He has published many articles and several books on the history of electronic music. He is board member of Organised Sound and the Malaysian Journal of Music and honorary editor of Leonardo. He has been on the board of Computer Music Journal and Leonardo Music Journal and a founding member of the International Computer Music Association. His music is widely played in Asia, Europe and North America. He is published by BabelScores.

Distinguished Artist Professor, **Burton Berman's** music

spans many media, including, solo, chamber, and orchestral music, interactive real-time electronics, interactive video art, theatre, dance, and musical score for documentary films. His works have been the subject of international, national and public television and radio broadcasts. Beerman's music, characterized as "spicy, captivating, and filled Turin, Italy, and festivals worldwide, such as the Edinburgh International Art Festival in Scotland, New York's Carnegie Concert Hall, Weill Hall, The Chicago Sinai, Martin Luther King International Center in Atlanta, Rudolfinum Performing Center, Prague, the Haag, Amsterdam, OrfRadioFunkhaus, Vienna, Het Concertgebouw, Gaudeamus International Festival, Heineken Music Hall, Amsterdam, Chopin Hall, Mexico City as well as throughout Australia, Hawaii, Canada, Europe and Asia. Distinguished Professor of the Arts (composition) Emeritus at Bowling Green State University, Beerman is the founder of the Universities New Music Festival, now in its 42nd year, founder of the Electronic Music Studio and New Music Ensemble. (1979); A recipient of such honors as the Barlow Endowment, the Governor's Award as artist of the year in the state of Ohio and a former member of the Governing Board of the American Composers Alliance.

Hector Bravo Benard is originally from Mexico City, studied philosophy and composition at the University of Victoria, in Canada, and computer music at the Xenakis Centre, in Paris. Received a Master's in Sonology from the Koninklijk Conservatorium in the Netherlands in 2006. Has carried out doctoral studies in music and digital art at the National Autonomous University of Mexico, where he worked with Julio Estrada and externally with Agostino Di Scipio, the University of Washington's DXARTS center, where he taught sound synthesis between 2012 and 2014, and the University of Birmingham. He writes sound-based music for acoustic instruments, live electronics, and fixed media, and his works have been performed all over Europe and North America, at events such as the ICMC, the Gaudeamus Festival, and the Kyma International Sound Symposium. Currently lives in the Netherlands as an independent artist and music software developer, and is the creator of the Benard suite of modules for the Voltage Modular platform.

David Berezan (Professor in Electroacoustic Music Composition) has acted, since 2003, as Director of the Electroacoustic Music Studios and MANTIS (Manchester Theatre in Sound) at The University of Manchester (UK). After completing a BA in History (1988) at the University of Calgary, a Diploma in Composition (1996) at Grant MacEwan College (Edmonton) and an MMus in Composition (2000) at the University of Calgary, he moved to the UK and completed a PhD in Electroacoustic Composition (2003) at the University of Birmingham (UK).

After scientific studies, **Marie-Hélène Bernard** began studying music at the Universities of Pau, Paris VIII and Paris IV La Sorbonne (Doctorate in music). She has composed instrumental, mixed and electro-acoustic

works. Her music has been played in Europe, USA, Canada, Chile, China, South Korea, Taiwan and Japan. She has been invited in residence at the studios of GRM, La Muse en Circuit, CIRM, GRAME, and Césaré. She has got commissions from French Ministry of Culture, INA-GRM (Gexin for fixed sounds, awarded by IAWM...), Radio France-Musique, Festivals FUTURA and Détours de Babel, Studio Césaré, Fondation Marcelle et Robert de Lacour, Shanghai Conservatory, Asian Art Ensemble in Berlin, Orchestre National de Lyon... She was a prize-winning of « La Villa Médicis hors les murs » (French Foreign Minister-Institut Français) in 2003 (Residence in China in 2003-2004), and also in 2013 (Residence in South Korea). Her electroacoustic piece « Boa Sr », commissioned from GRM, was selected by France for World Music Days 2018 of ISCM. She is also a soundartist (sound travel-notebooks, installations) and creates experimental radio documentaries (for French National Radio France-Culture).

Noah Berrie is a composer and sound artist from New York, currently finishing his MA in composition and computer music at Stanford. A classically trained violinist, his recent work explores the perceptual and spatial subtleties of sound. His practice spans multichannel audio, audiovisual work, sound installations, instrument building, songs, and score-based composition.

Tom Beyer has been the Chief Systems Engineer for the Department of Music and Performing Arts Professions since 1998 as well as an adjunct professor at New York University (NYU). He did his undergrad work at Manhattan School of Music and NYU's Gallatin, and received a Masters in Composition from NYU MPAP. He is a drummer, percussionist, composer, inventor, technologist, educator, systems designer, and problem solver. Tom teaches Electronic Music Synth (analog synths) and Distributed Performance. He is responsible for overseeing the construction and commissioning of the new MARL Audio Lab as well as all Steinhardt Technology needs at 370 Jay St in Brooklyn, NY.

Josh Biggs (b. 1993) is a composer and sound artist from Cape Town, South Africa. Biggs writes acousmatic and electroacoustic music with materials gathered from recorded improvisations. Drawing from extended cognition research as well as phenomenology and affect theory, Biggs focuses on music making that draws explicit attention to the formation and reception of expression as transduced through sound: how instinct, enculturation, and self-rehearsal surface through listening, composing, and performing practices. Biggs is currently a doctoral student at Cornell University, studying with Marianthi Papalexandri-Alexandri and Kevin Ernste, and holds a BM in Composition from Oberlin Conservatory (2017), where they studied with Lewis Nielson, Aaron Helgeson, Jesse Jones, and Tom Lopez. Among others, Biggs has written for Wet Ink

Ensemble, Yarn Wire, Unheard-Of Ensemble (NYC), the Formalist Quartet (Los Angeles), the Tilikum Percussion Trio (Toronto), and Tacet(i) Ensemble (Bangkok).

Deemed a “musical force of nature” by Gramophone, composer **Gina Biver** writes music for large chamber ensemble, dance, choir, multimedia, sound installations and film. I Care If You Listen recently stated “Biver creates a playground for internal exploration that is both fascinating and deeply effective.” Her work is inspired by the written word and by visual art, both static and moving. Her work involves collaborations with other musicians, filmmakers, choreographers, poets, computer artists, sculptors, painters and video artists, and has been presented in the US, Europe, Australia, Canada and Mexico. She is the founder/director of Fuse Ensemble, a concept-based electroacoustic ensemble breaking barriers between sound, visual art, kinetic works and electronics of all kinds. As a guitarist, she has performed with the National Gallery of Art New Music Ensemble in the East Building Auditorium for the Andy Warhol Headlines Exhibit, and in the atrium of the National Gallery of Art for the John Cage Centennial Exhibit. Festival and concert presentations of Gina’s work include the New York City Electroacoustic Music Festival, UMBC Livewire, the Corcoran Gallery of Art, John F. Kennedy Center, Georgetown University Friday Music Series, Indiana University’s Intermedia Festival, and Sonic Circuits DC.

Michael Blandino offers his digital art music from Baton Rouge, LA where he serves as Assistant Dean of the Ogden Honors College at Louisiana State University. He completed his doctorate in Experimental Music and Digital Media at LSU, where he studied with Stephen David Beck, Edgar Berdahl, and Jesse Allison. His undergraduate degree in Philosophy and Master’s degree in Music Theory were also taken at LSU. Blandino’s works have been shown at the New York City Electroacoustic Music Festival (NYCEMF), International Computer Music Conference (ICMC), Electronic Music Midwest (EMM) festival, the Ebb and Flow Festival, the New Orleans Film Festival, and within a supplement to the CSound Book (MIT). Active in experimental music research, he has contributed to the study of human control of continuous analog sensors, of meaning and environmental impacts of digital art and music performance, and of the auditory display of environmental risk information in augmented reality.

Cândida Borges (Brazil) is a musician and transmedia artist, educator, composer, and researcher based in NYC (US). As a Ph.D. Candidate at the Interdisciplinary Center for Computer Music Research at Plymouth University (UK), she is conducting research on transmedia composition and human migration. She holds a Master and Bachelor in Piano Performance (UFRJ/BR), specialized in Music Production (SAE/NYC), and holds multiple education on the subjects of voice, performance, and new media art. She developed an established

musician’s career from an early age, as a classically trained pianist, singer-songwriter, and composer, having performed in most theaters and festivals in Brazil. In 2013, she was awarded by the National Foundation of Arts in Brazil and since then she has been developing an international career as an artist, songwriter, and transmedia composer. She has been the coordinator of the Brazilian Non-Profit Casa de Arte e Cultura since 2000 – an entrepreneur of socio-cultural projects and programs to promote and exchange art, education, and culture throughout Brazil and worldwide.

Francesco Bossi is a composer whose work includes acoustic and electroacoustic music, video and multimedia installations. He holds degrees from University of Bologna and Conservatorio di Milano where he graduated with highest honours in Electronic Music. His research is currently focused on the production of algorithmic computer based custom synthesizers and video synthesizers. His personal effort is to share contemporary music beyond academic audiences. His works have been performed by Orchestras, Ensembles and soloist, and are often selected by international festivals and concerts. He has been awarded first prize in “The Sounds of Music” competition, (Villa Arconati Milan, 2012). Bossi currently lives in Milan (Italy).

Nathan Bowen received his doctorate in music composition at the CUNY Graduate Center, studying with Douglas Geers, Amnon Wolman, and Tania León. His dissertation on mobile phone music received the Barry Brook Dissertation Award. His work on mobile phone music has garnered invitations to conduct research at IRCAM with the Real Time Interactions Team in Paris and Goldsmiths in London. He has presented at Expo ’74 Brooklyn, SEAMUS, ICMC, and NYCEMF, where he is an original member of the steering committee. He currently teaches music technology and theory at Moorpark College (CA).

After completing her musical studies in Italy at a young age, **Lucia Bova** studied for two years in Nice, France, at the Conservatoire where she was presented with a diploma in harp performance, gaining the 1990 “Premier Prix à l’Unanimité”. At the same time, she was first harpist with the Orchestra “A. Scarlatti” of National Broadcasting Radio (Rai) in Naples from 1989 to 1992, and from 1994 to 1996 she was first harpist with the Orchestra Sinfonica dell’Emilia Romagna “Arturo Toscanini” in Parma, also appearing in Parma as soloist with the Teatro Regio. In 1995 she published for Italian revue Sonus the article (in collaboration with Graziano Tisato at the University of Padova) “La Faccia nascosta dell’arpa: Un percorso nello spazio timbrico delle nuove tecniche esecutive”. Since then she has worked with a variety of ensembles in the performance of contemporary music, including: Ars-Ludi, Ensemble Alter Ego, the soloists of the Accademia Filarmonica of Rome, Polimnia Ensemble, Ensemble Musica d’Oggi, RomaSinfonietta and Ensemble Dissonanzen. She has appeared as

soloist in a number of concerts, specializing in the performance of new music in Italy: La Fenice Theatre in Venice, Romaeuropa Festival e Festival of Nuova Consonanza in Rome, X Colloquio Internazionale sulla Musica e l'Informatica of Milan, Incontri in Terra di Siena, Rassegna di Nuova Musica of Macerata, Festival of New Music with ancient instruments in Urbino, Festival of Nations in Città di Castello. Recently Suvini Zerboni Edition published her book on modern Harp "L'arpa moderna" with a wonderful preface by Luis de Pablo.

A recipient of Guggenheim, Howard and Fulbright Fellowships, **Benjamin Broening** has also received recognition and awards from the American Composers Forum, Virginia Commission for the Arts, ACS/Andrew Mellon Foundation, the Jerome Foundation, the Presser Music Foundation, and a teaching award from the University of Richmond. In addition to two solo CDs on the Bridge and Innova labels (recorded by eighth blackbird and duo runedako respectively), his music has also been released by Ensemble U: in Estonia and on the Centaur, Everglade, Equilibrium, MIT Press, Oberlin Music, Open G, New Focus, Ravello and SEAMUS record labels. Broening is founder and artistic director of Third Practice, an annual festival of electroacoustic music at the University of Richmond, where he is Professor of Music. He holds degrees from the University of Michigan, Cambridge University, Yale University, and Wesleyan University.

Stanislaw Bromboszcz was born in 1980, Krakow, Poland. He finished the Karol Szymanowski Music Academy in Katowice in the composition class of prof. Eugeniusz Knapik (2005) and piano class of prof. Jozef Stompel (2004). In the years 2006 – 2008 he continued education at the Hochschule für Musik und Darstellende Kunst Stuttgart - „New Music“ studies: composition class prof. Caspar Johannes Walter, piano class prof. Nicolas Hodges. As a pianist and composer he took part in such music festivals like: Marathon of Henryk Mikołaj Górecki Music, Katowice, Poland (2003); „Chain– Festival of Witold Lutoslawski Music“, Warsaw, Poland; "Warsaw Autumn", Warsaw, Poland (2009, 2012); Festival of First Performances, Katowice, Poland (2009, 2015) He is a laureate of piano and composition competitions. Grant holder of The Chopin Society; Polish Minister of Culture, Socrates – Erasmus scholarship. From 2008 Stanislaw Bromboszcz works (teaching, research) in Composition and Music Theory Division at the Karol Szymanowski Music Academy in Katowice.

Lars Bröndum, Ph.D., is a composer, musician and is professor in music at the University of Skövde in Sweden. His music has been performed around the world, for example in Sweden, Japan, Russia, Lithuania, Latvia, England, USA, Spain and Mexico. Lars often performs live using an analog modular system, a Theremin, and effect pedals. Lars Bröndum's research deals mainly with composition and the interaction between performer and

electronic instruments surface, and experimentation with techniques in graphic notation in respect to improvisation and musical notation. Lars Bröndum has published just over 20 albums and performed over 500 concerts. Two of Bröndum's albums, *Fallout* (2015) and *Phaethon - Music for Instruments and Electronics* (2019) were awarded "best experimental album" by Swedish Independent Music Producers (SOM). He has received several composer grants and stipends from Konstnärnsnämnden (Swedish Art Council), STIM (Swedish Performing Rights Society) and FST (Swedish Composer's Society). e also runs the independent record company Antennae Media. More info: www.antennaemedia.se. Lars Bröndum has a Bachelors degree in classical guitar and Master's Degree in Composition & Music Theory (Youngstown University) and a Ph.D. in Composition & Music Theory (University of Pittsburgh).

Chris Cree Brown is a freelance Composer and Sonic Artist. He retired from his position as an Associate Professor at the University of Canterbury in 2018. His main interests include conventional instrumental composition, electro-acoustic and computer music, and inter-media art. He has twice been awarded the Mozart Fellowship at the University of Otago, has twice been appointed Composer-in-Schools, has won two prizes in the Wellington Youth Orchestra's Young Composers Competition, and has written a number of film scores. Along with *Icescape* for orchestra, is an electro-acoustic work, *Under Erebus* that were both a result of a trip to Antarctica under the Artists to Antarctica programme run under the auspices of Antarctic New Zealand (and with the assistance of Creative New Zealand).

Courtney Brown is a sound artist, researcher, computer engineer, 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), *CICA Museum* (South Korea), *New Interfaces for Musical Expression/BEAM Festival* (London), *International Computer Music Conference* (South Korea), *ACM Movement and Computing Conference* (Italy), *Society for Electro-Acoustic Music in the United States (SEAMUS) Conference* (Salt Lake City), *Frequency Festival* (Chicago), the *Telfair Museum* (Savannah) and *Modified Arts Gallery* (Phoenix). 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, her M.A. in Electroacoustic Music from Dartmouth College, and her B.S. in Music and Computer

Science from Loyola University New Orleans.

George Brunner is an American composer of electroacoustic and acoustic music. Significant residencies include Institut International de Musique Electroacoustique de Bourges (2003 & 2009), Electronic Music Studios of Stockholm (1996, 1998 & 2001), and Istanbul Bilgi University, Turkey (2002 & 2004). Significant commissions include the Royal Irish Academy, Dublin Ireland (2003 & 2004), Morris Lang, percussionist-The New York Philharmonic (1997, 2007, 2012), Relache Ensemble (2001). He composed 2 Short Operas produced by Remarkable Theatre Brigade for their Opera Shorts Program (2009, 2010), NYCEMF performance (2014). Research: contributing author for Book Beyond Notation: Music of Earle Brown (2015). His music has been released on Chrysopée Electronique 25 (2003), MSR Classics (2009), MSR Classics (Autumn 2010) and Irritable Hedgehog Records (2014).

Julius Bucsis is an award-winning composer, electric guitarist, and visual artist. His compositions span a range of genres and include works for acoustic and electric instruments as well as computer generated audio and video. Since 2011 his works have been presented at almost 200 events across the world. His compositions have been included on CDs released by Ablaze, PARMA, RMN Classical, and Soundiff. He received a Doctor of Arts degree from Ball State University.

The work of a transdisciplinary creative Dr. **Ivica Ico Bukvic** (b. 1976) is defined by the community building through creative enabling technologies and experiences. Bukvic's output encompasses aural, visual, acoustic, electronic, performances, installations, technologies, research publications, presentations, grants, patent disclosures, and awards. His most recent work focuses on multisensory immersion with particular focus on spatial audio and immersive sonification, new interfaces for musical expression, exploring connections between the arts and human health, and recontextualizing STEM K-12 education through innovative approaches to creativity and technology. Currently serving as a the professor and the inaugural director of the Virginia Tech's (VT) Creativity + Innovation transdisciplinary initiative, a part of VT's Institute for Creativity, Arts, and Technology (ICAT), he is the founder and director of the VT's Digital Interactive Sound and Intermedia Studio (DISIS) and the Linux Laptop Orchestra (L2Ork), co-founder of the Creative Technologies in Music (CTM) degree option, co-Director of the Human-Centered Design (HCD) individualized PhD (iPhD) program, and a member of the Center for Human-Computer Interaction (CHCI) with a courtesy appointment in the Department of Computer Science. www.ico.bukvic.net.

Sarajevo-born and NYC-based **Svjetlana Bukvich** is widely regarded as one the most innovative and dynamic multimedia composers in America. Her music for dance, film, and the concert stage has been presented across

the U.S., and internationally in Beijing, London, Helsinki, Johannesburg, Odessa, Sydney, and Berlin, among others. Ms Bukvich is a New York Foundation for the Arts Fellow in Music/Sound and a recipient of numerous grants, sponsorships and commissions. In 2014 Parma Recordings released her solo album EVOLUTION, followed by EXTENSION in 2020; both collections have since received critical acclaim and radio play worldwide. The Metropolitan Museum of Art in NY recently broadcast these works in the MetLiveArts' best-of-season showcase.

Warren Burt (b 1949) BA 1971 State University of New York-Albany (studied with Joel Chadabe); MA 1975 UC San Diego (studied with Kenneth Gaburo and Robert Erickson). Moved to Australia in 1975. Performer, composer, instrument builder, writer, teacher; his work has been performed in Europe, the Americas, Asia and the Pacific.

Madelyn Byrne is an active composer of both acoustic and computer music. She is also a Professor of Music at Palomar College, where she has been on the faculty since 2000. Some recent pieces include Sonata for Piano (composed for Shiao-uen Ding), The Decorah Eagle Violin Concerto (composed for Ulli Reiner and the Palomar Symphony Orchestra), In A Winter Landscape (for bass flute and computer, commissioned and recorded by Peter Sheridan for MOVE Records), Arrival (computer music with video art by Lily Glass, recorded to DVD for Everglade Records), and Northern Flight (for piano and computer, recorded by Peter Gach for Innova Records). Madelyn completed her DMA in Composition at The Graduate Center in 1999. Her composition teachers include Charles Dodge, John Corigliano, and David Olan. The compositions for her dissertation were done while she was a guest composer at Columbia University's Computer Music Center.

Antonio Carvallo was born in Chile in 1972. He studied at "Universidad de Chile", where he received a Bachelor of Composition degree. He also studied Electroacoustic Music in Rome, Italy, at "Conservatorio Santa Cecilia" getting a First Level Academic Degree and a Second Level Specialization Degree. Back in Chile he received a Master of Art degree in Composition and a PhD in Esthetic and Art Theory at Universidad de Chile. His compositions have been performed in Chile, Argentina, Italy, Holland, France, Sweden, Germany, Austria, Slovakia and Thailand. He has permanently published his works in CD and score. Nowadays he teaches at Universidad de Chile, Pontificia Universidad Católica de Chile and Universidad Mayor. From 2015 to 2018 was the President of the National Association of Composers, Chile.

Denny Cavalloni graduated in 2016 in Electronic Music in Alessandria's conservatory (Italy), with Matteo Franceschini, Cesare Saldicco, Gustavo Delgado and Riccardo Piacentini. He is now studying Applied Music in

Piacenza's Conservatory (Italy) with Roberto Doati, Daniele Ghisi, Giuseppe Silvi and Riccardo Dapelo. Art director in a cultural association in Alessandria named Innesti di Cultura, works with "LuziTrio" on "Luzifers Zorn" (a scene from Stockhausen's opera "Montag aus Licht") as Synthesizer player and audio-technician, directed by Nicholas Isherwood. With the same association he works as audio-technician and technical counselor in "Fragmente Ensemble" that works in particular on Stockhausen's "Stimmung". He took part in Diffrazioni festival in 2015 with his work "Graitich". He created a Musical Mass named "MiXa" (2016) played as a mass in Milano. In "Acque Erranti" electroacoustic music festival in Piacenza in 2021 he brought 3 works: "Luzifers Zorn", "Bottle up" (visual and audio installation by Serena Laborante and Denny Cavalloni) and "I Love You (a 9/11 memorial movie)".

Maja Cerar is a violinist whose repertoire ranges from the Baroque to the present, including performances with live electronics, theater and dance. Since her debut in the Zürich Tonhalle in 1991, she has performed internationally as a soloist with orchestras and given recitals with distinguished artists. She has played at festivals such as the Davos "Young Artist in Concert," Gidon Kremer's Lockenhaus Festival, the International Society for Contemporary Music's World Music Days in Ljubljana, the International Computer Music Conference (Singapore, Barcelona, New York, Texas), the Society for Electroacoustic Music in the United States conference (Texas, Arizona, Florida, Boston), the "Viva Vivaldi" festival in Mexico City, and numerous others. Maja Cerar has premiered and recorded numerous works written for and dedicated to her. She has worked with many composers, including Jean-Baptiste Barrière, Sebastian Currier, R. Luke DuBois, Beat Furrer, Elizabeth Hoffman, György Kurtág, Alvin Lucier, Katharine Norman, Yoshiaki Onishi, Morton Subotnick, and John Zorn. She was the featured performer at the 2016 New York City Electroacoustic Music Festival, an event of the New York Philharmonic Biennial; and she has continued to perform at NYCEMF since that time. In addition, her collaborative works have been featured at the "Re:New Frontiers of Creativity" symposium celebrating the 250th anniversary of Columbia University and "Listening in the Sound Kitchen" festival at Princeton University as well as at the Metropolitan Museum's Balcony Bar concert series. Since 2014 she has also created her own works, fostered by The Tribeca Film Institute's "Tribeca Hacks" and by the Future Music Lab at the Atlantic Music Festival, involving robotics and wearable motion sensors.
www.majacerar.com.

Emiliano del Cerro follows traditional music studies at the Royal Conservatory of Music in Madrid, while continuing specialized courses of contemporary music with Luis de Pablo, Cristobal Halffter, Arturo Tamayo, etc. In 1983 he moved to United States where he obtained the degree of "Master of Arts" (City University of New York) and the degree of PhD ("Philosophy Doctor") (State University of New York at Buffalo) and specializes in

computer music and computer art. He was a pupil of Charles Dodge, Morton Feldman, Leharen Hiller and others. His work as a composer has produced works that have premiered in Madrid, Barcelona, Paris, New York, Toronto, Rome, London, Helsinki, Porto, etc. and have been recorded, transmitted and broadcast on stations in America and Europe, while some titles have become produced by several companies in commercial CD format. Emiliano del Cerro has presented papers about sound, music and technology at Lisbon, "Iberoamerican Society of Acoustic" ("First prix for the best paper"); Firenze, "Association for sound and vibration"; New York, "Sound Images And Data"; New York, "ICMC"; Cagli-Perugia, "Csound Conference"; Montreal, "Acoustic Society of America"; Madrid, "Sound and audiovisual spaces"; Murcia, MUCA, "music and audiovisual culture"; etc.

Ben Chadabe is an improvising percussionist who has been performing since the 90's. Frequently collaborating with computer musicians and instrumentalists, he has also worked with dancers, poets, and multimedia artists. He has appeared on several recordings, including Many Times... by Joel Chadabe, his father, and the recently released Terma with Michael Bisio and Michael Monhart.

Yi-De Chen is a composer from Taiwan, with his musical language manifesting great diversity, poetic sense, and profound spirituality. His genuine talent lies in the combination of composition, improvisation, and synesthesia. A grant recipient from the Taiwan Ministry of Culture and National Culture and Arts Foundation, Chen's works have been performed in numerous music festivals. Chen is currently a doctoral candidate in composition at the Indiana University Jacobs School of Music under the tutelage of Profs. John Gibson, Chi Wang, Aaron Travers, Claude Baker, and P. Q. Phan. He received his M.M. in composition from the IU JSOM, where he studied with Profs. Don Freund and P. Q. Phan. With Profs. Tsung-Hsien Yang's and Chung-Kun Hung's instructions, he received his M.M. and B.A. in composition from the Taipei National University of the Arts, Taiwan.

Yi Xuan Chen, born in Taiwan, is currently pursuing a Master's degree in Electronic Music Composition at National Chiao Tung University, studying with Prof. Yu Chung Tseng and Prof. Hui Tak Cheung. She received the first prize at the 2021 Taiwan National Students Music Competition (Composition). Her work has been performed by the National Chiayi University's Choir and National Chiayi University's Orchestra. Her work often explores the advanced usage of traditional harmony in the contemporary context.

Shu-Huang Chen is based in Taichung, Taiwan. Graduated from the department of Motion Picture of National Taiwan University of Arts. After graduating from the college he started a creating career in digital media arts including visual and sound designing. Also in the

name of Decagram for music creating and publish an album called "R+i" in 2018. It also available on Bandcamp for listening. Now studying electronic music at the Institute of Music, Nation Chiao Tung University, and faculty advisor is the Professor Yu-Chung Tseng.

Yi-No Chen is studying electronic music at the Institute of Music, National Chiao Tung University (NCTU), and faculty advisor is the Professor Yu-Chung Tseng. Yi-No Chen is a composer in electro-acoustic, as well as a sound designer and recording engineer. He won the 3rd prize in composition of the International Workshop on Computer Music and Audio Technology Conference 2019 (WOCMAT). He is also the winner of petites formes 2020.

Yung Hsin Cheng is a Taiwanese composer who is currently pursuing a Master degree in Electronic Music Composition at National Yang Ming Chiao Tung University. She majors in electronic music under the supervision of Professor Yu-Chung Tseng. She has won numerous awards, such as WOCMAT2019 International Electroacoustic Music Young Composer Award (2nd prize) and WOCMAT 2020 Phil Winsor International Youth Computer Music Competition Award.

Youngmi Cho is a composer based in Seoul, Korea, teaching at Chonnam National University and Suwon University. She also serves as an editor of the computer music journal Emille. Her works has been performed in Singapore Asian Composers Festival, Young Asian Musicians' Connection in Taiwan, Sound SCAPE Festival in Italy, HighScore Contemporary Music Festival in Italy, Etchings International Contemporary Music Festival in France, International Forum on Acoustical Ecology in Greece, TIMARA Electronic Music Workshops in US, KOCOA Music Festival in Korea, etc. She was a winner composer of Singapore Asian Composers League and was recipient of the 1st prize in the multimedia category of Illinois State Arts Tech Annual. She holds a Ph.D. in music from Duke University, an MSci from the Illinois State University, and BMus from Seoul National University.

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>.

Alejandro Colavita is a Mexican composer, producer,

sound designer and professor. He has created works for solo instruments, chamber music, experimental improvisation, electronic media, rock, film and dance music. He collaborates with musicians from many different cultures and countries inside and outside Mexico. He has produced nearly 30 records of his music, other composers, performers and ensembles. He works as a sound designer for film, documentary and fiction. He is professor in his own music school in Mexico City, where he teaches musical analysis, composition, history of Western music, and musical theory.

Christopher Cook received the Doctor of Music degree from Indiana University where he served as assistant director of the Center for Electronic and Computer Music. He is a recent recipient of a Fromm Music Foundation commission from Harvard University and has received awards from the National Endowment for the Arts, the American Society of Composers, Authors and Publishers, the Music Teachers National Association, and the National Assembly of Local Arts Agencies. He is Associate Professor of Music at Chowan University.

Timothy Crist is Professor of Music at Arkansas State University where he teaches composition, electronic music, theory, and classical guitar. Recently, Crist was awarded the 2021 Champion of Diversity Award presented by the Arkansas State University Office of Diversity, a Distinguished Member recognition by the Sigma Alpha Iota Fraternity for contributions to the arts, and an Arkansas Arts in Education Governor's Award for his STEM MUSIC innovations in public school music education. Crist enjoys time pursuing modular synthesis, doing unmentionable things to acoustic instruments, and finding ways of introducing music technology to the less fortunate.

Zachary Daniels is a Mexican-American composer of acoustic and electronic music. He received a BA in Music, with an emphasis in Composition and Double Bass performance, from Drury University in 2014. His music explores a variety of areas, including minimalism, improvisation, and experimental music. His music is all under ASCAP rights, and mostly published by Divisi Labs. Zach received his Masters degree in music composition from the University of Oklahoma in May of 2016, and his D.M.A. in composition from the same institution in May of 2019. Zach is also the Owner and lead developer for Divisi Labs.

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. 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 Ph.D. 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.

Originally from Austin, Texas, **Eric Davis** is senior composition student at the University of Oklahoma, where he also studies French Horn, piano, and music technology. As a performer, Eric has played works for a wide variety of instruments, including mandolin, bass guitar, steel drums, and live electronics, and has performed in numerous chamber groups and large ensembles. This blend of influences has resulted in a fluid compositional style which encompasses a wide variety of genres. Upon his graduation in May, Eric plans attend graduate school to further his study of music composition, and to continue to broaden his perspectives as a composer and performer.

Wayne DeFehr has studied classical piano in the Royal Conservatory of Music program and then spent several years taking lessons in jazz piano, and playing in a jazz band in cafés and restaurants in Winnipeg Canada. He was also a founding member of the St. Norbert Arts Centre, and collaborated there with many artists on a variety of projects. As well, Wayne has composed music for several theatre productions, including at the University of Alberta's Timms Centre for the Arts, the Citadel Theatre, and at Catalyst Theatre. He is a long term board member of the Boreal Electroacoustic Music Society (BEAMS), where he has performed ambient compositions at concerts, festivals, and art shows.

Gordon Delap comes from Donegal in Ireland. He has undertaken residencies at Nadine Arts Centre in Brussels, and at the Technische Universitaet in Berlin. Recent work has been concerned with combining electronic sounds with spoken word and video, and research interests include investigation of compositional applications of technologies developed at the University of Edinburgh and University of Bordeaux.

Erin Demastes is an experimental composer, performer, and instrument maker whose research combines sound and technology with humor, drama, and absurdity. She uses every day, household objects and hacked electronics for her installations and performances and subverts their use and perception with play and experimentation. By placing items in theatrical settings, Erin brings out the character of things we normally may not think twice about. In addition to her interest in physical materials, Erin also experiments with instruction and interaction design by playing with the boundaries of her scores, performances, and installations to find a balance between structure and uncertainty. Erin received an M.F.A. in Experimental Sound Practices and Integrated Media from California Institute of the Arts, a B.M. in jazz studies and piano performance from Loyola University New Orleans, and is currently pursuing a doctorate in experimental music and digital media at Louisiana State University. She worked as an audio technician, artist, and

educator for five years in Los Angeles and as a jazz and classical pianist, composer, and arranger for ten years in the New Orleans area.

Xinglan Deng is a composer from Shanghai, China. She is currently a junior at the Indiana University Jacobs school of Music, where she has studied composition with David Dzubay, Tansy Davies, Don Freund, PQ Phan and Jeremy Podgursky. She has participated in master classes with Georg Friedrich Haas, Du Yun, and Sky Macklay. She has previously won the first prize in the fourth 'YinZhong Cup' national composition competition for percussion music work. Her work has been performed in SEAMUS.

Ding Qiancheng received his bachelor degree in composition. Now he is the graduate student of Electronic Music Department of Sichuan Conservatory of Music, and studies electronic music composition with Prof. Lu Minjie. His works include pieces for vocal, solo instrument, chamber music, acousmatic music and mixed electronic music.

Aysha Dulong is a composer-performer and sound designer residing on unceded land. They work with acoustic and electronic sounds in a hybridized model and are interested in the relationship between sound and colour, utilizing synaesthesia as a compositional tool. Their work has been presented at SFU's School for the Contemporary Arts, Canadian Music Centre BC, Western Front, and Vines Art Festival. Currently, as a part of composer-performer duo Sapphire Haze, they are a featured artist for Music on Main's Emerge on Main program (2021/22). Aysha holds a BFA with distinction in Music Composition from Simon Fraser University.

duo Sidén & Rønn (DRAUMR): Eva Sidén SE and Christian Rønn DK are both composers and musicians. With a base as a concertpianist, (Eva) and as soloorganist, (Christian) the duo Draumr has expanded the forms for performances and the repertoire for keyboardplaying with several compositions, improvisations/free playing, sound and video-installations and concepts with grafic scores. Their compositions are mostly a combination of instruments and electronics. *Transmissions* is the duos latest piece mixed at EMS-studio for electroacoustic music in Stockholm (2022).

Rodney DuPlessis is a Canadian composer and programmer exploring intersections of science, nature, technology, and music. In his work, he studies processes and patterns from natural and human-made systems to extract latent musicality and visceral sonic narratives. He incorporates algorithmic and intuitive methods, field recording, sonification, and software development to create electroacoustic and chamber music, museum installations, and network music collaborations. DuPlessis is dedicated to promoting the presentation of new music and art. He has directed and produced many

festivals and concerts, and is co-creative director of the Nomadic Soundsters art collective. DuPlessis' teachers have included Curtis Roads, Clarence Barlow, João Pedro Oliveira, and Martin Kutnowski. He holds a BA in Music and Psychology, Masters of Arts in Composition, Masters of Science in Media Arts & Technology, and PhD in Composition at UC Santa Barbara.

David Z. Durant (b. 1957, Birmingham, Alabama, U.S.A.) is a Professor of Music at the University of South Alabama where he is the Director of the Music Theory and Technology Program. Durant received his BM and MM from the University of Florida and his DMA from the University of Alabama. He has composed over 150 works for a variety of soloists, ensembles, and electronics. He has had performances in Italy, Spain, Puerto Rico, Mexico, Scotland, Northern Ireland, England, The Netherlands, China, South Korea, and in 16 states of the U.S.A. He is a frequent contributor to NYCEMF, SEAMUS, and ICMC. Durant is also active as a pianist and has premiered and performed several of his own works for the piano.

Gerald Eckert, born 1960 in Nuremberg. He studied Mathematics at the University of Erlangen, violoncello and conducting at the conservatory of Nürnberg, composition with Nicolaus A. Huber and electroacoustic composition with Dirk Reith at the Folkwang-Hochschule Essen. Further he attended composition courses with Brian Ferneyhough und Jonathan Harvey. Gerald Eckert have had performance on festivals like Ars Musica Brussels, Eclat Festival Stuttgart, Transit Festival Leuven, Ultraschall Berlin, Musica Strasbourg, Futura Festival, Núcleo Música Nueva de Montevideo, Gaudeamus International Music week, Discoveries Aberdeen, days for contemporary music Zurich, Musica Scienza Rom, SICMF Festival/ Seoul, Stanford, etc. In 2013 a monograph with the title: "An den Rändern des Maßes - der Komponist Gerald Eckert" was released by the publisher Wolke. CD's has been released at different major label, i.a: Cybele 1996, ambitus 2003, col legno 2004, Edition Zeitklang 2006, NEOS, 2008, mode records 2016 and 2020. <http://www.geraldeckert.de>

Kramer Elwell (B. 1990, Seattle) is a composer, percussionist, improviser, and sound artist currently based in Santa Barbara, CA. His acoustic and electroacoustic works attempt to create massively rich timbral spaces and soundscapes, spin cryptic and surrealist narratives, and find atypical avenues from which to perform new music. This includes any combination of graphic or multimedia notation, improvisation, computer programming, installation, or interdisciplinary collaboration. Kramer is currently pursuing a Ph.D. in Music Composition and a Master of Science in Media Arts and Technology from the University of California Santa Barbara- studying with Clarence Barlow, Joao Pedro Oliveira, Curtis Roads, Andrew Tholl, and Karl Yerkes. He also holds a Master of Music degree in music composition from the University of Texas at Austin as well as two

Bachelor of Music degrees from Western Washington University; one in Music Composition and one in Percussion Performance.

Stewart Engart (b. 1991, he/him) is a Southern California based composer, performer, sound artist, and software engineer 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. Engart recently completed his Ph.D. dissertation titled "Composing in Latent Space: Music Information Retrieval Driven Algorithmic Composition" at the University of California, Santa Barbara.

Peter Consistently Falconer is a UK-based sound artist and composer, originally from Hartlepool. His work frequently combines music, sound design, narration, historical research, and sonic journalism to tell parafictional stories about both our own and possible alternative realities. He has recently completed his PhD in music composition at the University of Southampton. His Ph.D. research is an online archive of sounds and music documenting the history of a County Durham seaside resort called Seaton Snook, from its establishment in medieval times to its sinister vanishing in the late 1960s. Visit the archive in progress at seatonsnook.com. Peter has written for Jane Chapman, Zöllner-Roche Duo, Kompass Ensemble, Kasia Zaminska and the National Trust, is the house composer for Proxima Dance company, and welcomes commissions from instrumentalists, community spaces, and contemporary dance practitioners. As a voiceover artist, Peter has featured on works by composers Harry Matthews, Uri Agnon, and Olly Sellwood. He doesn't normally refer to himself in the third person.

Epa Fassianos (Ph.D.) is a Greek Composer of Electroacoustic and Ambient Electroacoustic Music. He was born in Athens in 1982. He has attended both the University of York (MA in Music Technology) under the supervision of Professor Andy Hunt and the University of Sussex (MA in Composition for Media and Film and MPhil in Musical Composition) under the supervision of Professor Ed Hughes. His BA in Greece was in Informatics and Computer Technology. He has also obtained his Piano Diploma in 2003 with Professor Dimitris Toufexis. In parallel, he has obtained the Diplomas in Harmony, Counterpoint and Fugue respectively. He holds a PhD Degree in Acousmatic Music Composition. He obtained his PhD from the University of Manchester (NOVARS Research Centre), under the supervision of Professor David Berezan. His area of interest was: Creating works of Acousmatic Music based on aspects of Greek Culture (Religion, Traditional Greek Instruments, Mythology). His work "Chromatocosmos" has been awarded the First Prize in Category A in Musica Nova 2018 Competition of Electroacoustic Music in Prague, Czech Republic, as

well as the Third Prize in Musicworks 2018 Electroacoustic Music Competition in Toronto, Canada. His work "ElectroSantouri" received an Honorary Mention in Ars Electronica Forum Wallis Swiss Contemporary Music Festival 2019 (Leuk, Switzerland). In 2019, he became a member of the Hellenic Association of Electroacoustic Music Composers (ESSIM), Greece. In 2020, he became a member of the International Computer Music Association (ICMA), United States. In 2020, he also became a member of the Japanese Society for Sonic Arts (JSSA), Japan. In 2021, he became a member of the SEAMUS Society for Electro-Acoustic Music in the United States.

Frank Felice (b. 1961) is an eclectic composer who writes with a postmodern mischievousness: each piece speaks in its own language, and they can be by turns comedic/ironic, simple/complex, subtle/startling or humble/reverent. Recent projects of Felice's have taken a turn toward turn towards the sweeter side, exploring a consonant adiatonicism. He is member of the Society for Electro-Acoustic Music in the U.S., the American Composers Forum, the American Music Center, The Society of Composers Inc., and the Christian Fellowship of Art Music Composers. In addition to musical interests, he pursues his creative muse through painting, poetry, cooking, home brewing, paleontology, theology, philosophy, and basketball. He is very fortunate to be married to mezzo-soprano Mitzi Westra. Frank currently teaches as an associate professor of composition, theory and electronic music in the School of Music, Jordan College of Fine Arts at Butler University in Indianapolis, Indiana.

Mark Ferguson is a wildlife sound recordist and sound artist, best known for his work on UK and European bat, bird and bumblebee species. His recordings have been noted for their thoughtful, often unconventional documentation of species behaviour, with a focus on seemingly impossible recording scenarios: from buzz pollination next to one of New York's busiest freeways, to the delicate sounds of insects being plucked from the surface of a canal by foraging bats. His sonic arts projects exploit the unique power of audio programming languages and specialised studio software to immerse listeners in the complex sound worlds of wildlife and natural phenomena, often building stories around threatened or culturally maligned species. Mark's award-winning work has been broadcast by the BBC, mentioned by the Guardian, and selected for performance in leading arts and cultural venues around the world.
www.markfergusonaudio.com

Anders Flodin (b. 1961) studied composition at Kävasta folkhögskola under Sune Smedeby and attended the summer courses in composition at Nordens Folkhögskola Biskops Arnö under Jan W. Morthenson and Rolf Enström (electro-acoustic music). He received his Bachelor in composition in 1987 from the Norwegian Academy of Music, where he studied under Olav Anton

Thommessen, after which he studied composition under Vladimír Bokes at the Academy of Performing Arts in Bratislava and under Svatopluk Havelka at the Academy of Performing Arts in Prague. He was formerly a Senior lecturer in Music Theory at Örebro University, Lecturer in Music Theory at University of Borås, Assistant professor in the Theory of Music. From 2021 he is a freelance composer. Web: <https://andersflodin.com/>

Michael Flynn is a composer of acoustic and electronic music whose works present familiar musical ideas in inventive sonic and structural contexts. To this end, his music juxtaposes timbral exploration and metric complexity with pop-music-inflected harmony and beat-driven groove. Drawn towards bright, sparkling timbres, Michael strives to create works that feature vividly colored, dreamlike sound worlds. Michael's music has been featured at events such as SPLICE Institute, the CHIME Festival, the Summer Institute for Contemporary Performance Practice (SICPP), the National Student Electronic Music Event (NSEME), and SPLICE Festival. Michael graduated magna cum laude from Columbia College Chicago in 2016 with a bachelor of music in composition. While at Columbia, he received the William Russo Endowed Scholarship for Excellence in Music, presented to one student per year in Columbia College's music department. In the spring of 2018, Michael earned a master's degree in composition from Western Michigan University, studying under Christopher Biggs and Lisa Coons. Currently, he is pursuing a DMA in composition at the University of Georgia, studying under Emily Koh, Andrew McManus, Adrian Childs, and Peter Van Zandt Lane.

Massimo Fragalà graduated in Electronic Music and in Classical Guitar. His music has been performed in many festivals and conferences worldwide including ICMC 2003, 3rd Prize ex aequo 4° Concorso Internazionale di Composizione Elettronica "P. Schaeffer" (Italy, 2003), ICMC 2005, Festival Zèppelin 05, EAR Sounds Electric 2005, LAC06, ICMC 2006, Festival Música Viva 2008 (Sound Walk), NWEAMO 2008, Taukay 2008 (FrammentAzioni), Vox Novus 2008 (60x60 project), LAC 2011, Emufest 2011, 60x60 2012 (PianoForte Mix), Csound Conference 2013, LAC 2015, Csound Conference 2015, Csound 30, WOCMAT 2016, LAC 2017, LAC 2018, ICMC 2018, MusLab 2018, LAC 2019, ICMC 2019, etc.. One of his electroacoustic compositions has been published on CD by Electronic Music Foundation (EMF).

Omar Fraire: Human as an artist, inventor, magician, curator, teacher. After having deserted from two composition universities in México, he specializes in Sonology (Koninklijk Conservatorium - Holland) and holds a Master's Degree in Contemporary Art as auditor (Aguascalientes). His work is inserted into reality by transducing it and functions as an act of critical enunciation. Enjoys collaborative work and his energies oscillate across fields of knowledge. Creator of Punto

Ciego Festival and artist of the Guggenheim Aguascalientes, is mostly self-taught artist although he holds an M.A. at Wesleyan and currently studies a Ph.D. at UVA.

Enrico Francioni graduated in Double bass and Electronic Music. He performed for the first time and recorded in audio and A/V Fernando Grillo's Suite I, a work he followed in creative phases in close harmony with the author. As a soloist he has been awarded in various national and international competitions (Stresa, Genoa, Ancona, Fivizzano). He is the author of instrumental chamber music, musical theater, electronic music, didactics, writing of musical interest and generative code written with Csound for the App SOLO [Nr. 19] dedicated to the homonymous work of K.Stockhausen. As a composer he was awarded in national and international competitions: "E. Carella", "Città di Pavia", AGIMUS, "A.Manoni", "Le note ritrovate", DI Stanze, "Amici della Musica di Cagliari", "Composition Competition Mario Perrucci". He devoted himself to teaching for years and was a double bass teacher at the "G. Rossini" Conservatory in Pesaro (Italy).

Austin Franklin is an internationally recognized composer and sound artist based in Baton Rouge, LA where he is currently pursuing a Ph.D. in Experimental Music & Digital Media from Louisiana State University. His interests include music involving process, such as algorithmic composition and music incorporating machine learning technologies. His latest album, Four Idols, has been described as "an elegant, artistic statement that demonstrates the flexible possibilities of electronic music" (The Sybaritic Singer). Austin has several pieces for percussion published through C-Alan Publications and his music has been performed throughout North America, South America, Europe, and Asia. He is the recipient of several awards and commissions, including the RMN Call for Electroacoustic Works 2021, the Hypercube Composition Lab, SCI Region IV Mixtape, PARMA Winter Call for Scores, the Dead Resonance Call for Aleatoric Scores, the Sound/Sight Art Collaboration, the First Annual LSU Composition Competition, and the CNME Call for Scores. For more visit www.austinfranklinmusic.com.

Nicola Fumo Frattegiani is an electroacoustic and audio-visual composer living in Perugia, Italy. His works have been presented at various national and international festivals including ICMC (KR - IT), SCIMF (KR), NYCEMF, ICMC-NYCEMF, New Music Miami Festival ISCM, Electroacoustic Barn Dance, WSU, The 15th International Gothic Association Conference, STUDIO 300, Mise en Music Festival, Earth Day Art Model, 1st International Video Art Festival (USA), SMC (CY - IT), Atemporánea Festival, Foundation Destellos, La Hora Acusmática (AR), Festival Futura, Finale Prix Russolo (FR), Synchresis Festival (ES), Evimus (DE), MUSLAB (BR - MX), Echofluxx (CZ), Audio Mostly, BFE/RMA, Convergence, Noisefloor Festival, SOUND/IMAGE,

Altered Images Festival (UK), WOCMAT (TW), ACMC (AU), XIV Festival Internacional de Musica Electroacustica y Electronica Primavera en La Habana (CU), Matera Intermedia, Diffrazioni Firenze Multimedia Festival, XXII CIM, Venice Biennale of Architecture, 9th International FKL symposium on soundscape. Author and performer, his research deals with electroacoustic music, sound for images, video, art exhibitions and compositions for theatrical performances.

Miles Jefferson Friday is currently a doctoral candidate 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 also holds a BM from the Indiana University Jacobs School of Music.

Rikhardur H. Fridriksson (b. 1960) began his career as a rock musician, and later studied composition in Reykjavík, New York, Siena and The Hague. His teachers included Atli Heimir Sveinsson, Þorkell Sigurbjörnsson, Elias Tanenbaum, Franco Donatoni and Clarence Barlow. Furthermore he has degrees in History and Classical Guitar performance. His works have been performed and broadcast in many countries. He has received working grants from the Icelandic government, the DV cultural prize, and a prize at the Bourges sound art competition. He lives in Reykjavík, composing and teaching electronic music, composition and Music History at Iceland University of the Arts, Kópavogur Music School and Menntaskóli í tónlist. His music falls into two general categories; he either makes pure electro-acoustic music, working mostly with natural sounds and their movement in space, or he does live improvisations, playing electric guitar, processed through live electronics. In that field he either appears alone or with the Icelandic Sound Company. In his spare time he can be seen playing punk rock at various Reykjavík clubs.

Jiangtao Fu, from Chengdu, Sichuan Province, China, is now a third year graduate student of Sichuan Conservatory of music, majoring in electronic music composition

Yu Fu, young composer, who was born in Sichuan, China. Since 2016, studied at the Department of Electronic Music, Sichuan Conservatory of Music in 2016, majored in Recording Art, under the supervision of Professor Wanjun Yang. In 2020, she entered the postgraduate program of New Media Music in the Department of Electronic Music of Sichuan Conservatory of Music, studying under Professor Yang. During her undergraduate studies, she studied electronic music composition and performance with Professor Takayuki Rai and Jeffrey Stolet, her electronic music works such as 'The Cove' and 'Realm of Chaos' have been performed in China and the United States. Her main area of research is interactive electronic music.

Larry Matthew Gaab is a native of the United States. His body of works are for tape alone and for mixed acoustic and electronic instruments. The pieces utilize improvisation, composition, and computer generation. His works have been selected for music festivals and concerts in the United States, the Americas and in Europe.

Prof. Dr. **Javier Alejandro Garavaglia** is a composer, performer (viola/electronics) and academic, lives and works between London (UK) and Köln (Germany). Past positions include Associate Professorship at London Metropolitan University (UK). Profusely performed compositions in Europe, the Americas and Asia comprise: electroacoustic music (acousmatic/multimedia/interactive) and compositions for solo instrument, small chamber groups, ensembles & big orchestra. Electroacoustic works available on commercial CD releases (Germany, USA, Argentina). Research published internationally in Spanish, German and English in the following fields: Full Automation of Live-electronics; Spatial Audio: sound diffusion for High-Density Loudspeaker Arrays (HDLAs); Dramaturgy of Music: Intention/Reception of Music; Familiarity in listening to Sound-based Works in Musical Education. <https://tinyurl.com/JavierGaravaglia>.

Ceferino García (b. 1979) – Córdoba, Argentina. He began his studies of music, classical and electric guitar in 1997, with private teachers in his hometown, Eduardo Castex (La Pampa); and in Santa Rosa, capital of La Pampa. In 2000 he arrived in Córdoba to study composition at the current Faculty of Arts at the National University of Córdoba. He is a graduate as “Profesor y Licenciado en Composición Musical” by the Faculty of Arts of the National University of Córdoba. He studied in private lessons with the composer, director and pianist Juan Carlos Tolosa. He carried out different courses and seminars with Mónica Gudemos, Christoph Löser, Roberto Doati, Marcos Franciosi, Aurélien Dumont, Ensemble Suono Mobile, Ensemble Modelo 62, Ensemble Dédalus, Contemporary Laboratory of Córdoba Ensemble directed by Juan Carlos Tolosa, VII International Meeting of Composers in Santiago de Chile, Forum Nueva Música 2015, among others. He works independently as a composer. He also works, since 2014, as co - director, producer and general coordinator of the Micro-Jornadas de Composición y Música Contemporánea, Cordoba.

Zuriñe F. Gerenabarrena studied composition with Carmelo Bernaola and Franco Donatoni. Gerenabarrena has written pieces for orchestra, ensemble, theatre, dance, acousmatic, sound installations and multidisciplinary shows. International forums include: TAm Music Festival (Japan), SAMPO (residence, winner), The Sound Beach (Winner Udine-Stockholm), TAm Music and Arts Festival (Japan), Turn-Up Multimedia Festival (Arizona)... Works edited by Avantus Edition and Tritó Edition.... Artist in residence: NOTAM (Oslo), EMS (Stockholm), ZHdk-ICST (Zurich), Shiro-Oni (Japan),

Tokyo Wonder Site (Tokyo), Studio Alpha, VICC (Visby), USF/Verfet (Bergen), LEC(Lisbon). Commissioned from Basque Government, INAEM, CDMC, Quincena Musical, Basque Symphony Orchestra, Author Foundation, Bilbao Symphony Orchestra, BBVA Foundation, Konstrnärnsämnden, ZHdk/Zurich University of the Arts, Polish Ministry of Culture, Ensemble Noh. Professor of Counterpoint and Harmony, professor of Electronic composition in Master Degree in Contemporary Music Creation, at MUSIKENE (Higher Conservatory of Music, Basque Country) www.zfgerenabarrena.com.

Adib Ghorbani is an Iranian pianist, composer, filmmaker, actor, and director based in the United States. After earning a Bachelor's degree in classical piano performance and a Master's in music composition, Adib left his country, Iran, for the US to pursue his studies as a Ph.D. student in the ICIT program (Integrated Composition, Improvisation, and technology) at UC Irvine. Adib developed his unique multidisciplinary style known as Silent Music or Electro-musical Mime throughout the course of five years at UCI. Silent Music combines theater, live music performance, sound design, film, and motion sensor technology. Adib's works span various other genres, such as theatrical music, opera, contemporary music, experimental music, podcasts, sound design, and free improvisation.

Patrick Gibson is a composer, songwriter, educator, electric guitarist, and vocalist based in Anaheim, California. He is the General Music Teacher and Choir Director at Cubberley K-8 School and Patrick Henry Dual Immersion Elementary School in the Long Beach Unified School District. He holds a PhD in Digital Music Composition from the University of California, Riverside; an M.M. in Music Composition from California State University Long Beach; an M.Ed. from National University; and a B.A. in Music Theory and Voice from Loyola Marymount University. He composes and conducts concert music for his chamber group, the Martians, and has composed pieces for ensembles and artists from around the world. He also composes media music for clients, and composes rock music for his band, Kirk Out. For more information on Patrick Gibson's music, including links to audio and video performances of his work, please visit patrickgibsoncomposer.com.

Matteo Giuliani studied at the University of Bologna (CS engineering) and at the “G. B. Martini” Conservatory of the same city. He deepens his composition studies both attending courses with Frédéric Durieux, Francesco Filidei, Heinz Holliger, Adriano Guarnieri, Giacomo Manzoni, Salvatore Sciarrino and at the “G. Verdi” Conservatory in Milan graduating with honors and praise with Alessandro Solbiati and finally with Ivan Fedele at the Accademia Nazionale di Santa Cecilia (Rome), graduating with honors. He won or was runner-up in numerous composition contests, especially international, including: “Niccolò Castiglioni” Competition (Milan, 2011), GAM - Gallery of Modern Art of Milan (2011), “Le

Note Ritrovate” Competition (Avellino, 2012), IV Competition AFAM Divertimento Ensemble (Milan, 2012, selection), Festival Pontino (Latina, 2013), Certaldo International Competition 2013, Pharos Competition (Nicosia, Cyprus, 2013), “Egidio Carella” Val Tidone Competition (2013), Left Coast Ensemble Composition Contest (2013, San Francisco, CA, USA), Young Artists San Fedele Award (Milan, 2015). He is also as a choir director since 2000 and has been the Italian Choir Association representative for the Bologna area (period 2010-2018).

Bob Gluck is a pianist, composer, writer, rabbi, and professor of music at the State University of New York-Albany. Among his works are eleven jazz and electroacoustic recordings, most recently *Early Morning Star* (FMR, 2020); an interactive installation with Cynthia Beth Rubin, *Layered Histories* (2004); and three books about the exploratory periods of Herbie Hancock, Miles Davis (University of Chicago Press, 2012 and 2016), and saxophonist/environmentalist Paul Winter (Intelligent Arts, 2019). As an undergraduate, Gluck studied with Joel Chadabe and Donald Funes. He completed an MFA at Rensselaer Polytechnic Institute (2001), and an MSW (YU 1984) and MHL (RRC 1984).

Michael Gogins was born in 1950 in Salt Lake City, Utah, and lived there till 1973, a wonderful place to grow up with many trips to mountains, desert, and unlocked university labs. My father was an inventor, my mother was a fine artist and commercial artist. I have pursued poetry, photography, music performance, and music composition. I have lived in Salt Lake City, Los Angeles, New York, and Seattle. I have a B.A. in comparative religion from the University of Washington, 1984. Currently, I contribute code to Csound, maintain the vst4cs opcodes for hosting VST plugins in Csound, maintain the Csound for Android app, and maintain the csound-extended package incorporating various facilities for algorithmic composition in JavaScript, C++, and Common Lisp. I am currently working to bring new developments in mathematical music theory into algorithmic composition software. I am married to Heidi Rogers, who before she retired ran Frank Music Company, a classical sheet music store in New York. We live on a farm in the Catskills, and on the Upper West Side of Manhattan.

Bradley Green is a composer, theorist, and educator based in Washington, DC. Bradley’s music is frequently performed both nationally and internationally, has been featured on the Takoma Public Radio show *Coda*, and has been programmed at multiple music festivals and conferences, including numerous SCI and CMS regional and national conferences, the Electroacoustic Barn Dance Festival, the New York City Electroacoustic Music Festival, the StageFree concert series, the *Mise-en Music* Festival, and the CMS International Conference in Belgium. Bradley is also one of the founding members and serves on the leadership committee of District New Music Coalition, an organization of musicians and new

music lovers that aim to promote the performance and appreciation of contemporary music by connecting performers, composers, institutions, and audiences located in the Washington, DC metropolitan area through concerts, conferences, and active community-building. Bradley earned his DMA degree from the University of Maryland in Music Composition. Currently, he lectures at American University, the University of Maryland, Baltimore County, and the University of the District of Columbia.

Joel Gressel (b. Cleveland, 1943) received a B.A. from Brandeis University and a Ph.D. in music composition from Princeton University. He studied composition with Martin Boykan and Milton Babbitt, and computer music with Godfrey Winham and J.K. Randall. His computer music appears on CDs published by Parma (Ravello), ACA, APNM, Odyssey and CRI. He currently lives in New York, semi-retired, but still working as a computer programmer, maintaining and extending software that models tax-exempt housing-bond cash flows.

Ragnar Grippe studied cello at the Royal Music Academy in Stockholm, studied at GRM for Pierre Schaeffer and François Bayle, private studies with Luc Ferrari. He has presented at La Scala bi-centennial in Milan, Royal Opera of Stockholm, Espace Cardin Paris. Numerous modern dance pieces, 15 feature movies and instrumental and electronic music. Available on Apple Music Spotify and other digital platforms Ragnar Grippe lives in Stockholm and has also lived more than 20 years in Paris. www.ragnargrippe.com

Mark Gustavson was born in Brooklyn, NY. At Northern Illinois University he studied composition with the Cambodian-American composer Chinary Ung followed by two years at the University of Illinois with composer Ben Johnston. He then entered Columbia University where he earned the D.M.A. in composition. During his earlier years in New York Gustavson received numerous honors including a Fulbright Fellowship and the Walter Hinrichsen Award from the American Academy of Arts and Letters. Mark Gustavson has composed more than 70 compositions starting with *Rainbow* (1978) for wind and percussion ensemble that was honored with awards from both ASCAP and BMI. *Waves*, a First Music commission by New York Youth Symphony in 1988. His *Hymn to the Vanished* (2001) composed just after the destruction of the World Trade Center and premiered in Carnegie Hall by String Orchestra of New York City. The album, *Dissolving Images*, features his chamber music on Albany Records. His music is published by C.F.Peters.

Kerry Hagan is a composer and researcher working in both acoustic and computer media. She develops real-time methods for spatialization and stochastic algorithms for musical practice. Her work endeavours to achieve aesthetic and philosophical aims while taking inspiration from mathematical and natural processes. In

this way, each work combines art with science and technology from various domains. Her works have been performed in Asia, Australia, Europe and the Americas. Kerry performs regularly with Miller Puckette as the Higgs whatever, and with John Bowers in the Bowers-Hagan Duo. In 2010, Kerry led a group of practitioners to form the Irish Sound, Science and Technology Association, where she served as President until 2015. Currently, Kerry is a Lecturer at the University of Limerick in the Digital Media and Arts Research Centre. She is the Principal Investigator for the Spatialization and Auditory Display Environment (SpADE) and President of the International Computer Music Association.

Originally from the Pacific Northwest, **Sean Russell Hallowell** is a composer now living in San Francisco. He makes music that elaborates the potential energy within sounds and sound-making devices. Concert works and installations of his combining audio and audiovisual media with acoustic instruments and live electronics have been performed and recorded across the US as well as in Mexico, Chile, South Korea, Japan, the UK, Belgium, and Iceland. Exploring the theoretical principles that ground his music, his essays have been published in *Organised Sound*, *The Journal of the Arnold Schoenberg Institute*, and *The Journal of Contemporary Music, Art and Technology*. Areas of experimental inquiry include contrapuntal techniques, phenomenologies of musical form in time, and music in relation to cognate quadrivial disciplines - i.e. arithmetic, geometry, and astronomy.

Andrew Hannon's musical life is a combination of diverse influences. He composes for the concert stage and has performed in metal core bands. His music alternates between moments of violence and serenity creating an element of tension. In addition to musical tension, he incorporates technology as an aesthetic statement. For example, *Two Lost Loves* draws its material from anonymous voicemails, *Night Watch* transmits audio through audience's smart devices, and *News Flash* uses a YouTube video as source material for audio and video. His compositions are performed throughout the United States at SEAMUS, North American Saxophone Alliance national conference, College Music Society's national conferences, Electroacoustic Barn Dance, and USF New Music Festival. He strives to foster creative community by collaborating with performers and mentoring students. Andrew earned his DMA in music composition from the University of South Carolina. His research focuses on composition pedagogy, fear and aural skills, and the music of Ligeti. He is Assistant Professor of Music Composition at Appalachian State University in Boone, NC.

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.

Lucy Hatem is a Brooklyn-based clarinetist and teacher with a wide range of interests. A graduate of Sarah Lawrence College and Brooklyn College, she has studied with Laura Flax, Igor Begelman, Jean Kopperud, and Marianne Gythfeldt. As a freelance musician, she is particularly passionate about chamber music and the work of living composers; she has appeared with S.E.M. Ensemble, ICMC/NYCEMF at NYU, June in Buffalo, and at Roulette. She has attended festivals including Fresh Inc with Fifth House Ensemble in summer 2021, and zFestival, a virtual workshop for multidisciplinary art, in summer and fall 2020. She is also interested in arts administration: she acted as manager for the Brooklyn College orchestra during 2019-20, and has interned with WQXR and the PROTOTYPE Festival in New York.

Olive Haugh is a British-American composer based in Chicago, Illinois. Their work primarily focuses on subjects of identity, meditation, and environmental noise which often incorporate field recordings of urban spaces and improvised music. Olive is a current 4th year Music Composition and Technology undergraduate at Northwestern University and has studied with Jay Alan Yim, Alex Mincek, and Christopher Mercer respectively. They are currently developing new musical works that explores the intersections of spatial audio with Interactive Media, AI, and Theatre.

Jing He was born in Hubei, Wuhan, China and graduated from Showa University of Music (Japan). Now he teaches composing at Wuhan Conservatory of Music. His main research directions are AI music, algorithmic composition, acoustic synthesizing and acousmatic music.

Mara Helmuth composes music often involving the computer, and creates multimedia and software for composition and improvisation. Her music is on recordings from PARMA, INNOVA, Centaur (CDCM), Open Space, Electronic Music Foundation and Everglade. Her research includes software for composition and improvisation has involved granular synthesis, wireless sensor networks, user interfaces, Internet2 performance, and contributions to the RTcmix music programming language. She has collaborated compositionally with Esther Lamneck, Andrea Vos-Rochefort, and others. She is Professor of

Composition at College-Conservatory of Music, University of Cincinnati and director of its Center for Computer Music. She holds a D.M.A. (1994) from Columbia University, and earlier degrees (B.A., M.M.) from the University of Illinois, Urbana-Champaign. She served on the board of directors, as vice president for conferences and as president for the International Computer Music Association, and has written about gender and computer music. She also plays tennis and practices T'ai chi ch'uan, and lives with her partner Teri and their two dogs.

Verena Hentschel (*1984) is a German composer and visual artist. A focal point in her electronic compositions is the engagement with repetition in music and sound. The basis for her compositions are field recordings. The focus lies on the experience of sound and visuals and ranges between rhythmic-percussive elements and experimental soundscapes. Besides that she combines her abstract paintings with her electronic compositions and creates animated videos out of it.

Brian Hernandez is an educator, performer, and composer of audiovisual music and also writes for large and small ensembles. His works have been selected for performance across the USA, Europe, China, and Canada. He holds a B.A. in philosophy and political science from St Mary's University, San Antonio, TX and an M.A. in music composition, from the University of North Texas. He completed his doctorate in interdisciplinary digital media and performance (music composition) at Arizona State University in May 2021.

Carlos Hidalgo was born in 1973 in Colombia, where he studied flute. From 2005 until 2011 he studied composition at the University of Music "Felix Mendelssohn-Bartholdy" in Leipzig under the supervision of Claus-Steffen Mahnkopf, and under the support of a scholarship from the Heinrich Boell Foundation. In 2012 he moved to Switzerland to study a Master's in Electroacoustic Composition at the ZHdK under the supervision of Germán Toro Pérez. During 2013-2014 he received a scholarship from the Kanton Schwyz. He has received professional training at IRCAM in Paris. He has obtained several scholarships, including the Stadt Zürich and Ibermusicas, through which he lived in Mexico (2017) and Berlin (2019-2020). In 2020 he received a scholarship from Akademie der Künste in Berlin. Since 2014 he works at the Swiss National Fonds Research Project Performance Practice of Electronic Music at the Institut for Computer Music and Sound Technology (ICST) in Zurich. He lives in Zurich and Berlin.
www.carloshidalgo.net

Ben Hochster is an Oakland, CA native and a student at Oberlin College majoring in Technology in Music and Related Arts.

Brian House makes rhythms with custom software that simulates "pulse-coupled oscillation," a phenomena found in the behavior of fireflies, the cells of the human heart,

and the spread of ideologies online. His approach conflates musical and non-musical timekeeping and builds intuitive means of reflecting on contested temporal relationships. His beats for Metric Displacement demonstrate microrhythmic tension against an expected regular pulse.

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 became Professor of Music and Director of the Electronic Music studios at Queens College of the City University of New York. He also taught at the Juilliard School from 1974 to 1994. He is a member of the Society of Composers, Inc., the American Composers Alliance, the International Computer Music Association, SEAMUS, the Long Island Composers Alliance, and the New York Composers Circle, and the Association for the Promotion of New Music (APNM). In 2009, he founded the New York City Electroacoustic Music Festival, and he continues as Director. He is also Executive Director of the New York Composers Circle.
www.huberthowe.org

Jonathan Howe grew up in Armonk, NY. He earned a BA in Music from Princeton University in 2001, an MA in Music Education from Queens College/CUNY in 2005, and Educational Administrative Certification from LIU Post in 2008. He teaches Instrumental Music in the East Hampton School District, and also performs with the Sag Harbor Community Band. He studies piano with Teresa Dybvig. When he is not playing the piano, he enjoys playing bridge (the card game) and squash (the racquet sport, not the vegetable).

Chi-Yen Huang, born in Taiwan, is a composer intrigued by the subtle changes in timbres and power of musical gestures in both acoustic and electronic music. He also shapes the sonic world that connects directly to the spiritual realm and to the emotional experience to the audience. In 2019, Chi-Yen was awarded the scholarship from DAAD (Deutscher Akademischer Austauschdienst, DAAD) to participate the course "Deutsche Literatur und Musik" at Otto-Friedrich-University Bamberg for one month. Chi-Yen is also interested in collaborative art. In 2020, he participated in a project, "Post-Garden", which co-produced by the Department of Music and the Department of New Media Art at TNUA (with the participation of Le CNSMD de Lyon), is an original transdisciplinary experimental theater combining new media art with contemporary music. The performance is included in International KuanDu Arts Festival 2020. Currently, he is studying with Mei-Fang Lin.

Yi Lun Huang is currently studying at the Music Research Institute of National Yang Ming Chiao Tung University, Major in electronic music, Professor Yu Chung Tseng. Think that in various scenes and people and things, can receive hard-earned inspiration, So these inspirations have become one of the most important

materials in creation. Music works have won the 2019 WOCMAT International Youth Electronic Music Creation Honor Award, and were selected for the NYCEMF New York Electronic Music Festival 2020 and International Computer Music Conference 2021 and delivered performances.

Yu-Ren Huang was born in 1994, Kaohsiung, Taiwan. He learned violin in 2000 and guitar in 2011, then started composing computer music by self-studying on the Internet. Since 2020, He was studying for MA in Electronic Music and Music Technology at National Yang Ming Chiao Tung University in Taiwan. His acousmatic work has been performed at WOCMAT.

Simon Hutchinson is a creator and teacher of music, audio, and things tangentially related. 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 humans, technology, and society. Simon 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. Simon's studies in cross-cultural composition were supported by the Sasakawa Young Leader's Fellowship Fund (SYLFF), and his works are now performed across North America, Europe, and Asia. He is currently Associate Professor of Music Technology at the University of New Haven.

Nick Hwang is a composer and sonic artist whose work explores connections in art, technology and interaction. He is currently an Assistant Professor at the University of Wisconsin at Whitewater in the Media Arts and Game Development program. Nick earned his PhD in Compositional and Experimental Music & Digital Media at Louisiana State University. His research interests include live electronic/acoustic instrument performances, laptop ensembles, physical/gestural musical controls, interactive musical systems, and game design in musical settings. His on-going research projects include novel musical controllers, and networked musical communication. He has performed and presented at ISEA, NIME, SEAMUS, NYCEMF, NowNet Arts, Hong Kong New Music Ensemble, Root Signals, and MoxSonic. More information at <http://NickHwang.com>.

Ryo Ikeshiro is an artist, musician and researcher. His work explores the possibilities of meaning and context presented through sound as well as its materiality in relation to digital audio and audio technologies. Ikeshiro was part of the Asia Culture Center's inaugural exhibition in Gwangju, South Korea, and his TeleText art pages have been broadcast on German, Austrian, Swiss and Finnish national TV. He is a contributor to Sound Art: Sound as a medium of art, a ZKM Karlsruhe/MIT publication, and his articles have been published in the

journal Organised Sound. Originally from Japan, Ikeshiro lived in the UK for many years. He has a PhD from Goldsmiths, University of London, MPhil from Cambridge University and BMus from Kings College London. He is an Assistant Professor at the School of Creative Media, City University of Hong Kong, where he is the MFAACM Deputy Leader and co-director of SoundLab, a spatial audio art/research unit. <https://ryoikeshiro.com>

Hiromi Ishii was born and studied composition in Tokyo. Research Fellow at Musashino Musical College. She worked as composer&sound designer for exhibitions whereas taught at academic institutes. From 1998 she studied electroacoustic composition under W. Jentzsch at Musikhochschule Dresden, further with S. Emmerson and D. Smalley at City University London where she was conferred her Ph.D. Her works have been presented at various festivals worldwide including commission by Saxony State (premiered at Semper Opera House), invitations for her portrait concerts by Univ. Cologne, Univ. of Art Bremen, and Senzoku-gakuen Univ. In 2006 (ZKM grant), 2013 - 16, she was Guest Composer at ZKM. Her recent works focus on 3D Acousmatic and Visual Music for which she creates both parts in parallel. <http://hiromi-ishii.de>

Wilfried Jentzsch was born in 1941. He studied composition at Musikhochschule Dresden and Akademie der Künste Berlin, and electronic music at Musikhochschule Cologne. From 1976 to 1981 he studied at Sorbonne University in Paris under Xenakis where he was conferred a degree of Doctor of Philosophy in the field of musical aesthetics whereas he conducted research projects of digital sound synthesis both at IRCAM and the CEMAMu. He was professor of composition and director of the Studio for Electroacoustic Music at Musikhochschule Dresden from 1993 to 2006. Recently he was invited for Composer in Residence by Musiques & Recherches Brussels, and Guest composer at the ZKM with focus on the spatialisation of electroacoustic music. He has received international composition prizes such as Boswil (CH), Paris, Bourges and ZKM Karlsruhe. Two CD with acousmatic compositions were published by Schott: Visions (WERGO Arts 8105 2) and sai-ji-ku (WERGO Arts 8121 2), the last one together with Hiromi Ishii. Currently he is living in Cologne suburb.

Clarinetist **Young Woo Jeon** graduated from the Mannes School of Music where he received his Master's degree under Professor Charles Neidich, Bachelor of Music at Kyunghee University and Art Diploma at Kaywon Art High School in Seoul, South Korea. He was awarded 1st prize in SUNGJUNG music competition, Kyunghee University music competition, Youngin City music competition, 2nd prize in Classical Music Magazine 'CHUNCHU' concours, YOUNGCHANG competition, 3rd prize in EWHA&KYUNGHYANG concours and finalist in Dong-A Music Competition. He worked in the National Police Symphony Orchestra in

South Korea and appeared in numerous concert series, including the orchestra festival in Seoul Art Center, the Frick collection and Lincoln Center for orchestra/ensemble. He debuted as a soloist with Kyunghee University Symphony orchestra at Seoul Art Center and Gyeonggi Festival Orchestra and also collaborated with Jean-Baptiste Barrière for performing 'The Art of Change'. He is going to study for the PS in Classical Clarinet at the Manhattan School of Music in Fall 2022.

Markus Kaitila holds a Bachelor of Music in Piano Performance from Aaron Copland School of Music, City University of New York Queens College, under guidance of Nina Lechuk, and a Master of Music and Advanced Certificate in Piano Performance and Pedagogy from NYU Steinhardt, 2020, where he studied with Eteri Andjaparidze and continues as adjunct faculty in the Department of Music and Performing Arts Professions. He is a winner of the Köhler-Osbahr and WPTA Finland Piano Competitions, and his soloist appearances include Wratislavia, Jackson Heights, New Amsterdam and Queens College Chamber Orchestras with conductors such as Tong Chen and Charles Neidich. Markus has performed at Wiener Saal, Salzburg, Klavier-Festival Ruhr, Carnegie Hall, Music Academy of the West and the Banff Centre for Arts and Creativity.

Cindy Kao is a Taiwanese performance artist, (Ketagalan and Siraya Nations) based in Vancouver (Squamish, Musqueam and Tsleil-Waututh Nations). She received a BFA in Theatre Performance at Simon Fraser University, and is also a classically trained violinist. Prior to her degree, her works include performing in the International Youth Symphony Orchestra, Tafelmusik Baroque Institute at the University of Toronto, Banff International String Quartet Competition Young Musicians Program, as well as various awards with Performing Arts BC. During her time studying theatre, Cindy was re-acquainted with music, performing as an actor while sound designing for the Blackbox series. Since then, much of her work with SFU has allowed her to explore her background as a musician and execute her training as an actor. Most recently, she starred in the 2021 award winning short film "A Family Act", and performed in Modulus Festival 2021, as part of violin/electronic duo Sapphire Haze with duo partner, Aysha Dulong. Sapphire Haze will also be a featured artist for the upcoming event with Music on Main's Emerging Artist programme in 2022.

Konstantinos Karathanasis as an electroacoustic composer draws inspiration from modern poetry, artistic cinema, abstract painting, mysticism, Greek mythology, and the writings of Carl Jung and Joseph Campbell. His compositions have been performed at numerous festivals and received awards in international competitions, including Musica Nova, SIME, SEAMUS/ASCAP, Música Viva and Bourges. Recordings of his music are released by SEAMUS, ICMA, Musica Nova, Innova, Equilibrium and HELMCA. Konstantinos holds a Ph.D. in Music

Composition from the University at Buffalo. A Stavros Niarchos Foundation Fellow for Spring 2020, he is Professor of Composition & Music Technology at the University of Oklahoma. More info at: <http://karathanasis.org>

Sarah Keirle is an electroacoustic composer and Ph.D. researcher based in Manchester, UK. She graduated from the University of Manchester in 2017 with a first class MusB (hons) in Music and the P.J. Leonard First Prize for Electroacoustic Composition, and completed an Advanced Diploma in Sound for Film, Games and TV at SSR in 2018. In 2019, she completed a Masters in Electroacoustic Composition and Interactive Media, with Distinction. In September 2020, Sarah started an AHRC NWCDTP funded PhD in electroacoustic composition at the University of Manchester. Her research focuses on the use of animal sounds within electroacoustic composition to create new sonic means for conservation awareness, public engagement, and nature connection. She has worked in collaboration with conservation facilities to create extensive sound libraries of their animals for archival and public engagement purposes; these sound libraries are then used to compose electroacoustic works.

Zhang Kewanchen is a postgraduate student in the Electronic Music Department of Sichuan Conservatory of Music. She studied electronic music composition from associate professor Lu Minjie. She has participated in many workshops and performed works. The work "Memory of Two Cities" was selected for the WOCMAT electronic concert and won the Winsor Award of the 16th International Youth Computer Music Competition. It was selected for the 2021 Earth Day Art Model Festival and performed on the global live webcast. The work "Siren" won the second prize of the provincial competition in the 9th Future Designer NCDA Competition in 2021. The main works are: "Memory of Two Cities", "Siren", "Gem".

Varun Kishore is a composer from Kolkata, India. His work explores interdisciplinary approaches to music technology, literature, and the audiovisual, with a focus on designing frameworks for composition and improvisation to investigate what he sees as the 'apocalyptic' nature of creative practice. His current areas of interest include drone music, digital instrument and interface design, alternative notation, and video. Varun is a graduate of the University of West London (BMus Popular Music Performance, 2012) and Goldsmiths, University Of London (MMus Creative Practice, 2019). He is currently a PhD candidate in the Composition and Computer Technologies program at the University of Virginia.

Tomoe Kojima is a composer of electronic music. She is studying composition and electronic music with Jonathan F. Lee in Media design department in Tamagawa University in Japan. She also creates interactive works between music and visuals using Max,

Touch Designer, Processing, and other programming languages.

Kimia Koochakzadeh-Yazdi (b. 1997 Tehran, Iran) is a California-based composer and performer. She writes for hybrid instrumental and electronic ensembles and performs electroacoustic music. Kimia explores the unfamiliar familiar while constantly being driven by the mechanism of the human psyche and exploring ways to manipulate it. Being a cross-disciplinary artist, she has actively collaborated on projects evolving around dance, film, and theatre. Kimia has been presented by organizations such as Iranian Female Composer Association, Music on Main, Western Front, Vancouver New Music, and Media Arts Committee. She has had publicity in papers such as The New York Times, Georgia Straight, MusicWorks Magazine, Vancouver Sun, and Sequenza 21. She has recently graduated from Simon Fraser University's interdisciplinary School for the Contemporary Arts with a Bachelors of Fine Arts in Music Composition and having studied with Sabrina Schroeder and Mauricio Pauly. Kimia is currently pursuing a DMA degree in music composition at Stanford University.

Gintas K (Gintas Kraptavičius) a Lithuanian sound artist, composer living and working in Lithuania. Gintas has been a part of Lithuanian experimental music scene since 1994. Gintas is working in the field of digital experimental and electroacoustic music, making music for films, sound installations. His compositions are based on granular synthesis, live electronic, hard digital computer music, small melodies. Collaborations with sound artists @c, Paulo Raposo, Kouhei Matsunaga, David Ellis and many others. He has released numerous records on labels such as Cronica, Baskaru, Con-v, Copy for Your Records, Bolt, Creative Sources, Sub Rosa and others. Since 2011 member of Lithuanian Composers Union. Winner of the II International Sound-Art Contest Broadcasting Art 2010, Spain. Winner of The University of South Florida USF New Music Consortium 2019 International Call for Scores in electronic composition category.

Nikki Krumwiede is a composer and pianist currently residing in Moore, Oklahoma. She earned an MM in composition in Spring 2019, and is currently working toward a DMA from the University of Oklahoma where she serves as a graduate assistant to the composition area. She writes a variety of music, from contemporary classical to experimental, electronic, and improvisational. Nikki's goal is to create music that is engaging for performers and allows for flexibility and interpretation. Much of her music draws upon her experience as an improv performer and asks musicians to create along with her, whether through improvisation, selection of unspecified pitch, or a flexible rhythmic structure. She consciously attempts to incorporate various musical techniques and genres (such as electronic music and improv), as well as her background in writing and literature, into her compositional process in a way that is

engaging to a diverse audience.

The music of American composer **Mikel Kuehn** (b. 1967) has been described as having "sensuous phrases... producing an effect of high abstraction turning into decadence," by New York Times critic Paul Griffiths. A 2014 Guggenheim Fellow, he has received awards, grants, and residencies from ASCAP, BMI, the Banff Centre, the Barlow Endowment, the Chicago Symphony Orchestra, Composers, Inc. (Lee Ettelson Award), the Copland House (Copland Award), Eastman, the Flute New Music Consortium, the Fromm Foundation at Harvard, the League of Composers/ISCM, the MacDowell Colony, the Ohio Arts Council, and Yaddo. Kuehn is Professor of Creative Arts Excellence at Bowling Green State University and received degrees from the Eastman School of Music and the University of North Texas. In 2016, New Focus Recordings released *Objet/Shadow*, a portrait album of Kuehn's music; a second portrait album will be available from New Focus in 2022. www.mikelkuehn.com

A passionate musical storyteller, composer-performer **Oliver Kwapis** (b. 1997) has written orchestral, chamber, vocal and electronic pieces which have been performed and recorded by a diverse range of ensembles and artists. Recently, his master's thesis, *Dreams of Flight*, was selected as a winner of the IU Jacobs School of Music's New Voices for Orchestra Competition, his solo piano work, *Approach to Zion*, was selected as a finalist for the 2021 ASCAP Foundation Morton Gould Young Composer Awards, and his string sextet, *My Mad Dances*, was named as a finalist for Delirium Musicum's 2019 Call for Scores and received an Honorable Mention from the Boston New Music Initiative's Fifth Annual Young Composers Competition. He holds a B.Mus. in Composition from the Oberlin Conservatory of Music and an M.Mus. in Composition with a Minor in Electronic Music from Indiana University's Jacobs School of Music. He is currently pursuing a D.M.A. in the Performance of Data-driven Instruments at the University of Oregon's School of Music and Dance under the tutelage of Jeffrey Stolet where he is also a Graduate Employee in the Department of Intermedia Music Technology.

Richard Lainhart (1953-2011) was an award-winning composer, filmmaker, and author - a digital artisan who worked with sonic, visual, and textual data. He studied composition and electronic music techniques with Joel Chadabe, remaining a life-long friend and associate. Besides performing his own work, Richard worked and performed with John Cage, David Tudor, Steve Reich, Phill Niblock, David Berhman, Rhys Chatham, and Jordan Rudess, among others. His animations and short films have been shown at festivals in North and South America, Europe, Asia, and at his website.

Peter Van Zandt Lane is an American composer of instrumental and electroacoustic concert music. A

recipient of the 2018 Charles Ives Fellowship from the American Academy of Arts and Letters, Peter has received fellowships from Copland House, Composers Now, Yaddo, and MacDowell Colony. Recent works include *Radix Tyrannis*, a concerto for Joseph Alessi commissioned by American Chamber Winds, Piano Quartet: *The Longitude Problem* commissioned by the Atlanta Chamber Players, and Chamber Symphony commissioned by the Barlow Endowment for EQ Ensemble (Boston). His electroacoustic ballet, *HackPolitik*, was a New York Times Critic's Pick, was praised for "exploring anarchy and activism in a refreshingly relevant way" (New York Times) and is available on Innova Recordings. Peter holds degrees from Brandeis University and the University of Miami, and is currently Associate Professor of Composition and Director of the Roger and Phyllis Dancz Center for New Music at the University of Georgia.

Malte Leander: Trajectories is an emerging collective of electroacoustic composers from Montreal, Quebec which focuses on generating an ever-expanding catalogue of multi-disciplinary projects exploring diverse and relevant subject matter. Reflecting and commenting on contemporary issues and events, each individual creator's perspective interactively shapes the collective's direction, and vice-versa. The core material the group works with initially sprung from various online discussions during the early phases of COVID-19. Wanting to continue the exchanges and compositionally pursue some of the ideas being generated, the collective naturally formed in the late spring of 2020.

Mei-ling Lee is a Taiwanese-born musician, composer and performer working in cross-cultural forms of western and traditional Chinese music using electronic instruments and processes. Mei-ling is currently adjunct faculty of Music Technology at Lane Community College and adjunct faculty of Music at Oregon State University while completing her D.M.A. in Performance of Data-Driven Instruments at University of Oregon. Her work has been presented and performed internationally and throughout the United States.

Yuha Lee, cellist, made her orchestral debut playing the Elgar Concerto with the Daejeon Philharmonic Orchestra and since then has performed with several other orchestras in Korea. Throughout high school and university, she studied with Jung Eun-Choi, Suk-Jeong Lee, Kyung-ok Park, and Cheol-Huh. Her chamber coaches have included Chan Joo Whee, principal violist of the Seoul Baroque Orchestra, and Ga Jin Lim, concertmaster of the Seoul Philharmonic Orchestra. She graduated from the Hanyang University where she received her Bachelor of Music in Cello Performance in South Korea. After she earned her bachelor's, she was part of a member of a philharmonic orchestra in Korea. Also, she was part of her string quartet and won several awards. She graduated from Mannes School of Music where she received her Master's Degree under Barbara

Mallow, vice president of the New York Violoncello Society.

Dr. Filipe Leitão is an award-winning Brazilian-born composer, music producer, sound designer with 10+ years of music creation experience. He is Assistant Professor at Virginia Commonwealth University, teaching and developing a new interdisciplinary curriculum in Composition and Sound Design for Cinema, Games, and Motion Media. He earned the Doctor of Musical Arts degree at The University of Alabama, a Master of Fine Arts degree in Music Production and Sound Design for Visual Media at the Academy of Art University (San Francisco, CA), and a Bachelor in Art Education at the University of The State of Pará, in Belém, Brazil. Dr. Leitão has collaborated with many artists, creating original compositions and sound design for films and video games, as well as he has written electronic works, and concert pieces for varied ensembles. Interdisciplinary projects have always been an area of constant interest and research for him. His works reflect his unique voice originated from a mix of classical music, popular music, Brazilian music, and film music, and have been recognized at both national and international levels, and obtained prizes and performances. WorldFest Houston. www.filipeleitao.com

Composer **Eric Lemmon's** artistic practice and academic research is preoccupied with the politics that circumscribe and are woven into our musical technologies and institutions. His music has been reviewed by the New York Times and featured on WQXR's Q2 and has been performed in venues ranging from underground bars (le) Poisson Rouge and SubCulture to the DiMenna Center for Classical Music and FIGMENT arts festival on Governor's Island. Eric's work has been recognized locally and internationally with grants and residencies like MetLife's Creative Connections Grant, UMEZ and LMCC Arts Engagement Grants, multiple Puffin Foundation Grants, a Tofte Lake Center Emerging Artist Residency, a Can Serrat International Artist Residency, a Westben Performer-Composer Residency, New Music for Strings, and ConEd's Exploring the Metropolis Residency. Further, he has been awarded a Mancini Fellowship, a long-term fellowship from the German Academic Exchange Service (DAAD), Stony Brook University's Presidential Dissertation Completion Fellowship, and a Fulbright Award for his artistic research and profile as a performer. He is currently a Ph.D. candidate in Music Composition at Stony Brook University.

Steven Lewis is a drummer, music technologist, and multimedia artist. He is currently a PhD student in Integrated Composition, Improvisation, and Technology, at the University of California, Irvine. His creative work spans a diverse spectrum of interests, ranging from jazz performance and real-time sound processing, to designing computed-mediated, interactive systems for multimodal art installations. His scholarly work and

research has been presented at NYCEMF, SEAMUS, ICMC, and Game Sound Con. His music, visual art, and research can be found at www.smlewisportfolio.com.

Shuoyi Li is an undergraduate student majored in Electronic Music at Electronic Music Department of Sichuan Conservatory of Music (SCCM) in China. Her composition focus on acousmatic music and multimedia electronic music. Her works were shortlisted for the 2020 New York City Electronic Music Festival and the 2020 ICMC, won the second and third prizes given by the 2020 and 2019 China University Student Computer Design Contest, won the WOCMAT 2020 Phil Winsor International Youth Computer Music Competition Award and were included in the WOCMAT 2020 agenda. Her major works include Gene Code, Ecllosion, Sun Era, Ice Dance.

Award winning composer **Tao Li** was born and raised in Beijing, China and currently based in Eugene, Oregon working on her second Doctoral degree in Intermedia Music Technology at the University of Oregon. The philosophy, literature, and spirituality of the ancient East play a formative role in the aesthetic of Tao's work. Her music consists of vivid soundscapes, colorful timbres, and interdisciplinary elements that often lead her audiences on a multi-dimensional journey full of imagination. As an Asian female musician, Tao is devoted to promoting gender equity and cultural diversity through her music as well as through collaboration with other artists. Tao's music has been performed at concerts and music festivals throughout the world including China, Japan, Korea, Australia, Ireland, Ukraine, and the U.S.A. Her primary interests include acoustic and electroacoustic composition, performance practices, and analysis of compositional techniques, aesthetics, and intercultural dialogues. For more information, please go to www.taolimusic.com.

Born in Guangdong, China, **Zouning Liao** is a composer who is pursuing a Master's degree with double majors in electronic music composition and music theory at Indiana University's Jacobs School of Music. She has studied with Aaron Travers, David Dzubay, Chi Wang, Don Freund, Claude Baker and P.Q. Phan. Currently she is studying with John Gibson. 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. Recently, her electronic music work *Water, Bowls and Rocks* has been selected as one of the finalists for ASCAP/ SEAMUS Student Composer Commission Competition. 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.

John Liberatore is a composer, pianist, and one of the world's few glass harmonica players. Described by critics

as "enchanting" and "truly magical" (Boston and New York Classical Review, respectively), his music seeks poignancy through levity, ambiguity through transparency, and complexity within simple textures—"to feel pulled along at varying speeds in multiple directions, but always forward." (clevelandclassical.com) Over the past several years, his music has received hundreds of performances in venues around the world. He is the recipient of an NEA Fellowship from the MacDowell Colony, and other fellowships from Tanglewood, Yaddo, the Brush Creek Arts Foundation, the I-Park Artist's Enclave, and the Millay Colony. Other notable distinctions include commissions from the Fromm Music Foundation and the American Opera Initiative, two ASCAP Morton Gould Awards, and the Brian Israel Prize. Through a 2012 Presser Music Award, he studied in Tokyo with Jo Kondo—a mentorship that made an indelible impression on his music. Recordings of his works are available on Ravello, Innova, Centaur, and Albany record labels. He holds degrees from the Eastman School of Music (PhD, MM) and Syracuse University (BM, summa cum laude) and teaches at the University of Notre Dame.

Shinya Lin is a contemporary music performer-composer and pianist based in New York. He performs an array of music, including European classical music, contemporary classical, jazz, improvised music, and electronic music. As a pianist/prepared pianist, he draws on strong influences from John Cage and Cecil Taylor, to accept whatever it comes, there is only enjoyment, exploring soundscapes triggered by life and nature. He collaborated with legendary drummer Francisco Mela with the album "Motions" on 577 Records of improvised music.

Shuyu Lin is a doctoral student and an associate instructor in the composition department at Indiana University, Jacobs school of music. She earned a B.M. in Composition from the Shanghai Conservatory of Music in 2018, studying with Daqun Jia and Deqing Wen. She later earned an M.M. in Composition from the Indiana University, Jacobs school of music. Her teachers there included David Dzubay, Aaron Travers, and Eugene O'Brien. Shuyu Lin works both in electronic music and acoustic composition. Her electronic music has been played in the festivals such as NYCEMF, WOCMAT, and MUSICACOUSTICA-BEIJING, etc; her acoustic music has been featured in venues and festivals, such as in China, the United States, Europe and has been performed by groups, such as Shanghai Kun Opera, Shanghai Philharmonic Orchestra, Ukraine Philharmonic Orchestra, Moscow Contemporary Music Ensemble, and IU New Music Ensemble, etc.

Kwan Leung Ling is a composer and performer born and raised in Hong Kong. His instrument is suona, a traditional Chinese double reed instrument. His musical style is influenced by his national identity and upbringing. Hong Kong is a city bursting with international life and

color. His music concerns itself with finding varying fusions between multicultural music styles and searching for the connection between sounds. Ling has collaborated with the SPLICE Ensemble, Hong Kong Chinese Orchestra, Trio Mythos, Duo Entre-Nous and UMKC Graduate Fellowship String Quartet. Moreover, Ling has been collaborating with artists from outside the field of music. These collaborations include documentary film with Filipino/Singaporean filmmaker – Brian Yulo Ng, the collaboration – 24 has been nominated and screened in 17 film festivals. He had participated in the Highscore festival where he attended master classes held by Helmut Lachenmann, Christopher Theofanidis, Toivo Tulev, Dmitri Tymoczko, Amy Beth Kirsten, and Sarah Kirkland Snider. Ling holds a BFA in composition from California Institute of the Arts and a MM in composition from the University of Missouri-Kansas City. Ling is currently completing his DMA in Composition at the University of Missouri-Kansas City Conservatory.

Cort Lippe studied composition and computer music with Larry Austin in the USA. From 1980-83 he studied and did research at the Institute for Sonology, The Netherlands, with G.M. Koenig and Paul Berg. From 1983-1994 he lived in France where he worked for three years at Xenakis' studio CEMAMu, while following Xenakis' courses on acoustics and formalized music at the University of Paris. Subsequently, he worked for nine years at IRCAM, where he gave courses on new technology in composition, developed real-time computer music applications, and was part of the original development team for the software Max. His research includes more than 35 peer-reviewed publications on interactive music, granular sampling, score following, spectral processing, FFT-based spatial distribution/delay, acoustic instrument parameter mapping, and instrument design. In 2009 he was a recipient of a Fulbright Award, and spent six months teaching and doing research at the National and Kapodistiran University of Athens, Greece. From 1994-2019 he taught composition in the Department of Music of the University at Buffalo and directed the Hiller Computer Music Studios. Presently, he is Director of Graduate Studies and Associate Professor in the Department of Media Study, University at Buffalo. www.cortlippe.com

Chen Liu is an artist, developer, and entrepreneur studying Electronic Production and Design at Berklee College of Music. Her main studying areas involve composition, interactive media, artificial intelligence, blockchain, and music and audio production. She has been researching innovative ways of musical composition, developing algorithmic music based on biodata and brainwaves, and VR installations and instruments using Csound, Unity, and hand tracking technology. In addition, she develops automated audiovisual mapping programs using machine learning in Python. Her musical, design, and academic excellence awarded her Woman in Game Audio Award, Shengzheng Zhang Memorial Scholarship, and Winner of Csound Catalog Composition Contest at Berklee. In China, Chen founded her music technology

company Metafox and co-leads Changsha Ableton User Group. Her vision is to develop creative music and audio technologies that benefit multimedia and communication among diverse individuals, cultures, subjects, and society in the future.

Theodoros Lotis composes electroacoustic music, soundscapes, music for instruments and computers, music for dance and installations with a cross-platform and cross-media approach. He has completed a Ph.D. in Music at the City University, London, thanks to grants from the British Academy and the Foundation A.S. Onassis. Lotis has been teaching electroacoustic composition and analysis at Goldsmiths College University of London, the Technological and Educational Institute of Crete, the Aristotle University of Thessaloniki, Greece and Universities in Europe and America as invited composer. He is Associate Professor at the Ionian University, Corfu, Greece. He is founding member of the Hellenic Electroacoustic Music Composers Association and the Hellenic Society for Acoustic Ecology. His music has been released by Empreintes Digitales <https://www.theodoroslotis.com>.

Qiujiang Lu is a Baltimore-based composer, free-improviser, and sound artist whose works explore the spatiality of electroacoustic sound, audio-visual interactivity between performer and audience, and phenomenology of sound. He is currently commissioning a chamber work for The Unsymphony, an instrumental chamber group from Stony Brook University that focuses heavily on experimenting with spatial and phenomenological possibilities of sounds. He received Edith Salvo Award and Elizabeth Ball Kurtz Award for his outstanding works as an undergraduate student in music. His work, Glitchy Apple, premiered in NYCCEF (New York City Electroacoustic Music Festival) in summer 2021. Levi is currently pursuing a Master's degree in Computer Music from The Peabody Institute of Johns Hopkins University. He holds an undergraduate degree in music and two minors in Jazz Studies and Music Technology from SUNY Stony Brook University. He has studied composition with Sam Pluta, Margaret Schedel, Reiny Rolock, Edward Rosenberg III, and Joseph Bohigian; and voice performance with Ju Hyeon Han and Sidney Outlaw.

Lu Fu, graduate student of 2021, Department of Electronic Music, Sichuan Conservatory of Music in China.

Dr. Lu Minjie is associate professor, graduate adviser and director of electronic music composition group of Sichuan Conservatory of Music. She was visiting scholar of University of Oregon and reviewer of Chinese University Computer Design Competition, and Beijing-Electroacoustica composition competition. Her research is focused on electronic music composition and new media music. She has published 5 tutorials and translations about electronic music and 13 papers in

journals. In addition, she has been in charge of projects sponsored by the Ministry of Education Humanities and Social Sciences Youth Fund and China National Art Fund. Her works or papers have won prizes or been selected to be presented in international activities, including Pauline Oliveros, ICMC, SMC, EWM, IRCAM Forum, MUSIC ACOUSTICA-BEIJING, Kyma International Sound Symposium, ICMC, WOCMAT, FMO, CHIME, etc. She has instructed students' works and papers to win awards in domestic and foreign competitions and music festivals.

Michael Lukaszuk is a composer and computer musician from Kingston, Ontario. Much of his output as an artist and scholar is focused on generative approaches and the use of creative coding to facilitate new approaches for composition, improvisation and performance. His use of electronics is often focused on creating a dialogue between objects from various genres within electronic music and earlier musical practices. His music and research have been presented at multiple International Computer Music Conferences, the Toronto International Electroacoustic Symposium, and can be found in publications such as *Emille*, the journal of the Korean Electroacoustic Music Society. He won 1st Prize in the Hugh Le Caine – electroacoustic music category of the 2015 SOCAN Foundation Awards. He holds a DMA in Composition from the University of Cincinnati, College-Conservatory of Music and is a PhD Candidate in Cultural Studies at Queen's University, where he also teaches electroacoustic music and music technology courses. Michael directed the Cincinnati Integrated Composers Laptop Orchestra Project (CiCLOP) from 2015-2017.

Eric Lyon is a composer whose work focuses on articulated noise, chaos music, oracular sound processing, and spatial orchestration for high-density loudspeaker arrays. 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 has composed for such artists as The Biomuse Trio, The Crash Ensemble, Stuart Gerber, Marianne Gythfeldt, Esther Lamneck, Margaret Lancaster, Ensemble mise-en, The Noise Quartet, Sarah Plum, String Noise, Kathleen Supové, Seth Parker Woods, and the International Contemporary Ensemble. Lyon has taught at Keio University, IAMAS, Dartmouth College, Manchester University, and Queen's University Belfast. Currently, he teaches in the School of Performing Arts at Virginia Tech, and is a Faculty Fellow at the Institute for Creativity, Arts, and Technology.

Rob Mackay is an award-winning composer, sound artist and performer. Recent projects have moved towards a cross-disciplinary approach, including geology, soundscape ecology, theatre, audiovisual installation work, and human-computer interaction. His work has been performed in 18 countries (including several performances on BBC Radio 3, BBC Radio 1 and Radio France), and a number of his pieces have received

international awards (Bourges (1997 and 2001), EAR (1999), La Muse en Circuit (2007)). He has held composer residencies at Slovak Radio (Bratislava), La Muse en Circuit (Paris), the Tyrone Guthrie Arts Centre (Ireland), Habitación del Ruido (Mexico City), and CMMAS (Morelia). Rob is currently a Senior Lecturer in Composition at Newcastle University. Previously, he was a Reader in Music at the University of Hull where he directed HEARO (Hull Electroacoustic Resonance Orchestra). He is also the Chair of UKISC (UK and Ireland Soundscape Community), an affiliate of the WFAE (World Forum for Acoustic Ecology).

John Mallia lives and works in the Boston area and is a member of the Composition Faculty at the New England Conservatory of Music where he also directs the Electronic Music Studio. Additionally, he is a member of the faculty at the Vermont College of Fine Arts, as part of their low-residency M.F.A. program in Composition. His compositional process is informed by spatial constructs and concepts, and a fascination with presence, ritual, and the thresholds standing between states of existence or awareness. He was a Visiting Assistant Professor at the Center for Experimental Music and Intermedia (CEMI) at the University of North Texas (2004-5) and was composer-in-residence at the Institut de Musique Electroacoustique (Bourges, France; 1993, 2002).

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. 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. As 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. <http://atmarasco.com>

Brett Masteller uses titles such as sonic artist, composer, performer, audio engineer, producer, sound designer, programmer, hacker, builder, and appropriator. He attended SUNY at Buffalo and Northwestern University and has studied composition and computer music with Cort Lippe, Chris Mercer, and Richard Dudas. His music has been performed in North America, Europe, and Australia.

Andrew May is a composer, violinist, computer musician and improviser, primarily known for innovative and subtle chamber music (both purely acoustic and with interactive software systems). Their works have been performed in 32 of the 50 United States and in 15 other countries. May teaches composition at the University of North Texas, and was Director of UNT's Center for Experimental Music and Intermedia from 2005-2016 and 2019-20. May

has served as Assistant Director of the Sounds Modern concert series, which connects modern art audiences with contemporary music, since 2011. May's music can be heard on CDCM, SEAMUS, EMF Media, and Ravello Records (including a CD of their works for instruments and electronics, Imaginary Friends).

Dariusz Mazurowski is a Polish electroacoustic music composer, producer and performer born and currently residing in Gdansk. While the majority of his compositional activity has focused on electronic / acousmatic works, he has also composed instrumental music in conjunction with electronics, audio installations, radiophonic collages and improvised electroacoustic music. His works combine traditional analog instruments with the sonic potential of digital technology and computers, i.e., electronic / synthesized sounds with processed microphone recordings (concrete sounds) and samples. He has performed in Europe, North America, South America and Asia. Recent performances include : NYCEMF 2020 (online), CIME 2020 (online), digitZMir 6 (online edition), Audio Art 2020 (online), NYCEMF 2021 (online), ICMC 2021 (Santiago, Chile), Musiques Démesurées 2021 (Clermont-Ferrand, France) and others.

Robert McClure's music attempts to discover beauty in unconventional places using non-traditional means. His work has been featured at festivals including NYCEMF, Beijing Modern Music Festival, ISCM, TIES, SEAMUS, and ICMC. His works may be found through ADJ•ective New Music, Bachovich Music Publications, Resolute Music Publications, and Tapspace Publications as well as on ABLAZE, Albany, and New Focus Record labels. Robert received his doctorate from Rice University's Shepherd School of Music. Robert has previously held positions at the Shanghai Conservatory of Music and Soochow University in Suzhou, China. He serves as 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 both new and old. This recent work has allowed for complex, interactive performance environments to emerge, in which software generates compositional processes and actions in the form of analog signals sent to the hardware, and software that can analyze said signals from the hardware to determine musical behaviors. His music focuses on the boundaries of musical systems, both electronic and acoustic, that are on the verge of collapse. The power in the brittleness of these boundaries, often dictates more than the composer or performers can control, which is very welcomed. In addition to electronic music, Daniel is an active

percussionist, having premiered dozens of new works for the repertoire, including many with The William Winant Percussion Group. Active as an instrumental composer, he has written for solo, chamber, mixed media, and radio broadcast formats, and also served as an assistant transcriber and orchestrator for Roscoe Mitchell on pieces from his Conversations collection.

Mitchell McDermott is a musician, songwriter, record producer, composer, music technologist, and student of sound in all its forms. He is presently completing his final semester as a student of Electronic Production and Design at Berklee College of Music, where he has had the privilege of studying closely under the mentorship of computer music pioneer Dr. Richard Boulanger. As a music technologist, Mitchell's work is centered around the exploration of Malleable Music, which he defines as any music containing properties which allow it to change over time, either automatically (through intelligently enhanced generative processes) or manually (through hands-on interactions performed by a user). His lifelong career objectives are focused on researching and developing revolutionary platforms and interfaces to enhance the general music listening experience for the average listener. Specifically, he is working to define technologies for the music of the future that enable creators and fans to have a more fluid and ongoing, mutual relationship with their art and with one another.

Born in Chicago, **Timothy W. McDunn** grew up in the Midwest. In 2016, he moved to Milan, Italy, where he studied for three and a half years, earning a terminal degree in Composition from the Verdi Conservatory of Milan. While there, he also taught Latin at the Classical Studies High School Liceo Classico Giovanni Berchet. Classical languages, literature, and philosophy have a significant impact on his music and life. He is currently pursuing a DMA in composition at the University of Illinois in Urbana Champaign. In 2014, his aesthetic research transformed considerably. The new poetics that has emerged studies the fallibility of musical meaning, proposing a vague harmonic language. By contrast to the dodecaphonic precision of structuralism in the postwar period, which coincided with the Logical Atomism of Bertrand Russell, McDunn contextualizes his music in the post-atomistic period of Western thought. Pitches are irreducibly molecular: they are derived recursively as the harmonics of other pitches, ad infinitum, resulting in a vague musical language. The frailty of such a language reflects an inability to reduce the human condition into atomistic constituents.

Mengzhumei Yang recently graduated from University of Oregon with her Master's Degree at Intermedia Music Technology major. Her music is focusing on how to combine Chinese culture into the new technology-made music. She used her voice as the sound material, and generate the sound into her composition.

Chris Mercer received a B.M. in Composition at the

North Carolina School of the Arts in 1995 and a Ph.D. in Composition at the University of California, San Diego in 2003. His principal teachers were Chaya Czernowin and Chinury Ung, instrumental music, and Peter Otto and Roger Reynolds, electronic music. He has held artist residencies at Experimentalstudio SWR, Künstlerhaus Schloss Wiepersdorf, and Sound Traffic Control in San Francisco; his music has been performed by Ensemble Ascolta, Ensemble SurPlus, SONOR Ensemble, and Schlagquartett Köln. His most recent electroacoustic music and research have focused on animal communication, especially nonhuman primate vocalization, including research residencies at the Duke University Lemur Center, the Wisconsin National Primate Research Center, and the Brookfield Zoo. His instrumental music involves modified conventional instruments, found objects, and instruments of the composer's own design, in combination with amplification, live electronics, and spatialization. He has taught electronic music at UC San Diego, UC Irvine, and CalArts; he currently teaches music technology in the Composition and Technology program at Northwestern University.

Adam Mirza is Assistant Professor in Composition at Emory University in Atlanta. His research interests include experimental and electronic music, immersive music theater, critical approaches to music technology, avant-garde aesthetics, and DIY concert organizing. At Emory, Dr. Mirza teaches courses involving composition for acoustic instruments, field recording, acousmatic music, live electronic music using Max MSP, and music with video. His recent projects have drawn upon recorded sound, live electronics, and installation to create immersive spaces for experimental musical theater. An exponent of DIY and collective music-making, he has collaborated with young composers and musicians in the over 40 concerts he produced or co-produced through the new music organization Amp, a new music festival, and an NEA funded series "Pairings" at The Tank in NYC.

Mikako Mizuno is a composer and musicologist. Born in Japan, majored in aesthetics and graduated from Tokyo University (B.A.). After her formative years in Aichi Prefectural College of Arts and Music and getting her master degree for composition, Mizuno received doctor degree from Nagoya University (D.Eng.) in 2000 with the thesis concerning <space> in the contemporary music. She started to work at Nagoya City University in 1997, teaching sound design and music information theory. In 2016, she stayed in Paris as invited researcher of Université Sorbonne and researched the materials inherited from Pierre Schaeffer. Her music has been heard in a lot of locations including France(Bourges, Paris, Reims), Germany(Berlin, Köln), Austria(Salzburg, Linz, Vienna), Hungary(Budapest), Italy(Venice, Alba, Treviso, Udine), Republic of Moldova, ISEA, ISCM, EMS, Musicacoustica, ACMP, WOCCMAT, NIME, ICMC (2017,2018,2019,2021) and in several cities in Japan. More than twenty pieces of her computer music were premiered in JSEM concerts. Her pieces have been played by groups and performers such as Tokyo

Symphony Orchestra, Central Aichi Symphony Orchestra, Hiroaki Ooi, Satoko Tange, Naoyuki Manabe, Kazuya Ota.

Barry Moon is a composer, sound and video artist, and collaborator working towards greater levels of interaction between performers/audiences and computers. His work has been performed throughout the world and he currently teaches at ASU in the Interdisciplinary Arts and Performance program.

The innovative **Jeremy Muller** is active as a percussionist, composer, and educator. He has performed as a featured soloist at many venues throughout the United States, Canada, and Australia including Transplanted Roots (Australia), International Computer Music Conference (ICMC), The Banff Centre for the Arts (Canada), Abiquiú Chamber Music Festival, ZeroSpace (University of Virginia), Northern Illinois University, Balance-Unbalance International Conference, International Symposium on Latin American Music, the Musical Instrument Museum (the MIM), Society of Composers (SCI), and Percussive Arts Society International Convention (PASIC). He has given the world premieres of works by many composers including an evening-length tour de force vibraphone work by Stuart Saunders Smith. Some of his research & publications can be found through Bachovich Music Publications, Engine Room Publishing, and Percussive Notes. Jeremy previously held fellowships at Arizona State University and the Cincinnati College-Conservatory of Music. He received a Doctor of Musical Arts from Arizona State University, a Master of Music from the Cincinnati College-Conservatory of Music, and a Bachelor of Music degree from Appalachian State University.

Maria Mykolenko is a sound artist/composer as well as a violinist and teacher. Her electroacoustic works have been performed in the United States and Europe. Other interests included choral music and chamber music as well as orchestral music. Political and social themes are often present in her electroacoustic work.

Eduardo Nespoli is a Brazilian composer and sound artist. He is professor at Federal University of São Carlos. His works explore sonorities obtained from different types of materials, electronic circuits and digital processing, with which he composes fixed and improvised electroacoustic and audiovisual pieces. He has been presenting his works in many art festivals, highlighting International AI-MAAKO Festival internacional de música eletroacústica (2018), New York City Electroacoustic Music Festival (2018), Electronic Language Festival (2017/2011), International Festival of Experimental Music (2016), ENCUN (2015/2014), Sonorities Festival of Contemporary Music (2012), among others.

David Quang-Minh Nguyen is a composer of concert

music. Along with the concert music that he composes, he also enjoys doing sound design 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 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. He was also selected by Master Artist Robert Normandeau for a residency at the Atlantic Center for the Arts. 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.

Confronting the immediacy of life, the compositions of **John Nichols III** have been described by listeners as "cosmic," "seismic," and "tectonic." Before joining University of Tampa, Nichols worked as an audio engineer and versatile theatre professional in Chicago. In addition to serving as technical director for the theatre program at Trinity High School, he contributed to over 100 various theatrical, corporate, and music productions in a variety of roles such as sound designer, audio technician, carpenter, electrician and lighting technician, projection engineer, prop designer, technical director, crew, tour coordinator, promotional model, and worked as a background actor for popular TV shows such as Empire (Fox) and Shameless (Showtime). Nichols has appeared on WGN radio and WTTW to promote his projects and recently helped obtain a grant in collaboration with the Elgin Symphony Orchestra and DuPage Monarch Project to compose a work that focuses on monarch butterflies.

Rebecca Nie is the Buddhist Chaplain-Affiliate at Stanford. She is also a Stanford alum, Zen Master of the Korean Jogye Order, and an established Bay Area visual artist. California. As an heir of one of the oldest living mystic orders, she creates to artistically invite the audience into Zen encounters that are direct experiences of the transcendental. The inspiration for Z.M. Nie's art comes from her introspection, global adventures, and attainment in diverse disciplines.

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.

An open mind and extreme curiosity for what's happening in the world and the need to evolve and renew a personal aesthetic are the motivations for **Christina Viola Oorebeek's** work.

__Recording one-arm bandits in Las Vegas for "...and god invented dice",
__developing new instruments like the soundwheel, plexiphone, wind-twirler,
__making a sound painting of the of (Tesla) plasma lamps in slow motion, "Neon Study #1 for Modelo62, belong to the work of a composer with a lack of adherence to convention, but who at the same time, cherishes histories and traditions. Visual sources are important inspirations - modernism of the XXe, patterns from/of many cultures. With "Period Point Blank", she embarked on making video in her work, and has gone further with 'experimental imagery' for her Bowed Electrons 2021 Concert and Presentation. An American-Dutch composer who left the US in '69 after singing in the band Dan Hicks and his Hot Licks, she short a singer songwriter in London, and long a dance musician and 'rhythm for dance' teacher at the Hogeschool vd Kunsten Amsterdam. In this period, she studied piano with Willem Brons at the Conservatory of Amsterdam, when she truly 'heard' new music for the first time. At age 50, she embarked on a career in composition, studying with Klaas de Vries at CodArts Rotterdam, graduated with the Composition Prize and has been composing ever since. More masterclasses were done with, among others, Richard Rijnvos, Toshio Hosokawa. Her work has been performed in festivals/ concerts in the Netherlands, France, Germany, Italy, Norway, Finland, China, Japan, Taiwan, South Africa, the USA and Canada.

Douglas Osmun is a composer of acoustic and electronic music concerned with the phenomenological elements of performative physicality, treating the physical-gesture/sound relationship as a structural element. The dichotomy of the physical and the sounding in his works are malleable, transfigurative, and abstractable; as the composed rubble from which new systems can emerge in a collaborative environment. His goal is to create performance ecosystems which invoke an artistic practice of community, solidarity, and pluralistic virtuosities. Osmun's music has been heard at the BGSU Graduate Conference in Music, the SEAMUS National Conference, the SCI National Conference, NYCEMF, and the Big Sky Documentary Film Festival. He has recently written works for Alarm Will Sound, the St. Louis Symphony Orchestra, and SPLICE Ensemble, in addition to a performance of soliloquy with Timepoint Ensemble and Verdant Vibes. Osmun is currently pursuing his Ph.D. in Composition under the guidance of Marcos Balter at UC San Diego. Osmun holds degrees from Western Michigan University (B.M. in Music Composition) where he was named a Beulah and Harold

McKee Scholar, and the University of Missouri (M.M. in Composition). Former private teachers of his include Lisa Renée Coons, Christopher Biggs, Stefan Freund, and Carolina Heredia.

Jason Palamara is an Assistant Professor of Music Technology at Indiana University-Purdue University Indianapolis (IUPUI). He specializes in the development of machine learning-enabled performance technologies for music. He is the founder and director of IUPUI's DISEnsemble (Destructive/Inventive Systems Ensemble) and leads the Machine Musician Lab, a research group focusing on making machine learning tools for performing musicians. With his creative partner percussionist-composer Scott Deal, he designs AVATAR, an autonomous music system that uses machine learning to play along with live improvisation.

Flutist **Yeji Park** graduated from the Hanyang University where she received her Bachelor of Music in Flute Performance in South Korea and graduated Mannes School of Music where she received her Master's Degree under Judith Mendenhall, principal flutist of the American Ballet Theater Orchestra. Yeji Park participated in The Seoul Arts Center Orchestra Festival as well as received the first prize of American Protege International Woodwinds & Bass Competition 2020 and American Protege International Music Talent Competition Fall 2020, the first prize of the 8th Annual Music Competition of Korea Mozart, the first prize of The Music Education News the 43rd Competition, and second prize of The Seoul National Symphonic Orchestra Competition. In addition, she participated in the Music Education News Winner Concert in Seoul. She had many concerts at Carnegie Hall for the winner concert and Mannes Sounds festivals.

Marcela Pavia is a composer of Chamber and orchestral music, electronic and multimedia works. Musical Theatre for Kids and music for didactics, theoretical essays as well. Master in Composition at the University Nacional of Rosario (Argentina) and Master in Electronic Music at the Conservatorio "G.Verdi", Milan. Master in Sound Technologies and Music Composition at the Conservatory and University of Parma. Festivals: 2020 Science in the City Festival, Trieste 2020; 2020 SIID Sound Image and Interaction design Symposium 2020, Evimus Elektro-akustiche un visuelle Musik Festival (Germany), Labirinti Sonori at the Casa del Suono and Casa della Musica (Parma), Angelica Festival, Ars Elettronica Forum Wallis (Svizzera), CIM (Colloquio Informatica Musicale, Cagliari), EMU Fest (Roma), North and South Consonance (New York), New Music on the Bayou (Louisiana), 2014 Semaine della Musique Electroacustique a Lille (France), 2014 (Wroclaw) and 2013 World New Music Days (Kosice-Bratislava-Vienna), , 2013 International Computer Music Conference (Perth), 10° New York Guitar Seminar at Mannes (New York); 2010 Festival Gare Du Nord (Basel)

As composer of both acoustic and electroacoustic music,

Mark Petering's compositions celebrate the natural world as well as the intersection of Eastern and Western cultures as reflected in his multicultural family. He is the winner of the Swan Composer Prize for wind ensemble and winner of the Music Festival of the Hamptons Composition Competition for orchestra. The premiere of his Hamptons' work Train & Tower after Sibelius for Orchestra, Tape and Live Train made music history as Lukas Foss, the composer, and the Atlantic Chamber Orchestra coordinated the performance with a moving Long Island Rail Road locomotive controlled by the composer. The event was covered by the BBC, NPR, and The New York Times. The work was named a Top 10 All-Time musical composition in the October 2008 edition of Gramophone Magazine for orchestral works evoking railways (with Petering at #8 and Berlioz at #9). Additionally, his Concerto for Clarinet and Strings ("Three Psalms") was awarded an honorable mention in the American Prize Competition and his Lament for Tuba and Orchestra for Baltimore Symphony Orchestra Tubist Aubrey Foard was premiered by the Charlotte Symphony led by Christopher Warren-Green, conductor for British Royal Family events.

Ohio University Distinguished Professor Emeritus **Mark Phillips** won the 1988 Barlow International Competition for Orchestral Music, leading to collaborations with conductor Leonard Slatkin. Following a national competition, Pi Kappa Lambda commissioned him to compose a work for their 2006 national conference in San Antonio. His music has received hundreds of performances throughout the world—including dozens of orchestra performances by groups such as the St. Louis Symphony Orchestra and the Cleveland Orchestra — and has been recorded by Richard Stoltzman and the Warsaw Philharmonic Orchestra, the Lark Quartet, and several solo artists. Post-retirement, especially during the pandemic, he has discovered playing EWI to be a satisfying pastime.

Sarah Plum began her performing career by winning the gold medal at the International Stulberg Competition in 1983. Since then she has carved out a distinctive role as a serious interpreter of repertoire both old and new. Described by the third coast digest as "consistently stunning in works that demanded conventional virtuosity but also great skill in unconventional techniques, Plum has spent her career championing composers, commissioning new works and bringing their music to a wider audience. Plum recently relocated to the Chicago area to continue her work as an "activist performer" (- an earful.com) and has been busy performing with groups such as 5th House Ensemble and Fulcrum Point.

Matthew Polashek is a performer, composer, educator and audio-engineer living in Lexington, Kentucky. He is professor of saxophone and director of the jazz band at Transylvania University. His work focuses on the development of a fusion of modern jazz, avant-garde and contemporary art-music composition and performance

techniques. He holds an MFA in Music Composition from The Vermont College of Fine Arts, an MA in Teaching Music from the City University of New York, and a BA in Jazz Studies from the University of Wisconsin at Green Bay, where he studied saxophone with John Salerno. He performs with his own jazz-funk-fusion ensemble, Bigg Sugg and the Jazz Funkers and has performed and recorded with internationally renowned artists including Eric "Roscoe" Ambel, David Liebman and Bryan Lynch. While living in New York City he performed at various internationally renowned venues including Birdland, Lincoln Center, and The Bowery Ballroom. Matthew received the 2020 Lexington Music Award for Best Wind/Brass Performer and the 2021 Appalachian Art and Entertainment Award for Best Wind and Brass. Additionally, he owns and operates a live event production, recording and broadcast company, Angry Baby Productions.

Timothy Polashek produces works in a variety of media and styles, including vocal, instrumental, electro-acoustic, multimedia, text/sound, and interactive music, as well as poetry and sound installations. Passionate about synthesizing new sounds and exploring new musical ideas, he designs computer programs to build innovative digital instruments and synthesizers. His music can be heard on the compact disks "Wood and Wire," released by Albany Records, and Electric Music Collective albums "Incandescence" and "Defiant." His research projects in audio synthesis and text/sound music are published in the Journal of the Society of Electro-Acoustic Music in the United States and the Leonardo Music Journal, published by MIT Press. He is the author of "The Word Rhythm Dictionary: A Resource for Writers, Rappers, Poets, and Lyricists." Prior to earning the Doctor of Musical Arts in Composition degree from Columbia University, Polashek earned the M.A. in Electro-Acoustic Music from Dartmouth College, and a B.A. with Honors in Music from Grinnell College. He is the Music Technology Studies Coordinator, the Digital Arts & Media Program Director, and a Professor of Music at Transylvania University in Lexington, Kentucky. He is also Co-Director of the Transylvania University Digital Liberal Arts Initiative.

Stephen Travis Pope (1955) grew up just outside New York City, and studied at Cornell University, The Vienna Music Academy and the Mozarteum in Salzburg, receiving degrees and certificates in electrical engineering, recording engineering and music theory and composition. His music is available from Centaur Records, Perspectives of New Music, Touch Music, SBC Records and Absinthe Records. From 1995-2010 he taught and conducted research at the University of California Santa Barbara (in the Depts. of Music, Computer Science, and as founding faculty of the Graduate Program in Media Arts and Technology). He is currently active as a software development contractor and intellectual property expert through FASTLab. Stephen also has over 100 technical publications on music theory and composition, computer music, software engineering and artificial intelligence. He lives in Ojai, California with his wife Barbara Fields.

Composer **Gene Pritsker** has written over eight hundred compositions, including chamber operas, orchestral and chamber works, electro-acoustic music and songs for hip-hop and rock ensembles. His compositions employ an eclectic spectrum of styles that are influenced by his studies of various musical cultures. He is the founder and leader of Sound Liberation, an eclectic hip hop-chamber-jazz-rock-etc. ensemble. He also Co-Directs Composers Concordance. Gene's music is performed all over the world at internationally recognized festivals and by highly respected ensembles and performers. He co-founded the Grammy-nominated Absolute Ensemble with Kristjan Jarvi and has been a composer in residence and guitarist since its creation in 1993. Gene is also a guitarist/rapper/Di.J./ and producer he incorporates each of these musical attributes to create music that is "not designed for easy listening or to melt into the background. It is insistent. It demands attention and curiosity" (New York Newsday).

Violinist **Yeji Pyun** graduated from the Mannes School of Music where she received her Master's degree under Professor Miranda Cuckson and Bachelor of Music at Sook Myung Women's University in Seoul, South Korea. She worked for the Gwacheon Symphony Orchestra, which is one of the highest professional orchestras in South Korea, and played on various venues including the European Tour and Orchestra Festival in Seoul Art Center. She also appeared in numerous concert series, including the Lincoln Center, the Frick Collection for orchestra/ensemble, and also debuted as a soloist with the Duna chamber orchestra in Budapest. She collaborated with Jean-Baptiste Barrière for performing 'The Art of Change' and played as the concertmaster for Mannes Orchestra, MACE Ensemble, The sonic world of the string orchestra, The New School Community orchestra and principal violinist at The Centre Symphony orchestra. She is going to join the Manhattan School of Music for the Master's Degree in Contemporary violin(CPP) under Professor Curtis Macomber in Fall, 2022.

Ursel Quint was born in Bonn, Germany, 1958. Piano, Chamber Music and Composition studies in Cologne, Bloomington, Ind.(USA) and Zurich, as well as German language and literature in Bonn. Lives and works in Bonn as pianist, composer, media artist, and is teacher of piano at the municipal conservatory. After a period of performing as a solo classical pianist and in various chamber ensembles, accompanist for theatre, film and dance performances she began exploring the possibilities of new media and improvisation. She has participated in the improvisation series Sound Trips NRW and is a member of George Paul's Vagrancy Ensemble. In July 2009, she began a collaboration with Barry L. Roshto as the Media Art Duo SnowKrash. Since then, SnowKrash has created over 50 Audio-Visual works involving multi-channel fixed media, interactive installations, live music and performance. These have been presented in Germany, Greece, Slovenia, the UK

and NYC.

André Rangel holds a Ph.D. in Science and Technology of Art at UCP, Universidade Católica Portuguesa. Master in Digital Art at the same University, Communication Design Degree at ESAD, Escola Superior de Arte e Design. Art Director and Founder of 3kta project. Develops Art and Intermedia Design contemporary projects and events.

Leah Reid is a composer, sound artist, researcher, and educator, whose works range from opera, chamber, and vocal music, to acousmatic, electroacoustic works, and interactive sound installations. Winner of a 2022 Guggenheim Fellowship, Reid has also won the American Prize in Composition, first prize in the 8thKLANG! International Electroacoustic Composition Competition, Sound of the Year's Composed with Sound Award, the International Alliance for Women in Music's Pauline Oliveros Award, and second prizes in the Iannis Xenakis International Electronic Music Competition and the International Destellos Competition. She has received fellowships from the Guerilla Opera Company, the MacDowell Colony, the Virginia Center for the Creative Arts (VCCA), the Ucross Foundation, and the Hambidge Center. Her compositions have been presented at festivals, conferences, and major venues throughout the world, including Aveiro_Síntese (Portugal), BEAST FEaST (England), Espacios Sonoros (Argentina), EviMus (Germany), ICMC (USA, Chile & Ireland), IRCAM's ManiFeste (France), LA Philharmonic's Noon to Midnight (USA), MA/IN Festival (Italy), Série de Música de Câmara (Brazil), the Tilde New Music Festival (Australia), and WOCCMAT (Taiwan), among many others. Reid received her D.M.A. and M.A. from Stanford University and her B.Mus from McGill University. She is currently an Assistant Professor at the University of Virginia. Additional information may be found at www.leahreidmusic.com.

Clemens von Reusner (b. 1957) is a composer and sound artist based in Germany, whose work is focused on electroacoustic music. He studied musicology and music-education, drums with Abbey Rader and Peter Giger. At the end of the 1980s development of the music software KANDINSKY MUSIC PAINTER. He has been commissioned to compose works for radio and festivals and his compositions have received national and international awards and numerous international broadcasts and performances at festivals of contemporary music in Americas, Asia, Europe. Invitations to ISCM World New Music Days 2011, 2017, 2019. Clemens von Reusner is a member of the German Composers' Society and of the German Society For Electroacoustic Music. info@cvr-net.de.

Michael Rhoades' primary research and creative practice involves the nexus of pseudo 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. For this research he received an interdisciplinary PhD from Virginia Tech in December of 2020. He currently heads the HCI area in the Institute for Digital Intermedia Art (IDIA Lab) at Ball State University. 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 compositions and research have been presented in concert and symposia worldwide as well as used for pedagogical purposes. He is a published writer and also presents lectures and classes on the subjects of Csound, algorithmic composition, score-based sampling, sonification, spatialization, pseudo holography and holophony, high-performance computing, visual music, and creativity.

Claudia Robles-Angel is a new media and sound artist born in Bogotá-Colombia, currently living in Cologne-Germany and active worldwide. She has been artist-in-residence in several outstanding institutions, for example at ZKM Karlsruhe (DE), KHM Cologne (DE), at the ICST ZHdK Zurich (CH) and at the CMMAS Morelia (MX). Her work is constantly featured in not only media and sound-based festivals/conferences but also in group and solo exhibitions around the globe, for example, the ZKM Center in Karlsruhe; KIBLA Multimedia Centre in Maribor, Bauhaus Museum für Gestaltung Berlin, the International Computer Music Conferences ICMC in Copenhagen, Montréal and Utrecht; Festival Internacional de la Imagen in Manizales, ESPACIO Fundación Telefónica in Buenos Aires, DRHA2010 Sensual Technologies London, New York City Electroacoustic Music Festival NYCEMF; SIGGRAPH Asia in Yokohama; Re-New Festival Copenhagen; New Interfaces for Musical Expression NIME Oslo; ISEA Istanbul, Manizales and Durban, at 55th Venice Biennale Prohelvetia – Salon Suisse, Audio Art Festival Cracow, ISEA International Symposium on Electronic Art Istanbul, Manizales, Durban and Gwangju, at Harvestworks Digital Media Arts Center New York City, Museum of Contemporary Art Bogotá, MADATAC 07 Madrid, Digitale Duesseldorf, the Athens Digital Art Festival ADAF, Heroines of Sound Berlin, Experimental Intermedia New York City and more recently at CMMAS and Radio UNAM Mexico. www.claudearobles.de. She is also the Curator of Nomades concerts: <https://nomadesconcerts.wordpress.com>

Örjan Sandred is a Swedish/Canadian composer and is currently a Professor in Composition at the University of Manitoba in Canada where he founded Studio FLAT – a studio for Computer Music research and production. He studied composition at the Royal College of Music in Stockholm, McGill University (Montreal) and at IRCAM (Paris). Among his teachers are Sven-David Sandström, Pär Lindgren, Magnus Lindberg, Daniel Börtz, Bill Brunson and Bruce Mather. Sandred taught composition at the Royal College of Music in Stockholm 1998-2005.

In 2016 he was a DAAD visiting professor at Hochschule für Musik Detmold in Germany. Sandred regularly receives commissions from ensembles around the world. He has written music for performers such as (in Canada) the Quasar Saxophone Quartet, the Harrington/Loewen Duo, soprano Sarah Jo Kirsch, the Winnipeg Symphony Orchestra, (in Germany/France) the Camilla Hoitenga and Heloïse Dautry duo, Ensemble Ader, (in Sweden) organist Hans-Ola Ericsson, the Peärts Before Swine Experience, Das Orchestra and the Swedish Radio Orchestra. Sandred's music is available on the CDs "Sonic Trails" (2020) and "Cracks and Corrosion" (2009).

Leonardo Espejo Santis is a Catalan musician born in Chili. He obtains a degree in classical guitar performance in the year 1997 and arrives to Barcelona in year 2003. After sometime as classical guitar performer, he starts working with modular synthesizers in 2007. Thru contact with North American musician and his self-taught capacity, he dives completely into electroacoustic music and in the field of improvisation. In the year 2014 during an IRCAM's stage, held by Benjamin Thigpen, that he knows Music & Recherches, even that awakes his interest in acousmatic composition and that it will mark his professional path. Nowadays is studying acousmatic composition with composer Annette Vande Gorne.

Sapphire Haze is queer, POC, composer-performer duo residing on unceded land (Vancouver, Canada). With Cindy Kao on violin and Aysha Dulong on electronics, the duo utilizes sound-to-colour synaesthesia as a compositional tool. They work in a hybridized model, and aim to blur the distinction between acoustic and electronic sound. Sapphire Haze explores how sound can embody lived experiences and can be utilized to express oneself. As a duo, their work has been presented at SFU's School for the Contemporary Arts, Vines Art Festival and Modulus Festival. Currently, they are the featured artist for Music on Main's 2021/2022 Emerge on Main program.

Antonio Scarcia graduated in Electronic Engineering at University of Padua and holds a postgraduate diploma in Signal Processing from University of Bari and an academic diploma in Electronic Music cum laude from the Conservatory of Bari. He is interested in computer aided music and multimedia composition. His works for digital media have been included in music programs of several important events such as editions of NYCEMF (2021, 2019), ICMC (2014, 2013, 2012, 2010, 2007), North Carolina Computer Music Festival (2008), SMC (2012, 2010, 2009), Mantis Festival 2010, CIM (2018, 2016, 2014, 2012, 2010), EMuFest 2013, 2012, 2011, 2010), SICMF (2013), Csound Conference (2013) and Musica Nova Competition (honorary mentions in 2016 and 2013, first prize in 2011). He has held various teaching positions as an adjunct professor at the Genoa Conservatory of Music in the decade 2011-2021.

Timothy Schmidt, born and raised in the US state of Kansas, is a composer studying music composition at the

University of Oklahoma. An aspiring composer for media, Schmidt provided additional music for award-winning independent drama film Hawks Ridge and won first place in the Score the World 2 Film Scoring Contest. He is also a regular composer of concert music, receiving performances of chamber works at the University of Oklahoma and of larger pieces by ensembles such as the Baker University String Orchestra and the Chicago-based Metropolitan Youth Symphony Orchestra. Outside of writing music, Schmidt is an active leader in several student organizations, a lifelong pianist and developing organist, and a film and film score enthusiast.

Connor Scroggins is a student composer pursuing a Master of Music from Bowling Green State University. He received his Bachelor of Music from Arkansas State University in 2020. At Arkansas State's Create@State research symposium, he presented on musique concrète instrumentale and won awards for his presentations on spectralism and musical logic. His current research interests include phenomenology and acoustic ecology. His compositional interests involve reflecting the mutual coexistence of nature and technology as well as exploring visceral, vividly expressive timbres and textures. His works have been read and performed by The Rhythm Method String Quartet, Hypercube, Apply Triangle Trio, and the Parker String Quartet. He is currently writing works for the Unheard-of//Ensemble and The ___ Experiment. He will perform one of his works at the upcoming 2022 SEAMUS National Conference. In addition, he attended SPLICE 2021, and attended a performance of his work at NSEME 2020. He has participated in masterclasses from Clara Iannotta, Jason Eckardt, Augusta Read Thomas, Cort Lippe, Mari Kimura, Greg Wilder, Marina Kifferstein, and Stephanie Lamprea. He currently studies with Elaine Lillios, and he has previously studied with Timothy Crist, Mikel Kuehn, Christopher Dietz, Derek Jenkins, and Carrie Leigh Page.

Called a "cello innovator" by *Time Out NY*, **Madeleine Shapiro**, has long been a recognized figure in the field of contemporary music. She was the founding director of the internationally known ensemble The New Music Consort and presently directs ModernWorks. Madeleine performs extensively as a solo recitalist throughout the United States, Europe and Latin America. Madeleine's first solo CD, *Electricity: Works for Cello and Electronics* (Albany Records) was greeted as *Afocused and cohesive...a polystylistic collection of pieces that individually push the instrument and technology in unique ways@* (Time Out New York). ModernWorks CD, string quartets by Ge Gan-ru (Naxos) was chosen by The New York Times as one of the best CDs of 2009. Madeleine is a recipient of three Encore Awards from the American Composers Forum, and a Barlow Award, all to collaborate in the development of new works. As director of the New Music Consort, she won First Prize in Adventurous Programming awarded by ASCAP

Chamber Music America. She has been a three time Visiting Artist at the American Academy in Rome. Madeleine is also a dedicated teacher who teaches at the Mannes College of Music/the New School and in addition, gives masterclasses and workshops in new music techniques in colleges and universities both in the US and abroad. www.MadeleineShapiro.com

A distinctive voice in American music, **Judith Shatin** (www.judithshatin.com) is a composer whose music responds to the world around us – from the immediacy of her surroundings and experiences to largescale environmental and cultural dynamics. She draws on both traditional and expanded instrumental palettes and a cornucopia of the sounding world, from the calls of animals to the shuttle of a wooden loom, the pull of a zipper, the snap of packing tape. Her music ranges from traditional vocal and instrumental ensembles to her Quotidian Series, based on the sounds of daily life and performable by those without musical training. Shatin's music has been commissioned by organizations including the Barlow Endowment, Fromm Foundation, Carnegie Hall, Library of Congress, Virginia Commission for the Arts and ensembles such as the American Composers Orchestra, the National Symphony, the Dutch Hexagon Ensemble, Ensemble Berlin PianoPercussion and Kronos Quartet. Collaboration lies at the heart of her compositional process, as is evident in her folk oratorio, COAL (Appalachian band, chorus, keyboard and electronics, for which she also composed the libretto. The project was part of a two-year residency sponsored by the Lila Acheson - Readers Digest Arts Partners Program. Other examples include Ice Becomes Water, for string orchestra and electronics fashioned from recordings shared by glaciologist Oscar Glowacki. Shatin's music has been recorded on more than 30 albums, including those on Innova (two portrait discs), Centaur, Innova, Neuma, New World and Ravello. She is William R. Kenan, Jr. Professor Emerita at the University of Virginia, where she founded the Virginia Center for Computer Music.

Yehun Shin is Korean composer and media artist. He graduated University of Seoul, majoring in composition (B.Music) and currently at Hanyang university, majoring in composition of electro-acoustic(M.M). At NYCEMF, Korea Electro-Acoustic Music Society FEST-M, Seoul International Computer Music Festival, Daegu International Computer Music Festival, Korean Composers Association Music Festival, Seoul Music Week and more, he performed. He supported by the Seoul and Bucheon Cultural Foundation. He won 2nd prize at 21c Korean music project 2020. He won 3rd prize at Pentaport Music Festival Youth Star 2021.

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 experiences as a performing artist. A native of Dallas, Texas, he studied piano with Richard

Shuster before pursuing undergraduate studies at Brigham Young University in composition and organ, where he studied with Michael Hicks, Steve Ricks, Christian Asplund, Neil Thornock, Don Cook, and Doug Bush. His music has been presented at the International Computer Music Conference, the SEAMUS conference, the SPLICE Institute, 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, American Harp Society Summer Institute, and the Percussive Arts Society International Convention. His music can be heard on the SEAMUS miniatures recording series. 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.

Aida Shirazi is a composer of acoustic and electroacoustic music. Her music for solo instruments, voice, ensemble, orchestra, and electronics, mainly focuses on timbre for organizing structures that are often inspired by language and literature, as well as Iranian classical music. Shirazi's music has been featured at festivals such as ManiFeste, Wien Modern, Huddersfield Contemporary Music Festival, Mostly Mozart, MATA, and OutHear New Music Week. Miranda Cuckson, Lucy Fitz Gibbon and Carrie Henneman Shaw, Orchestre Philharmonique de Radio France, International Contemporary Ensemble and Ensemble Dal Niente are among the commissioners and performers of Shirazi's music. Shirazi holds a Ph.D. in composition at the University of California, Davis. Currently, she is a participant of IRCAM's Cursus Program on Composition and Computer Music.

Since 2010, the composer, concert pianist and sound artist **Eva Sidén** has been making music together with the sound artist and composer Jens Hedman as Sidén Hedman duo. In their works, they combine piano instruments with electronic sounds and recorded sounds as well as with lights, video and other elements in multimedia-concerts. They also make concerts with works from other composers, then with Eva as a soloist. An important part in the duos works is musical performances and installations that relate to social, philosophical, existential and political questions. The mix of visuals and sound recordings from special environments with recorded and processed sounds from the piano as well as sounds that occur in live performance creates enchanting contrasts and new harmonies. Sidén Hedman duos later works originate in a strive for a spiritual contact in the music and a silence in the listening, which the duo wants to give the audience an increased inner presence and communication with the music's deeper expression and meaning.

Mary Simoni is a composer, author, teacher, pianist, and arts administrator. Her music has been performed in Asia, Europe, and throughout the United States and recorded by Centaur Records, the Leonardo Music Journal published by the MIT Press, and the International Computer Music Association. She is the recipient of the Prize in Composition by the ArtNET Virtual Museum and named semi-finalist for the American Prize in the Chamber Music Professional Division. Her work as a pianist specializes in interactive electronics and her compositions include the design of performance systems that extend the sonic capabilities of traditional acoustic instruments. She is Professor Emerita at the University of Michigan-Ann Arbor and currently serves as Dean of the School of Humanities, Arts, and Social Sciences at Rensselaer Polytechnic Institute. A long-time friend and colleague of Joel, she is honored to participate in this concert dedicated to his contributions to the field of electronic music.

Johannes S. Sistermanns stages his compositions as electroacoustic, SoundPlastic exhibition, music theatre, urban environment, and radiophonic sound plays. He studied the "Tao of Voice" method with Stephen Cheng in New York and classical North Indian singing at the BHU Banares Hindu University. 1976 to 1984, he studied Piano, Rhythmik, and New Music Theatre with Mauricio Kagel at the Cologne Conservatory of Music. 1989 Doctorate in Musicology [PhD]. Since 1983 touring, living, teaching, performing, exhibiting, stipes and residencies in Paris, New York, Japan, China, Hong Kong, Europe and Australia. Performances, soundart exhibitions, teachings, and fellowships have taken him to Japan, China, Australia, and the USA. Sistermanns lectured at the International Summer Courses for New Music in Darmstadt (2004, 2006), and worked as the Artistic Director of Experimental Music Theatre in Hellerau/Dresden (2010/11). He has received numerous prizes and awards including the 2015 FOREVER NOW Competition [Aphids, Melbourne] GOLDEN RECORD with 65 sound and audiovisual artworks shot in and spin through outer space, GERMAN SOUNDART AWARD 2008, Prix PRESQUE RIEN/Luc Ferrari Paris 2015, 1. Prize LEIBNIZ HARMONIES 2016 Hanover, 12. German Music Author Award 2020.

Bowen Shi is a 2019 undergraduate of the Department of Electronic Music, Sichuan Conservatory of Music. He participated in the USC media and film and television research project of the University of Southern California, and won a special scholarship for exchanges. The work "All Sound: Fantasia in Green" won the second prize of the computer music creation professional group in the The 14th Chinese Collegiate Computing Competition in 2021.

Composer **Bokyung Shin** was born 1998 in South Korea. He is currently studying Music Composition and Electro-acoustic music at Chugye University for the Arts. He makes music with computer data, and pieces involving

from personal to social issues. His works were performed at Fest-M and will be uploaded at the Arts Council Korea website.

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. J. Andrew's works have been performed at SEAMUS conferences, the SPLICE Institute and Festival, Third Practice Electroacoustic Music Festival, New Music on the Point, and the Southeastern Composers' Symposium. He has participated in readings with Michael Lewanski, the Spectral Quartet, the Semiosis Quartet, and the Toledo Symphony Orchestra. J. Andrew was named a finalist of the 2021 ASCAP/SEAMUS Commissioning Competition. He is currently a Ph.D. student studying at the University of North Texas.

Laetitia Sonami is a sound artist, performer and researcher. Born in France, she settled in the United States in 1975 to pursue her interest in the emerging field of electronic music and studied with Eliane Radigue, Joel Chadabe, Robert Ashley and David Behrman. Sonami's sound performances, live film collaborations and sound installations focus on issues of presence and participation. She has devised new gestural controllers for performance and applies new technologies and appropriated media to achieve an expression of immediacy through sound, place and objects. Best known for her unique instrument, the elbow-length lady's glove, which is fitted with an array of sensors tracking the slightest motion of her hand and body, she has performed worldwide and earned substantial international renown.

Nikos Stavropoulos (Athens, Greece, 1975) is a composer of predominantly acousmatic and mixed music. He read music at the University of Wales (Bangor, Wales, UK), where he studied composition with Andrew Lewis and completed a doctorate at the University of Sheffield (England, UK) under the supervision of Adrian Moore. His music is performed and broadcast regularly around the world and has been awarded internationally on several occasions. His practice is concerned with notions of tangibility and immersivity in acousmatic experiences and the articulation of acoustic space, in the pursuit of probable aural impossibilities. Since 2006, he has been a member of the Music, Sound & Performance Group at Leeds

Beckett University (Leeds, England, UK), where he is a Reader in Composition and lectures on Electroacoustic Music. He is a founding member of the Echochroma New Music Research Group, a member of the British ElectroAcoustic Network (BEAN) and the Hellenic Electroacoustic Music Composers Association (HELMCA).

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. 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 New Music Gathering, and Bang on a Can's LOUD Weekend. His research has been presented and published internationally in the proceedings of the Sound & Music Computing Conference, International Symposium on Computer Music Multidisciplinary Research, International Computer Music Conference, Sounding Out The Space Conference, the Workshop on Intelligent Music Interfaces for Listening and Creation, and the International Conference on Computational Intelligence in Music, Sound, Art and Design.

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. Stolet was recently inducted into China's prestigious DeTao Masters Academy which brings "eminent professionals and experts to China, where they share the tacit knowledge that brought them to world leadership in their fields with high-level Chinese colleagues."

Akira Takaoka is a leading composer of contemporary classical music and music theorist in Japan. He has received many commissions and his compositions have been performed at major festivals worldwide such as NYCEMF, ISCM World Music Days, ICMC, SEAMUS, and SMC in London, Copenhagen, Venice, Florence, New York, Tokyo, etc. His music combines computer technologies, live performance, and visual arts, light art in particular. He is currently Professor of Music at J.F. Oberlin University, Japan, as well as a lecturer at Tokyo University of the Arts and Chuo University in Tokyo. He is also frequently invited to give lectures internationally. His

research on atonal pitch organization, algorithmic composition, and music cognition is internationally recognized at major conferences such as ICMPC, SMPC, and ICMC. He received a BA and an MA in philosophy from Keio University in Tokyo and an MA and a PhD in music from Columbia University, where he was a Fulbright scholar.

<http://sites.music.columbia.edu/akira/index.html>

Arturo Tallini is a classical guitarist who pursues the incessant exploration of his instrument. This journey has brought him also to create a new instrument: the Scelsitar. In his work, he combines also the sound of the guitar midi, improvisation and electronics. Many composers have dedicated pieces for him and over the years he has become a reference point for contemporary music even though he never abandoned the classical repertoire. The international career of Arturo Tallini began in 1987 after winning the first prize in the International Michele Pittaluga Guitar Competition. Already in 1984 Tallini began his relationship with contemporary music: he began to explore the possibilities of the guitar as an instrument, to enlarge its sound and instrumental possibilities. He has been playing concerts as a soloist, in chamber music ensembles and as a soloist for an orchestra in Europe, in the United States and in North Africa. Many Italian and foreign composers have composed pieces dedicated for him.

Tang Maowen received his bachelor degree in Recording Art from Sichuan Conservatory of Music. Now he is the graduate student of Electronic Music Department of Sichuan Conservatory of Music, and studies New Media Music with Prof. Lu Minjie. His composition focus on audiovisual, electronic music and music for new interface and expression. His work used to be selected in China's Computer Design Competition for College Students.

Dante Tanzi is a composer and performer of acousmatic music, graduated in Philosophy at the University of Milan and in Electronic Music at the Conservatory in Como. His compositions have been performed in Italy (Musica Nel Nostro Tempo, Colloquium of Music Informatics, Festival 5 Giornate, Festival Musica e Suoni, Novaracusmonium), in Switzerland (Euromicro, Computer Music Concert), in Canada (EuCue Series), in the United Kingdom (ICMC, Sonorities), in Spain (Flix Festival, Festival Bernaola), in France (Festival Licences, Festival Futura, SIME, En Chair et En Son, Klang!), in Colombia (BunB), in the United States (NYCEMF), in Portugal (DME), in Austria (Ars Electronica), in Argentina (Atemporânea), in Japan (OUA-EMF), in Belgium (Espace du son) and in Mexico (Festival Ecos urbanos). In 2011, 2014, 2017 and 2018 he curated the program of acousmatic music concerts as part of the 'Festival 5 Giornate' in Milan. As an interpreter at the acousmonium he took part in the seasons of 'San Fedele Musica' (Milan), in the Contemporanea Acusmatica Festival (Udine), in the Soundspaces/Intonal

Festival (Malmö, SE), in the RomaEuropa Festival (Rome) and in the concerts with the AUDIOR mobile acousmonium. Since 2013 he has held laboratories and master classes for the conservatories of Como, Lugano, Turin and Lecce. He is a founding member of the 'Audior' association (www.audior.eu).

Alexander Theiss is currently an active performer and educator in New York City. As an educator he currently teaches trombone lesson for the Mannes School of Music Prep division. In addition, Alexander has taught music in public schools in Maryland, Texas, and New York in addition to his private lesson studios over the past decade. Since in New York, he has performed under the direction of many prestigious conductors such as Joel Revzen and Gerard Schwartz, as well as performances at Alice Tully and Carnegie Hall. As a Graduate Assistant at Texas Christian University Alexander assisted in facilitating the TCU Trombone Summit, conducted performances with the TCU trombone choir, and performed as a soloist in the school's Honors Recital. Alexander received his Bachelor of Music in Music Education from Texas Tech University where he was a Drum Major for the Marching Band and active educator years after for their summer band and orchestra camp.

Zach Thomas is a composer and media artist whose work is characterized by impulse, restlessness, and precision. He received his Ph.D. 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 worked 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. Zach currently teaches courses in Composition and New Media at the University of Louisville where he also directs the annual UofL New Music Festival.

Sever Tipei was born in Bucharest, Romania, and immigrated to the United States in 1972. He holds degrees in composition and piano performance from the University of Michigan and Bucharest Conservatory. Tipei has taught between 1978 and 2021 at the University of Illinois at Urbana-Champaign School of Music. He continues to teach at the School of Information Sciences where he also directs the University of Illinois Computer Music Project. He is a Center Affiliate at the National Center for Supercomputing Applications. Between 1993 and 2003 Tipei was also a visiting scientist at Argonne National Laboratory where he worked on the sonification of complex scientific data. Tipei regards the computer as a collaborator whose skills and abilities complement those of the human artist. He sees the composition of music

both as an experimental and a speculative endeavor that delivers a particular world view.

Matteo Tomasetti is a multimedia composer and Ph.D. student at the Department of Information Engineering and Computer Science of University of Trento. He is a member of the Creative, Intelligent & Multisensory Interactions Laboratory (CIMIL). His research interests are extended-reality and music composition, human-computer interaction and immersive audio. His projects revolve around live performance, virtual reality musical instruments, audiovisual composition, freelance sound design, mixing/mastering engineering, sound art and electronic music production. Some of his audiovisual and 3D-Ambisonics works have been performed in various spaces, festivals and conferences in Italy (Biennale di Venezia 2020, Live Cinema Festival 2021), Spain, Germany, Japan, U.S.A, Chile, Indonesia and Korea. In 2021 he won the 15th National Prize of the Arts in the "Electronic Music and New Technologies" section organized by the Italian Ministry of University and Research. He is also co-founder of the "BitNet01" collective with which they organise several festivals and the "Mimesi" - Immersive audiovisual project.

Carlos I. Toro-Tobón, a composer and electronics improviser born and raised in Colombia. He is currently a faculty member at the Department of Music of the University of Antioquia, Colombia, where he teaches since 2005. In 2015 he earned a Fulbright grant to pursue graduate studies in the United States. Carlos holds Ph.D. and Masters degrees in composition from the University of Iowa and University EAFIT respectively. His music has been performed in Belgium, Chile, Colombia and the USA. Carlos has studied composition with Andrés Posada, Marco Alunno, Nomi Epstein, Josh Levine, and David Gompper; and electronic music with Lawrence Fritts and Jean-Francois Charles.

Dr. Yu-Chung Tseng is a professor of electronic music composition at Institute of Music at National Yang Ming Chiao Tung University in Taiwan. His music has been recognized with selection/awards from Bourges Competition (Finalist, 2005), Pierre Schaeffer Competition (1st Prize in 2003, 3rd Prize in 2007), Cittàdi Udine Competition (Finalist, 2006), Musica Nova Competition (1st Prize in 2010, Mention award in 2009, Mention award in 2012), Metamorphoses Competition (2006, 2008, 2010), ICMC 2011 Asia-Oceania Regional Best Music Award and ICMC 2015 Asia-Oceania Regional Best Music Award. Dr. Tseng's works have also received many performances at festivals and conferences, including ICMC (16 times selected), Musicacoustica (China, Beijing), SICMF (Korea, Soul), EMW (China, Shanghai), Schumann Festival (Germany, Dusseldorf), ACL(Japan, Israel, Singapore, Philippines, Taiwan), Musica Nova (Czech, Prague), Taiwan-France Exchange (Bordeaux, Hans, Pairs) and Chengdu International Electronic Music Festival..etc. His music can be heard on labels including CDCM (U.S.A.),

Discontact iii (Canada), Pescara (It.), Contemporanea (It.), Metamorphoses (Belgium), SEAMUS (USA), KECD2 (Denmark), Musica Nova (Czech), ICMC 2011 DVD and ICMC 2015 CD.

Tu Yen-Hao is a Taipei-based sound designer, composer, multi-instrumentalist who collaborates with many artists around the world. His music career began as a drummer in bands. Then he worked as a film score composer and sound designer after that. In 2021, he entered National Yang Ming Chiao Tung University as a graduate student to start his exploration in electronic computer music and art music, making his music genres more complete. This is his first time composing electroacoustic music.

Jordan Tulley is a Connecticut-based percussionist with experience performing in classical ensembles, chamber groups, pit orchestras, and solo recitals. Mr. Tulley was awarded first place in his category for solo performance in the Furman competition while attending Western Connecticut State University. He received his Bachelor of Music degree in May of 2020 and currently serves as a music educator in Waterbury, CT.

Matteo Tundo is an Italian composer of acoustic and electroacoustic music. His primary interest in composition is the perception and cognition of the sound event, the neural mechanisms that lead to the signification of sound. His work is focused on the application of neuroesthetics in musical composition. After his first guitar studies, he devoted himself totally to composition and new technologies, studying at the conservatories of Florence, Parma and Lugano. He studied, among others, composition with Giorgio Colombo Taccani, Javier Torres Maldonado, Nadir Vassena; electronic music with Marco Ligabue and he attended specialization courses with Salvatore Sciarrino, Ivan Fedele, Yan Maresz, Beat Furrer, Franck Bedrossian and others. He's currently studying with Ivan Fedele at Accademia Nazionale di Santa Cecilia. His compositions have been awarded or recommended in international competitions: International Competition Academia Musica (Vienna, Austria), 16th Thailand International Composers Competition, International Composition Competition "Città di Barletta", Alvarez Chamber Orchestra Composition Competition and others. For the academic year 2019-2020 he taught Music Informatics at the Darfo Conservatory in Italy.

Kari Vakeva (b 1957) is a Finnish composer and sound artist whose oeuvre includes orchestral works such as *Symphony* (1976-1979) which was partly recorded by Finnish RSO/Jorma Panula in 1982 and *Elegia* (1989-1990) performed by RSO Frankfurt/ Diego Masson in 2005, and electroacoustic works like *Ray 6* (2002), *Halo* (2005-2007), *p(X)* (2011), *Sundog i* (2012-2015), *Sundog ii* (2012-2015), *I saw Eternity* (2016), *I kiss the Sky* (2017-2018), and *If Bees are few* (2018). Electroacoustic works have been performed in ICMC, EMM and NYCEMF. An installation was exhibited in Blacksburg, VA.

Early works are acoustic. From 2001 onward the electroacoustic works use computer to synthesize the sound: Csound, and from 2003 with MAL-d, an evolving synthesis software. He is a self-educated composer.

Armando Vanzi studied Cinema Music and Theatre at Pisa University. Attended Music and New Technologies at Conservatorio L. Cherubini in Firenze. He worked in audio video production and post production with: A&G Soluzioni Digitali, Produzioni Scovavento, Teatro del Maggio Musicale Fiorentino, Conservatorio L. Cherubini, Image Farm, Super Yacht Channel, Likeworld, S-Tek Audio Australia, Luigi Agostini Digital Solution. He took part in several music festivals as author: Corpo, Luce, Suono in Firenze, Diffrazioni Firenze Multimedia Festival, Alta Marea Marciana Multimedia Festival, NYU New Music Ensemble Florence to New York. Currently works as producer, composer and video artist in Italy.

Héctor Ulises Vera is a Mexican pianist and composer. His work has presented in Taiwan, France, Portugal, Argentina, Canada and México. His recent work in a experimental scores for invident people.

Composer **Mark Volker** is Professor of Music at the Belmont University School of Music, where he is Coordinator of Composition Studies, and he directs the New Music Ensemble. Known for his colorful harmonic language and orchestration, as well as his facility with both electronic and traditional instrumentations. Mark's music has been performed and recorded by numerous performers around the world, including the Chicago Contemporary Chamber Players, eighth blackbird, the Pacifica String Quartet, Musica moderna Poland, the Pinotage ensemble, the New York New Music Ensemble, the Kiev Philharmonic, the Orchestra of the Finger Lakes, So Percussion, Luna Nova, the Orquesta de Baja California, the Boston Brass, the Society for New Music, the Young Opera Company of New England, and the Nashville Ballet. A native of Buffalo, NY, Mark holds degrees from the Ithaca College School of Music (BM), the Cincinnati College-Conservatory of Music (MM), and the University of Chicago (PhD). He has studied composition with Greg Woodward, Dana Wilson, Ricardo Zohn-Muldoon, Darrell Handel, Shulamit Ran, Samuel Adler, and Marta Ptaszynska, electroacoustic music with Howard Sandroff and Mara Helmuth. Prior to his appointment at Belmont, Mark taught at Colgate University. He lives in Franklin, TN with his wife Alyssa and two children, Molly and Jacob.

Mickie Wadsworth is a soprano and composer based in Upstate New York. They have written works for solo instrument, voice, electronics, small chamber and large ensembles. In their music they work to discover the impact of music both within and outside of a poetic context. Additionally they advocate for the creation of gender inclusive vocal repertoire and operatic roles. Throughout their undergraduate degree they had the opportunity to participate in several reading sessions with

revered soloists and ensembles such as Aurora Borealis, Holly Mulcahy, and Sarah Cahill. Additionally they have participated in a composition masterclass with Jake Heggie. Mickie is currently pursuing their masters in Music Composition at Ohio University where they are studying with Dr. Robert McClure. They graduated from The State University of New York at Fredonia with their B.M. in Music Composition in 2021. Outside of performing and composing Mickie spends their free time running and hiking, where they find a large amount of inspiration for their artistic endeavors.

Beatrix Wagner studied flute with Prof. Dr. Richard Müller-Dombois at the Hochschule for music Detmold from 1989 to 1996 and as awarded scholar 2000/ 01 in Paris with Philippe Racine. Additionally she participate in master classes with Robert Aitken, Robert Dick, Carin Levine and Istvan Matuz. As solo flautist with the Schleswig-Holstein Music Festival Orchestra during her student days, Beatrix Wagner played under conductors as Herbert Blomstedt, Dimitri Kitajenko, Gunther Schuller and Krzysztof Penderecki. She won several international prizes, for instance the Kuhlau Competition for Flautists in Uelzen and the Wind Competition in Kerkrade (Netherlands) in 1996. In 2001 she founded "Ensemble Reflexion K", Germany's northernmost contemporary music ensemble. Beatrix Wagner is in demand as a soloist and a chamber musician in Germany and abroad. She receives invitations from ensembles such as Ensemble Modern, MusikFabrik NRW, Kammerensemble Neue Musik Berlin, Ensemble Aventure, SurPlus and Insomnio (Netherlands). Concert tours have taken her around Europe, Asia and North and South America. Beatrix Wagner has made radio and CD recordings for BR, SWR, WDR, MDR, NDR, RB, Deutschlandfunk, and major labels as ambitus, col legno, Coviello, NEOS, edition zeitklang and mode records, including her both solo CDs "positions" (2003) and "Spiegelungen" (2011). In the spring of 2019 Beatrix Wagner and New York based cellist Madeleine Shapiro formed the Duo Be.Mad dedicated to the newest music for flute(s), cello and electronics (fixed media / live processing / video). In February 2022 she premiered Gerald Eckert's concerto for contrabass flute in G, orchestra and live electronics as a soloist.

American composer and producer, **Tyler Bradley Walker** music often explores the intersection of many "-isms" against a backdrop of various forms of rock and electroacoustic musics. (Redacted) work gives significant importance to blending disparate influences into electronic soundscapes that could mostly be described as "symphonic." As a performer, producer, and engineer, over the last ten years he has collaborated with a long list of familiar bands and musicians. Between 2010 and 2015, he acted as studio director and engineer for a multi-GRAMMY-winning artist in Atlanta. (Redacted) also enjoys working as a music supervisor, with his work in this arena helping to garner many awards, including the Special Jury Prize for Dramatic Film at the Sundance Film Festival (2017), Outstanding Feature Film at the Women's

Image Network Awards (2018), Best Romance Film at the Berlin International Film Festival (2020), Most Watched Film at the New Renaissance Film Festival (2020) and Best LGBTQ feature at the Queens World Film Festival (2021).

Andrew Walters' music has been performed at various conferences throughout the world 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, the New York City Electroacoustic Music Festival (NYCEMF), 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 BA in Electronic music from Xinghai Conservatory of Music, a MM in Intermedia Music Technology, and a 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.

Henry Haoyu Wang is an artist and a technologist based in New York, USA. He holds his BA in art and technology at Allegheny College, PA, and now as a second year master student at NYU's ITP (Interactive Telecommunications Program). His work exhibited in Austria, Portugal, China, Germany, and United State. His current art focus are data and bio ethics, critical and speculative design, and mixed reality and visual storytelling.

Jinglong Wang is a graduate student from Sichuan Conservatory of Music in China.

Isaac Ward is a musician–composer, hornist, and guitarist–currently based in Greenville, North Carolina. In 2017, he received bachelor's degrees in music composition and horn performance from East Carolina University. Ward recently graduated from the University of North Carolina at Greensboro, obtaining a master's degree in composition in 2019. He has had pieces performed by groups, including Hypercube, Quintet Sirocco, a subset of the Beo Quartet, and the Domino Ensemble. Additionally, Ward has had pieces read by multiple groups and soloist, such as Miranda Cuckson, Loadbang, Yarn/Wire, Roomful of Teeth, Michael Lowenstern, Sharon Harms and Steve Beck, the Dorian Wind Quintet, and the Meridian Arts Ensemble. In his works, Ward strives to make dramatic and expressive music with timbral interest and idiomatic instrumental writing. He draws inspiration from popular music styles and the classical music tradition. Ward is a co-winner of the 2021 Arcady-RBC Emerging Artist Composer's Competition. He also recently collaborated with Julian Ward where they co-composed, produced, and engineered the music and sound-effects for two educational videos by the North Carolina 4-H (2021).

Julian Ward (b.1994) is a native of Greenville, North Carolina and is a recently announced winner for the Beth Ratay Call for Scores for Flute (2021). He is the co-winner for the 2021 Arcady-RBC Emerging Artist Competition for his piece, Spirits of the Dead. He is also the acceptor of a 2020 performance of Distances In Between for the NYCEMF. Julian was the winner of the fourth-place prize of the Megalopolis Saxophone Orchestra 2019 call for scores for his piece, Lilac Lights (2018). Julian graduated in 2019 from the University of North Carolina Greensboro with a Master of Music degree in composition. In 2017, he graduated from East Carolina University with a Bachelors of Music in flute performance and music composition. Emphasis of timbral character and strong contrasts are elemental to Julian's compositions. He recently collaborated with Isaac Ward, co-composing, engineering, and producing the music and sound-effects for two educational videos by the North Carolina 4-H (2021).

Kate Warren is a freelance hornist based in New Haven, CT. She has previously toured with the Dallas Brass and held positions with the Tallahassee Symphony Orchestra, the Northwest Florida Symphony Orchestra, and the

Sinfonia Gulf Coast. As an educator Kate is passionate about creating resources for music students and has previously worked with Conn & Selmer and SmartMusic to develop and record a comprehensive beginner french horn curriculum. She is also an in-demand lecturer and researcher, regularly presenting and speaking on gender and equity in brass playing. Kate holds a Masters degree in horn performance from the New School, studying with Erik Ralske, a BM in horn performance from Florida State University, and is currently completing an MMA in horn performance at Yale. Kate is a regular freelancer in the New York/Connecticut area, is available for private lessons and remote recording work, and can be found on Instagram @katewarrenmusic.

Something of a typical 21st century composer, **Dr. Caleb Westby's** influences largely revolve around jazz, rock, metal, and video game music. He holds a Bachelor of Music in music education from Northern Arizona University as well as a Master of Music and Doctorate of Musical Arts in music composition from the University of Oklahoma. His music has been performed at the International Computer Music Conference (ICMC), Electronic Music Midwest (EMM), the New York City Electroacoustic Music Festival (NYCEMF), and the National Saxophone Alliance (NASA) Region 4 and Biennial conferences. Fascinated by the power of utterance and language, Caleb has a penchant for incorporating the human voice into his compositions both electronic and otherwise. He has written extensively for wind band as well as acoustic instruments featured alongside electronic mediums, most recently taking an interest in how electronic media can augment music's abilities as a form of commentary.

John Wiggins is a four-time Emmy winning sound designer for TV and film, living in New York. His work at HBO spanned over 35 years, and in 2017 won honorable mention at MA/IN InterMedia and honorable mention in Luc Ferrari's "Presque Rien" competition. "acousmatic sound design" - sound put in speakers - sound for speakers - trying to compel listeners to be involved. Sounds are everywhere and they convey all kinds of information. The more non-verbal and direct the information that comes to us this way, the higher regard we have for it. The most interesting part then, is recording and extracting, hearing what's in there and building with those extractions. ACOUSMATIC SOUND DESIGN a global art due to the global fundamental – sound.

Jonathan Wilson's works have been performed at the Ann Arbor Film Festival, European Media Art Festival, the Experimental Superstars Film Festival, the Big Muddy Film Festival, ICMC, SEAMUS, NYCEMF, NSEME, the Iowa Music Teachers Association State Conference, and the Midwest Composers Symposium. He is the winner of the 2014 Iowa Music Teachers Association Composition Competition. Jonathan has studied composition with Lawrence Fritts, Josh Levine,

David Gompper, James Romig, James Caldwell, Paul Paccione, and John Cooper. In addition, studies in conducting have been taken under Richard Hughey and Mike Fansler. Jonathan is a member of Society of Composers, Inc., SEAMUS, ICMA, Iowa Composers Forum, and American Composers Forum.

Composer **Alyssa Wixson** creates music that explores questions of temporality, sound spectra, communication, and in-the-moment choices. Her interests yield expressive and evocative music that ranges from relatively traditional to highly experimental. Her work has been performed at the ICMC/NYCEMF, by Illumine Choirs, the Mivos Quartet, the Avimimus Vocal Duo, and the Lubbock Symphony Orchestra as part of their chamber series. Additionally, Wixson often collaborates with independent filmmakers, notably Natalie LaValley on her award-winning short film, "Telos." She holds a Bachelor of Music degree with a composition emphasis from Texas Tech University, where her primary instructors were Peter Fischer and Jennifer Jolley. She is currently a graduate student and teaching assistant at Stony Brook University, where she has studied with Margaret Schedel and Daria Semegen, and is pursuing a Master of Arts in composition.

Maurice Wright's musical life began as a percussionist, when he performed a solo on a toy glockenspiel in a one-room schoolhouse in Buckton, Virginia. Shortly thereafter, he began to study piano, and to experiment with electricity, using parts from discarded telephones. He began to compose, and to play the trombone. At age 13, his family moved to Tampa, Florida. While studying with Douglas Baer, Principal Trombonist of the Tampa Philharmonic, Wright spent a year with the Tampa Police Dance Band, rehearsing with armed musicians who performed throughout the state. He experimented with tape recorders, and studied FØRTRAN programming. After graduating from Duke University, he continued composition study at Columbia University, receiving a doctorate in 1988. Outstanding musicians have performed his work, including the Philadelphia Orchestra, the Boston Symphony Orchestra, the Emerson String Quartet, and the American Brass Quintet. He is Laura H. Carnell Professor of Music Studies at Temple University.

Jia-Jiun Wu (b. 1995) is a composer, artist based in Taiwan. He currently studied at National Yang Ming Chiao Tung University, majoring in Electronic Technology Music. He is concerned with the imagination of the visual and space when people listening electronic music. His recently works are about ambisonic, graphic notation in electronic music. He was granted by the 16th WOCCMAT 2020 Phil Winsor International Youth Computer Music Competition Award and residencies at Art Site of Railway Warehouse(Hsinchu, 2021).

Dr. Jiayue Cecilia Wu is an award-winning scholar, musician, and audio engineer. She holds a Master of Arts degree from Stanford University and a Ph.D. degree from

the University of California Santa Barbara. Her research focuses on how music technology can augment the healing power of music. Her music has been performed in Asia, the U.S., Canada, Australia, South Africa, Brazil, and Europe. Currently, Dr. Wu is an assistant professor at the University of Colorado's College of Arts and Media. She is the chairperson of the Diversity, Equity, & Inclusion Committees at both Audio Engineering Society (AES) and Colorado MahlerFest. She also serves as a voting member of the Recording Academy and the Editor-in-Chief of the Society for Electro-Acoustic Music in the US.

Wu Wenzhao, received his bachelor degree in recording art from Sichuan Conservatory of Music. he has participated in the production of personal musical albums such as Xue Tao, Du Shiniang, and Zhuo Wenjun. In 2018, he joined Xishanju as an audio designer and participated in the audio design of games such as Jianwangsan and Fingertip of Adventure. Now he is a graduate of Sichuan Conservatory of Music, and studies with Prof. Lu Minjie in new media art of Electronic Music Department. His piece of works used to be selected in WOCCMAT2020, 2021 Earth Day Model Festival and won prizes in Beijing Electroacoustic Music Festival, 2nd and 3rd prize given by 9th National College Digital Art & Design Awards by Ministry of Education of P.R.C.

Xuwei Wu: <https://www.xuweiwu.com>

Shahrokh Yadegari, composer, sound designer, and producer, has collaborated with such artists as Peter Sellars, Robert Woodruff, Ann Hamilton, Christine Brewer, Gabor Tompa, Maya Beiser, Steven Schick, Lucie Tiberghien, Shahrokh Moshkin Ghalam, Hossein, Keyavash Nourai, and Siamak Shajarian. Yadegari holds a BS in Electrical Engineering from Purdue University, a Master's in Media Arts and Sciences from MIT's Media Lab, and a Ph.D. in music from University of California, San Diego. He worked at Institut de Recherche et Coordination Acoustique/Musique (IRCAM), and is one of the founders and the artistic director of Kereshmeh Records and Persian Arts Society, organizations dedicated to the preservation and dissemination of Persian traditional and new music. Yadegari is currently on the faculty of the department of Music at UC San Diego, and an associate director at the Qualcomm Institute where he directs the two groups Sonic Arts Research and Development and the Initiative for Digital Exploration of Arts and Sciences (IDEAS).

Berk Yağlı is a Cypriot guitarist, composer, and producer. His mission with his music has been to talk about social, political, and philosophical matters interestingly to invite the listeners into reflecting on the topics. He has been active in the UK for the past couple of years due to his education in Music and Sound Technology (University of Portsmouth) and Masters in Composition (University of Sheffield) studying under Adam Stanovic and Adrian Moore. During his masters,

his main focus has been electroacoustic music composition, and currently, he is studying and working for potential hybridity of electroacoustic music with metal music (which is his PhD topic). He also composed, produced, and released a cinematic/epic social commentary progressive metal album 'Symphony of Humanity' in 2021. His recent electroacoustic composition 'Ideological Distortion (2021)' has been selected to be performed in Argentina (Espacios Sonoros 2021) and in the UK (University of Plymouth).

Zhaojun Yan is an 2019 undergraduate student of Electronic Music Department of Sichuan Conservatory of Music, awarded as outstanding student and scholarship for two consecutive years.

Marcel Zaes' practice is involved with the intersection of mechanical and human timekeeping as a socio-sonic texture. He makes pieces in which musicians play against metronomes, pieces with defiant drum machines, and he programs algorithms that apply digital rhythm structures to human-made sound textures. For Metric Displacement he creates loops that occupy an ambiguous position between technological and human artifact.

Gabriel Zalles Ballivian is a Bolivian artist and researcher studying computer music at UC San Diego. His field of research and creative practice focuses on ambisonics synthesis, recording and dissemination using FOSS.

Junhong Zhang, graduated from Sichuan Conservatory of Music, his main research direction is new media music, computer music, music production, etc. His works have been performed and won awards in academic activities such as ICMC2018, musicacoustica-Beijing2017 and 2019, NYCEMF2020, WOCMAT2019, Denny Awards2021, etc.

An- Hui Zheng, born in Taiwan, received her bachelor's degree in Creative Design from the National Yunlin University of Science and Technology. She first worked in Digital Sound and Image Design. Currently, she is pursuing a Master's degree in Music Composition (Electronic Music) at National Yang Ming Chiao Tung University, under the supervision of professor Yu- Chung Tseng and Tak- Cheung Hui.