

DIGITALIS

NEW ELECTRONIC MUSIC

BY UVA STUDENTS

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APRIL 30

OCH

8PM

FREE

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New Electronic Music by UVA Students

Tuesday, April 30, 2024

MICE — $\psi(t)$: *Strong Warped Acoustic Creation*

Featuring Kailash Patel, Libby Eveland, Matias Vilaplana Stark, and Matthew Burtner

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MICE ensemble arises from the futuristic imagination emanating from the basement wreckage of OCH. A clocked out sonic expression from MUSI-4600, formerly MUSI-4350, formerly MUSI-435, MICE fulfills an elective requirement in the Engineering School and it meets the Music Major advanced seminar requirement. Since the dawn of the 21st century MICE has been the resident computer music ensemble of UVA, performing all around the University and in Namibia, Washington DC, India, New York, South Africa, Delaware, Japan and in the middle of the Pacific, Atlantic and Indian oceans (mice sometimes get onto ships). The group has worked with composers such as Philip Glass, Paula Matthusen, Sarah O'Halloran and Erik DeLuca. MICE has also been featured on two albums – "MICE World Tour" and "Agents Against Agency" -- and created the world's largest human-computer orchestra, a 300-person networked laptop orchestra conducted by the MICEtro robot.

Jack Haddad — *Nature Overwhelmed*

Nature Overwhelmed was made of recordings from the local Charlottesville area and is a commentary on sound pollution.

Jack Haddad is a third-year Computer Science and Music major, and he is excited to present a composition made in his Ecoacoustics class.

Mags Worden — *Starsong*

Starsong is a sonification of the 201 brightest stars within 60 light years of Earth. Each sound represents an individual star. The listener begins at Earth and travels outward through space,

hearing each star as they pass by. The brightness, velocity, and constellation affiliation of each star was used to determine various properties of each sound.

Mags Worden is a third year majoring in Music and Psychology. Contact them at fzp7mu@virginia.edu!

Julia Totten — *Caught Between a Rock and a Man-Made Place*

Caught Between a Rock and a Man-Made Place is a rock-based performance done on a variety of surfaces, with background sound created from soft brushing against leaves, bark, and other rocks. Throughout the layers of this piece, it can be clearly seen how inevitable the human-nature interaction is. Nature cannot escape human touch. The rocks alternate between playing man-made objects and each other. However, even when they play each other, human hands are involved, illustrating how humanity's grasp is inextricable from the natural world. The piece ends with the most aggressive human interaction, with the rocks hitting a trash can as the soft touch of nature fades away. In addition to these human-nature revelations, the piece demonstrates beauty in all life. Both smooth and rough rocks are utilized, and both make meaningful sounds, showcasing how everything in this world has purpose and beauty. This performance reminds me of my grandmother, who loved the sound of the ocean rolling over rocks at the beach. The piece includes my hands running over rocks, and listening to this reminds me of my dad telling me how this was his mom's favorite sound. These touches of beauty juxtapose with the overwhelming and often suffocating influence of humanity on nature, demonstrating the complexity in meaning of all environmental music that we can create.

Julia Totten is a third year at UVA from Jamestown, Rhode Island. She is double majoring in Biochemistry and Music with a Performance Concentration, and is on the pre-med track. She plays the flute in the Charlottesville Symphony Orchestra and is a Miller Arts Scholar. She studies flute under Professor Kelly Sulick. She also works in the Harris Lab in the UVA School of Medicine Pharmacology Department. Julia is currently taking Ecoacoustics with Professor Matthew Burtner and is excited to submit her piece to be played in Digitalis.

Libby Eveland — *Dubstep Musicbox Machine*

Instrumentation - MIDI Keyboard and Bela; computer music

Originally designed as a "dubstep machine," the machine evolved into an all in one music box, combining drums, sequencers, filters, pedals, and a keyboard.

Libby is a fourth year in the music department, served as one of the Drum Majors for the CMB this past season, directs WXTJ Jamz, and is an assistant sound engineer at WTJU.

Abby Kim — *The Echoes of Whales*

The Echoes of Whales is a data sonification project that delves into the history of whale populations over the past century. It presents the number of whales killed every year from 1900 to 2018 in the form of a musical composition. It was created using TwoTone (a software designed for data sonification), along with a blend of other sounds in Reaper. Data sonification is a technique that presents data as sound, enhancing it by adding a layer of auditory depth. In this composition, each data point is translated into a note on the piano, creating a sonic journey that displays the impact of humans on whales. Through editing and layering, the sonified data intertwines with deep underwater sounds and haunting whale calls, resulting in an emotional soundscape that calls our attention to the importance of species preservation.

Abby Kim is a 3rd-year student majoring in Music at the University of Virginia. She was born and raised in Charlottesville, Virginia, and has been playing the violin since she was 5. Throughout her musical studies at UVA, Abby has been actively engaged in various ensembles including the Charlottesville Symphony as well as multiple chamber ensembles for both violin and viola. She is currently studying the violin under Professor Daniel Sender and hopes to learn more about computer-related composition.

Hayden Luckert — *Naturally Human*

Naturally Human highlights the connection between natural sounds and their causes, and asks the question, what does it mean to be natural? There is a perceived physical disconnect between nature and man which creates the idea that nature is something untouched by man, but are we ourselves not a part of nature? Yes, for many of the sounds without the addition of human contact they would likely never occur in the world, that does not mean they are not natural. One could argue that by connecting with “the untouched” world in a manner such as this piece, we are simply embracing our own natural side. Additionally, in this manner each instrument symbolizes not our control of nature, but our connection to and cooperation with the natural world.

Hayden Luckert is a rising 4th year College of Arts and Sciences student double-majoring in Global Sustainability + Environments and Spanish, with a minor in Urban + Environmental Planning. In his free time he is involved in The New Dominions, an a cappella group on ground, and First Year Players, a student run theater organization. Through Ecoacoustics, he has been able to mix two of his passions, the environment and making music, and has enjoyed his first foray into composition this past semester.

Amanda Yo — *Plastick*

With the advent of mass production in plastic materials, micro/macro plastic accumulation has emerged as a threat to human health, the environment, and animals. The study of focus in this piece details how little we know about plastic accumulation in the ocean. Much of the plastic we see in the oceans now are from the 1990s or earlier, meaning the current data of quantified plastic is misleading and potentially dangerous. With increasing plastic production and little known about its breakdown and long term effects, plastic is undoubtedly an overlooked force that will fill our oceans and ecosystems.

Plastick takes data of the projected micro and macro plastic in the oceans if emissions continue to increase to 2050, sonified through Twotone as a base. Built around it are typtone motifs of the sonified chemical equation for the most common plastic found in our oceans, polyethylene terephthalate, as well as field recordings of rushing water.

Amanda Yo undergraduate in the College of Arts and Sciences majoring in music and physics. She is involved in the music department in the Charlottesville symphony with flute. Through the major she has been exposed to the vast ways music can be created and act as a force of advocacy/commentary. Ecoacoustics has especially brought a new understanding to music, listening, and the world.

Elise Ebert — *Song of Mothers*

Song of Mothers sonifies the data of the maternal mortality rate in the U.S. between the years of 1985 and 2020. One of the leading factors that determines the state of healthcare in a country, the maternal mortality rate in the U.S. has gone up shocking amounts in the past 35 years. This data was collected by measuring the number of mothers who died in childbirth per 1000 births every year. In order to sonify this data, I ran the year and the number of deaths through Twotone in the key of D Minor with descending 4 octave arpeggios at 4x speed. I then put six copies of this pattern in a cannon, with the speed of the pattern slowly increasing each time. This created a cacophonous effect that resembles the feeling we should be feeling in reaction to these statistics. I wanted the effect to sound like more and more mothers coming into the song, amplifying the sound until it sounds almost like screaming. I think this has a different, and potentially more significant effect than just seeing a graph. While the visual graph of the rate is still shocking, the increase in pitch to such a piercing tone reflects the gravity of the situation in a more attention-demanding way.

Elise 4th year student studying Speech Communication Disorders and Music with a concentration in Vocal Performance. She studies voice under Professor Beasley and sings in the University Singers. In the Fall of 2022, she traveled to Vienna, Austria to study opera for a semester, where she had the opportunity to perform a solo recital and see over a dozen

operas. In February of this year, she completed a Distinguished Major Recital in Vocal Performance, which consisted of 17 pieces and six languages.

Casey Bloome — *Live Loop #10*

for voice and computer

Combining their love of electronic and a cappella music, Casey presents a fully improvised live looping set using voice, vocal percussion, and Ableton software.

Casey Bloome is a 3rd-year Music major at UVA. A singer, composer, and producer, Casey has received departmental recognition from UVA and released several albums online under the name Gizmote, which span numerous genres.

Alex Suh — *AQInsights: Sonifying 2017 Air Quality Data*

The few days last summer that wildfire smoke in Canada painted the sky orange-yellow are still vividly clear in my mind; it was as though a lens from a dystopian film had been put over the East Coast. It was then I started checking the air quality index (AQI) every day, not only because my mom has asthma, but also for my own lung health. *AQInsights* sonifies AQI data from 2017 for Fairfax County, collected from the Environmental Protection Agency's Air Quality Service data repository. White noise, representing pollution, is juxtaposed with sine tones representing the purity of pollutant-free air. This sonification distinguishes three major pollutants — ozone, sulfur dioxide, and carbon dioxide using low, mid, and high frequencies of white noise — and uses unfiltered white noise for AQI values. This composition was originally written for the spring 2024 semester of Professor Matthew Burtner's ecoacoustics course.

Alexander Suh is a 3rd-year student from Fairfax, Virginia majoring in Music with a Concentration in Performance and Computer Science at the University of Virginia. Within music, he mostly focuses on piano performance, having previously won the MTNA Young Artist Piano Competition at the State and Division levels, competing at the National Finals in Reno, Nevada, the University of Virginia Inaugural Concerto Competition, performing Sergei Prokofiev's Piano Concerto No. 3 with the Charlottesville Symphony, and the WMTA Nora Lichtenberg Piano Scholarship Competition, among others. He currently studies under Professor John Mayhood and has previously been a student of Mrs. Lisa Emenheiser Sarratt.

Kailash Patel — *Ujjayi – Breath of the Conqueror*

Ujjayi, a breathing technique, is a Sanskrit word that roughly translates to “breath of the conqueror”. The piece consists of several ecoacoustic field recordings of performance with natural materials such as sticks, rocks, and leaves, which have been processed and altered digitally. The piece represents the wonder of breathing and its associated challenges. Breathing is a unique mechanism of living beings and is treated as ordinary, but it is a privilege to be fought for!

Kailash Patel is a 2nd year double major in Electrical Engineering and Music. He studies composition and computer technology within the music department in the hopes of combining his engineering and music skills whenever possible. He plays violin and performs with the Charlottesville Symphony, representing his background in Western classical music. He is also a Miller Arts Scholar and plans to continue his crossover between music and technology and present a collection of compositions in the coming semesters.

Charlotte Mulligan — *eat rocks*

Recordings from around Grounds, edited with Reaper. The main instruments are rocks, played in various ways throughout the piece. Other natural materials serve as a background, edited to sound almost unreal, and occasionally popping out of the texture, briefly overpowering the crunch of rocks. Throughout the piece, small rocks go from being shaken like you are about to roll die, to being sifted between two hands, to taking two rocks and quickly and sharply striking them against each other. To the end of the piece, we return to shaking and sifting the rocks, once again giving them a crunch and chomp-like sound.

Charlotte Mulligan is a 2nd year in the College, majoring in Applied Statistics and Economics. Though not a music major, she has taken a handful of music courses through the department, including Ecoacoustics, which is where her piece was made.

Ryan Faddis — *Heavy Water - The Consequences of Nuclear Power*

Heavy Water is Ryan’s first official audio and visual composition meant to be shared to a large audience conveying the issues of water pollution after the Fukushima Daiichi nuclear plant incident of 2011. The audio was created using sonication processes, field recordings of rivers, and sounds of a Geiger counter (an instrument used to measure radiation). Visuals show the entire country of Japan being subjected to a 9.0 magnitude earthquake and the aftermath of the now abandoned and overgrown Fukushima prefecture. Ryan invites you to consider how the irresponsible use of nuclear energy can lead to severe ramifications, destroying cultural

land, forcibly displacing families, and polluting farmlands. The river sounds and wind chime sounds are all originally recorded by the composer. The visuals are borrowed from the film "Toxic Pigs of Fukushima" and the Geiger counter sounds are from a family friend.

Ryan Faddis is a third year student double majoring in environmental science and environmental thought and practice. He is particularly interested in studying environmental pollution and focuses on composing ambient environmental music pieces based on this concept.

Libby Eveland - *A Natural Sea Diminished*

All recorded at Emerald Isle, NC, *A Natural Sea Diminished* explores the different sides of human interaction with the ocean, ranging from completely man-made or natural sounds.

Libby is a fourth year in the music department, served as one of the Drum Majors for the CMB this past season, directs WXTJ Jamz, and is an assistant sound engineer at WTJU.

Kristin Hauge — *Rings of Memory*

For Max patch and quadraphonic sound

Rings of Memory explores different ways of conceptualizing time, using the rings of a tree as thematic material. The rings are concentric, suggesting a way of looking at time that differs from the conventional tendency to think of it as progressing from left to right along a straight line. The piece opens with a long melody representing the tree's life; the melody is made up of smaller units, each representing an individual year. After the full melody is heard, the piece explores the tree's life as a collection of layered melodies. Although time progresses linearly, the tree rings accumulate concentrically. The individual melodies are grouped into sets as a way to organize the tree's life into discrete multi-year units. The exploration of the tree's music begins with its innermost set of rings and slowly adds each successive set, creating a progressively rich texture of sounds that eventually come to encompass all of the time represented in the rings. As time progresses, the melodies of years past become quieter, but are still heard in the layered sound to represent the fact that the tree's life comprises all of its individual years and the memories that come with them. The image of the tree rings figures prominently in the performance; tracing around the rings with the computer mouse causes corresponding changes in panning around a multi-channel speaker system.

Kristin Hauge received her undergraduate degree in 2018 from Princeton University, where she majored in music with a focus in composition. Her work thus far includes orchestral and chamber works, jazz compositions, choral compositions, various electronic projects, ensemble

arrangements, and musical theater orchestrations. She is also involved with the Coastal Futures Conservatory, where she works on music projects that engage with and communicate scientific research specific to the Virginia Eastern Shore and other coastal areas along the East Coast. Through her work, she hopes to explore many facets of musical expression, including the relationship between music and nature (with a particular focus on birdsong, motion tracking, and soundscapes), recording and production techniques, synthesizers and electric string instruments, and immersive audiovisual experiences such as video, interactive websites, and installations. In addition to composing, Kristin plays piano, violin, and viola, and is an avid pit orchestra musician (primarily on keyboards).

Logan Tolbert — *Ocean of Dreams*

Ocean of Dreams attempts to capture the essence of water in various forms with a dreamy, mystical feel.

Logan Tolbert is a second year undergraduate studying Aerospace Engineering from Reston, VA. Logan has long been fascinated with experimental electronic music, especially inspired by artists like Boards of Canada, Brian Eno, and Autechre, among many others. Logan has been composing music as a hobby since 2017, and started producing and experimenting with ambient electronica since last year.

Piergiorgio Wilson — *Two Lives, One World*

Two Lives, One World is a sonic exploration that delves into the dichotomy of rural tranquility and urban bustle, intertwining two distinct environments to create a dynamic narrative of time and experience. The project's acoustic depth and vibrant quality immerse the listener in a journey that transcends temporal boundaries.

Piergiorgio Wilson is a 4th year undergraduate student at the University of Virginia's College of Arts and Sciences. He is a Music major, who spends much of his time outside of class working for a tech startup called, Tonic. When he's not working, he enjoys spending time playing the piano, composing music, and playing tennis.

Gabrielle Cerberville — *Once Claimed Dominion*

Once Claimed Dominion is an ongoing collaboration between myself and composer Carter J. Rice, and is inspired by *The Bear* by Andrew Krivak. Krivak's gentle, post-anthropocene novella tells the story of the lives and deaths of the last two humans on an earth. Our focus was on the

role of earth in the story, serving as metaphor for both birth and burial, and imagining the future of the planet if it were to outlive us.

I drew the onscreen images as a series of multilayered drawings in Procreate based on quotes from the book, which Carter animated in DaVinci Resolve, and we both provided audio for the project. The work shown here is an excerpt from the larger project.

Gabrielle Cerberville (b. 1991 in Sleepy Hollow, NY) is a curious American composer turned creative alchemist. She writes with an experimental flair that is at once familiar and alien, and her work regularly blends the lines between disciplines and discrete art forms. Her work is an exploration of communication, primarily between humans and our natural neighbors (plants, fungi, animals, and finding our place within ecosystems). She holds a Masters of Music in composition from Western Michigan University and a Bachelor of Music from Butler University in composition, and is pursuing her Ph.D in Music Composition and Computer Technologies at the University of Virginia. Gabrielle has studied traditional and electronic composition with Drs. Lisa Coons, Christopher Biggs, Frank Felice and Michael Schelle. She is also a well-known figure in the mycology and foraging communities, and lectures widely about sustainability, edible wild plants and fungi, identification, and environmental activism.

Carter John Rice is an assistant professor of Multimedia Arts Technology at Western Michigan University. A native of Minot, North Dakota, Rice is not only a composer but also an audio engineer and educator drawn to music through a desire to instill knowledge in others. He is passionate about music education and enjoys teaching music at all levels.

As a composer, Rice draws inspiration from a wide array of sources including acoustic phenomena, cognitive science, and classical mechanics. His music has been featured at venues such as the national SEAMUS conference, the national conference for the Society of Composers Inc. (SCI), the International Computer Music Conference, Electronic Music Midwest, and the Electroacoustic Barn Dance.

Rice holds a bachelor's degree in music theory and composition from Concordia College, a master's degree in music composition from Bowling Green State University, and a Doctor of Arts in music composition from Ball State University. He has studied with Elainie Lillios, Christopher Dietz, Michael Pounds, Jody Nagel, Keith Kothman, Daniel Breedon, and Steven Makela.