

MIT CENTER FOR ART, SCIENCE & TECHNOLOGY

PROGRAMS 2021-22

ARTS
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AT MIT

**MIT Center for Art,
Science & Technology**
2021–22 Programs



The
/ ARTS
AT MIT
are rooted in
experimentation, risk-
taking, and imaginative
problem-solving.

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Cover image: Installation view of Christian Frederickson and Greg King's *The Hammer and the Feather* in MIT Theater Building W97, May 2022. Photo credit: Danny Goldfield/MIT.

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From the Directors

Re-emergence—the inevitable theme of the past year—produced simultaneous, sometimes contradictory responses, societally and individually. As MIT slowly and cautiously reopened over the 2021–22 season, CAST collaborators seemed filled with a sense of urgency, imbued with palpable feelings of freedom from the old boundaries among artmaking, activism, research, and genre.

The widely diverse ways these were manifested in CAST initiatives can be seen clearly in two quite different performance projects: *The Hammer and the Feather* by MIT composer/sound designer Christian Frederickson and filmmaker Greg King and *Choreographing the City* by dancer and choreographer Adesola Akinleye. The inescapable loss of so many loved ones to COVID set the somber mood and meditative tone of Frederickson and King’s sonic installation, which was framed as a quasi-liturgical experience.

In contrast, Akinleye’s challenge to students was to simultaneously rediscover the campus and their own bodies, after so much distance and separation, by physically navigating through it, prompted by an evocative lexicon of movement. In her work, kinesthetic exploration is a transdisciplinary form of discovery and communication.

There were pressing problems besides the pandemic that marked the creative imaginaries of the work assembled here, as well. The ongoing crisis of racial and social injustice and the accelerating crisis of climate change suffused several projects. In preparation for a fall 2022 exhibition at the List Visual Arts Center, *Symbionts: Contemporary Artists and the Biosphere*, art historian Caroline A. Jones invited a dialogue between various Indigenous ways of knowing and stewarding interdependent life forms and scientific approaches to the environment common to research at institutions like MIT.

For Frederick Harris, Jr., Talia Kahn, and the extraordinary group of performers assembled for the concert *Hearing Amazônia—The Responsibility of Existence*, honoring Brazilian Indigenous musical culture and the biodiversity of the rainforest are intertwined tasks. Moving away from the musical concert as a one-off experience, both *Hearing Amazônia* and another large-scale, multi-year endeavor led by Harris, *It Must Be Now!*, are collective calls to action and ongoing restorative work as much as singular occasions to perform new commissions from outstanding composers and celebrate diverse musical traditions.

This freewheeling interplay of exploration and expression also characterizes the work of two CAST Visiting Artists from the past year. Collaborating with Adam Haar in the Media Lab’s Fluid Interfaces Group, artist Carsten Höller is constructing an art exhibition as a literal *Dream Hotel*, offering quasi-experimental experiences of various states of consciousness across the spectrum of waking, sleeping, and dreaming for overnight guests/participants.

Entrepreneur, producer, and activist Wasalu Muhammad Jaco, who is better known by his stage name, Lupe Fiasco, is as interested in building community organizations and business ventures as in releasing albums, as he explained to MIT audiences in discussing one of the entities he has founded, the Society of Spoken Art. SOSA brings academia into rap, as he describes it, through a professional guild and apprenticeship program devoted to exploring its connections to linguistics and semiotics. With professor of digital media Nick Montfort, Jaco organized a repurposed hip cypher (where rappers, beatboxers, and breakers gather to extemporaneously perform together) into a competition for MIT students, who created computational artworks.

As with so many successful CAST-sponsored collaborations of the past decade, both these projects have become springboards to further work: Höller & Haar are developing an international exhibition for *Dream Hotel*, and Jaco will continue to expand his engagement with MIT students as a MLK Visiting Scholar during the 2022–23 academic year.

After the upheavals and obstacles of the last two years, and with much toe-dipping during the fall of 2021, the 2022 academic year overall was defined by resurgence. The return to presenting on-campus artistic programs and residencies was at first circumscribed by the many precautions required to simply bring people into the same room at the same time in a safe manner—testing, masking, restricting

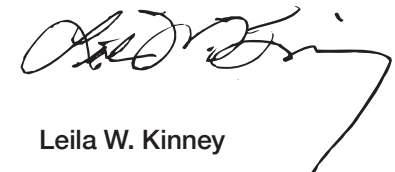
public access, and limiting attendance. These constraints gradually lifted as the months progressed; as a result, the spring semester ended with a flurry of activity and excitement that CAST could once again program in-person artistic experiences.

We ardently hope that this overall trend continues; and we’re deeply encouraged by the ways CAST collaborators—artists and scientists, with these roles increasingly and deliciously blurred—resumed old projects and initiated new ventures. The following pages give a glimpse of these moments of renewed commitment to co-creation and collective experience.



Evan Ziporyn

Kenan Sahin (1963) Distinguished
Professor, Music and Theater Arts
Faculty Director, CAST
Artistic Director, *MIT Sounding*



Leila W. Kinney

Executive Director of Arts Initiatives
Executive Director, CAST

CAST Mission Statement

The MIT Center for Art, Science & Technology (CAST) creates new opportunities for art, science, and technology to thrive as interrelated, mutually informing modes of exploration, knowledge, and discovery. CAST’s multidisciplinary platform presents performing and visual arts programs, supports research projects for artists working with science and engineering labs, and sponsors symposia, classes, workshops, design studios, lectures, and publications.

CAST Activities

Cross-Disciplinary Classes

Soliciting and supporting cross-disciplinary curricular initiatives that integrate the arts into the core curriculum and create new artistic work, materials, media, and technologies for artistic expression.

Public Outreach

Disseminating to the public the creative and intellectual production supported by the center through performances, exhibitions, installations, videos, publications, and a biennial symposium.

2012–22 Program Statistics

7,600+ students participated in classes.

160+ MIT faculty and staff representing all five schools collaborated with CAST.

300+ Visiting Artists engaged with students during 350+ class visits.

Funders

The Center for Art, Science & Technology is funded, in part, through 2024 by a grant from the Andrew W. Mellon Foundation. Additional support comes from Dasha Zhukova; Michael and Sonja Koerner; the late Fay Chandler; Ron and Carol Kurtz; Joan and Paul Gluck; Terry and Rick Stone; Eugene Stark; Peter Athens; and other individual benefactors. MIT support comes from Philip S. Khoury, Associate Provost with responsibility for the arts; Agustín Rayo, Kenan Sahin Dean, School of Humanities, Arts, and Social Sciences; Hashim Sarkis, Dean of the School of Architecture + Planning; and the Council for the Arts at MIT.

Residencies

Producing a Visiting Artists program that emphasizes research and development of creative work, cross-fertilization among disciplines, and extensive interaction with MIT faculty, students, and researchers.

Support

Assisting in the presentation and curation of art relevant to the research of engineers, scientists, and the MIT community as a whole; supporting faculty, students, and postdoctoral researchers whose work advances the mission of the center.

52,500+ people attended 520+ public programs in person, and another 159,250+ joined via live web streams.

90+ collaborative projects appeared in significant festivals or exhibitions in Amsterdam, Basel, Berlin, Cairo, New York, Paris, São Paulo, Tel Aviv, Tokyo, Toronto, and Venice.

Partners at MIT

Office of the Provost
List Visual Arts Center
MIT Museum

Office of the Vice President for Research
MIT.nano

School of Architecture + Planning (SA+P)
Architecture
Art, Culture, and Technology
Community Innovators Lab
History, Theory, and Criticism of Architecture and Art
Media Lab
Urban Studies and Planning

School of Engineering
Aeronautics and Astronautics
Civil and Environmental Engineering
Computer Science and Artificial Intelligence Laboratory
Electrical Engineering and Computer Science
Glass Lab
Materials Science and Engineering
Mechanical Engineering

School of Humanities, Arts, and Social Sciences (SHASS)
Anthropology
Comparative Media Studies/ Writing
Global Studies and Languages
History
Linguistics
Literature
Music and Theater Arts
Science, Technology, and Society

School of Science
Biology
Brain and Cognitive Science
Earth, Atmospheric, and Planetary Sciences
Edgerton Center
Laboratory for Multiscale Regenerative Technologies
McGovern Institute
Physics

Sloan School of Management
Martin Trust Center for MIT Entrepreneurship
MIT Leadership Center

Student Life
Concourse Program
Hillel Program



Being Interconnected

Against a backdrop of ecological collapse and infectious disease, questions of how we can exist, and co-create together, in an increasingly precarious and interconnected world have taken on even greater urgency.

Architect Ana Miljački's sculptural installation, *See Us Seesaw Together*, takes the six-foot distance rule to a playful extreme, as participants attempt to find balance while rocking together on huge, brightly colored inflatable seesaws. Art historian Caroline A. Jones extended this sense of interconnectedness to the more-than-human world, uniting artists, scholars, scientists, theorists, and activists in a daylong workshop, "Symbiosis, Reciprocity, and Indigenous Epistemologies," which explored how the Indigenous emphasis on symbiosis and interdependence offers a way forward in our current moment of environmental catastrophe. The ongoing experimental performance project *The Future Is Present*, led by director Charlotte Brathwaite, invites journalists, artists, academics, organizers, and youth activists from all walks of life to come together in inventive public performances dedicated to our collective liberation.

In This Section

Workshop on "Symbiosis, Reciprocity, and Indigenous Epistemologies"

The Future Is Present

See Us Seesaw Together

Image: Collective Seesaws Installation, MIT Eastman Court, April 2022. Photo credit: Ana Miljački and the Critical Broadcasting Lab.

Workshop on “Symbiosis, Reciprocity, and Indigenous Epistemologies”

The wonders of with-living

Workshop: “Symbiosis, Reciprocity, and Indigenous Epistemologies,” MIT Media Lab, October 1, 2021



Human beings are dependent upon the thriving of other life forms. The reality of symbiosis may be understood in theory, but has yet to become a global paradigm—as demonstrated by repeated failures to respond with sufficient urgency to the climate crisis. However, for the members of the Indigenous communities who took part in the workshop “Symbiosis, Reciprocity, and Indigenous Epistemologies,” our interdependence with other life forms is an acknowledged fact that informs daily practice and common-sense sustainability.

“Can we bring this better understanding to live with the planet?”

– Caroline A. Jones

Bringing together artists, scholars, scientists, theorists, and activists, the workshop sought to collaboratively acknowledge the historical and contemporary suppression of Indigenous traditions, investigating the possibilities for healing and learning in the context of the

pandemic and widespread global unrest. As the first stage of programming for an upcoming exhibition at the MIT List Visual Arts Center, *Symbionts: Contemporary Artists and the Biosphere*, the workshop provided a precedent for the exhibition’s focus on collaboration and recognition of our human and more-than-human relations. The word “symbionts” refers to organisms of different species that thrive through their interdependent relations—a model for successful living that serves as a metaphor for the curatorial process itself.

The new insights that emerged from the workshop brought further context and nuance to an already ambitious exhibition, revealing the ongoing work that will be required to introduce a collective mindset of symbiosis. By providing a space for committed listening and the sharing of new and ancient ideas, the workshop introduced the possibility of greater collaboration between scientists working in the materialist empirical tradition and those who draw upon ancestral and Indigenous wisdom. Artists will play a crucial role in giving form and expression to this unprecedented synthesis,

laying the groundwork for an emerging culture of reciprocity and entanglement—the social, political, and ecological symbiosis that will be necessary to tackle the vast and interconnected challenges of the climate crisis.

Images: (left) Workshop attendees, both in person and remote, engage in discussion. Photo credit: HErickson/MIT. (right) Lichens and truffles on Cape Cod. Photo credit: Caroline A. Jones.

2021–22 Visiting Artist Grant

Christina Agapakis, Creative Director, Ginkgo Bioworks

Leah Aronowsky, Fellow, Columbia University Society of Fellows

Natalie Bell, Curator, List Visual Arts Center, MIT

Rogier Braakman, Research Scientist, Chisholm Lab, MIT

Bruce Clarke, Paul Whitfield Horn Professor of Literature and Science in the Department of English, Texas Tech University, and Baruch S. Blumberg NASA/Library of Congress Chair in Astrobiology, Exploration, and Scientific Innovation

Arolyn Conwill, Postdoctoral Associate, Lieberman Lab, MIT

Ryan Emanuel, Professor in the Department of Forestry and Environmental Resources, North Carolina State University, and a citizen of the Lumbee Tribe

Scott Gilbert, Howard A. Schneiderman Professor Emeritus of Biology, Swarthmore College

Caroline A. Jones, Professor in the History, Theory, and Criticism section, Department of Architecture, MIT

Sean Kearney, Postdoctoral Scholar, Chisholm Lab, MIT

Michael T. Laub, Professor of Biology, Department of Biology, MIT

Claire Pentecost, Professor and Chair of the Department of Photography, School of the Art Institute of Chicago

Tiare Ribeaux, Artist and Filmmaker

Jolene K. Rickard, Associate Professor in the History of Art & Visual Studies and the American Indian and Indigenous Studies Program, Cornell University, and Turtle Clan member from the Tuscarora Nation Territories

S. Margaret Spivey-Faulkner, Assistant Professor of Anthropology, University of Alberta, citizen of the Pee Dee Indian Nation of Beaver Creek, and Assistant Chief of the Tribe’s Upper Georgia Tribal Town

The Future Is Present

Amplifying marginalized voices through art

Research Project: *TFP: The Vocal Assembly*, Fall 2021



The Future Is Present (TFP) is an ongoing creative laboratory that brings together journalists, artists, academics, organizers, and young people through a shared commitment to activism. Drawing upon experimental research methodologies developed by Professor Charlotte Brathwaite, *TFP* is an intimate investigation into the potential for cross-generational liberation through performance-based practices.

The manifestations of the project are necessarily fluid and ever-changing, but certain aspects of the process remain consistent. The members of the group typically approach a new initiative by interrogating their relationship to historical and contemporary texts, using those discussions as a starting point for new and unexpected forms of communication.

“The Future Is Present lives in the open space of improvisation, intimate relation, and collaborative practice as methods for social change.”

– Charlotte Brathwaite

Though ephemeral and spontaneous in nature, each event also serves to prototype new methods and techniques that can be impactfully applied in different communities. Outcomes include dinner parties exploring the history of voter suppression, card games that teach principled forms of disagreement, and an archive of documents envisioning equitable and loving futures. In fall 2021, a group of *TFP* participants gathered for *The Vocal Assembly*, a 12-hour durational performance centered on the human voice as the life force of social and sacred practice. The assembled score was inspired by a collection of original texts provided by the grassroots community engagement organization, Boston Ujima Project, further strengthening connections between *TFP* and the wider Boston community.

As an incubator for new knowledge and a source of tangible resources, *TFP* is changing what is possible within and beyond academic institutions. Concentric circles of solidarity are in the process of forming, uplifting the life-affirming demands of young people and inviting all to engage in liberatory creativity.

Image: Courtesy of Charlotte Brathwaite.

2021–22 Mellon Faculty Grant

Janani Balasubramanian, Artist and Researcher

Charlotte Brathwaite, Associate Professor of Acting and Directing, Music and Theater Arts, MIT

June Cross, Professor of Journalism and Director of the Documentary Journalism Program, Columbia Journalism School, Columbia University

Sunder Ganglani, Musician/Dramaturg

Justin Hicks, Artist/Performer

Alyssa Simmons, Associate General Manager, The Public Theater

The Boston Ujima Project

See Us Seesaw Together

An experiment in joyful codependence

Installation: *Collective Seesaws*, MIT Eastman Court, April 1, 2022



What if the six-foot physical distancing rule recommended during the pandemic could be interpreted as a creative constraint? For Ana Miljački, director of the MIT Critical Broadcasting Lab, the regulations offered an opportunity to expand a previous project, *Sharing Trainers*, originally presented at the 12th São Paulo Architecture Biennale in 2019. Whereas *Sharing Trainers* had explored concepts of bodily cooperation through custom tableware and dining arrangements that required close proximity, the next iteration of the project sought to investigate the felt sensation of togetherness while avoiding physical contact. The solution was a series of giant inflatable seesaws.

Produced in collaboration with the design studio Pneuhaus, the seesaws necessitate collaboration through the distribution and negotiation of weight, holding players in a reciprocal game of witnessing each other's presence. Pneuhaus specializes in joyous transformations of public space, and their large-scale installations are designed as experiments in embodied perception. *See Us Seesaw Together* tests the participants' capacity for managing precarity; falling becomes fun, and balance is a condition that can only be achieved in relation to another being.

"The idea was to create an experience in which we would inevitably feel each other's presence."

– Ana Miljački



For Miljački, the project is a way of locating the ludic moment in a situation of risk. The human instinct for play, even at times of great uncertainty and social fragmentation, has the potential to convert every situation into an opportunity for learning, connection, and adaptation. Appearing on the MIT campus for an evening of absurdity in early spring, the seesaws set the scene for a new approach to sociability and shared space. As giant inflatable thought-objects, they proved that a critical examination of contemporary instability can take place through encounters of gleeful solidarity.

Images: (left) Participants engage with *Collective Seesaws* installation at MIT Eastman Court in April 2022. (right) Rendering for *See Us Seesaw Together*. Photo credit: Ana Miljački and the Critical Broadcasting Lab.

2021–22 Fay Chandler Creativity Grant

Ana Miljački, Director, Critical Broadcasting Lab and Associate Professor, School of Architecture + Planning, MIT

Pneuhaus, Art and Design Studio

Design for the Future

It's no secret that people at MIT are inventing the technologies and tools that will transform the future. In these projects, researchers and artists take inspiration from the arts and humanities to design with an eye toward maximizing the freedom to imagine new possibilities.

Engineer Danielle Wood, who leads the Space Enabled Group at the MIT Media Lab, collaborated with theater professor and Broadway star J. Austin Eyer to introduce students to Queer-Feminist-Antiracism thought, so that these methodologies may better inform the designs of the future. Skylar Tibbits worked with Visiting Artist Hussein Chalayan, a fashion designer, to design a “digital skin,” continuing ongoing experiments in designing programmable matter to create clothing that can transform and change state. In their studies of dream incubation, researchers Adam Haar and Pattie Maes, of the MIT Media Lab’s Fluid Interfaces Group, collaborated with Visiting Artist Carsten Höller to go beyond redesigning materials and systems to redesigning our sleep and dreams. Translating sleep neuroscience experiments into an immersive art experience, their prototype the *Dream Hotel*, featuring objects like inflatable pajamas and dream-inducing toothpaste, aims to transform our understanding of consciousness itself.

In This Section

Intelligent Skin

Queer-Feminist-Antiracism
and Design for the Future

Dream Hotel

Image: Student work displayed during a critique in the Intelligent Skin class studio. Photo credit: HErickson/MIT.

Intelligent Skin

Transforming sartorial sense

Class: 4.154 (4.S01) Architecture Design Option
Studio: Interactive Intelligent Skin, Fall 2021

What does it mean for a material to have intelligence? In recent years, the MIT Self-Assembly Lab has made significant advances in the development of programmable fabrics and surfaces—materials with the capacity to sense, react, respond, change shape, and acquire new properties. Intelligent Skin, a course led by Skylar Tibbits, co-director and founder of the Self-Assembly Lab, gave students the chance to build on those advancements, conceptualizing the future of wearable, programmable materials.

The class took the form of a collaboration between MIT, Hochschule für Technik und Wirtschaft (HTW) in Berlin, and 2019–21 CAST Visiting Artist Hussein Chalayan, combining methodologies of product development, computer science, and fashion design. Chalayan is renowned in the fashion world for his pioneering application of interactive, kinetic, and transformable materials; his current research into the possibility of a sensory digital “skin” is closely aligned with current

experiments at the Self-Assembly Lab. The class is part of a series of ongoing research initiatives to embed agency and intelligence into everyday materials.

“The class proved that design can encompass multiple scales and disciplines, bringing them together from concept to technology to implementation.”

– Skylar Tibbits

Through a combination of on-site studio sessions and joint digital reviews, students from the two institutions created a shared foundation of multidisciplinary knowledge. MIT students from the School of Architecture + Planning, the Media Lab, and the Art, Culture, and Technology (ACT) program contributed their expertise in digital fabrication, while HTW students introduced a focus on textiles, hands-on craftsmanship, and fashion history.

From a coat made of lint to indicate the latent potential of erosion during the garment cycle to wax-infused textiles designed to form efficient containers around objects, the projects demonstrated how practical solutions are discovered through imagination.

The next phase of advancement for intelligent materials will go beyond sense-response behavior, evolving toward seamless interaction, embodied intelligence, and new opportunities for personalized creative expression. These

innovations have profound implications, not only for comfort, aesthetics, and performance, but also for the environment and our social systems. The prototypes developed in the class are clues to what the future might hold—how we define, and are defined by, the skin we live in.

Images: (left and right) Students present their projects during a class critique. Photo credit: HErickson/MIT.



2021–22 Visiting Artist Grant

Hussein Chalayan, Fashion Designer, 2019–21 CAST Visiting Artist

Skylar Tibbits, Associate Professor of Design Research, Department of Architecture, School of Architecture + Planning, MIT

Queer-Feminist-Antiracism and Design for the Future

Designing for futures of freedom

Class: MAS.S61 Queer-Feminist-Antiracism and Design for the Future, Spring 2022

Performance: *Queer-Feminist-Antiracism End-of-Semester Performance*, MIT Media Lab, June 3, 2022

Design is not neutral. It's a fact that requires an intentional pedagogy in order to work toward a future in which design and technology can serve as liberatory tools for all social groups. That was the motivation for developing the class Queer-Feminist-Antiracism and Design for the Future, co-taught by MIT Professor Danielle Wood and Professor J. Austin Eyer of the University of Texas at Arlington.

Wood and Eyer ostensibly practice in very different fields. Wood, who formerly held positions at NASA and the United Nations Office of Outer Space Affairs, is a scholar of societal development with a background that includes satellite design, earth science applications, systems engineering, and technology policy. At the Media Lab, she leads the Space Enabled Research Group, which seeks to advance justice in Earth's complex systems by applying designs enabled by space exploration. Eyer has a background as a performer in New York City, with a résumé

that includes six Broadway hits. In his work as a researcher and professor, his practice focuses on theater for social justice, HIV/AIDS education and prevention, and examination of gender normative pedagogy in musical theater training.

"We're all creating something that didn't necessarily exist before. And because of that, we all have the responsibility to design conscious of historical injustice."

– Danielle Wood

The two professors have been friends since first meeting as high school students. Their paths diverged, but their core connection continued; the idea for the class emerged during the COVID lockdowns, when they realized that their areas of practice faced similar challenges. Just as musical theater

needed to reflect the realities of people of different backgrounds, so too did science and technology need to confront issues of injustice—from creating airports to serve people of different cultures to designing machinery for bodies of all types and sizes. The class originally launched in fall 2021 with a focus on critical theory, and has continued into 2022 with explorations of artistic practice demonstrating Queer-Feminist-Antiracism. Students of diverse disciplines were brought together by a common purpose: computer scientists, engineers, and architects worked with art and theater majors from both MIT and the University of Texas, pursuing projects specific to their own field but always directed toward goals of social liberation. The class culminated with a theatrical performance developed in collaboration with choreographer and dancer Jennifer Harrison Newman and

projectionist Paul Lieber. Taking the form of a series of "choreopoems," the performance combined spoken word, movement, light, and sound, taking inspiration from the rich traditions of Black cultural innovation. The class serves as a prototype for new approaches to deconstructing systemic bias in a manner that is both critical and creative. By clearly acknowledging that no human endeavor is free of bias, and championing artistic practice as a model and methodology for innovations in STEM, Wood and Eyer allow students of all disciplines to form their own visionary and practical contributions to a just future.

Images: End-of-semester performance in the Media Lab. Photo credit: David Silverman.



2022 CAST Cross-Disciplinary Class Grant

J. Austin Eyer, Assistant Professor and Area Head, Musical Theater, University of Texas at Arlington

Jennifer Harrison Newman, Choreographer and Artistic Director

Paul Lieber, Projectionist

Danielle Wood (SB '05, dual SM '08, PhD '12), Assistant Professor, Media Arts and Sciences, MIT and Assistant Professor, Aeronautics and Astronautics, MIT

Dream Hotel

Incubating future dreamscapes

Event: *Daydream Night*, MIT Museum Studio 10-150, May 4, 2022



Carsten Höller creates participatory and relational works of art that explore logic and perception, the body and interactions, and the ways in which we experience and understand the world around us. In his role as a visiting artist, he is working with Professor Pattie Maes and graduate student Adam Haar of the Fluid Interfaces Group to build prototypes for a dream hotel: a museum exhibition with seven rooms, each housing a sleep experiment for overnight guests.

“The story of how sleep has been engaged with over time is also a story of how we have engaged with ideas of utopia and the collective imagination. By studying sleep, we can change the way we think about ourselves.”

– Adam Haar

Höller, who holds a PhD in agricultural science, applies his training as a scientist and his practice as an artist to reveal the alternate realities latent in daily life. As such, his work is closely aligned with current research at the Fluid Interfaces Group, which develops experiences and devices for expanding our cognitive capacities. By reframing experiment design as experience design, Höller’s work removes the implicit power dynamics of a neuroscience experiment in the lab; while the conventional hierarchies are dissolved, the rituals and theatrics are maintained, casting the participant into a state of pure play.

The first phase of the *Dream Hotel* involved a “daydream night” at MIT Museum Studio, where guests explored recent findings from experiments designed to incubate and alter dreams. From a film to inspire flying dreams to



a prototype for inflatable pajamas, the Fluid Interfaces Group revealed how technologies for muscle stimulation, bone conduction audio, scent delivery, and temperature adjustment can calibrate our levels of lucidity and disorientation.

By innovating at the intersection of waking and sleep, the collaboration between Höller and the Fluid Interfaces Group has the potential to effect real change at the level of individual and communal consciousness.

What if we understood rest as a form of resistance, and dreamscapes as test sites for generating new possibilities in the waking world? *Dream Hotel* proposes dreaming as an essentially democratic space, where worlds overlap, objects are decontextualized, and minds merge into a flow state of collective receptivity.

Images: (left and above) *The Dream Hotel* by Carsten Höller and Adam Haar, 2022. AI sketches by Alejandro Medina.

2020–22 CAST Visiting Artist

Adam Haar, Research Assistant,
Fluid Interfaces Group, Media Lab, MIT

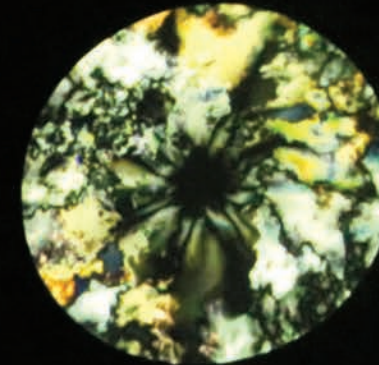
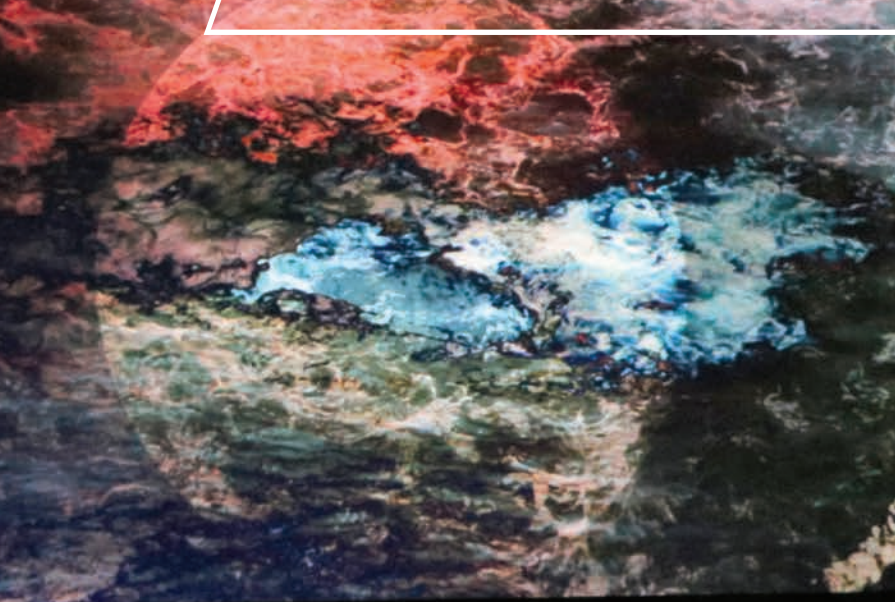
Carsten Höller, 2020–22 CAST Visiting Artist

Pattie Maes, Professor, Program in Media Arts and Sciences, MIT

MIT Fluid Interfaces Group, Media Lab

Alejandro Medina, Graduate Student,
Art, Culture, and Technology Program at MIT

Expressions of Existence



From theatrical performances to rap battles to celestial visualizations, MIT researchers and artists are exploring not only the newest technologies, but also the most fundamental questions about what it means to be human.

How do we give creative form to our experience of the world, in all its misery and exuberance, mystery and joy? Visiting artist, rapper, and scholar Lupe Fiasco collaborated with computational poet Nick Montfort to present *Code Cypher*, a one-day event that challenged MIT students to develop computational artworks that play with the inventive aspects of language and rhythm to tell new stories. Black Public Media Fellow Andrea Walls created *The Museum of Black Joy*, an archive and digital installation dedicated to capturing “the ordinary moments of grace and kindness,” which she calls a “revolutionary process and practice.” Dramatist Anna Kohler developed the play *Immense Joy/H.o.t.S.*, adapted from a novel by Brazilian modernist writer Clarice Lispector about a woman living on the edges of society, to explore the poetry and chaos of modern life. MIT technical instructor Christian Frederickson and filmmaker Greg King staged an all-encompassing audio and visual installation, *The Hammer and the Feather*, which used the history of the theory of gravity to probe spiritual and scientific questions about the nature of the cosmos and our unique place within it.

In This Section

Lupe Fiasco

Immense Joy/H.o.t.S.

The Hammer and the Feather

The Museum of Black Joy

Image: Installation view of *The Hammer and the Feather* exhibited at MIT Theater Building W97. Photo credit: Greg King.

Lupe Fiasco

The wit and rhythms of code

Virtual Event: *CAST Visiting Artist Lupe Fiasco: Society of Spoken Art (SOSA)*, February 24, 2021

Programming Competition: *Code Cypher*, MIT Theater Building W97, October 9, 2021



Wasalu Muhammad Jaco, better known by his stage name Lupe Fiasco, is a Grammy award-winning American rapper, record producer, entrepreneur, and community advocate. The musical and linguistic ingenuity of his work is amplified by the consciousness-raising content of his lyrics, which include cogent critiques of issues such as misogyny and climate change denial.

A believer in the power of artistic practice to transform lives, Fiasco is the cofounder of the community initiatives We Are M.U.R.A.L., the Neighborhood Start-Up Fund, Studio SV, and the Society of Spoken Art (SOSA). The latter, an educational guild that brings together established and aspiring rappers to sharpen their linguistic skills, has become a space for deep cerebral play. Informed by his interests in cognitive science, linguistics, semiotics, and computing, Fiasco believes that academics and rappers have much to learn from one another.

As a committed facilitator of intellectual discourse and community outreach, Fiasco is ideally suited to his role as a 2020–21 CAST Visiting Artist, and now as a 2022–23 MLK Scholar. Nick Montfort, a professor of digital media, saw the opportunity to establish a longstanding creative partnership that would bridge multiple disciplines, revealing the range of possibilities that computing, language, and rhythm have to offer.

“That’s what we do as rappers—taking messages, processing them, and translating them into a different language that another group of people can understand.”

– Lupe Fiasco

SOSA can be understood as an innovative form of pedagogy in its own right, and Fiasco’s residency included a public discussion with

Montfort about the history, structure, and goals of the organization—an inspiration for anyone curious about the intersection of art, science, and activism. The talk set the tone for *Code Cypher*, a one-day creative programming event that challenged MIT students to develop computational artworks incorporating elements of language and rhythm. Following an open prompt of “What I saw in the forest...,” the teams rapidly interpreted the theme into an extraordinary series of performances to be judged by Fiasco. The winning project, *Tree Clocks*, created by Chelsi Cocking and Manaswi Mishra of the MIT Media Lab, presented an interface of clickable tree trunk images which produced music by processing the rings like a turntable.

The residency has already had a profound impact on research and creative activity on campus, breaking down cultural silos and opening previously unimaginable new outlets for knowledge exchange. Fiasco’s successful residency will be extended in his new role as a 2022–23 MLK Scholar, the next stage of a productive partnership between rap and academia.

Images: (left) Competition participants work together on their response to the prompt “What I saw in the forest...” during the *Code Cypher* event. (middle) Participant Josiah Washington ’22 presents their project on stage. (right) Lupe Fiasco and Nick Montfort present feedback to the participants. Photo credit: Danny Goldfield/MIT.

2020–21 CAST Visiting Artist

Ian Condry, Professor, Comparative Media Studies/Writing, MIT

Wasalu Jaco (Lupe Fiasco), Musician/Record Producer/Entrepreneur, 2020–21 CAST Visiting Artist

D. Fox Harrell, Professor of Digital Media and Artificial Intelligence, Comparative Media Studies/Writing and Computer Science and Artificial Intelligence Laboratory (CSAIL), and Director, Center for Advanced Virtuality, MIT

Ekene Ijeoma, Assistant Professor, Media Arts and Sciences, Media Lab, MIT

Nick Montfort, Professor of Digital Media, Comparative Media Studies/Writing, MIT

Immense Joy/H.o.t.S.

Passion and provocation

Work-in-Progress Presentation: *Immense Joy/H.o.t.S.*,
MIT Theater Building W97, September 10, 2021

Anna Kohler, MIT Senior Lecturer in Acting and Directing, has gained a global reputation for her pioneering work in experimental theater, having worked with ensembles such as The Wooster Group and Richard Maxwell's New York City Players. In one of her most ambitious projects to date, she set herself the challenge of giving theatrical form to the work of the 20th-century Brazilian author Clarice Lispector. The passion and intensity of Lispector's own life are matched by the wit, sensuality, and shamanic power of her prose, and a highly experimental approach was required to bring her words to the stage.

"Lispector's masterful writing style is challenging to stage but provides the company with limitless colors with which to paint."

– Anna Kohler

The MIT campus served as a laboratory to develop the performance. Originally workshopped in the summer of 2021 and presented as a work-in-progress at MIT in the fall, *Immense Joy/H.o.t.S.* will receive its full premiere at The Tank in New York City. The cast of international performers includes Natalia de Campos, an artist and activist from Brazil and a long-time affiliate of The Living Theatre in New York; Fabio Tavares, a Brazilian performer and a company member of the renowned STREB Extreme Action Company; and John Hagan, a legendary figure in the New York experimental theater scene.

The performance is based upon the narrative of Lispector's final novel, *The Hour of the Star*, which recounts the experience of a typist living in the slums of Rio de Janeiro. Drudgery is juxtaposed with passion; the titular "immense joy" clashes with deep sadness as the performers guide the audience

through a series of multimedia vignettes as poetic and chaotic as Lispector's own life. The production directly addresses the desperate realities of poverty and social repression—this uncompromising criticality is not without elements of wit and humor, just as the novel is characterized by a complex tonal range and apparent contradictions. Innovative and provocative, *Immense Joy/H.o.t.S.* is a work that captures the contemporary moment while simultaneously channeling the vivacious and mysterious presence of Lispector herself.

Images: (left and right) *Immense Joy/H.o.t.S.* performance at MIT Theater Building W97.
Photo credit: Danny Goldfield/MIT.

2019 Fay Chandler Creativity Grant

Natalia de Campos, Multidisciplinary Artist

John Hagan, Performance Artist

Anna Kohler, Senior Lecturer in Acting and Directing, Music and Theater Arts, MIT

Fabio Tavares, Dancer

The Hammer and the Feather

The sight and sound of gravity

Performance: *The Hammer and the Feather*,
MIT Theater Arts Building W97, May 4–5, 2022



Can the divide between science and spirituality be bridged? If so, perhaps an answer can be found by examining the phenomenon that defines our place on this planet: gravity. Developed by MIT technical instructor in sound design Christian Frederickson and filmmaker Greg King, *The Hammer and the Feather* is an immersive audio and visual installation that invites audience members to attune themselves to the wonders and ambiguities of the cosmos.

“The juxtaposition of science and spirituality offers an interesting resonance I don’t often see in the art and theater world.”

– Greg King

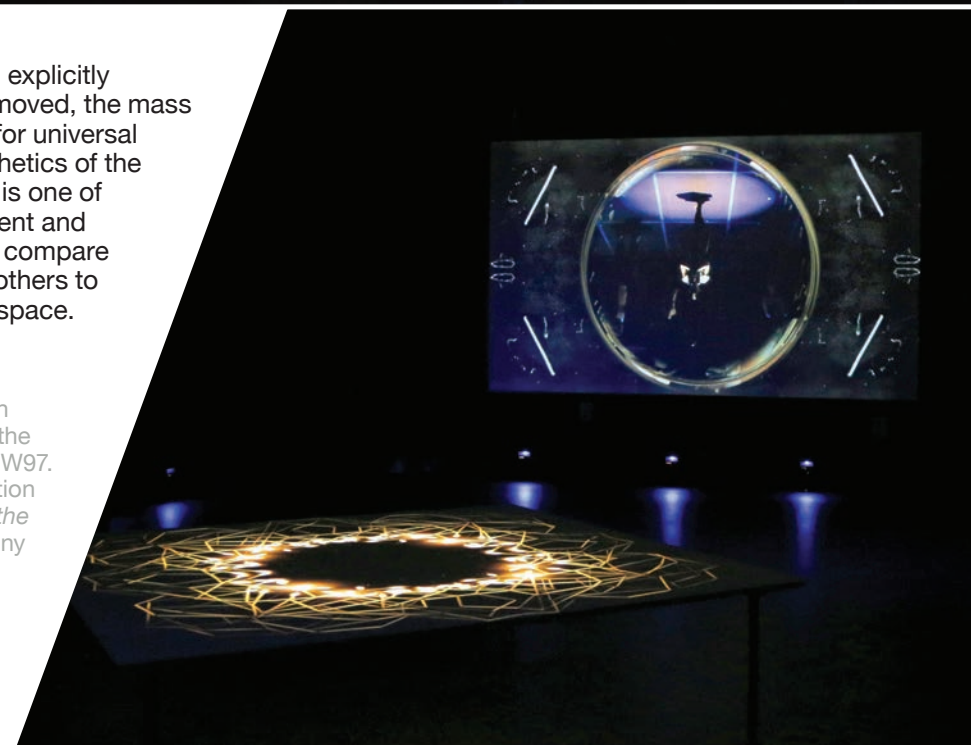
The installation takes its name from the famous experiment conducted by astronaut David Scott during NASA’s 1971 Apollo 15 mission. Holding a hammer and a feather side by side, Scott dropped them simultaneously upon the surface of the Moon, thereby confirming Galileo Galilei’s assertion that all objects in a vacuum fall at the same rate. For Frederickson and King, the grainy footage documenting the event was a launching point for a capacious investigation into science, faith, and the nature of existence.

In the process of conducting research into the development of the theory of gravity, Frederickson discovered the writings of MIT professor Giorgio Diaz de Santillana (1902–1974), who had made connections between the beginnings of astronomy and the myth-making of ancient cultures and religions. This inspired Frederickson to depart from a purely scientific focus and to investigate the continuity between scientific and spiritual inquiry. The ambition of the project was made possible by the fact that Frederickson and King are long-time collaborators, accustomed to responding to each other’s creative vision and establishing a correspondence between sonic, visual, and spatial experience.

King’s kaleidoscopic visuals are given an aural dimension by Frederickson’s score, which in turn responds to King’s intuitive connections between material and mystical motifs. When reading about the LIGO experiment to detect gravitational waves, Frederickson’s imagination was captured by the comparison of colliding black holes and the clanging of a cosmic bell; meanwhile, King’s projected visuals oscillate between figuration and abstraction, evoking the patterns of stained-glass windows, natural forms, the human body, and glimpses of urban scenery. The installation as a whole applies the architecture of the liturgical mass as a framework for a contemplative environment—a setting that is spiritual without

being prescriptive. With explicitly Christian references removed, the mass becomes a foundation for universal sentiments and an aesthetics of the infinite. The experience is one of simultaneous containment and expansion; some might compare it to entering a church, others to traveling through outer space.

Images: (left, top) Christian Frederickson performs in the MIT Theater Arts Building W97. (bottom and right) Installation view of *The Hammer and the Feather*. Photo credit: Danny Goldfield/MIT.



2020–21 Fay Chandler Creativity Grant

Christian Frederickson, Technical Instructor in Sound
Design, Music and Theater Arts, MIT

Greg King, Filmmaker

The Museum of Black Joy

A living archive of healing and good feelings

Interactive Archive: *The Museum of Black Joy*



The Philadelphia-based conceptual artist Andrea Walls has made it her mission to “celebrate, cultivate, commemorate, and circulate stories that center Black Joy,” applying a genre-inclusive and multimedia approach to storytelling inspired by the artists of the Harlem Renaissance and the Black Arts Movement. As an MIT & Black Public Media Fellow, she has developed *The Museum of Black Joy*: an interactive archive and hybrid exhibition space documenting the moments that typically go unnoticed by trauma-centric dominant media.

The MIT & Black Public Media Visiting Artist Program, supported by the MIT Center for Art, Science, and Technology and hosted by the MIT Open Documentary Lab, is intended to help Black storytellers and media artists extend their work with emerging technologies. This

is Walls’s first large-scale online multimedia project; visitors to *The Museum of Black Joy* encounter fragments of poetry, street photography, animated collage, and video, combining to create a borderless zone which is simultaneously a refuge and a point of entry. Although Walls is the founder and custodian of the space, the material is generated through a collaborative process. Workshops, chance conversations with friends, and spontaneous crowdsourcing all provide opportunities to gather new instances of happiness and solidarity.

“I just saw the power of shifting the lens, making a conscious decision to pay attention to the joy.”

– Andrea Walls

The Museum of Black Joy calls attention to resilience and hope. By cultivating an environment for collective healing, the project seeks to highlight moments of kindness and joy in everyday Black experiences. Bearing witness to such moments might be understood as an act of resistance, but Walls invites the participant to imagine something even more radical: a world where joy is recognized as a human right.

Images: (left) *Ramona! A Celebration of Life*, Mastery Charter School, Philadelphia, 2019. (middle) Credit: Andrea Walls/*The Museum of Black Joy*. (right) Election Day at Granahan Playground & Skate Park, Philadelphia, 2020. Credit: Andrea Walls/*The Museum of Black Joy*.

MIT & Black Public Media Visiting Artists Program

Black Public Media

MIT Open Documentary Lab

Andrea Walls, Multimedia Artist,
MIT & Black Public Media Fellow

Picturing Knowledge

How might wonder, play, and imagination be used to express the important ideas of our time, from the intricacies of geopolitical relations to subatomic activity?

In their board game, *Promesa*, MIT Research Scientist Mikael Jakobsson and Visiting Artist Rosa Colón Guerra let players experience the complexities—and frustrations—of Puerto Rico’s debt crisis. In *Visualizing the Proton*, physicists and documentary filmmakers created a vibrant animation to picture “the seemingly impossible world” of the elusive proton, a subatomic particle composed of complex motion. Economist Abhijit Banerjee paired with graphic artist Sarnath Banerjee to devise a rollicking public lecture, featuring a colorful cast of characters, to illuminate themes of water use, economic growth, and greed in South Asia. Public Media Fellow Ngardy Conteh George invited viewers from around the world into the communal and sustainable culture of Barbuda, a Caribbean island nation under threat of foreign development, through an interactive VR documentary.

Through these different art forms—from theater to board games to animation—scholars and artists developed new creative languages to communicate essential ideas to the broadest possible public.

In This Section

Visualizing the Proton

Promesa

Water Wars

Wa’Omoni Rising

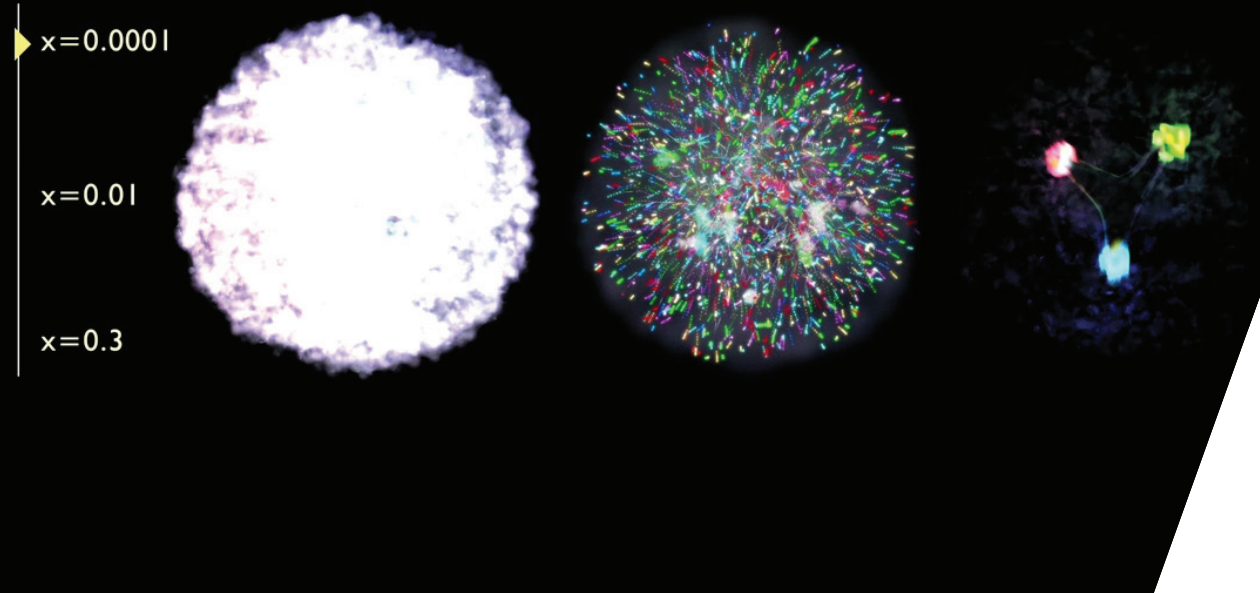
Image: The *Promesa* board game created by Rosa Colón Guerra, Mikael Jakobsson, and team. Photo credit: HErickson/MIT.

Visualizing the Proton

Animating the subatomic world

Event: *Visualizing the Proton* Launch, Kendall/MIT Open Space, April 20, 2022

Animation: *Visualizing the Proton*



What we can see is codependent with what we can know, informing our capacity to apply that knowledge toward scientific progress. That's why the conundrum of visualizing the proton has been a source of contention over the years; ever since the Standard Model was first developed to explain atomic structure, the proton has almost universally been visualized as a static billiard ball—a representation that fails to depict the complex motion of quarks and gluons.

This model proved too limiting for MIT Physics Professor Richard Milner. In collaboration with physicists Rolf Ent and Rik Yoshida at Jefferson Lab, documentary filmmakers Chris Boebel and Joe McMaster at MIT, and animator James LaPlante of Sputnik Animation, Milner sought

to expand the boundaries of how the proton is perceived. The resulting animation can be understood as equal parts art and science, proposing a new way of conceptualizing the subatomic world—a world of mystery and beauty, where quarks and gluons can spin, have linear and circular motion, and appear and disappear.

“Essential parts of the physics of the proton involve animation, color, particles annihilating and disappearing, quantum mechanics, and relativity. It's almost impossible to convey this without animation.”

– Richard Milner

It's a project that Milner and Ent have been incubating since 2004, when Frank Wilczek shared an animation in his Nobel Lecture on Quantum Chromo Dynamics (QCD). The MIT lineage of investigating subatomic structure also sets a precedent for innovation in the field; Jerome Friedman and Henry Kendall of MIT and Richard Taylor of SLAC received the 1990 Nobel Prize in Physics for their pioneering research confirming the existence of quarks. As a continually evolving area of research, the complexities cannot be underestimated. However, the team's goal was to produce an animation that would be simultaneously aesthetically accessible and scientifically rigorous—as applicable to high school classrooms as MIT research labs.

Milner and his colleagues are motivated by new and planned electron accelerators that aim to deliver snapshots of the fundamental structure of matter with unprecedented clarity. To this end, the animation was originally presented at the American Physical Society; it was then shared at a community event hosted by MIT Open Space Programming, where an audience of all ages had the chance to marvel and take part in a new form of knowledge production. Colliding the micro and the macro, the team drew inspiration from the colorized Hubble images of the large-scale structure of the universe—by first envisaging the impossibly large, they were able to imagine the impossibly small.

The project is as much about the process as the result. Throughout the stages of research and animation, Boebel and McMaster kept a continual film log of behind-the-scenes details, material which will be edited into a documentary about the collaborative

journey to visualize the proton. By setting a precedent for profoundly interdisciplinary work with a direct scientific function, the animation opens groundbreaking new possibilities for science communication as well as the development of new technologies. As our perception expands to make space for the inconceivable, so might new discoveries allow for greater understanding of the nature of matter.

Images: (left and right) Screenshots of animated proton. Credit: James LaPlante/Sputnik Animation.

2019–20 Mellon Faculty Grant

Chris Boebel, Media Development Director, MIT

Rolf Ent, Associate Director, Experimental Nuclear Physics, Jefferson Lab

Alexander Higginbottom, Video/Post-Production Assistant, MIT Video Productions

James LaPlante, CEO, Sputnik Animation

Joe McMaster, Senior Producer, MIT Video Productions

Richard Milner, Professor, Department of Physics, MIT

Rik Yoshida, Director, High Energy Physics Division, Argonne National Laboratory

Promesa

A counter-colonial board game

Launch Event: *Promesa Board Game: Presentation and Play*,
MIT Building 32, April 27, 2022



Back in 2018, Mikael Jakobsson, research coordinator in the MIT Game Lab, embarked on a collaborative mission to design a counter-colonial board game. Jakobsson, whose work explores the social and cultural contexts of gaming, had been deeply disturbed by his experience playing *Puerto Rico*, a game in which players take on the role of colonial governors while Indigenous peoples are categorized as resources to be traded or obstacles to be eliminated.

“The secret to winning the game is by investing in public goods like infrastructure, healthcare, or education.”

– Mikael Jakobsson

The team at the lab had the skills to reframe the game, but they didn’t have the on-the-ground experience that would allow them to truly understand the stakes. Enter MIT Visiting Artist Rosa Colón Guerra, a comics artist from Puerto Rico whose work illustrates Puerto Rico’s financial crisis and the impact

of Hurricane María. For Colón Guerra, communication is an artistic imperative—a way of allowing others to understand the socio-political structures in which they live. Designing a game was a natural extension of her work in comics; the process started with a series of classes and workshops at universities in Puerto Rico and Colombia, as well as at MIT, gathering data and feedback that enabled the team to develop the concept and structure of the game.

The result is *Promesa*, a new board game that launched at MIT in spring 2022. Taking its name from the 2016 government act issued in response to Puerto Rico’s debt crisis, the game applies an ironically upbeat aesthetic that only serves to highlight the injustices faced by those on the island. Federal law transferred the management of the country’s finances to US legislators, but the gameplay proposes an alternative approach that prioritizes Puerto Rico’s autonomy. Debt is represented on the board by gems that sit atop an unstable raft; by investing in public goods like infrastructure or education, players must work together to push the raft away from the island, toward the US Mainland where—arguably—the debt belongs.

To play a game is to become embedded in a particular logic system; how we play translates to how we think and act. By playing *Promesa*, Jakobsson and Colón Guerra hope that more people will come to understand the complexities of Puerto Rico’s status as a modern-day American colony. The project is also a call for all game designers to engage in a meaningful way with the cultures they represent, and the collaborative process prompted Jakobsson to establish an artist and designer collective called Popcicleta. A more critical culture of gaming is also a more creative space for play.

Images: The box and playing pieces for *Promesa Board Game: Understanding Puerto Rico’s debt crisis through play*. Photo credit: HErickson/MIT.

2020–22 CAST Visiting Artist

Rosa Colón Guerra,
CAST Visiting Artist

Rik Eberhardt, Program Manager,
Game Lab, MIT

Mary Flanagan, Sherman Fairchild
Distinguished Professor in Digital
Humanities, Director of the Tiltfactor
Research Laboratory, and Professor
in the Department of Film and Media
Studies, Dartmouth College

Mikael Jakobsson, Research Coordinator
in the MIT Game Lab and Lecturer in
Comparative Media Studies/Writing, MIT

Sam Mendez, Graduate Student in
Comparative Media Studies/Writing, MIT

Popcicleta

Shey Rivera Ríos, Director of Inclusive Regional
Development, CoLab, Department of Urban
Studies and Planning, MIT

Aziria D. Rodríguez Arce, Graduate Student in
Comparative Media Studies/Writing, MIT

Water Wars

Economics made uneasy

Project: *Water Wars*, 2019–22



Sarnath Banerjee tells stories through films and graphic novels; MIT Professor Abhijit Banerjee is a Nobel Prize-winning economist. Both believe that storytelling is essential for communicating the impact of complex global processes on individual human lives. What would happen if economic principles and statistics were translated into images and anecdotes? Would top-down power structures persist if specialist knowledge was diffused into public understanding?

The artist and the economist decided to find out. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* (2011) by Professor Banerjee and graphic novel *All Quiet in Vikaspuri* (2015) by Sarnath Banerjee share themes of growth, greed, power, and short-termism. The convergence of these research interests sparked a series of conversations between the two men, moving freely between discussion of global issues and personal interests—from strategies for poverty alleviation to the crimes of corrupt politicians to

the experience of growing up in Calcutta. Now, following many years of deliberation, they have embarked on a project to develop a new and more accessible language for the social sciences: a series of public lectures combining scholarship, performance, graphic art, and animation.

“Abhijit and I are collaborating to create an insubordinate theatrical lecture which communicates certain guiding principles to understand water crises.”

– Sarnath Banerjee

The focus of the lectures will be *Water Wars*—a theme that serves as a point of intersection between multiple global currents, from trade policy to climate change. No longer restricted to numbers and abstractions, the academic economist is relocated to a multi-character soap opera taking place in towns and rural areas across the subcontinent. Each story presents a new perspective on

water-related intrigues, revealing the impact of transnational forces upon specific instances of everyday life. The format is inspired in part by the theatrical scientific lectures that attracted 19th-century audiences, pioneered by figures such as Charles Darwin, Prafulla Chandra Ray, Acharya Jagadish Chandra Bose, and Mary Wollstonecraft.

Through wit, visual delight, and compelling storytelling, Professor Banerjee and Sarnath Banerjee hope to re-enchant the topic of economic growth. Enchantment, however, is not the same as escapism. Once captured by the subject matter, audiences will find it hard to forget the facts of social and economic inequality. By combining the resources of the arts and the social sciences, the lectures have the potential to cut through complacency, generating energy and motivation for targeted policy change.

Image: Screenshot from *Water Wars*. Credit: Sarnath Banerjee and Abhijit Banerjee.

2019–22 CAST Visiting Artist

Abhijit Banerjee, Ford Foundation International Professor of Economics, MIT

Sarnath Banerjee, Artist/Filmmaker/Graphic Novelist

Niusha Ramzani, Artistic Assistant

Wa'Omoni Rising

Deconstructing the documentary impulse

VR Documentary: *Wa'Omoni Rising*



The career of filmmaker and technologist Ngardy Conteh George has been defined by her commitment to working with underrepresented communities, especially those that represent the cultures of the African diaspora. As an MIT & Black Public Media Visiting Artist, she has been working on *Wa'Omoni Rising*, a 360-degree virtual reality documentary exploring the creativity and resilience of individuals living on the Caribbean island of Barbuda. Supported by the MIT Center for Art, Science, and Technology and hosted by the MIT Open Documentary Lab, the MIT & Black Public Media Visiting Artist Program is specifically designed to support Black creative technologists.

Born in Sierra Leone, Conteh George grew up in Toronto where she cofounded OYA Media Group, a film, TV, and virtual reality production company. *Wa'Omoni Rising* is part of a trio of interconnected nonfiction projects, including a TV documentary and a VR wellness app. The choice to incorporate VR was significant. Conteh George is critical of the conventional top-down practices of the documentary genre,

and she was determined to develop a more participatory method of storytelling that would prioritize Barbudan voices and Indigenous ways of knowing.

“Documentary filmmaking is really about making connections and being a vessel to let the stories be told.”

– Ngardy Conteh George

This approach is all the more relevant, given the project's subject matter. Having spent three years living in Barbuda, Conteh George became increasingly concerned about the infringements of land rights that occurred in the wake of Hurricane Irma in 2017. By applying both a TV format and VR, Conteh George's alternating approaches communicate the facts from different angles; while the TV documentary focuses on activists and politicians, the VR documentary foregrounds the perspectives of community stakeholders, revealing the tensions as traditional values are threatened by rapacious land development.

Wa'Omoni Rising is simultaneously localized and globally significant, representative of land rights struggles worldwide. By selecting a medium that is inherently immersive and participatory, Conteh George reveals that the documentary genre is not a form of static truth-telling, but a method of exchange; a means of communicating lived experience and recognizing that we all play a role in shaping that reality.

Images: (left) The 360 cinematic VR interactive documentary is guided by the people of Barbuda, illustrating how their land is under massive change due to development post Hurricane Irma. (right) Ngardy Conteh George and her crew capture footage of the natural landscape on the island of Barbuda. Photos courtesy of Ngardy Conteh George.

MIT & Black Public Media Visiting Artists Program

Ngardy Conteh George, MIT & Black Public Media Fellow and Cofounder, OYA Media Group

Black Public Media
MIT Open Documentary Lab

Sounding/Performing Series

For nearly a decade, the MIT *Sounding* and *MIT Performing* series, curated by CAST director Evan Ziporyn and MIT theater professor Jay Scheib, have delivered innovative music and performance from around the globe, traversing the popular, the avant-garde, and everything in between.

The concert *Hearing Amazônia—The Responsibility of Existence* introduced audiences to Brazilian music influenced by the natural world, raising awareness about Indigenous rights and the unique biodiversity of the Amazon rainforest now under threat by climate change and corporate development. The music and multimedia event *It Must Be Now!* presented three compositions on themes of racial injustice and healing, featuring jazz artists Terri Lyne Carrington, Braxton Cook, and Sean Jones, alongside live VJ'ing by artist and filmmaker Mickalene Thomas. The workshop “Correspondences” by Ximena Garnica and Shige Moriya of the LEIMAY Ensemble also explored issues of interconnectedness and coexistence as gas-masked artists, each individually contained in clear chambers, were blasted with sand. Czech avant-garde musician Iva Bittová continued her multi-year collaboration with the MIT community, bringing her unique musical synthesis of contemporary and folk cultures to class visits and collaborative workshops, while pianist Maki Namekawa enchanted listeners with her interpretations of the cross-over work of Philip Glass, Joe Hisaishi, Keith Jarrett, and Evan Ziporyn.

In This Section

Hearing Amazônia—The Responsibility of Existence

Correspondences

It Must Be Now! (IMBN!)

New Resonances

Maki Namekawa
in Concert

Image: Debo Ray on stage during the *It Must Be Now!* performance. Photo credit: Caroline Alden.

Hearing Amazônia—The Responsibility of Existence

A sonic awakening to the plight of the natural world

Performance: *Hearing Amazônia—The Responsibility of Existence*,
Kresge Auditorium, MIT Building W16, November 6, 2021



The impact of ecological devastation in the Amazon is representative of the climate crisis worldwide. Inspired by the research and activism of Talia Khan, MIT SB '20, and building upon experiences with 2020–21 CAST Virtual Visiting Artists Luciana Souza and Anat Cohen, *Hearing Amazônia—The Responsibility of Existence* launched with a consciousness-raising concert of Brazilian and Amazonian music influenced by the rhythms of the natural world. The concert was part eulogy and part praise song; a way of bearing witness to loss, while celebrating the living and evolving cultural heritage of the region.

“We don’t have to live in the rainforest to witness the power of Amazonian music—and if we can connect on a musical level, we can also connect with these populations through a shared recognition of the importance of sustainability, activism, and protection of Indigenous rights.”

– Talia Khan

MIT Sounding Series

Anat Cohen, Clarinetist/Composer,
2020–21 CAST Virtual Visiting Artist

Kevin Costello '21, Arranger

Genevieve Dempsey, Lecturer in World
Music, Music and Theater Arts, MIT

Laura Grill Jaye, Director of the MIT Vocal Jazz Ensemble

Frederick Harris, Jr., Music Director of the MIT Wind
Ensemble and the MIT Festival Jazz Ensembles and
Director in Music, Music and Theater Arts, MIT and
Hearing Amazônia—The Responsibility of Existence
Creator and Leader

Talia Khan, Graduate Student, Laboratory for
Atomistic & Molecular Mechanics, Department of
Civil and Environmental Engineering, MIT

Guillermo Klein, Composer/Arranger

MISTI Brazil

MIT Festival Jazz Ensemble

MIT Vocal Jazz Ensemble

MIT Wind Ensemble

Carlos Nobre, Senior Researcher, Institute for
Advanced Studies, University of São Paulo

Marcus Santos, Percussionist / Educator

Sara Serpa, Vocalist/Composer

Luciana Souza, Vocalist/Composer, 2020–21 CAST Virtual Visiting Artist

Djuena Tikuna, Vocalist

Anacleto Tukano, Vocalist

Ivan Tukano, Vocalist

Ovídio Tukano, Vocalist

Maritta R. von Bieberstein Koch-Weser, Founder and President, Earth3000

Evan Ziporyn, Kenan Sahin Professor of Music at MIT and Faculty Director of the MIT
Center for Art, Science & Technology (CAST), Composer/Arranger/Clarinetist



By fostering awareness and respect for Brazil's environmental and Indigenous heritage, the project seeks to rally support for increased legislation to protect and restore the biodiversity of deforested lands. With sufficient backing, sustainable economic progress in the region is a tangible goal—although the timeline is tight and the stakes are high. As the first stage of an ongoing campaign, the concert created a powerful shared setting to hear Amazônia: to understand our individual urgent responsibility to preserve the natural world.

Images: (previous page) Sara Serpa sings with the MIT Festival Jazz Ensemble, conducted by Frederick Harris, Jr. (left) Anat Cohen and Evan Ziporyn play together on bass clarinets during *Hearing Amazônia*. (right, below) Talia Khan delivers an address entitled “The Amazon: Leveraging the Earth’s Greatest Natural Resource for Social, Economic, and Environmental Benefit” during the performance. Photo credit: Danny Goldfield/MIT.

Since taking part in a summer internship in the Brazilian Amazon, Khan has become a public advocate of the rights of Indigenous peoples, arguing for the urgent need to preserve biodiversity in the region. Alongside her research into the biomechanical properties of native plants, Khan became increasingly involved in the local carimbó music scene, leading to her recognition of the deep connections between traditional medicinal practices, artistic and spiritual expressions, and social solidarity. Speaking alongside other prominent figures in the debate—including Maritta R. von Bieberstein Koch-Weser, founder of the first Rainforest Business School—Khan called for a strategic campaign to de-incentivize deforestation by supporting a thriving bioeconomy of sustainably sourced natural resources.

These calls to action were amplified by a program created and led by MIT *Sounding* Co-Director Frederick Harris, Jr., performed by the MIT Festival Jazz Ensemble, MIT Wind Ensemble, and MIT Vocal Jazz Ensemble, alongside guest artists including vocalist Sara Serpa, clarinetist Anat Cohen, and percussionist Marcus Santos. Ranging from early choro to bossa nova to música popular brasileira, the program featured newly arranged works by Antônio Carlos Jobim, Hermeto Pascoal, Egberto Gismonti, and Chiquinha Gonzaga, among others. In-situ video recordings of performances by Indigenous musicians were accompanied by spatial, real-time improvisations by students, transforming Kresge Auditorium into a truly immersive sonic space and connecting the audience with the concert's spiritual and ecological source.



Correspondences

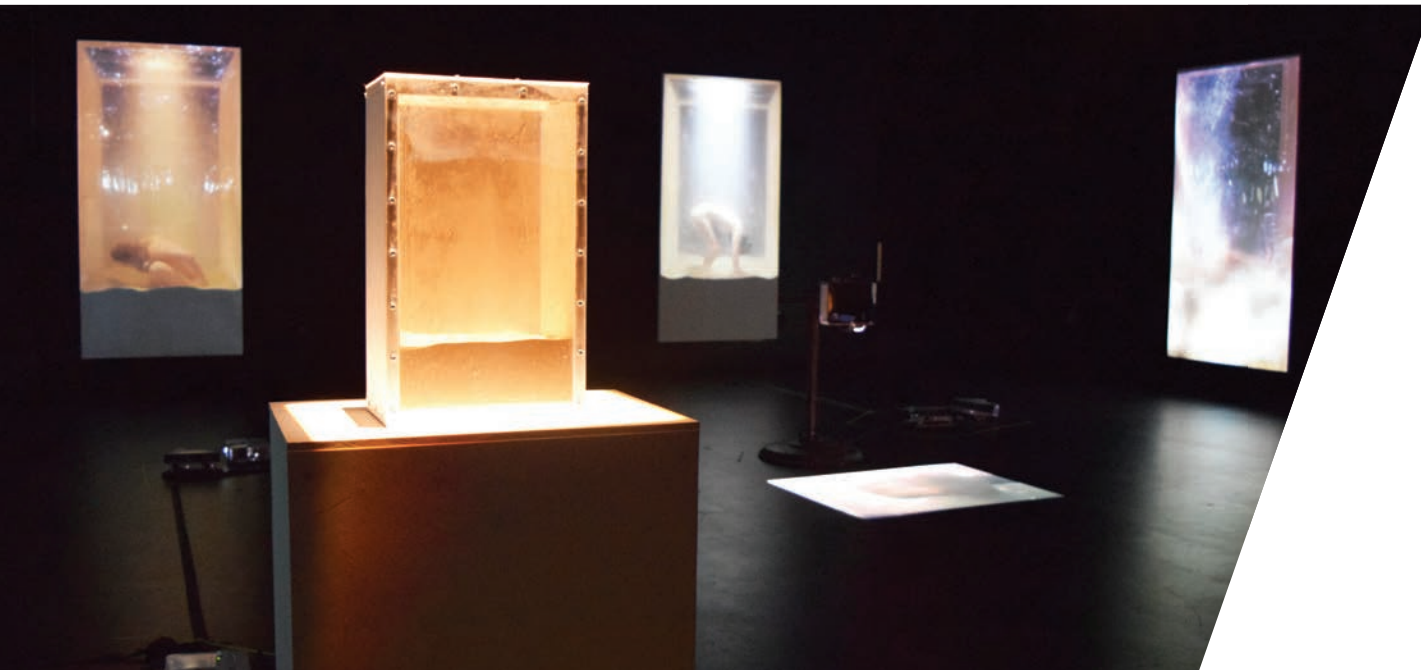
Embodying the in-between

Film Screenings: *Correspondences*, MIT Theater Building W97, December 9, 2021

Performance: In-Progress-Showing from LEIMAY, MIT Theater Building W97, December 9, 2021

Open Studio Prototype Exhibit: Video Installations & Kinetic Sculpture Models, MIT Theater Building W97, December 4–11, 2021

Class Visits: 21M.623 Bodies in Motion, Fall 2021



Correspondences was initiated at Robert Wilson’s Watermill Center, and the first phase involved live performances in urban plazas and parks. Now in its second phase, the project is being developed in partnership with leading cultural and academic institutions, and the MIT community is engaging with LEIMAY in multiple ways. As a work in progress, the project’s concept is continually evolving in response to the cross-fertilization of class visits, workshops, and public conversations. In addition to the live performance of current choreographic materials, the program includes a public screening of short films documenting the first phase, a multichannel video installation, a presentation of kinetic sculptures, and numerous opportunities to dialogue with the artists.

LEIMAY’s interactive digital archive is open to all, a space where everyone can share chance observations and philosophical reflections, as well as upload photos and videos related to the project. This process of co-creation is another manifestation of the artists’s credo of connectivity. By eliding distinctions between the makers and receivers of the work as it develops in time, *Correspondences* seeks to destabilize hierarchies and open the field of flux to all.

Images: (left) View of *Correspondences* installed in MIT Building W97. (top) LEIMAY dancers respond to the installation through movement. (below) MIT student observes the prototype for a sand-filled chamber up close. Photo credit: HErickson/MIT.

Conceived by the artist duo Ximena Garnica and Shige Moriya (LEIMAY) and performed by the LEIMAY Ensemble, this expansive project challenges spectators with questions of coexistence, interdependence, and non-Eurocentric ways of being. LEIMAY’s work is shaped by their concept of LUDUS: a methodology which seeks to condition the body while revealing the power of productive ambiguities and the pure possibility of the “in-between.”

“How can we create a practice of correspondence to help restore our kinship with Earth?”

– Ximena Garnica

In *Correspondences*, individual performers wearing gas masks are enclosed within transparent chambers partially filled with sand. As the performers repeatedly attempt to stand, machines attached to the chambers intermittently trigger sandblasts that force the performers to the ground, only to rise again. This intense physicality of the work invokes the power of rising at a time of social, political, and economic turmoil.

However, rather than seeking to attach a singular meaning to this work, the artists emphasize the importance of recognizing the juxtaposition of multiplicities—an attitude of openness that allows correspondences to rise.



MIT Performing Series

Masanori Asahara, Dancer, LEIMAY Ensemble

Krystel Copper, Dancer, LEIMAY Ensemble

Ximena Garnica, Cofounder, LEIMAY

Shige Moriya, Cofounder, LEIMAY

Daniel Safer, Lecturer in Dance and Theater, Music and Theater Arts, MIT

It Must Be Now! (IMBN!)

A racial justice reckoning

Performance: *It Must Be Now!*—Advancing social justice actions through music and media, Kresge Auditorium, MIT Building W16, May 7, 2022

Virtual Events: *IAP 2022: It Must Be Now!*—Conversations with renowned jazz artists on composing with a social justice lens, January 13, 20, and 27, 2022; Terri Lyne Carrington: *An Artist Responding to Injustice*, March 26, 2021; Saxophone Masterclass with Braxton Cook, March 15, 2021; *Jazz and Gender: Moving Toward an Equitable Future* with Terri Lyne Carrington and Sean Jones, March 4, 2021; *Exploring Sean Jones' Musical Worlds*, February 23, 2021

Music has the power to inspire activism and societal change. This idea is the driving motivation behind *It Must Be Now! (IMBN!)*, an ongoing initiative that brought together three leading musicians: Terri Lyne Carrington, Braxton Cook, and Sean Jones, to compose large-scale works on the theme of racial justice.

Created and led by *MIT Sounding* series Co-Director Frederick Harris Jr., *IMBN!* first emerged as an idea during Sean Jones's residency with the MIT Festival Jazz Ensemble in 2019. One year later, a seismic racial reckoning shook the United States in response to the murders of Ahmaud Arbery, Breonna Taylor, George Floyd, and other Black Americans. Harris recognized the need for a

considered and collective artistic response; the original plan for a collaboration with Jones soon evolved into a larger, multidisciplinary effort that reflected the magnitude and urgency of the situation.

"This initiative involves inward growth and vulnerability to begin the process of change. We must acknowledge the history and current state of various injustices, understanding that a sustained effort is required for real change, imagining what could and should be reality now."

— Frederick Harris, Jr.



MIT Sounding Series

Terri Lyne Carrington, Professor, Director, Institute of Jazz and Gender Justice, Berklee College of Music, Drummer/Composer/Producer

Edmar Colón, Faculty, Berklee College of Music, Saxophonist/Arranger/Orchestrator

Braxton Cook, Saxophonist/Vocalist/Composer

Kevin Costello '21, Arranger/Orchestrator

Vinson Fraley, Jr., Dancer

Laura Grill Jaye, Director of the MIT Vocal Jazz Ensemble, MIT, Vocalist/Arranger

Frederick Harris, Jr., Music Director of the MIT Wind Ensemble and the MIT Festival Jazz Ensemble and Director in Music, Music and Theater Arts, MIT and *It Must Be Now!* Creator and Leader

Joshua Higgason, Technical Instructor, Music and Theater Arts, MIT

IMBN! Orchestra

Val Jeanty (a.k.a. Val-Inc.), Professor, Berklee College of Music, Drummer / Turntablist

Sean Jones, Professor, Richard and Elizabeth Case Chair, Jazz, The Peabody Institute at Johns Hopkins University, Trumpeter/Composer

Jet Lewis, Conservation Biologist, Spoken Word Poet

MIT Festival Jazz Ensemble

MIT Vocal Jazz Ensemble

MIT Wind Ensemble

Wendel Patrick, Assistant Professor, Department of Music Engineering & Technology, The Peabody Institute at Johns Hopkins University, Turntables and Electronics

Debo Ray, Assistant Professor, Berklee College of Music, Vocalist

Andrew Renfro, Guitarist

Mickalene Thomas, Visual Artist/Filmmaker

Orlando Watson, Lyricist/Spoken Word Poet/Vocalist





The project took many forms over the course of two years, leading up to a major live performance in spring 2022. As they developed their compositions, the three musicians gave multiple lectures and spoke on panel discussions, sharing their creative process and engaging in open dialogue about the relationship between activism and the arts. The program for the concert grew to encompass spoken word, visual media, and interpretative dance. The MIT Festival Jazz Ensemble, MIT Wind Ensemble, MIT Vocal Jazz Ensemble, and the *It Must Be Now!* Orchestra were joined by Sean Jones (trumpet), Braxton Cook (saxophone), and Terri Lyne Carrington (drums), and visiting artists of multiple disciplines, who introduced fresh dimensions of expression. Renowned visual artist and filmmaker Mickalene Thomas performed the role of VJ, a spoken word piece by vocalist Orlando Watson was reimagined live by turntablist Wendel Patrick, and performances by dancer Vinson Fraley, Jr., revealed the inherent physicality of sonic empathy.

Works that gave form to the atrocities of racism—from the history of slavery to contemporary police brutality—were simultaneously sobering and exuberant. By making space for compassion and calling for immediate action, the performances transformed Kresge Auditorium into a place of deep reflection and communal reckoning.

Images on previous page: (left) *IMBN!* performers, from left to right, Debo Ray, Wendel Patrick, Val Jeanty, Sean Jones, Terri Lyne Carrington, Edmar Colón, Mickalene Thomas, and Braxton Cook. (right) Frederick Harris, Jr. conducts the MIT Festival Jazz Ensemble. Photo credit: Caroline Alden.

Images this page: (left) Debo Ray, Sean Jones, and Braxton Cook perform with the *IMBN!* Orchestra and MIT Festival Jazz Ensemble. (right) Vinson Fraley, Jr. dances on stage in Kresge Auditorium. Photo credit: Caroline Alden.

New Resonances

Giving voice to vitality

Class Visits: Introduction to World Music, Medieval and Renaissance Music, Fall 2021; History of World Music, Spring 2022

Masterclasses: MIT Concert Choir, MIT Festival Jazz Ensemble, MIT Vocal Jazz Ensemble, and Jazz Chamber Group, MIT Wind Ensemble, Fall 2021 and Spring 2022



The Czech violinist, singer, and composer Iva Bittová is celebrated for the passion and naturalness of her art, radically remixing the linguistic and musical traditions of Eastern Europe with the international genres of jazz, pop, classical, and avant-garde music. Having come of age at a time in European history when music was a means of maintaining autonomy in the midst of political unrest, Bittová's art has always been a form of communication and social engagement. Her ongoing residency as a visiting artist gives new expression to this generative impulse, invoking the power of the voice to nourish our shared humanity and the health of the planet.

Building upon the extraordinary range of Bittová's practice, which has encompassed solo and chamber concerts, collaborations with dance and theater ensembles, and numerous workshops on composition and improvisation, the residency marks the next phase of her long and sustained relationship with MIT. In 2019, Bittová performed the US premiere of her album *Zvon* with the MIT Symphony Orchestra, and her return allows for in-depth interactions with MIT student ensembles and faculty. As part of her involvement in class visits and collaborative workshops, Bittová introduces students to a wholly somatic experience of music-making, exploring the power and urgency of coming together in song. This process has inspired the programming for



"I believe there are fundamentals to my performance, the music's vibration and resonance between violin and my voice. Their 'symphony' leads me on to perfection, even though I know it never can be attained."

– Iva Bittová

an important upcoming concert that will explore collaboration, tradition, and improvisation in the music of Bartók, Berio, and Czech and Slovak traditions, as well as Bittová's own compositions. Bittová's music embodies a relentless love for life, animating the ancient and delighting in the chance details of daily experience. As a visiting artist, she demonstrates how music can resist the homogenizing forces of globalization, offering an outlook which is simultaneously local and cosmopolitan, expressive of the infinite hybridity that constitutes a wholly original artistic vision.

Images: Iva Bittová directs students in vocal exercises during Genevieve Dempsey's Introduction to World Music class. Photo credit: HErickson/MIT.

**2022 MIT CAST Mellon
Distinguished Visiting Artist**

**Iva Bittová, 2022 MIT CAST Mellon
Distinguished Visiting Artist**

**Genevieve Dempsey, Music and
Theater Arts Lecturer at MIT**

**Laura Grill Jaye, Director of the MIT
Vocal Jazz Ensemble, MIT**

**Frederick Harris, Jr., Director of the MIT
Wind Ensemble and the MIT Festival Jazz
Ensemble and Lecturer in Music, Music and
Theater Arts, MIT**

**Natalie Lin Douglas, Assistant
Professor of Music, MIT**

MIT Symphony Orchestra

MIT Vocal Jazz Ensemble

**Philippa Ovenden, Jean-François Malle
Fellow, I Tatti: The Harvard University
Center for Italian Renaissance Studies**

**Anna Yu Wang, Professor of Composition and
Theory, Longy School of Music**

**Evan Ziporyn, Kenan Sahin Professor of Music at
MIT and Faculty Director of the MIT Center for Art,
Science & Technology (CAST)**

Maki Namekawa in Concert

Seeking stillness in sound and silence

Public Performance: *Maki Namekawa: 21st Century Piano: Music by Joe Hisaishi, Philip Glass, Keith Jarrett, and Evan Ziporyn*, MIT Kresge Auditorium, May 13, 2022

For Namekawa, the four compositions share an elemental yet unfathomable connection: a meeting of mathematical complexity and human feeling, accessed from different angles each time a piece is played. By presenting the works as absolute music, framed and focused by the rituals of the western concert tradition, her practice is directly aligned with one of the primary goals of the concert: to challenge assumptions of the types of music that belong in the concert hall. Through her own personal

approach to performance, Namekawa is changing how contemporary music is valued and shared, and her partnership with MIT opens new opportunities for continuing interpretation and reinterpretation.

Images: Maki Namekawa performs in the MIT Kresge Auditorium in May 2022. Photo credit: Danny Goldfield/MIT.



Established hierarchies of taste have long held sway over the musical genres considered appropriate for the concert hall space. The pianist Maki Namekawa directly challenges those entrenched expectations. Her repertoire ranges from classics of the western canon to contemporary works of global popular appeal, interpreted intuitively after a process of direct collaboration with the composer.

The four composers included in Namekawa's recital—Philip Glass, Joe Hisaishi, Keith Jarrett, and MIT's Evan Ziporyn—are often associated with settings beyond the classical concert hall, including film, television, podcasts, and video games. Namekawa's highly personal interpretations make a strong case for the inclusion of their works in the context of a concert recital, where the written score is merely a starting point for new creative expression; a process that Namekawa associates with deep listening as much as the production of sound. The hours spent practicing are a way of seeking the moment of stillness in the act of playing, when she knows an interpretation as instinctively “right.”

“The music is always very complex, but the core—the center of everything—is very simple.”

– Maki Namekawa

In addition to Glass's *Piano Sonata* (composed specifically for Namekawa in 2019) and *Ritual* by Keith Jarrett, the concert featured the US premiere of Hisaishi's *Toccata*, co-commissioned by CAST and Arts Electronica Center, and the world premiere of Ziporyn's *Music for '365 Stories I Want To Tell You Before We Both Die'*—Part One. While Glass and Jarrett are already household names, the familiarity of the work of Hisaishi and Ziporyn may arise through association with other media; Ziporyn's silence-framed miniatures were created as introductions to Caveh Zahedi's acclaimed 2021 podcast (sharing the title of the composition), and Hisaishi's beloved scores for Studio Ghibli films are already part of the soundtrack to MIT student life.



MIT Sounding Series

Philip Glass, Composer/Pianist

Joe Hisaishi, Composer/Pianist/
Conductor

Keith Jarrett, Composer/Pianist

Maki Namekawa, Pianist

Evan Ziporyn, Kenan Sahin (1963)
Distinguished Professor of Music and Theater
Arts and Faculty Director of CAST, MIT

The Science and Dreams of Cities

While we might think of cities as made up of buildings and roads, these projects explore the deeper layers of the urban environment, both real and speculative.

In Visiting Artist Adesola Akinleye's MIT course, co-taught with artist Gediminas Urbonas, the MIT community investigated the choreography of urban space, the felt sense of the city as the body moves through it. Throughout the semester, students explored, through dance-based research and other embodied practices, how we might inhabit space differently. The project *Two Mobility Futures 0∞*, drawing upon the research of the City Science research group at the MIT Media Lab, created different prototypes for speculative cities in a multi-screen, sculptural installation. This visualization, pairing storytelling with predictive mapping technologies, offered two different future scenarios: one in which city residents had ultimate freedom of movement, and another in which mobility was scaled down to zero. Through these projects, cities are explored not as static objects but as zones of transit, places that can be endlessly made and remade with creative action.

In This Section

Two Mobility Futures 0∞

Choreographing the City

Image: Visitors to the Guggenheim Bilbao explore *Two Mobility Futures 0∞*, 2022.
Photo credit: Gabriela BÍlá Advincula.

Two Mobility Futures 0∞

A dichotomy of divergent possibilities

Installation: *Two Mobility Futures 0∞*, *Motion. Autos, Art, Architecture*,
Guggenheim Museum Bilbao, Spain, April 8 – September 18, 2022



The process of researching the future starts from the immediacy of sensate experience. *Two Mobility Futures 0∞*, a multi-screen and sculptural installation developed by the MIT Media Lab's City Science Group, immerses and involves the visitor through cinematic storytelling and predictive mapping technologies. Staged as part of the Guggenheim Museum Bilbao's exhibition *Motion. Autos, Art, Architecture*, curated by Lord Norman Foster, the installation critically addresses the speculative promises of the "smart city," and instead seeks to foreground human lived experience.

Directed by Kent Larson, the City Science Group is known for its capacity to transform concepts and research into practical application; experiments that take place in the lab often convert to tangible new technologies. In the case of *Two Mobility Futures 0∞*, two divergent worlds are presented on a scale from "zero" to "infinite" mobility: Zero mobility imagines a future where all resources are

delivered to each household, whereas infinite mobility would be a state of frictionless global movement. The installation explores these alternate futures through three evocative narratives: "Windows," "Luggage," and "Love." By visualizing scenarios that could equally be interpreted as utopian or dystopian, the installation encourages visitors to reflect on the type of world they want to live in. At the center of the cylindrical space is a model of a fantastical city constructed from salvaged automotive parts—a miniature metropolis where projection mapping offers a conceptual view of the motion for each moment in time. Above the model, an analog speedometer indicates the rate of movement for the two distinct futures.

"We have the chance to significantly expand what is possible to imagine and realize for our urban futures."

– Gabriela BÍlá Advincula



While the uninhabited city model might seem to warn of a future where mechanistic efficiency is prioritized over human freedom, the stories told on screen propose a more humane paradigm for urban design; an approach where the intimate details of daily life provide vital touchpoints for understanding interconnected systems and rapid urbanization. Live action scenes are juxtaposed with experimental camerawork capturing the microarchitecture of the city model—a process that required specially developed filming techniques to create the appearance of a dynamic urban setting. By drawing on the skills of cinematographers, sound designers, model makers, and city planners, *Two Mobility Futures 0∞* reveals how the process of researching the future can move beyond the lab, into the arena of the arts, and ultimately become a collaborative process in the public realm. In the exhibition space, each visitor is equipped with the visual, sonic, and spatial tools to better understand the risks and opportunities of emerging technologies, inviting all to envision a future of collective flourishing.

Images: Installation view of *Two Mobility Futures 0∞*, in the Guggenheim Bilbao, 2022. Photo credit: Gabriela BÍlá Advincula.

2022 CAST International Exhibition Grant

City Science Group, MIT Media Lab, including:

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Justin Blinder, Research Assistant

Margaret Church, Program Coordinator

Maitane Iruretagoyena, Technical Associate

Kent Larson, Principal Research Scientist

Thomas Sanchez Lengeling, CityScope User Experience Researcher

Luis Alberto Alonso Pastor, Research Scientist

Naroa Coretti Sánchez, Research Assistant

Carson Smuts, Research Scientist

Choreographing the City

Shaping places through somatic knowledge

Class: 4.368/9 Studio Seminar in Art and the Public Sphere: Choreographing the City, Spring 2022

For visiting artist-scholar and choreographer Adesola Akinleye, dance is a four-dimensional language that is inherently inclusive, elastic, and connective. Her work investigates how dance-based research and cross-disciplinary collaboration can generate new techniques, lexicons, and conversations within urban design.

For Gediminas Urbonas, likewise, language is central to the way we interpret and re-create our shared spaces. This paradigm informs his approach to teaching the Studio Seminar in Art and the Public Sphere, which was first conceived in the 1970s by György Kepes, founder of MIT's Center for Advanced Visual Studies (CAVS), with the goal of guiding students through the conception, planning, and realization of public art projects.

“We are not separate from city or environment, not separate from place: We are a part of it all.”

– Adesola Akinleye

As part of her residency, Akinleye was invited to lead the spring 2022 edition of the seminar, titled *Choreographing the City*. Core to the development of the syllabus was the assertion that a thorough examination of our perception must precede any act of design, acknowledging that perception is a wholly embodied process. Alongside challenging readings and traditional classwork, students were given the opportunity to work beyond their comfort zone, engaging in choreographed and spontaneous bodywork exercises throughout the MIT campus.



In addition to venturing far beyond the classroom, the course also encompassed new formats and media. An interactive map, immersive recordings, and videos provided students and community members with a starter toolkit to formulate their own spatial lexicon. *Morning Conversations at MIT* is a podcast series developed by Akinleye and Urbonas, assessing the connections between dance, choreography, and place making. The *Soma Salons* shared emerging research with a wider audience, and the *#ChoreographingtheCampus* project invited visitors to document their place-based experiments.

By taking an approach of “movement as method,” Akinleye and Urbonas foregrounded the need for designers to resist traditional top-down practices, seeking instead to gain an understanding of how it truly feels to inhabit a place. A simple question gives rise to nuanced, site-specific answers: How does it feel to be present, here?

Images: (left) Adesola Akinleye demonstrates spontaneous bodywork exercises on Memorial Drive in Cambridge. (right) Akinleye's demonstration is filmed on the steps outside of the MIT List Visual Arts Center. Image credit: Tim Lemp/MIT.



2020–22 CAST Ida Ely Rubin Artist in Residence

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John Bingham-Hall, Director, Theatrum Mundi

Ellie Cosgrave, Associate Professor of Urban Innovation and Director, University College London Urban Innovation Laboratory

DancingStrong Movement Lab

Liz Lerman, Choreographer and Founder, Liz Lerman Dance Exchange

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Dianne McIntyre, Dancer and Choreographer

Scott L. Pratt, Professor of Philosophy, University of Oregon

Richard Sennett, Chair, Urban Initiatives Group – UN Habitat, and Chair, Theatrum Mundi

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