Global Xenakis Centenary Symposium

William P. Kelly Skylight Room (9th floor)
The Graduate Center, CUNY
365 Fifth Avenue (at 34th Street)
New York City

September 30, 2022
9:30am-7pm

PROGRAM

9:30am   **Welcome and coffee**

9:45am   **Opening Remarks:**
- **Steve Everett,** Provost and Senior Vice President, GC-CUNY
- **Barbara Dobbs Mackenzie,** Director, Barry S. Brook Center for Music Research and Documentation
- **Carey Lovelace,** Founder of Visions2030, former student of Xenakis, curator, critic, playwright, producer of social-justice theater, activist

Moderator: Carey Lovelace

10am   **James Harley, opening keynote**
"Meta-materiality in the Thought and Creative Activity of Iannis Xenakis"

11am   **Imri Talgam**
"Performing Xenakis's Polyrhythms: A Perception-Informed Approach"

11:30am   **Raphael Radna** (remote)
"Xenos: A Dynamic Stochastic Synthesis Plug-in with Xenharmmonic Extensions"

12 noon   **Nathan Friedman**
"Xenakis's Philosophy of Music, Stochastics, and the Postmodern Sublime"

12:30pm   **Lunch Break (simultaneous streaming of "Kuniko Kato plays Xenakis:** *Plëïades* **for 6 percussionists")**

Moderator: Olga Touloumi

2pm   **Aram Yardumian**
               "The Iranian Context of Iannis Xenakis's *Persepolis*"

2:30pm   **Fabrice Marandola, Myriam Boucher, Dominic Thibaut**
               "*PolytopeXXI*: Creating a Polytope for the Stage"

3pm   **Yin Yu (with Conrad Harris)**
               "The Shape of Light: A Screen-based Visual Composition for
               Xenakis's *Mikka* and *Mikka S*"

3:30pm   **Coffee Break (simultaneous streaming of "*Mikka
               and Mikka S"* by Yin Yu (with Conrad Harris,
               violin)**

4:00pm   **Anton Vishio**
               "Negative Form and Xenakis's *La Légende d'Eer*"

4:30pm   **Andrew Lucia**
               "Notes on *A Catalog of Difference*"

5:00pm   **Curtis Roads, closing keynote** (remote)
               "La Légende de Xenakis: Meta Xenakis"

6-7pm   **Tribute to Joel Chadabe and Closing Reception**

Biographies and Abstracts

Keynote Speakers

James Harley is a Canadian composer-musician teaching at the University of Guelph. He obtained his doctorate at McGill University in 1994, after spending six years (1982-88) composing and studying in Europe: London, Paris, Warsaw. His music has been awarded prizes in Canada, USA, UK, France, Austria, Poland, Japan, and has been performed and broadcast around the world. Recordings include: *Neue Bilder* (Centrediscs, 2010), *~spin~: Like a ragged flock* (ADAPPS DVD, 2015), *Experimental Music for Ensembles, Drums and Electronics* (ADAPPS CD, 2019). As a researcher, Harley has written extensively on contemporary music. His books include: *Xenakis: His Life in Music* (Routledge, 2004), and *Iannis Xenakis: Kraanerg* (Ashgate, 2015). As a performer, Harley has a background in jazz, and has most recently worked as an interactive computer musician.

"Meta-materiality in the Thought and Creative Activity of Iannis Xenakis"

Iannis Xenakis (1922-2001) is mostly known as a music composer, but he was actually many things, and thought of himself as being formed of a "mosaic of coherences" (Xenakis 1971, viii). Xenakis possessed an enormous capacity to absorb a wide range of information, and to apply these inputs to his creative and technical work. Engineering is a discipline where a rigorous training in foundational skills such as mathematics is allied with practical applications. In the realm of western music, the cross-fertilization with other disciplines became quite restricted. While Music had been one of the foundational elements of Western education (the Quadrivium), the increasingly elaborate techniques being explored in Western music made it more hermetic. For Xenakis, however, his engineering background made it more natural for him to adapt tools and approaches from other disciplines. The transferral of ideas had the effect of creating highly original music: 1) The geometrical principles underlying hyperbolic paraboloids as they were being explored in architecture turned into a web of string glissandi in *Metastaseis* (1954); 2) the probability functions used in risk analysis were applied to generative applications in creating complex, granular "clouds" of sound in *Pithoprakta* (1956); 3) the detailed understanding of computer programming as well as the intricacies of linking software to digital audio-oriented computer hardware led to a unique graphical – based synthesis system, UPIC, and a series of compositions created using this system, from *Mycenae alpha* (1978).

His engineering background also supported his ability to develop unique multimedia presentations involving digitally controlled lighting systems with hundreds of flashbulbs and laser displays guided by movable mirrors. Perhaps the epitome of Xenakis's meta-materiality is his *Diatope* (1978), a work combining architecture, music with spatialization, lights, and a program text combining philosophy, history, and aesthetics. He had combined elements of this work in previous productions, mainly in his *Polytopes* (Montréal 1967, Persepolis 1971, Cluny 1972-4, Mycenae 1978). Elements of the music and lighting had appeared earlier, but the opportunity to create the architectural home for the work was unique.

For Xenakis the polymath, it was natural to draw concepts and techniques into his creative work from various disciplines. The advice from Olivier Messiaen to his young student who had very little traditional background or training in music proved prescient: "I encouraged him to use his mathematical and architectural knowledge in his own music and not to worry about melodic – harmonic – contrapuntal – rhythmic problems". Of course, these elements

are core to whatever music is being created, but the techniques for handling them can come from musical traditions or from other disciplines. The meta-materiality of Xenakis's work is core to his truly original contributions.

Curtis Roads creates, teaches, and pursues research in the interdisciplinary territory spanning music and sound technology. He is Professor and Chair of Media Arts and Technology (MAT) and affiliate faculty in Music Composition at the University of California, Santa Barbara (UCSB), where he is also Associate Director of the Center for Research in Electronic Art Technology (CREATE). He studied electronic music and computer music composition at California Institute of the Arts and the University of California, San Diego and received a Doctorate from the Université Paris 8. He was Editor and Associate Editor of Computer Music Journal (MIT Press) from 1978 to 2000, and cofounded the International Computer Music Association (ICMA) in 1979. His music set *Flicker Tone Pulse* (2019) was published on DVD by Wergo. His new book is *The Computer Music Tutorial, Second Edition* (MIT Press 2023).

"La Légende de Xenakis: Meta Xenakis"
This is a personal account of the impact Xenakis had on my life over several decades. I am not an expert on Xenakis's life. These recollections view Xenakis through the narrow lens of my encounters with him. The story begins with his course in Formalized Music at Indiana University in 1972. This encounter was life-changing. It gave me clear focus and direction, which was crucial in my university studies. The idea of using algorithmic processes in music composition attracted me from an intellectual standpoint as a formidable design problem. In 1973 I flew to Paris to attend the Festival d'Automne. The main goal of my visit to Paris was to experience Xenakis's sound and light spectacle Polytope de Cluny in the medieval Musée de Cluny. Returning to California, I was determined to synthesize granular sound by computer. I left CalArts for the University of California, San Diego (UCSD) where they had a working computer sound synthesis system. In 1981 I visited the CEMAMu center in Issy-les-Moulineaux to see a demonstration of the UPIC system by Xenakis and his assistant Cornelia Colyer. Guy Médigue, the lead engineer of the UPIC, was also present. In the summer of 1987 I had a residency as a visiting composer at the CEMAMu, working with the UPIC system. In 1993 I left IRCAM to teach at Les Ateliers UPIC in the suburb of Massy. It was in this period that I came to know personally Xenakis and his circle.

Presenters

Nathan Friedman is a composer, performer, and researcher from Kamloops, British Columbia, Canada, currently based in Toronto. He has degrees in composition from Wesleyan University and the University of Victoria, where he studied with Paula Matthusen, Anthony Braxton, John Celona, and Wolf Edwards. He is a founding member of the Victoria Composers Collective, a long-time member of A Place to Listen Ensemble, and has been an associate composer of the Canadian Music Centre since 2016. He is currently pursuing an MA in musicology at the University of Toronto.

"Xenakis's Philosophy of Music, Stochastics, and the Postmodern Sublime"
In his writings and compositions from the mid-1950s to the early 1960s, Iannis Xenakis makes clear his intent to compose music that escapes the inherited structures of the Western tradition. As a way to achieve this goal, he uses stochastic techniques in order to uproot listeners' expectations, but in a manner more attuned to the psychology of listening than his serialist contemporaries.

One of his chief concerns is the hierarchy of temporalities as experienced by the listener and manipulated by the composer, a hierarchy whose levels range from the length of an entire

piece down to microscopic sonic 'grains'. His usage of stochastic techniques muddies the distinction between these temporal levels, disorienting the listener on multiple timescales. Such a state of disorientation, where one is unable to predict the course of a work, is a hallmark of what Jean-François Lyotard calls the 'postmodern' sublime, which is produced by avant-garde artistic works that, like those of Xenakis, eschew received models and notions of representation or allusion.

Drawing on scholarship by Kiene Wurth and Brian Kane, I argue that Lyotard's postmodern sublime is precisely what Xenakis aims to produce in his stochastic works, and that it acts as a preliminary mode of both composition and reception, helping composer and listener to break free from traditional constraints. This process allows for the production of new compositional structures and modes of reception, radically expanding musical possibilities.

Andrew Lucia is a Minneapolis-based multimedia artist, designer and academic, and is a co-founding partner of the creative practice, LUCITO. Formally trained in architecture, Lucia's practice is one that is informed by this disciplinary approach to cultural production fusing historic reference, perception, and experience through spatial-material practice and its representation. His project demonstrates a focused inquiry into the world of matter, its organization and affect through image, projection design, installation, land art, and architecture, including numerous collaborations with composers and sound artists.

Lucia is an invited Visiting Critic at Cornell University, AAP for the Spring of 2023 and has held the academic positions of Visiting Critic at The University of Pennsylvania Weitzman School of Design (2019-current); Visiting Scholar at the Azrieli School of Architecture and Urbanism, Carleton University (Spring 2018); Visiting Lecturer and Critic at Cornell University, AAP (2011-2015); and was faculty in Visual Studies at the University of Pennsylvania, School of Design (2008-2011).

From 2015-17 Lucia held the position of Cass Gilbert Visiting Assistant Professor in the School of Architecture, College of Design, University of Minnesota, during which he realized the extensive research and design project A Catalog of Difference. He has been nominated for the United States Artist Fellowship and the Civitella Ranieri Prize for Architecture.

Lucia received his Master of Architecture from the University of Pennsylvania (2008) and his B.A. in Architecture from the University of Minnesota (2001).

"Notes of *A Catalog of Difference*"

This paper focuses on the author's decade-long research project, *A Catalog of Difference* (2017). Approached from a background in architecture and art, this inquiry into spatial-material perception and its representation synthesizes information theoretic methodologies and concepts derived from Iannis Xenakis, Gregory Bateson and the perceptual psychologist James J. Gibson, giving priority to an informational approach over that of the geometric. Architecture, through its representational tools and design workflows, has historically favored the latter of these distinctions, giving primacy to line and geometry at the expense of material phenomena. The work presented here challenges this bias while deliberately paying favor to formal potentials inherent within differentials of ambient light and surface curvatures.

A Catalog of Difference is a study of change across material and perceptual environments, calling attention to those differences which make a difference. The collection comprises over 1,000 studies that survey and analyze degrees of difference across images, objects, and environments. The outcome of these studies is a collection of artifacts comprising a range of representation and media types including 3D printed ceramics, digital photography, renderings, and drawings. The difference machines elaborated on in the catalog operate as a methodology and collection of post-digital representations.

The research is divided into three distinct yet related subsets examining the order and organization of: 1.) Planar ambient light, 2.) Surface curvatures, and 3.) Spherical ambient light. The studies in each of these questions form versus its appearance.

Fabrice Marandola is an Associate Professor of Percussion and Contemporary Music at the Schulich School of Music of McGill University (Montreal). Previously, he was a professor of percussion at the conservatories of Angers and Grenoble in France, a pedagogy instructor at the Conservatory of Paris, and an invited professor at the Crane School of Music (SUNY-Potsdam, NY). A founding member of Canadian percussion ensemble *Sixtrum*, he has an active career on the New Music scene, commissioning, performing and recording new works for solo and chamber ensembles.

Marandola holds a PhD in Ethnomusicology from Paris IV-Sorbonne and has conducted in-depth field research in Cameroon. He became the Director of the Centre for Interdisciplinary Research in Music Media and Technology of Montreal (CIRMMT) in 2020. In 2015-16, Marandola was Senior Research Chair at Sorbonne-Universités to lead a multidisciplinary research project on Musical Gesture (*Geste-Acoustique-Musique*).

Inspired by natural phenomena, **Myriam Boucher** merges the organic and the synthetic in her mesmerizing videomusic installations, immersive projects and audiovisual performances. Her sensitive and polymorphic work explores the intimate dialogue between music, sound and image—transforming everyday landscapes into fantastical, living phenomena. Elements in her skin-tingling pieces can move in synchronization with waves of sound, and very fluidly shift from solid to liquid, fragment to flood, plastic to plasmic. A keyboardist turned visual artist working on the real-time dialogue between music and images, Boucher initially gravitated towards classical piano, jazz and then post-rock, before learning about, and then academically pursuing electroacoustics. Her research in videomusic composition proposes a classification of image/sound relationships as a building block towards an eventual grammar of the genre. Boucher approaches video much in the same way as she did music composition, through a visual interface that sees her fleshing out digital timelines.

Her commission list is varied and distinguished and includes the Orchestre Symphonique de Montréal (OSM), Ensemble Contemporain de Montréal (ECM+), Ars Nova, Nouvel Ensemble Moderne (NEM), Magnitude6, Collectif9 and Architek Percussion. As VJ, she performed with many artists/DJ such as Mind Against (IT), Medasin (US), Deadboy (GB), The Zenker Brothers (GE), Nina Las Vegas (AU), Automatisme (CA), Equiknoxx (JM) and DJ Lag (ZA). Her work has won prizes in the 2015 and 2016 (first prize) JTTP awards, the LUFF 2017 (best experimental short-movie award), the 2015 JIM Electroacoustic Compositions Competition and the Bourse Euterke 2015, and has been presented at many international events and places, including Mutek (CA, AE), Kontakte (DE), Igloofest (CA), Rendez-vous du cinéma québécois (CA), Musée d'Art Moderne et Contemporain de Strasbourg (FR), and Akousma (CA).

Involved in her community, she has participated in numerous juries and has been a member of the CEC's board of directors since 2017, the CA / CART of Code d'accès (2017-19), and has directed several artistic events including the first videomusic festival in Montreal (2015). She is President of the Board of Directors of the Canadian Electroacoustic Community since 2019. **Dominic Thibault** is a studio-based electronic music composer, improviser, coder, and instrument creator, whether digital, acoustic, or both. He was recently appointed assistant professor at Université de Montréal to pursue research in *Musiques numériques*. His research-creation takes shape in the studio and ranges from fixed-media composition to improvisation with feedback processes. Co-director of the Laboratoire Formes·Ondes, Dominic Thibault is an experienced teacher, an active member of research centers OICRM and CIRMMT.

"*PolytopeXXI*: Creating a Polytope for the Stage"

Polytope XXI is the title of a concert put together by Montreal based percussion sextet SIXTRUM to pay tribute to Iannis Xenakis (1922-2001). It is also the name that composers Myriam Boucher and Dominic Thibault have given to their monumental instrumental project that will be premiered during this concert in May 2022: a sort of giant, electronically augmented, audio-luminescent harp, whose strings are put in vibrations by multiple means by the percussionists of Sixtrum during this concert.

The project finds its inspiration in the first Polytope imagined by Iannis Xenakis, an "electronic sculpture combining light, music and structure", that was presented inside the French Pavilion during Expo67 - the Universal and International Exhibition that took place in Montreal in 1967. This original installation created an artistic work inscribed in space and made of multiple layers of sound and light, and was designed so that spectators could move freely within the installation itself. *PolytopeXXI* inverts this approach and sets the installation on stage with the goal to make it mobile, so that changes in the perception of space, light and sound can still be experienced by the audience, while also taking advantage of modern technological capabilities (actuators, sensors, etc.).

Based on documentation collected during the research-creation process, the presentation will describe the evolution of the concept from ideation to realization, delineate its technical and artistic principles, demonstrate excerpts of the new work and propose a critical comparison to other iterations of Xenakis *Polytopes*.

Raphael Radna is a composer of acoustic, electronic, and mixed music. He has presented music and research in such venues as the International Computer Music Conference, the SEAMUS National Conference, the New York City Electroacoustic Music Festival, the Osaka University of Arts Electroacoustic Music Festival, and the UCSB Summer Music Festival; and has collaborated with artists including Antonina Styczeń, Shanna Pranaitis, HOCKET, the Isaura String Quartet, Dohee Lee, and Brian Tessler. He has worked as music technologist with Arturia and Cycling '74, and is author with João Pedro Oliveira of the *Space Control* spatialization software.

Raphael holds degrees from Vassar College and Mills College, and is currently working towards the MS in Media Arts and Technology and PhD in Music Composition at UC Santa Barbara. His newest work *Saturns hår* was premiered July 2022 in southern Denmark as part of the exhibition *The Sound of Tørskind: Narrating the Void*.

"*XENOS*: A Dynamic Stochastic Synthesis Plug-in with Xenharmonic Extensions"

Dynamic Stochastic Synthesis ("DSS") is a direct digital synthesis method invented by Iannis Xenakis. In DSS, stochastic variations are continuously applied to a periodic waveform, resulting in emergent pitch and timbral features. High-level parametric control enables a variety of sonic outcomes, from noisy, granular textures to long, sweeping glissandi.

Interest in DSS endures, and substantial research has been devoted to it over the years. This work has produced several implementations, but many of these are either no longer available, or have not been updated for modern systems. Still others are implemented as subroutines of computer music composition environments, requiring particular workflows and technical orientations.

This paper introduces *Xenos*, a virtual instrument plug-in that implements and extends DSS. Written in C++ using the JUCE framework, it provides creative access to DSS in a modern, efficient, straightforward, and widely compatible format. *Xenos* exploits host software

features such as polyphonic MIDI note input and parameter automation to facilitate performance and composition with DSS.

While *Xenos* preserves the basic characteristics of DSS as described in *Formalized Music*, it also extends these by addition of a pitch quantizer that tunes each period of the output waveform to the nearest pitch of an arbitrary scale. Custom scales are loaded using the *Scala* microtonal tuning standard. *Xenos* can thus be used to generate xenharmonic musical material at the mesostructural level, and also to explore the influence of microtonal scales at the microsound timescale.

Imri Talgam is a pianist and researcher focused on performance of 20th century and contemporary music. Since winning first prize in the Concours de piano d'Orléans (France) in 2014, Talgam appeared as soloist around the world, including with Ensemble Modern, the Radio Orchestra of Saarbrücken, and the Israeli Contemporary Players, and with composers including Boulez, Lachenmann, Poppe, Unsuk Chin, and Eötvös. He is a recipient of the Yvar Mikhashoff prize together with Yair Klartag (2017). His recordings include a CD centered on the music of Nancarrow, including transcriptions of Player-piano studies. Talgam's research is focused on the use of cognitive research to inform performance practice of rhythmically complex works. His doctoral thesis (advised by Prof. Joseph Straus at the CUNY Graduate Center) developed a re-notation of the Ligeti Etudes informed by rhythmic perception. He is currently a postdoctoral researcher at McGill University's Schulich School of Music.

"Performing Xenakis's Polyrhythms: A Perception-Informed Approach"

Xenakis often uses complex superimposed polyrhythms that are uniquely challenging for performers to realize, especially in solo and chamber works. Faced with overwhelming rhythmic complexity, performers must choose a strategy to navigate the score, often resulting in informal compromises and approximations. As an alternative, I propose a methodological approach to performance of rhythmic complexity using re-notation informed by theories of metric perception.

Using examples from *Mists*, *À l'île de Gorée*, and *Dikhthas*, I identify three classes of rhythmic textures: irregular a-metrical rhythms, isochronous polyrhythms, and phase-shifted polyrhythms. While Xenakis's notation clearly conveys these distinct ideas, it does not facilitate accurate realization in performance, which diminishes the polyphonic quality of these passages.

My methodology proceeds in several stages: (1) Analysis of the primary cues for grouping and possible metric interpretations of each rhythmic texture using the theory proposed by London (2004). (2) Using the notion of context-sensitive constraints on metric perception (London 2002), I propose a quantization strategy to reduce the complexity of the rhythm while preserving the macro characteristics. (3) Proposal of several possible re-notations, depending on the grouping cues or pulse layers that are taken as the tactus in the passage, while relegating other layers to an a-metrical status. Since multiple versions may be beneficial in representing different aspect of the music, I consider their advantages from both performers' and listeners' perspectives. (4) Finally, I examine the dynamics of listening and synchronization between multiple players in realizing rhythmically complex passages, in which players create a metric interpretation collaboratively.

Anton Vishio is Associate Professor in the Faculty of Music of the University of Toronto where he teaches courses in music theory and skills; previously he taught at William Paterson University. His work has focused on the analysis of late 20th century music, as well as text-music relationships; he has published articles on the music of Brian Cherney, Jo Kondo,

Charles Wuorinen; in preparation is an analysis of *Quanta* by Priaulx Rainier, a study of polyrhythms, and a study of songs by Rabindranath Tagore.

"Negative Form and *La légende d'Eer*"

As Richard Barrett notes, the overall form of Iannis Xenakis's 1978 electroacoustic composition, *La légende d'Eer*, has a "roughly circular" shape; the concluding materials clearly reprise, at least in part, sounds introduced near the outset of the composition. Yet despite the undeniable correspondence, the circularity has long left me uneasy; the "lostness" that Barrett well suggests is characteristic of internal states of the work is also a phenomenon I associate with its end. The wearing away of the catastrophic buildup of material, in the words of Makis Solomos the "deafening phase of the cosmogony", leads not to any symmetry in my hearing, but to a sense of rupture; any resemblance between the end and the beginning takes on an accidental character, if also a devastating poignancy. Building on the close analytical observations of several authors, I focus on the ways in which this ultimately negative form created by Xenakis is the product of careful planning at several levels: in the juxtaposition and interweaving of materials in the opening section and elsewhere, in the "history" of some of the materials themselves. These often create a sense of flux and development; but I argue that this is ultimately illusory. The conclusion of *La légende d'Eer* seems to push beyond by challenging the experience of "final sound" itself; here there is no sudden plunge back into "reality" but instead an incorporation of the work into the sonic environment, and concomitantly a sense that our perceptions of time and correspondence have been fundamentally altered.

Aram Yardumian is Associate Professor of Anthropology at Bryn Athyn College, Pennsylvania, USA, and is the author of *Iannis Xenakis's Persepolis*, to be published as part of Bloomsbury's 33 1/3 series in early 2023. He is also the author of *Listen: Jeph Jerman in Conversation*, to be published by Errant Bodies in late 2022, and the Swedish-language book *Ögonblickets Oändlighet: Samtal med Tommie Haglund* (Stockholm: Themis, 2022), as well as numerous academic papers.

"The Iranian Context of Iannis Xenakis's Persepolis"

This lecture will briefly review the historical turning-point and political climate of the time when Iannis Xenakis's electro-acoustic work *Persepolis* (1971) premiered at the Shiraz Arts Festival. It will cover criticisms leveled at the time and Xenakis's response to them. It will also point to a historic misconception that emerged from the turmoil of the 1970s. At this time, Iran was undergoing rapid cultural changes and increasing political division that would give way to the Revolution of 1979. Xenakis was hardly unaware of or ambivalent to the heavy-handed methods with which Mohammad Reza Shah conducted his domestic affairs, with routine maiming and killing of dissidents, courtesy of SAVAK. Xenakis's eventual decision to cut ties with the Shiraz Festivals and the Pahlavi court was paralleled by criticisms from all directions: anti-Shah elements living in Paris, the Iranian press, and even students with whom Xenakis met after the event. However, these should be seen as separate from the moral opprobrium heaped on the Shiraz Festival by the followers of the Ayatollah Khomeini. While Xenakis made his views on the regime clear in his 14 December 1971 open letter in *Le Monde*, this did not stop certain misconceptions from entering circulation. One of these has been the enduring myth that *Persepolis* was premiered (or replayed) at the opulent opening event of the 2500th anniversary of the Persian Empire, when in fact it was another work named *Persepolis* by a different composer altogether.

Yin Yu is a multidisciplinary artist, designer, and engineer. Her research investigates the potential of interactive multimedia environments and the intersection of architecture, music, and emerging technologies. Her practice covers a broad spectrum, including furniture, architecture, interactive multimedia, wearable design, and art installation. Underlying every aspect of her work is her deep commitment to investigating the social and physical interactions between human beings and the built spaces and redesigning the human-made environment through new media technologies. She has won several prestigious awards, and her work has been published and exhibited internationally, such as the Human-Computer Interaction (CHI) conference (US), the Haptic and Audio Interaction Design (HAID) workshop (FR), the Wearable Technology Exhibition (ES), and the Expanded Animation Symposium at Ars Electronica (AT). Dr. Yu joined the School of Art and Design at San Diego State University as Assistant Professor in 2022. She has a Bachelor of Science in Electronic Engineering (CN), a Master of Science in Information Technology (US), a Master of Science in Interior Architecture (US), and a Ph.D. in Media Arts and Technologies (US).

Violinist **Conrad Harris** has performed at Ostrava Days, Darmstadt Ferrienkürse für Neue Musik, Gulbenkian Encounters of New Music, Radio France, Warsaw Autumn, and Bang on a Can. He is member of the FLUX Quartet and violin duo String Noise, and concertmaster/soloist with the S.E.M. Orchestra and Ostravská Banda. He has performed and recorded with Elliott Sharp, Robert Ashley, Alvin Lucier, David Behrman, "Blue" Gene Tyranny, Jean-Claude Risset, Rohan de Saram and Tiny Tim. Harris has recorded several works by composer Iannis Xenakis. Recent CD releases of violin sonatas by Lejaren Hiller and John Becker are on New World Records. Upcoming recordings include works by the Sonic Arts Union and John Cage's *Freeman Etudes*. He has also recorded for Lovely, Mode, Asphodel, Vandenburg, CRI, Northern Spy, Cold Blue, New Focus, Chaikin, Infrequent Seams, and Vinyl Retentive Records. www.conradharris.com www.fluxquartet.com www.stringnoiseduo.com

"The Shape of Light: A Screen-based Visual Composition for Xenakis's *Mikka* and *Mikka S*"

This project is dedicated to Iannis Xenakis's 100 birthday and was premiered online May 29th, 2022, as part of the Meta-Xenakis Consortium's celebration. Commissioned by the Xenakis Project of the Americas (XPA), this work was created in collaboration with virtuoso violinist Conrad Harris.

Light, in Xenakis's work, is poetic, dramatic, emotional, and powerful. Xenakis not only created a new aesthetic of light art, but also projected a future direction for the role of light. *The Shape of Light* is a study of the morphology of digital light, and presents visual music for Xenakis's compositions for solo violin *Mikka* (1972) and *Mikka S* (1976).

Moderators

Carey Lovelace, an Andrew and Marian Heiskell Visiting Critic at the American Academy of Rome, for over two decades has written for publications including *The New York Times,* the *Los Angeles Times, Ear Magazine, Ms. Artforum, Art in America,* and *Flash Art.* Co-Commissioner of the U.S. Pavilion of the 2013 Venice Biennale, she co-authored the lead essay for Sarah Sze, published by Gregory R. Miller & Co. Lovelace, also an award-winning playwright and Executive Creative Director of Loose Change Productions, has written catalogue essays for *Iannis Xenakis: Composer, Architect, Visionary*, which she co-curated at The Drawing Center in New York, and *Making It Together: Women's Collaborative Art + Community*, at the Bronx Museum of the Arts, which she curated. From 2003 to 2006, she

was Co-President of the U.S. chapter of the [International Association of Art Critics](#) (AICA-USA), whose 435 members form the nation's leading association of cultural writers.
 In 2010, with Sharon Kanach, whom she met in Xenakis's composition class in the late '70s at the Paris Sorbonne, she organized the exhibition *Xenakis: Composer, Architect, Visionary* at the Drawing Center in New York, with ancillary concerts and programming including a virtual recreation of the 1958 Philips Pavilion; it traveled to Montreal, Los Angeles, Berlin, and Amsterdam. She has a BFA in composition and ethnomusicology from Cal Arts, an MA in journalism from NYU, and an MFA in playwrighting from the Actors Studio/New School. As a composer, she received a Meet the Composer grant and her works were performed across the United States and Europe. Since 2019, she has been heading Visions2030, which harnesses the artistic imagination to create new paradigms and new models of society. The Bronx Museum of the Arts awarded her a Visionary Award in 2019.

Olga Touloumi is Assistant Professor of Architectural History at Bard College. She has published widely on sound studies, music, and architecture. She has researched in depth the intersection between music and architecture, with a focus on the work of Iannis Xenakis. Touloumi has co-edited *Sound Modernities: Architecture, Media, and Design* and *Computer Architectures: Constructing the Common Ground, 1945-1980.* Her work has been recognized internationally with awards and fellowships. Her forthcoming book with University of Minnesota Press, *The Global Interior,* examines the architectural formulation and media techniques of liberal internationalism in the United Nations. She is co-founder of the intersectional group Feminist Art and Architecture Collective.