

Saturday, February 4, 2023, 8pm  
Hertz Hall

## Eco Ensemble

David Milnes, *conductor*

Tod Brody, *flute*  
Kyle Bruckmann, *oboe*  
Peter Josheff, *clarinet*  
Matt Ingalls, *clarinet, bass clarinet*  
Alicia Telford, *horn*  
Jamael Smith, *bassoon*  
Alan Matteri, *trumpet*  
Brendan Lai Tong, *trombone*  
Loren Mach, *percussion*  
Marty Thenell, *percussion*  
Travis Andrews, *electric guitar*  
Kristin Lloyd, *harp*  
Anne Rainwater, *piano*  
Sharon Kim, *piano*  
Hrabba Atladottir, *violin*  
Jooyeon Kong, *violin*  
Ellen Ruth Rose, *viola*  
Leighton Fong, *cello*  
Richard Worn, *double bass*

*This performance is made possible, in part, by Françoise Stone.*

COVID-19: Masking is required inside the auditorium, and is strongly recommended, though not required, for indoor lobby/waiting areas as well as outdoor spaces. Up-to-date vaccination is strongly recommended, though not required for entry. The latest information on Cal Performances' COVID-19 safety policies is available at [calperformances.org/safety](https://calperformances.org/safety).  
Photographing and/or recording this performance is strictly prohibited.

## PROGRAM

### **Edmund Campion**

*Velvet Algorithms* (2022, US Premiere)  
for 12 instruments and electronics

### **Cindy Cox**

*Blackwork, Scarletwork* (2021)  
for violin, viola, and cello

### **Amadeus Julian Regucera**

*At the end, breathless and clothed in fire* (2021–22)  
for large ensemble

## INTERMISSION

### **Ken Ueno**

*...blood blossoms...* (2002)  
for amplified sextet

### **Toshio Hosokawa**

*Voyage V* (2001, US Premiere)  
for flute and chamber orchestra

Stacy Pelinka, *soloist*

*Special thanks to the University of California, Berkeley Department of Music  
and CNMAT (Center for New Music and Audio Technology)*

### **Eco Ensemble**

David Milnes, *artistic director*  
Jeremy Hunt, *executive director*  
Jon Yu, *production director*  
Jeremy Wagner, *technical director*  
Brendan West, *technical director*

**EDMUND CAMPION***Velvet Algorithms* (2022, US Premiere)

All my music refers to shattered and dreamlike narratives of one sort or another. These post-modern gestures have appeared in my music since I began composing. Listeners attend to music from all sides and with all levels of prior experience, so I compose in a semiotic labyrinth, both sound and sign, and always kaleidoscopic. Unlike Berlioz, who is referred to in the first part of the piece, I don't tell a story in sound; I offer a deeply layered platform of sound where the omni-narratives are at the surface for a listener to attend to or not. Someone might ignore the sonic signposts and just be attending to the performance and sound itself. A new music insider can attend to other clues or breadcrumbs—a number of personal greetings or inside humor.

The dream that inspired *Velvet Algorithms* concerns a person who takes up composing music during the time of artificial intelligence (AI). This composer is seriously influenced by AI-made music. At some point, they accept the AI as the teacher and eventually forget that the AI has taught them.

My experience in life has been that when given new technologies or foundational changes in the conditions of life on the planet, humans flip their view of life and quickly adapt to another state of reality. These human-state changes have been happening much faster in my lifetime and they always come with a new vocabulary and a new worldview. The old world is quickly overturned and a new justification for our continued ignorance and greed is implanted. This process has become very tiring for me, and sad.

Although *Velvet Algorithms* is pure fantasy and not created by an AI, it is created with computer-assisted techniques thoroughly shaped by my human hand. My hope is that it is ART, that it invites a listener to visit my mind and see how I experience

our human “Umwelt”—a brief few moments when we might share and not share many similarities.

—Edmund Campion

**Edmund Campion** is currently Professor of Music Composition and Director at the Center for New Music and Audio Technologies (CNMAT) at the University of California, Berkeley. An active composer, performing artist, software developer, and collaborating artist for more than 30 years, he continues to produce highly personal music that often mixes emerging technologies with acoustic instruments. As a 2016 Guggenheim Fellow, Campion composed for the Contemporary Gugak Orchestra, an ensemble of 50 musicians performing on ancient Korean instruments. Other awards include the American Rome Prize, the Lili Boulanger Prize, the Paul Fromm Award at Tanglewood, and the Goddard Lieberson Fellowship from the American Academy of Arts and Letters. Campion's music is heard on concert stages throughout the world, with upcoming projects including commissions for the Ensemble Sillages in France and the Drumming Ensemble in Portugal.

**CINDY COX***Blackwork, Scarletwork* (2021)

Blackwork and scarletwork were types of embroidery common in the Renaissance, especially in Spain. They were used to decorate fine clothing with counted black or red thread stitching on white fabric. The repeating sequences in my string trio were inspired by how these geometric and floral patterns could be used to build up wonderfully complex yet unified and coherent designs.

The violin and viola play throughout in a very light, off-the-string *leggiero* manner, while the cello has an expressive, lyrical solo inflected with different timbres ranging

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## PROGRAM NOTES

from *sul ponticello* (near the bridge), *sul tasto* (on the fingerboard), and strong overbowing (pressing very hard with the bow while moving it slowly). The music is full of gracenote embellishments and accentuations; I used three types of jeté (bounced) bowing—a thrown bow in the usual manner, a dropped bow without any horizontal motion, and a dropped *col legno* (with the wood) bounced bow.

The piece is dedicated to the No Exit new music ensemble, which gave the premiere.

—Cindy Cox

Transparent yet complex, Cindy Cox's compositions synthesize old and new musical designs. The natural world inspires many of the special harmonies and textural colorations in her compositions.

Cox is active as a pianist and has performed and recorded many of her own compositions, including the large-scale *Hierosgamos* and *Sylvan Pieces*. Several of her works—such as *Pianos* and the *Etudes for Piano Sampler*—feature technologies developed at CNMAT. The Toulmin Foundation and the League of American Orchestras commissioned *Dreaming a World's Edge* for the Saint Paul Chamber Orchestra, which recently premiered it. Cox's compositions with text, such as *Singing the lines*, *The Other Side of the World*, and *The Shape of the Shell*, evolved through collaboration with her husband, poet John Campion, and together, they have completed a new music-theater work called *The Road to Xibalba*, based on the ancient Mayan mythic text *The Popol Vuh*.

Cox has received awards and commissions from the American Academy of Arts and Letters, the Fromm Foundation, the National Endowment for the Arts, the Guggenheim Foundation, the American Composers Forum, ASCAP, Meet the Composer, and the Fulbright and Mellon foundations. Recent performances have taken place at the Venice Biennale, the

Festival de la Habana in Cuba, the American Academy in Rome, the Oriental Arts Center in Shanghai, Carnegie and Merkin halls in New York City, the National Gallery in Washington, the Library of Congress, the Kennedy Center, and the Biblioteca Nacional in Buenos Aires. Cox is presently Professor of Music at the University of California, Berkeley.

### AMADEUS JULIAN REGUCERA

#### *At the end, breathless and clothed in fire* (2021-22)

*At the end...* is a summation, a culmination, and recontextualization of my instrumental work since 2012. When I began writing instrumental music, I wanted to create music that screamed, struck, scraped, tore, struggled. I drew from the Western tradition: 18th-century *Sturm und Drang*, 19th-century Romanticism, the tortured and angular shapes of post-war Modernism, its turn in mid-century *Neue Subjektivität*, the extroversion of punk rock as well as its attendant somberness, and the expansive inwardness of its consequence in post-punk genres of the 1980s; I threaded a narrative from my immigrant suburban adolescence through my post-doctoral career, using someone else's toolbox and tried to make it my own. I dreamed of an affective experience that was as much an assault as it was a missive; a call from "inside the house," a stream of consciousness that was an attempt to reach anyone who would hear it and empathize with its "message." It was an ambitious desire with various levels of success. But there were, at the least, moments of triumph in various work, moments that articulated in sound and form what I could not with words. I've collected these moments since 2012, and carried them with me into *At the end...*

Commissioned in 2021 by the San Francisco Contemporary Music Players and premiered at the ODC Dance Commons in

April 2022, the title owes itself, in part, to a poem by José García Villa, a Filipino poet and immigrant who, like me, found himself drawn to and immersed in the culture and practice of Western Euro-American modernism. The first stanza of the poem reads:

In my desire to be Nude  
I clothed myself in fire:—  
Burned down my walls, my roof,  
Burned all these down.

A consummate Catholic, García Villa struggled with his relationship with God and the implications of tradition and religion amidst the thrust of scientific and social "progress," an ideal of mid-20th-century Whiteness rooted in the same 18th-century thinking that bore the musical influences I enumerated above and which employed/employs the inhumane practices of subjugative colonialism to continue its practice into the 21st century. I, and other artists have inherited García Villa's struggle as victim and accomplice.

The piece is also a liturgy of sorts. My grandfather and namesake, Amadeo Regucera, himself a Filipino immigrant, died towards the end of the composition of *At the end...* and some formal aspects of the work owe themselves to the traditions of Catholicism: the antiphonal arrangement of the instrumental choirs, the processional music that begins the piece, the collage-like form that references the parody masses of the 16th century, and the moments of exaltation that give way to passages of sober stillness and reflection.

The piece's form is in three sections. An introduction that invites the listener into the piece's atmosphere ultimately hurtles into the first section, a re-orchestration of my 2016 work *SKRWL* (scored for clarinet, trombone, piano, viola, and cello and written for Ensemble Intercontemporain), performed by the instrumental choir of strings,

percussion, and piano. This section centers on a single performative gesture: the slow drawing of a string bow across a muted string. The ensemble develops upon this scraping timbre, and the music constantly expands and contracts, undulating forward.

A percussion reprise introduces the second section, performed by the instrumental choir of winds, percussion, and harp. This section is predominated by wind music that pushes the performers to the edge of their physical ability while withholding one of the foundational elements of Western music: pitch. Instead, the texture foregrounds the fundamental aspect of the instrument itself: the breath of its performer. The texture is active, frantic, always on the verge of collapsing in on itself through sheer propulsion. In terms of my own work, this music has perhaps the most complex history. It began as a piccolo line (a rhythmic transcription of a poem by Ocean Vuong) from *Torso of Air|Stapled Flesh*, my ensemble piece for 12 musicians (written in 2017 for Ensemble Linea). The piccolo line became a solo piece for Bay Area flutist Stacey Pelinka as part of *The trauma you keep safe is the pain you pass along* (2018) then was reorchestrated in the piece *RAW* (for the Eco Ensemble, 2019), and then appears here in *At the end...*, yet another re-orchestration and recontextualization of all the previous iterations of the piccolo line, nearly verbatim.

The final section, *tutti*, begins with music lifted from my 2012 string quartet *obsured–distorted–redacted*, a pastiche of György Ligeti's Second String Quartet among others, and thrusts the musicians into a prismatic and often overwhelming complex of rhythmic and gestural interplay and emotive and musical desperation. The section's climactic moment explodes eventually, its remnants falling like so much dust—a final lament scored for piano and harp.

My gratitude to Eric Dudley, Lisa Oman, and the musicians of the San Francisco Contemporary Music Players for commissioning and premiering the piece, and to David Milnes and the Eco Ensemble, long-time friends and champions of my music, for re-presenting the work and excavating its emotional and musical details in this performance.

—*Amadeus Julian Regucera*

The work of **Amadeus Julian Regucera** (born 1984, he/they) engages with the embodied and acoustical energy of sound and the erotics of its production through concert music, installation, performance art, and video. He has had the opportunity to present works around the world: notably, at the ManiFeste (Paris, FR), the Festival Musica (Strasbourg, FR), Voix Nouvelles (Asnières-sur-Oise, FR), the Resonant Bodies Festival and the SONiC Festival (New York City), the Havana Festival of Contemporary Music as part of the American Composers Forum artist delegation to Cuba, the Mizzou International Composers Festival, and the Hong Kong Modern Academy, among others. His music has been performed by musicians and ensembles such as Ensemble Linea, Alarm Will Sound, Ensemble Intercontemporain, EXAUDI vocal ensemble, San Francisco Contemporary Music Players, violinist Jennifer Koh, Splinter Reeds, the Left Coast Chamber Ensemble, Duo Cortona, Third Sound, and the UC Berkeley Symphony Orchestra. In addition to concert music, his practice intersects with visual and performance art, most notably in *RIGOR* a collaboration between visual artist Nicolás Rupcich and commissioned by violinist Jessica Ling (June 2021); *Absence in relief* (April 2021) an audio-visual installation commissioned by InterMusicSF and Indexical for the Radius Art Gallery, Santa Cruz,

California; *IMY/ILY* (2018–19), a monodrama for solo percussionist, commissioned by Andy Meyerson (The Living Earth Show); and the installation/performance *Communication* (2013) at the Kulturzentrum bei den Minoriten in Graz, Austria. Upcoming projects include a new piece for the Wavefield Ensemble commissioned by the Fromm Foundation at Harvard University. Regucera holds degrees in music from the University of California, San Diego (BA 2006) and the University of California, Berkeley (PhD 2016). Beginning in September 2022, Regucera is Curator of Music at the Curtis R. Priem Experimental Media and Performing Arts Center (EMPAC) at Rensselaer Polytechnic Institute.

## KEN UENO

*...blood blossoms...* (2002)

*Premiered by the Bang on a Can All-Stars*

“The old junky found a vein... blood blossoms in the dropper like a Chinese flower.”

—*Naked Lunch*, William F. Burroughs

I can't believe that this piece is 20 years-old now. Writing for the Bang on a Can All-Stars presented an exciting opportunity to compose a chamber work that included electric guitar (which was my main instrument growing up), as back then, in the early 2000s, it was still rather rare to use instruments that were more conventionally associated with vernacular musics (many colleagues were still invested in Bourdieuan cultural stratifications—i.e. sonic affordances that pointed to the vernacular were often viewed with disdain).

One of the many things I love about the electric guitar is the viscerality it projects aided by amplification and distortion. Felt as much as heard, the amplified, distorted, electric guitar is a spectral instrument—the amplification facilitates the audibility of

complex upper harmonics and frequencies. The ensemble is orchestrated around the sounds I knew the electric guitar could unleash (e.g. the “distorted” melody the bass clarinetist hums through the body of the instrument, a roughness that pairs nicely with fast harmonics being played on the electric guitars...well, at least, I like it!). That's the thing, I wrote sounds I wanted to hear, not delimited to the sounds I felt I was *supposed* to write as a composer. But that was 20 years ago. I am happy to see that some things have changed.

Amplification helps facilitate subtle sounds too. The Burroughs text quoted above made me think that beauty can be found in a medium full of potential power and destruction. In writing for an amplified ensemble, I also sought to create delicate textures that play against the insipid power of amplification and distortion.

—*Ken Ueno*

**Ken Ueno**, is a composer, vocalist, improviser, and sound artist.

Leading performers and ensembles around the world have championed Ueno's music. His piece for the Hilliard Ensemble, *Shiroi Ishi*, was featured in their repertoire for more than 10 years, with performances at such venues as Queen Elizabeth Hall in England and the Vienna Konzerthaus, and was aired on Italian national radio, RAI 3. Another work, *Pharmakon*, was performed dozens of times nationally by Eighth Blackbird during the group's 2001–03 seasons. A portrait concert of Ueno's was featured on MaerzMusik in Berlin in 2011. Other ensembles and performers that have performed Ueno's music include Kim Kashkashian and Robyn Schulkowsky, Frances-Marie Uitti, Mayumi Miyata, Teodoro Anzellotti, and Steve Schick and the SFCMP.

As a vocalist, Ueno is known for inventing extended techniques and has performed as soloist in his vocal concerto with orchestras

in Boston, New York, Warsaw, Vilnius, Bangkok, Sacramento, Stony Brook, Pittsburgh, and North Carolina.

As a sound artist, Ueno's installations have been commissioned and exhibited by museums and galleries in Beijing, Guangzhou, Taipei, Mexico City, Art Basel, Los Angeles, and Hong Kong. Last fall, he created evening-long installation performances for the Osage Gallery, Tai Kwun, and at the FreeSpace. One of his largest projects, *Daedalus Drones*, an installation (a fence-labyrinth housing a swarm of flying drones choreographed for performance) installed at the Asia Society of Hong Kong, was featured on the New Vision Arts Festival.

Ueno currently serves as Professor of music at UC Berkeley. As an author, his writings have been published by the Oxford Handbook, the *New York Times*, Palgrave Macmillan, and Wiley & Sons. He holds a PhD from Harvard University and an MMA from the Yale School of Music, and his biography appears in the *Grove Dictionary of American Music*. [www.kenueno.com](http://www.kenueno.com).

## TOSHIO HOSOKAWA

### *Voyage V* (2001, US Premiere)

This piece was commissioned by the Italian flutist Roberto Fabbricani and was first performed by the commissioner himself and the Ensemble United Berlin conducted by Andrea Pestalozza at the Festival Internazionale di Musica Contemporanea della Biennale di Venezia 2001. Since 1997, I have composed concertos for solo instrument and ensemble under the title of *Voyage* (as of now [2018], I have already written 10 pieces for this series). In this series, I write the pieces based on the following idea: The soloist represents a human being, and the ensemble stands for nature and the universe that surround the human being, both internal and external. The human being sings to nature, then nature responds to

him. Through repeating this process, the human being attains deep harmony with the nature. The correspondence between the human being and nature is regarded as a "voyage"; the human being grows through the voyage and experiences richness of music.

—*Toshio Hosokawa*

**Toshio Hosokawa** was born in Hiroshima on October 23, 1955. Following initial studies in piano and composition in Tokyo, he came to Berlin in 1976 to study composition with Isang Yun at the Universität der Künste. He continued his studies with Klaus Huber at the Hochschule für Musik in Freiburg from 1983 to 1986. In 1980, he participated for the first time in the Darmstädter Ferienkurse für Neue Musik, where some of his compositions were performed. From 1990, he was a regular guest of the festival as a tutor. In subsequent years, the composer's international reputation continued to increase and Hosokawa received numerous commissions. From 1989 to 1998, the composer was the artistic director and organizer of the annual Akiyoshidai International Contemporary Music Seminar and Festival in Yamagushi, which he had co-founded. Since 2001, he has also been the artistic director of the Japanese Takefu International Music Festival in Fukuj. Hosokawa was appointed permanent guest professor at the Tokyo College of Music in 2004. He lives in Nagano, Japan and in Mainz, Germany.

Hosokawa's compositions include orchestral works, solo concertos, chamber music, and film music alongside works for traditional Japanese instruments. Influences from both Western music—from Schubert to Webern—and traditional Japanese music can be recognized in his compositions. Hosokawa considers the compositional process to be instinctively associated with the concepts of Zen Buddhism and its symbolic



interpretation of nature. In the instrumental work *In die Tiefe der Zeit* (1994), the cello represents the male and the accordion the female principle, whereas the surrounding cosmos is reflected in the form of air and clouds by the strings; each individual note has a particular significance, defying silence in their tonal characteristics and thereby becoming an element of a superordinated philosophical concept. The orchestral work *Circulating Ocean* was composed in 2005 as a commission for the Salzburg Festival. Valery Gergiev conducted the world premiere in Salzburg. Today it has become a frequently performed piece, as is Hosokawa's piano concerto *Lotus under the moonlight*, which was premiered by the NDR Symphony Orchestra and the pianist Momo Kodama in 2006 as a tribute to Mozart. *Woven Dreams* is an award-winning work of Roche Commissions, which was premiered by the Cleveland Orchestra at the Lucerne Festival in 2010 and won a BASCA British Composer Award in 2013. *Horn Concerto – Moment of Blossoming* was written for the horn virtuoso Stefan Dohr, who premiered it with the Berliner Philharmoniker under Sir Simon Rattle's direction in 2011.

In his oratorio *Voiceless voice in Hiroshima* (1989/2000–01) for soloists, narrator, choir, accompanying tape (playback tape) (ad lib.), and orchestra, Hosokawa takes as his subject the devastating atomic bomb explosion at the end of the Second World War in the city of his birth. The composer approaches the unutterable through his extreme musical language—the brutal tonal world of brass and percussion and the colorful chordal landscape of the choir. A series of compositions for varying instrumentations is dedicated to the victims of Japan's 2011 tsunami and subsequent nuclear disaster. *Meditation* for orchestra evolves from a silent meditation to an elegy while the brass and percussion instruments

warn of the approaching tsunami in the background. Hosokawa also wrote the opera *Stilles Meer* in response to these terrible events. It was commissioned by Hamburg State Opera and saw its premiere conducted by Kent Nagano in January 2016.

His first opera, *Vision of Lear*, was premiered at the Münchener Biennale in 1998. Here, Hosokawa succeeded in bridging East and West in his Shakespeare adaptation: modern form of European musical theater meets the Japanese traditions of Nō theater on the basis of the Renaissance play. Hosokawa's second opera, *Hanjo*, was first staged at the Festival in Aix-en-Provence in 2004, followed by further performances in Brussels, Hamburg, Lisbon, Bielefeld, Lyon, Tokyo, and Milan. His third opera, *Matsukaze*, premiered at La Monnaie Brussels in 2011 (with staging by Sasha Waltz) and *Horn Concerto – Moment of Blossoming* and many others were premiered under the baton of leading international conductors including Kazushi Ono, Kent Nagano, Sir Simon Rattle, and Robin Ticciati. Many of the works mentioned above have become an important part of the contemporary repertoire.

Hosokawa has received numerous awards and prizes, among them the first prize in the composition competition for the 100th anniversary of the Berliner Philharmoniker (1982), the Arion Music Prize (1984), the Kyoto Music Prize (1988), and the Rheingau Music Prize (1998). From 1998 to 2007, he was Composer-in-Residence at the Tokyo Symphony Orchestra. Hosokawa was appointed member of the Akademie der Künste in Berlin in 2001. In 2006–07 and 2008–09, he undertook a period of research at the Institute for Advanced Study [Wissenschaftskolleg] in Berlin. He was Composer-in-Residence at the Biennale di Venezia (1995, 2001), the Tokyo Symphony Orchestra (1998–2007), the International Music Festival of Lucerne (2000), Musica

viva in Munich (2001), *Musica nova* Helsinki (2003), Warsaw Autumn (2005, 2007) and others. He was also Artistic Director of the Suntory Hall International Program for Music Composition from 2012–15.

**Eco Ensemble**, under the direction of David Milnes, is a group of prominent Bay Area musicians who are passionate about exploring and performing contemporary works. Its mission is to enrich and serve the Bay Area's cultural life through the creation, performance, and dissemination of new music by composers from Berkeley and around the world. Called a "dream team of local musicians who embody a high point in the Bay Area's vibrant contemporary music scene" by the *New York Times*, Eco Ensemble has been featured at the Festival of New American Music and the Venice Biennale and has worked closely with renowned composers including Kaija Saariaho, Beat Furrer, Philippe Leroux, George Lewis, Erin Gee, and Ivan Fedele. The group is the ensemble-in-residence at UC Berkeley's Department of Music and the Center for New Music and Audio Technologies (CNMAT), and as the university's principal performance outlet for performers and composers of new music, Eco Ensemble commissions and premieres works from UC Berkeley composers. With a focus on education for both experienced audiences and novices, Eco Ensemble's and CNMAT's public outreach efforts include lectures, demonstrations, workshops, and composer residencies. Members of the ensemble work extensively with undergraduate and graduate musicians in new-music studies. Eco Ensemble's unique collaboration with CNMAT inspires works that are informed by contemporary explorations into the intersection between science and music. The ensemble seeks to expand the possibilities for new music by

working with CNMAT faculty, students, and researchers to develop new instruments, new applications of technologies for composition and performance, and new modes of expression.

**David Milnes** serves as Music Director of the Eco Ensemble, UC Berkeley's internationally recognized professional new-music ensemble-in-residence as well as the UC Berkeley Symphony Orchestra. During his early years, he studied piano, organ, clarinet, cello, and voice, and briefly entertained a career as a jazz pianist, appearing with Chuck Mangione, Gene Krupa, Billy Taylor, and John Pizzarelli. After studying with Charles Rosen, Otto-Werner Müller, Herbert Blomstedt, Erich Leinsdorf, and Leonard Bernstein, Milnes won the prestigious Exxon Conductor position with the San Francisco Symphony at age 27, where he appeared frequently on the New and Unusual Music Series. He also served as Music Director of the highly acclaimed San Francisco Symphony Youth Orchestra, which he led on its first European tour.

A dedicated proponent of new music, Milnes has led many performances with Earplay, the Emyrean Ensemble, Composers Inc., and the Left Coast Chamber Ensemble. As Music Director of the San Francisco Contemporary Music Players, he commissioned and premiered new works from around the world from such composers as Phillippe Leroux, Liza Lim, Edmund Campion, Shulamit Ran, Zhou Long, Kui Dong, Earl Kim, Jorge Liderman, and Cindy Cox. With the Eco Ensemble he has conducted works by Pierre Boulez, Giorgi Ligeti, Jonathan Harvey, Beat Furrer, Harrison Birtwistle, Franck Bedrossian, Andrew Imbrie, and Ivan Fedele. He has made recordings of music by John Anthony Lennon, James Newton, Edmund Campion, Jorge Liderman, and Pablo Ortiz.

Milnes has led the UC Berkeley Symphony Orchestra and Eco Ensemble on

four European tours since 2014, each featuring new music from Berkeley composers. In performance, he has collaborated with Pinchas Zukerman, Chanticleer, Frederica von Stade, Dawn Upshaw, Anna Netrebko, Bill T. Jones, and Paul Hillier, and has appeared at the Venice Biennale and Santa Fe, Tanglewood, Aspen, Other Minds and Monadnock music festivals.

The **Center for New Music and Audio Technologies (CNMAT)** houses a dynamic group of educational, performance, and research programs focused on the creative interaction between new music and emerging technologies. The center combines technical science-based research with a humanistic critical perspective and practical investigation into the process and possibility for new-music creation. At CNMAT, the laboratory and stage merge to push the boundaries of present-day music making. In addition to three decades of published research, CNMAT continues to support the software tools that it has pioneered since its founding in the late 1980's. CNMAT collaborates with all of UC Berkeley's disciplines dedicated to the study or creative use of sound.

CNMAT was conceived and established by composer and Professor Emeritus

Richard Felciano in the 1980s with a focus on the creative interaction between music and technology. Professor David Wessel, a pioneer in computer music and music cognition, directed the center until his death in 2014. During these years, Research Director Adrian Freed, organized an ambitious research agenda that produced concrete, practical developments in music-related technologies, including widely-adopted innovations such as Open Sound Control (OSC), the Sound Description Interchange Format (SDIF), the CNMAT tools for Max/MSP, and the recent cross-platform "odot" programming objects.

In the mid 1990s, the team expanded to include current Director, Professor Edmund Campion, current Associate Director Richard Andrews, as well as Musical Applications Programmer Matthew Wright and John MacCallum.

Today's CNMAT works with leading artists, performers, composers and improvisers to continue in the spirit of its history. In addition to its robust research agenda, the center produces numerous concerts, lectures, and symposia.

The Eco Ensemble, a leading Bay Area new music ensemble is in permanent residence at CNMAT.

To learn more about CNMAT, visit the website at [cnmat.berkeley.edu](http://cnmat.berkeley.edu).