

SEAMUS@40 – *Electroacoustic Fais Do Do*
Music for Instruments & Electronics
Saturday, April 6, 2024 7:30 PM
Digital Media Center Theatre

Program Notes:

Gorgons' Cry

This programmatic composition is inspired by the 12th Pythian Ode, written by the Ancient Greek poet Pindar, in honor of Midas, a formidable Aulos player. When Perseus, aided by Goddess Athena, beheaded sleeping Medusa, the only mortal of the three sister Gorgons, the two immortal Gorgon sisters, Stheno and Euryali woke up, discovered the crime, and chased the culprit with terrible cries and laments. Athena listened to the Gorgons' cries and created Aulos, a double pipe-double reed wind instrument, to imitate them. In modern days, Archaeomusicologists study fragments or entire pieces of excavated Auloi from various sites and eras to recreate exact replicas and learn more about the sounds and performing techniques of this long-lost instrument. "Gorgons' Cry" is originally written for the Pydna aulos, an instrument entombed in Macedonia, Greece during the 2nd half of the 4th century BCE. The current version is written for two Oboe d' Amore, a Baroque instrument that its timbre is close to Aulos. The Melodic material derives from the archaic Spondeion musical scale that was originally used to accompany certain solemn religious processions. The computer alters the instrumental sounds in real-time based entirely on custom combinations of variable delay and FFT algorithms, without using any prerecorded materials.

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>

Burren Wind

The Burren is on the Wild Atlantic Way on the coast of Ireland, where one experiences the "ancientness" of limestone landscapes, the winds off the ocean, and intricate rock shapes with colorful bursts of lichens and flowers. These all inspired the lines, sounds and textures of Burren Wind, with audio and video created from tárogató multiphonics, granular synthesis algorithms and images of the Burren.

Mara Helmuth is a computer music composer and researcher, currently Professor at the College-Conservatory of Music, University of Cincinnati and director of the electronic music studios. She received the George J. Rieveschl Award for Scholarly and/or Creative Works at UC in 2023. Her music has been performed internationally at conferences, festivals and arts spaces, and is on recordings from PARMA, INNOVA, Fundamental Sounds, Centaur (CDCM), Open Space, Electronic Music Foundation and Everglade. She has developed granular synthesis software, explored internet2 performance and collaborated extensively with performers including Esther Lamneck, tarogato, Andrea Vos Rochefort, clarinet, Joseph Van Hassel, percussion, Timothy Northcut, tuba and Rebecca Danard, clarinet. A current project involves sonification of pulsar data to create fixed media and interactive works. She has analyzed works by Carla

Scaletti, Annea Lockwood and Barry Truax, and written about gender and computer music. She is a past board and president of the International Computer Music Association. She received degrees from Columbia University (DMA) and University of Illinois at Urbana-Champaign. <http://www.marahelmuth.com/>

The New York Times calls **Esther Lamneck**, “an astonishing virtuoso”. She has appeared as a soloist with major orchestras, with conductors such as Pierre Boulez, with renowned chamber music artists and an international roster of musicians from the new music improvisation scene. A versatile performer and an advocate of contemporary music, she is known for her work with electronic media including interactive arts, movement, dance and improvisation. Dr. Lamneck served for more than three decades, as full professor and artistic director of the NYUNME at NYU, Steinhardt. She makes frequent solo appearances on clarinet and the tárogató at music festivals worldwide. Many of her solo and Duo CDs feature improvisation and electronic music and include “Cigar Smoke”; “Tárogató”; “Winds Of The Heart”; “Genoa Sound Cards”; “Stato Liquido”; “Trasfigurazioni”; “Sky Rings”; “Small Parts of a Garden”, etc. Computer Music Journal calls her “The consummate improvisor.” New York Music Daily, “Surrealistically Captivating.”; “Esther Lamneck has fascinating chops and ideas” jazzweekly.com; “È eccezionale la microtonale ricchezza di suono del tárogató” Musica Jazz. <http://www.estherlamneck.com/>

Since 1977 **Alfonso Belfiore** has dedicated himself to research and experimentation in the field of new electronic and computer technologies applied to musical composition, also crossing over into larger contexts, embracing various forms of artistic expression. He took part in multimedia projects developing, through the use of special technologies, complex interactions between gesture, sound, nature, image and word. He was holder of the Chair of Electronic Music and Coordinator of the Department of New Technologies and Musical Languages of the Conservatory of Florence from 1992 to 2021, from 1980 to 1992 he held the same chair at the Conservatory of Padua. He is the artistic director and creator of the international DIFFRAZIONI / Florence Multimedia Festival. He has collaborated, with the Tehran International Electronic Music Festival. Between 1984 and 2004, as artistic director he oversaw the publication of over 50 titles on vinyl and CD for the Vecchio Mulino Produzioni.

Images was conceived as a “sonic cycle,” a cycle of pieces for varied instrumentation and media which seek to musically convey intangible, abstract ideas such as philosophies, concepts, or thoughts, as a series of sonic images. Images is an ongoing project. The first two pieces of the cycle, Blue Air and Traces, were written for Jack Thorpe who commissioned the pieces under the auspices of the 2022 Presser Graduate Music Award. The live electronics for both were developed in SuperCollider by Victor Zheng.

I. Blue Air

*The flickering image of bursting air
Intertwined with sounds around us
Sounds that bring out memories
Voices that call out to us
Nostalgia about a place that we have never been to*

II. Traces

*Drifting in unmeasured time
Grasping for direction amid remnants and wisps
Textures across a static continuum*

Born in Seoul, South Korea, **Jung Hyun Lee** is a composer residing in the US. In her work, she seeks to direct the audience's perception of "space" altered by crafted sonic illusions. Inspired by her own synesthesia, she seeks to stimulate not only hearing, but all the senses collectively to each awaken uniquely in response to the temporal art of music. Lee was recently named winner of the twenty-third annual 21st Century Piano Commission Competition at the University of Illinois. Her works have featured internationally at events and conferences including SEAMUS, EMM, NYCEMF, Napoleon Electronic Media Festival, CHIMEFest at University of Chicago, Chosun Daily National Debut Concert in Seoul, South Korea, Sound Spaces in Malmö, Sweden, and the highSCORE Festival in Pavia, Italy. She had masterclasses led by Kaija Saariaho and John Harbison. Currently, Lee is a doctoral candidate in composition-theory at the University of Illinois at Urbana-Champaign, where she also earned her Master of Music. She earned a Bachelor of Music in composition with honors from Yonsei University in Seoul, South Korea.

Dr. Victor Zheng (b. 1994) was born in Beijing, China and raised in Portland, Oregon. He holds degrees from Oberlin Conservatory (BM '16), the University of Massachusetts Amherst (MM '18), and the University of Illinois Urbana-Champaign (DMA '23). Victor explores the intersection between acoustic and electronic composition in his work, including such topics as algorithmically assisted composition, interactive electronics, and building custom hardware interfaces to control electronic sound. His notable performances have included collaborations with the Opus One Chamber Orchestra, TaiHei Ensemble, Composers of Oregon Chamber Orchestra, New Music Mosaic, and Illinois Modern Ensemble. He has had his music and research featured at events including MOXSonic, Electronic Music Midwest, SEAMUS, NYCEMF, and the SCI National Conference, as well as in publications including Art On My Sleeve, Willamette Week, and Oregon Arts Watch. Victor currently serves on the faculties at North Central College in Naperville, IL and the University of Illinois Springfield in Springfield, IL, teaching composition, music theory, and music technology.

Atlanta-based saxophonist **Jack Thorpe** currently serves as an Artist Affiliate of saxophone at Georgia State University and the adjunct instructor of saxophone at the University of Tennessee at Chattanooga. As a concerto soloist, he has performed with the Georgia State University Symphonic Wind Ensemble, the Stephen F. Austin State University Symphonic Orchestra, and the University of Illinois Symphony Orchestra. Through his work as the alto player in the Versa Quartet, Thorpe won first place in the 2020 North American Saxophone Alliance's Quartet Competition and performed William Bolcom's Concerto Grosso for saxophone quartet and wind band with the University of Illinois Wind Symphony. In 2017, he co-founded the Snow Pond Saxophone Quartet, a chamber ensemble formed to represent the Frederick L. Hemke Saxophone Institute at the Snow Pond Center for the Arts to international audiences. The quartet performed throughout Japan in 2017 alongside soloist Masato Kumoi and toured the southeastern United States in 2019.

In March of 2022, he was named the winner of the University of Illinois's Presser Graduate Award. With funding from this award, he is currently commissioning six composers who belong to traditionally under-represented communities in classical music to write solo and electroacoustic works for saxophone. These six pieces were recorded and released as Thorpe's debut album, *Illusory Dreams*, on October 6, 2023.

Thorpe holds a D.M.A in saxophone performance and literature from the University of Illinois, an M.M. in saxophone performance from Stephen F. Austin State University, and a B.M. in saxophone performance from Georgia State University where he was the recipient of the Presser Undergraduate Scholar Award. His teachers include Debra Richtmeyer, Jan Berry Baker, and Nathan Nabb with additional study under Frederick L. Hemke.

Over Bogs (Saw You Over the Bogs) resulted from a generative synthesis patch constructed in VCV Rack. Several textural voices are layered and manipulated throughout the composition to create an organic environment out of electronically generated sounds, paired with a recording of a distant highway surrounded by woods in the eastern shore of Maryland. Voice emerges from the sound-bath and improvises over the textures. This piece is loosely attributed to a recurring dream from childhood.

Jeffrey Todd is an electroacoustic composer and classically trained vocalist. His compositional output deals in fixed media as well as live performance and improvisation. Originally from Salisbury Maryland, Todd earned his bachelor's degree in Voice Performance at Salisbury University and is currently based at the University of Kentucky where he received an MM in Performance in 2021. He is now working on a MM in composition as well as a DMA in Voice Performance while offering private instruction in voice and music theory. Todd's music has been featured at Electronic Music Midwest, Salisbury University, the University of Kentucky Art Museums, and the University of Kentucky Theory Colloquium.

The Ball Jar for tárogató and fixed audio was composed in the fall of 2016. The working title for the piece was "Bottom of a Ball Jar Struck with a Knuckle." The sound of this struck Ball jar is one of the many samples recorded and used in the fixed audio. I also used samples of street sounds, spoken words, an electronic safe, plungers on metal, wood scraping wood, electronic beeps from appliances, elevators, monks, espresso machines, and New Year's Eve celebrations. I manipulated these sounds using common synthesis tools including chorus, flange, reverse, pitch change, speed change, filters, amplitude and frequency modulation, reverb, and compression. I mixed and mastered the composition in Pro Tools 12. For the MIDI score I used Finale 2014.5 and FL Studio 12. For the sample recording and editing I used Samplitude 2016 and Audacity 2.1.2. The tárogató part was developed by the performer and is realized differently in each performance.

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, 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.

Esther Lamneck has long been at the center of adventurous uses of the clarinet, not to mention the Hungarian Tárogató. The New York Times calls her "an astonishing virtuoso." She has appeared as a soloist with major orchestras, with conductors such as Pierre Boulez, and with renowned chamber music artists and music improvisors throughout the world. A versatile performer and an advocate of contemporary music, she is known for her work with electronic media including interactive arts, movement, dance, and improvisation. Ms. Lamneck maintains an active solo career. She is a frequent performer at international music festivals and presents Master Classes in Universities and Conservatories around the world. Her collaborations with many distinguished composers of our time, have led to hundreds of new compositions in many genres including works for the clarinet, tárogató, and ensemble. Esther Lamneck is known for her performances on the Hungarian Tárogató, a single reed woodwind instrument with a hauntingly beautiful sound. Its aural tradition has greatly influenced her performance and has led her to work with composers who are creating sound environments for improvisation. Many of her Tárogató albums are dedicated to this work. Dr. Lamneck received her B.M., M.M., and Doctoral degrees from the Juilliard School of Music. Dr. Lamneck served as

Program Director of Woodwind Studies and the Clarinet Studio at New York University for more than three decades and was artistic director of the NYU New Music and Dance Ensemble. Dr. Lamneck has worked together with choreographer Douglas Dunn and Alfonso Belfiore for many years creating multimedia productions for festivals in the U.S. and Italy. An internationally renowned recording artist, she has received rave reviews for her albums and has releases on Amirani Records, Bridge Records, Capstone, Centaur, Cero records, CRI, EMF, Innova, Music and Arts, Neuma Records, Opus One, SEAMUS, SkyDeck Music, Romeo, New World Records, and Parma.

Unknown worlds (2023) for violin, live electronics and interactive video is about the fear of unknown. Every new scientific research or piece of art brings the excitement of changing our reality. Every moment on the verge of discovery is a step into the darkness. Everyone who explores new, is driven by a desire for innovation. But in the end, we never know what is hidden in unknown worlds.

Alexey Logunov was born in Leningrad, Russia. He graduated in 2014 from Saint-Petersburg State Conservatory of Rymsky-Korsakov, where he studied composition with Vladimir Tsitovich and Gennady Banshchikov and was later assistant to Sergei Slonimsky. Logunov studied piano performance at Saint Petersburg Conservatory, mentored by Ekaterina Murina from 2016 to 2018. In 2020, he earned a Master of Music degree in Composition from the Indiana University Jacobs School of Music, where he studied with P. Q. Phan, Eugene O'Brien, and Tansy Davies. Logunov is now a doctoral student and associate instructor of composition at the Jacobs School. Alexey's music has been performed at numerous Russian and international festivals, including From Avantgarde to Present Days, Children's Earth, Sound Ways, reMusik.org, Musica Futura (Minsk, Republic of Belarus), New music-new reality (Ekaterinburg), Composer 2.0 (Yaroslavl) and the Midwest Composers Symposium 2019 (Indiana University, USA). He collaborated with artistic groups "Musica Futura" and "Dialectic of Sound" in 2010-2011. In 2016 Alexey participated in the "Roche Continents" program in Salzburg (Austria) by Roche. In 2017 he took part in a concert tour of the Atlantic coastal cities of France as part of the festival Dinard réunit les jeunes virtuoses. Alexey participated in workshops with Matti Kovler, Klaus Lang, Peep Lassmann, Robert Paterson, Jeffrey Mumford, Georg Friedrich Haas, Alexey Sysoev, Raphaël Cendo, Sergej Newski, Blaise Ubaldini, Oliver Schneller, Mark Andre, Kay He, Zosha Di Castri, Mara Helmuth, and the Moscow Contemporary Music Ensemble (MCME). He was respectively a scholar of and a student of the X and XI International Young Composers Academy in Tchaikovsky-city and a participant of 2023 Splice Institute (Kalamazoo, Michigan). Alexey Logunov is a laureate of the IV International competition of performing musicians and composers "Romanticism: sources and horizons" Franz Schubert's in memoriam (2013, Moscow), VI and VII young composer's competitions at the International festival "Three centuries of classical romance" (2016, 2018, Saint-Petersburg), II young composers competition "Siberia symphony" (2017, Krasnoyarsk), diplomant of XVI Open composers competition named after Andrey Petrov (2022, Saint-Petersburg). He is a winner of 2023 Georgina Joshi Composition Commission Award at Jacobs School of Music.

Violinist **Lin He** made his Carnegie Hall solo debut in November 2014, after a performance there earlier that year with principal players from the Metropolitan Opera, New York Philharmonic and Philadelphia Orchestra in orchestral setting. Over the past seasons, he performed the Bruch Scottish Fantasy with the Sonoma County Philharmonic, Korngold Concerto with the Rapides Symphony Orchestra, Mendelssohn Violin Concerto with the Shippensburg Symphony, and the Sibelius Concerto with the Lake Charles Symphony. Mr. He is now serving as the Associate Professor of Violin at the Louisiana State University School of Music and the Associate Concertmaster of the Baton Rouge Symphony. During the summer, he teaches at the

Summit Music Festival and Institute, Sewanee Summer Music Festival, InterHarmony International Summer Music Festival, Montecito International Music Festival and BayView Music Festival.

Born in Shanghai, China, Mr. He began his musical training at the age of five. Mr. He received his doctorate from the Eastman School of Music, where he studied under the tutelage of Zvi Zeitlin. Other major influences include Steven Staryk, Sylvia Rosenberg, Kyung Sun Lee and Paul Kantor.

CHIRP depicts a sunrise in three short scenes. It explores two birdsong quotations from Olivier Messiaen's Orchestral work Réveil des oiseaux (1953), the Nightjar, representing the night, and the Woodlark, representing the day. Through various means I try to create a liminal space between Messiaen's interpretation of birdsong and my own.

Willyn Whiting (b.1993) is a Canadian composer currently based in Winnipeg, Manitoba. His works feature the blending of disparate technologies and stylistic trends, guided by personal conceptualizations of metaphor, artificiality, and orientation. Over the years he has written for both professional and emerging ensembles including the Bozzini Quartet, Del Sol String Quartet, Fort Worth Symphony Orchestra, and RE: duo. His music been featured at such festivals as MANTIS (UK), REF (IT), SEAMUS (US), EMM (US), PMF (US), and the SPLICE Institute (US) and Canadian workshops such as Orford Academy, Montréal Contemporary Music Lab, and Domaine Forget de Charlevoix.

In his academic pursuits he has had the privilege of studying with Jon Nelson, Joseph Klein, Panayiotis Kokoras, Kirsten Soriano, Paul Frehner, Gary Kulesha, James Rolfe, and Vincent Ho, among others.

A Graduate Assistant and Doctoral candidate at Louisiana State University, **Lea Baumert-Patterson** is an active freelancer and teacher in the Baton Rouge and New Orleans areas. Lea has been a guest flutist with distinguished ensembles such as the Louisiana Philharmonic Orchestra, Baton Rouge Symphony, Dallas Opera, Tulsa Symphony and Ballet, Amarillo Opera, and National Repertory Orchestra. She has been a featured soloist with the LSU Symphony Orchestra as a winner of their concerto competition (2021) and with the LSU Wind Ensemble for the world premiere of Adolphus Hailstork's flute concerto (2023). As a soloist, chamber, and orchestral musician, she has performed in venues all over the United States and Europe. Lea also has extensive experience performing contemporary and experimental music, and has been a featured performer with the Electric LA-TEX Experimental Music Festival, the Constantinides New Music Ensemble, and the New Music on the Bayou Festival (where she also serves as a board member).

Apart from her appearances on stage, Lea is also a committed teacher. Before her studies at LSU, she taught a private studio of over 50 high school and middle school students in the North Dallas area. During her time in Dallas, she served as a judge for regional auditions and taught masterclasses in Dallas/Fort Worth. Lea teaches flutists of all ages, from elementary school to young adults and graduate students and was a featured clinician at the Texas Music Educators Association in 2019, presenting on the basics of private studio teaching.

Lea holds a Master of Music degree in flute performance from Louisiana State University and a Bachelor of Music degree from West Texas A&M University. Her primary teachers include Dr. Katherine Kemler, Ji Weon Ryu, Rachel Ciraldo, and Helen Blackburn. She currently resides in New Orleans with her husband, Bryan.

The "Dance" in the Place Congress

In New Orleans, a place known as Congo Square has held numerous festivals of music and dance called, “Dance in the Place Congo”. Such named events were held in the Congo nation as well. In some African countries, Ghana, e.g., there is no separate word for music – it exists only in tandem with dance. This piece is intended as a parody of Insurrectionist-in-chief Donald Trump’s Big Lie that the 2020 election was stolen from him and his repeated lies and attempts to overturn the results that ultimately lead to the January 6th Insurrection at the Capital. The quotation marks around ‘Dance’ in the title refers to the fact that the attack on the Capitol was an Insurrection despite repeated attempts to “dance” around that fact by calling it merely a peaceful protest gone awry, a sight-seeing tour, a false flag operation orchestrated by Antifa, or a stop the steal rally, etc. “The Place Congress” is the Capital itself. The words/vocal sounds used in this piece are exclusively those of Donald Trump mainly taken from the speeches given the day of the attack. (A few are from prior to January 6th.) The words have been subjected to many digital manipulations, including transposition, time-stretching, vocoding, granulation, shuffling, filtering of various kinds, and splitting of some words into component phonemes, e.g., to create the word “dance”. As a “tribute” to Trump’s incessant lying, bloviating, and projection, I wanted to use rap (along with jazz, rock, and quasi-Latin accompaniment styles) as an essential component, in addition to turning many of Trump’s despicable putdowns of others back onto himself. The final portion of the piece, which follows actual recordings of the protests and rioting (with the bass in a guided improvisation “accompanying” it) reflects the sadness and grief I felt at nearly losing our Democracy that day – a danger that is ongoing.

David Taddie received the BA and MM in composition from Cleveland State University where he studied with Bain Murray and Edwin London, and the Ph.D from Harvard University where he studied with Donald Martino, Bernard Rands, and Mario Davidovsky. He has written music for band, orchestra, choir, solo voice, and a wide variety of chamber ensembles as well as electroacoustic music. His music has been widely performed in the United States, Europe, Asia, and Australia by numerous soloists and ensembles including the Cleveland Orchestra, Cleveland Chamber Symphony; the University of Iowa, University of Miami (FL), Kent State University, and West Virginia University Symphony Orchestras; Alea III, the New Millennium Ensemble, the California Ear Unit, the Core Ensemble, the Cabrini Quartet, the Mendelssohn String Quartet, the Portland Chamber Players, the Gregg Smith Singers, and many others. He has received several prestigious awards including ones from the American Academy of Arts and Letters, the Koussevitzky Foundation, the Fromm Foundation, and the Music Teachers National Association. Recordings of his music can be heard on the Ravello, New Focus, and SEAMUS CD labels. He is currently Emeritus Professor of Music at West Virginia University, having retired this past spring. He was the director of the Electronic Music Studio during his entire tenure at WVU, and during his last five years, the coordinator of composition. Prior to coming to WVU, he taught at the University of Massachusetts-Dartmouth, Cleveland State University, and was pianist with the Cleveland Chamber Symphony. He lives in Morgantown with his wife, Karen, and in addition to making music, enjoys spending time with his grandkids as well as gardening and speaker building.

the rain washed the fear away is a collaboration between Aleu Botelho and Paul J. Botelho for voice and fixed media. The compositional process began with recording vocal improvisations, which were then processed and layered, along with other electro-acoustic sounds, to create the first-order ambisonic fixed media component. The performance will include live improvised voice in reaction to the fixed media component.

Paul J. Botelho is an Azorean-American composer and performer. His work includes acoustic and electro-acoustic music, multimedia installation pieces, visual artworks, vocal improvisation, and several one-act

operas. He performs as a vocalist (countertenor) worldwide, primarily through extended vocal techniques. His recent work explores vocal responses to composed and prerecorded sonic environments and includes *In Moscow We Marched* (Russia 2019-20), *Visby Project* (Sweden 2017-18), and *Walmart 3 AM* (USA 2016). His work has been performed, presented, and exhibited in concerts, festivals, galleries, and museums across the Americas, Europe, Oceania, and Asia. Botelho received a Ph.D. and M.F.A. in Music Composition from Princeton University, an A.M. in Electro-Acoustic Music from Dartmouth College, and a B.F.A. in Contemporary Music Performance and Composition from the College of Santa Fe. Botelho has taught at Tulane University and Loyola University New Orleans. He currently teaches music composition at Bucknell University. pauljbotelho.com

Aleu Botelho is eleven years old. His interests include singing, acting, and playing the viola. He is a member of the Chorus and Theater Company at DHEMS. Aleu hopes to continue working in the arts in the future.

Air Traffic

Often my inspiration for new pieces comes from observing the natural world or worrying about what’s happening to it. In *Air Traffic*, I’m thinking about honey bees. In his book *Honeybee Democracy*, Thomas D. Seeley, a scientist at Cornell, gives a detailed account of the behavior of these bees. His main idea — which seems charmingly idealistic, especially these days — is that humans could learn a thing or two from the social cohesion and cooperative decision-making of honey bees. But it’s his research into the honey bees’ ability to scout out a new home and navigate there, while keeping together a hive of thousands, that interests me most. Seeley and his colleagues performed experiments suggesting that certain scout bees guide the others to a new home they’ve discovered: the scouts fly quickly, in a straight line through the bee swarm, thus encouraging the other bees to follow, instead of flying randomly in all directions. My piece enacts such a swarm in its middle section, using a colony of synthetic “bees” that fly around the concert hall, while the trumpeter, as scout bee, gets them to fly right. When the bees find their home, they break into a celebratory song, with a swinging beat. But there are real bees in this piece, too! To help me get a better sense of what honey bees are like up close, I met with IU biologists Lílian Caesar and Chris Robinson at the university hives. I dropped microphones in a hive and witnessed a terrifying, claustrophobic, and frenzied sound world, which you will hear accompanying the trumpet. I even donned a bee suit to better see what they were up to. You will hear a bit of my conversation with Lílian at the end of the piece. The bees do not intimidate her. I thank Lílian for allowing me to use her voice. Unfortunately, honey bees, while essential for agriculture, tend to out-compete native pollinators, which are also under threat from climate change and pesticides. If you want to help native bees, and you have some kind of yard, replace your grass with native plants. Bees will show up for asters, bee balm, boneset, and others. Most of these bees are solitary, not living in huge hives, so they will be happy to visit you.

John Gibson composes electronic music, which he often combines with instrumental soloists or ensembles. He also creates fixed-media audio and audiovisual works that focus on environmental soundscape. His portrait CD, *Traces*, is available on the Innova label, along with other recordings on the Centaur, Everglade, Innova, and SEAMUS labels. Audiences across the world have heard his music, in venues including the D-22 punk rock club in Beijing, the Palazzo Pisani in Venice, and the U.S. Botanic Garden in Washington, D.C. Presentations of his electroacoustic music include concerts at the Seoul International Computer Music Festival, the Bourges Synthèse Festival in France, the Brazilian Symposium on Computer Music, the Australasian Computer Music Conference, and many ICMC and SEAMUS conferences. Significant awards include a Guggenheim Fellowship, a Charles Ives Scholarship from the American Academy and Institute of Arts and Letters, the Paul Jacobs Memorial Fund Commission from the Tanglewood Music Center, and a

residency in the south of France from the Camargo Foundation. He was a Mentoring Artist at the Atlantic Center for the Arts in May 2017. Gibson is associate professor of music and director of the Center for Electronic and Computer Music (cecm.indiana.edu) at the Indiana University Jacobs School of Music.

Eddie Ludema is Assistant Professor of Trumpet, Music Theory and Tech at Idaho State University. He is principal trumpet with the Idaho State Civic Symphony and performs with the Portneuf Brass Quintet and the ISU New Music Faculty Ensemble. He and Prof. Jon Armstrong formed and co-direct the acoustoelectric Video Game Music Ensemble as part of the Commercial Music Program at Idaho State. He works with the trumpet studio, trumpet ensemble, brass ensemble and teaches music theory, music technology and improvisation. He has performed with the Utah Symphony, The Orchestra at Temple Square (Utah), the ORSO Rock Orchestra (Germany), the Classical Music Festival Orchestra (Austria), the Carmel (Indiana) Symphony, the Columbus Indiana Philharmonic, the Terre Haute Symphony, and the Indiana University New Music Ensemble. He was a founding member of the Mirari Brass Quintet and toured internationally with the Indiana State University Faculty Ambassador Brass Quintet. He received doctoral and masters degrees from Indiana University with John Rommel, an Artist's Diploma with Anthony Plog at the Freiburg Music Conservatory (Germany), and a bachelor's with Nick Norton at the University of Utah.