PRESS PREVIEW KIT

Future Tense: Art, Complexity, and Uncertainty
Curated by David Familian

On View: August 24 – December 14, 2024
Press Preview: August 23, 10 a.m. – 12 p.m.

IRVINE, Calif. – In partnership with the 2024 Getty PST ART initiative, the UC Irvine Beall Center for Art + Technology is proud to present Future Tense: Art, Complexity, and Uncertainty. The exhibition will feature emerging and established contemporary artists whose interdisciplinary practices investigate complex systems, including evolutionary biology, global warming, neuroscience, data surveillance, and robotics. Churning between order and chaos, complex systems exhibit dynamic, uncertain, and unpredictable behavior and are characterized by feedback loops, self-organization, and emergent, spontaneous behavior. In paintings, drawings, kinetic sculptures, installations, and videos, Future Tense will offer artistic frameworks for apprehending complex issues faced in the 21st century, from scales microscopic to planetary.

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David Familian, Artistic Director, (949) 824-4543 / dfamilia@uci.edu
Future Tense will exhibit new work by Laura Splan, Chico MacMurtrie, Hege Tapio, Gail Wight, and Lucy HG Solomon & Cesar Baio collective. Their interdisciplinary artistic research was commissioned by the Beall Center’s Black Box Projects residency program, a groundbreaking incubator of art-science innovation founded by Artistic Director David Familian in 2013. Works by Ralf Baecker, Lynn Hershman Leeson, Fernando Palma Rodríguez, Julie Mehretu, Pinar Yoldas, Clare Rojas, Carolina Caycedo, David de Rozas, and Theresa Schubert will be included alongside those of resident artists.

Future Tense engages the field of Complexity Studies, an evolution of cybernetic thought which emerged in order to study dynamic systems behavior. Where traditional scientific inquiry sought to predict universal phenomena, complexity studies seeks instead to mathematize the uncertainty of the universe and to chart intersections amongst neighboring systems—how, for example, digital expansion affects global temperature increase (Theresa Schubert), or how ocean acidification spawns rapid evolution within aquatic microbial communities (Gail Wight). Many today believe the complexity framework to be vital to studying a world whose issues are too entangled to be solved or apprehended individually. “We can no longer afford to try to control nature,” says exhibition curator David Familian, “but must learn to live within it.”

“The exhibition invites audiences to experience how complexity functions within individual works, and also to appreciate the wonder and aesthetics of their implicated systems,” says Familian. “Ultimately, Future Tense offers interdisciplinarity, collaboration, and systems thinking as a means of solving the vexing and unpredictable problems which plague our world.”

The opening of Future Tense follows a series of recorded and publicly-accessible symposia organized amongst exhibition artists, collaborative scientists, and guest lecturers since 2021. Programming will be developed into university curriculum and K-12 educational material, intended to expand access to the sciences and the arts.

Organized by Beall Center Artistic Director David Familian, Future Tense: Art, Complexity, and Uncertainty will be on view from August 24, 2024, through December 14, 2024. Artist talks, walkthroughs, workshops, and performances will be presented in conjunction with the exhibition through its runtime. The Beall Center is free admission and open to the public during the academic year Tuesday – Saturday from 12 noon – 6 p.m.. Check here for holidays and other closures.

The exhibition of Future Tense at the Beall Center will be complemented by a satellite installation at the AlloSphere Research Facility at UCSB, a multimedia venue which places visitors in the center of a 360° spherical screen. Here will be mounted Sketches of Sensorium, the last work of art conceived by the late Newton Harrison (1932-2022), considered by many to be a founder of environmental art and a pioneer of complex thinking. Sketches of Sensorium is an interactive environment that models how various factors—including deepwater fishing, atmospheric particulate concentrations, weather patterns, and other forms of natural and human activity—interact to create complex and unpredictable oceanic conditions. Realized with a team of artists, scientists, and mathematicians, this project unveils larger
apparatuses of political, environmental, economic, and social powers which exert their influence on the world’s oceans.

*The Future Tense exhibition and ancillary program of artist lectures, symposia, and performances, has been generously supported by the Getty PST ART initiative and by the Beall Family Foundation.*
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About the Artists and Curator

RESIDENT ARTISTS – NEW COMMISSIONS

**Cesar & Lois**, Being hyphaenated (Ser hifanizado)
*Beall Center Black Box Residency Project, developed in conversation with Kathleen Treseder of the UC Irvine Treseder lab.*

*Being hyphaenated (Ser hifanizado)*, developed by art collective Cesar & Lois specifically for installation in *Future Tense*, is an artwork-as-ecosystem that performs the complex interactions across species that are the basis for a balanced planet. The sculpture consists of an array of cocoons hosting living organisms, each containing communities of microorganisms which are connected to each other by their respiration, mediated by sensing technology. Lights embedded in each wood cocoon oscillate according to the bioelectric signaling of each organism in response to changes in the environment, including the CO₂ expelled by viewers.

**Chico MacMurtrie**, Dual Pneuma
*Beall Center Black Box Residency Project, developed in collaboration with the Bioinspired Robotics and Design Lab and Department of Mechanical and Aerospace Engineering at the UC San Diego Jacobs School of Engineering.*

*Dual Pneuma* is a soft-robotic performer evoking a humanoid body with four limbs that allow it to shapeshift between a bipedal and quadrupedal form. Comprising a musculature of high-tensile fabric and inflatable appendages, the artwork will move through the gallery, interacting with viewers and flexing its body in a manner between that of a human, robot, and insect. Various poses of the robot will be echoed in sculptural form, as MacMurtrie intends to present a series of ceramic works cast directly from the robot itself.

**Laura Splan**, Baroque Bodies (Sway)
*Beall Center Black Box Residency Project, developed in collaboration with theoretical biophysicist Adam Lamson (Flatiron Institute), epigenetic researcher Hannah Lui Park (UC Irvine Pathology), and creative technologist Danielle McPhatter (EY Metaverse Lab).*

*Baroque Bodies (Sway)* is a sensory encounter exploring entanglements between molecular phenomena and the built environment. The project uses emerging epigenetic research on environmental influences on gene expression along with computational and digital technologies to connect micro and macro worlds. Working in collaboration with scientists and technologists, Splan is creating an interactive video projection installation with sound that invites visitors to explore a 3D animation combining models of nucleosomes with AI-generated landscape imagery.

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Gail Wight, Ostracod Rising
Beall Center Black Box Residency Project, developed in collaboration with M. Allison Stegner, Anthony D. Barnosky, and Elizabeth A. Hadly (Jasper Ridge Biological Preserve and Department of Biology, Stanford University); and SeanPaul La Selle and Brian Sherrod (United States Geological Survey).

Ostracod Rising suggests that the ostracod—a ubiquitous crustacean present in water and on land— is evolving with astounding speed. Taking the form of a large accordion book hovering in space, Ostracod Rising tells a story of the end of the Anthropocene and the advent of an imagined Ostracovidous Epoch. Pages will include biological diagrams and information connecting the species to geological periods, both historical and imagined. Core samples that are being used to define the Anthropocene will form the basis of the timeline. Extending beyond the present, Ostracod Rising will mutate and evolve into a world-building phenomenon.

Hege Tapio, EPHEMERAL
Beall Center Black Box Residency Project, developed in collaboration with Elliot Hui of the UC Irvine Samueli School of Engineering, and Jaqueline Linnes of the Purdue Linnes Lab.

Hege Tapio is developing EPHEMERAL, a speculative semi-dermal implant designed to release synthetic emotions. The installation conceives of a fictional company, ‘Ephemeral,’ which sells the sensation of emotions in readily consumable form. The final installation will comprise of the implant device itself—a matrix of silicone, acrylic components, microneedles and microfluidic technologies—positioned beside a fictive campaign advertising the Ephemeral company.

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**GUEST ARTISTS**

**Ralf Baecker**, *Interface I*

*Interface I* investigates the complex boundary between two interacting systems. Each system is a compound of motors, strings, and elastic bands arranged horizontally. The two units face each other vertically (one on the top, one on the bottom). Each motor on each level (top, bottom) is connected by a string to its opposite, which meet in the center. In order to excite (stimulate) the system's behavior, each motor is fed with random impulses of different pulling strengths. Random signals are taken from a number of Geiger-Müller tubes, which are used as an entropy source. The Geiger-Müller tubes pick up the natural ambient radiation of the earth. This noise acts as a catalyst that enables the systems to change. By removing all real-world references, *Interface I* allows for manifold interpretations of the dynamics of complexity.

**Theresa Schubert**, *Glacier Trilogy - Part 3: Simulating glacial water systems*

*Glacier Trilogy - Part 3: Simulating glacial water systems* is an immersive artwork investigating glaciers as the starting point of fluvial systems and the future of water in times of climate crisis. Inspired by the idea of the hour glass, the piece simulates the emergence and melting process of glacial ice mass in real time using generative computer processing. The exhalation of visitors has a direct impact on the melting process of the glacial ice mass in the artwork, as carbon dioxide sensors in the exhibition space are connected to specific parameters in the video. This interactive element blurs the lines between the natural and the digital world. Thus, a very direct impact of humans on the environment can be experienced.

**Fernando Palma Rodríguez**, *Huitzlampa, 2023*

Fernando Palma Rodríguez's work, *Huitzlampa*, aims to connect the ongoing struggle around land and water rights in his home community of Milpa Alta, an agricultural region of Nahua origin that supplies much of Mexico City with its clean water, to a broader conversation around environmental crises. The work animates a robotic character, half machine and half mythological, whose movements are responsive to live meteorological data, reflecting the artist's desire to give nature a "voice," and to engage the viewer in a conversation with issues of environmental concern. Interweaving Indigenous cosmogony with technology, Palma Rodríguez invites the viewer into a mesmerizing dance that invokes humans’ relationship with the natural world.

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**Lynn Hershman Leeson, Shadow Stalker**

*Shadow Stalker* is a live, interactive installation that uses algorithms, performance and projections to make visible the private internet systems like Predictive Policing which are increasingly used by law enforcement and promote racial profiling. *Shadow Stalker* comprises three parts:

- A film which outlines the history of Predictive Policing, Digital Identity Theft, and the dangers of Data Mining.
- An installation which creates digital shadows of participants displaying personal information about them retrieved from internet databases with the use of just their email addresses.
- A Predictive Policing website, created by Francis Tseng, that shows the percentage of predicted crimes by zip code.

**Carolina Caycedo and David de Rozas, Measuring the Immeasurable and The Teachings of the Hands**

*The Teaching of the Hands* (2020) and *Measuring the Immeasurable* (2020) are part of a larger body of work titled *The Blessings of the Mystery*. This research-based project examines themes of environmental activism, encounters between history and memory, Native Peoples’ rights, and the formation and dissemination of knowledge in West Texas through film, sculpture, installation, collage, and drawing. Together, project components speak to the complex relationships between land and culture which exist beyond the precision of traditional Newtonian science.

*Measuring the Immeasurable* comprises a hanging assemblage of real surveying tools which have been used to measure and map the land of Texas since 1785. The project means to provoke the questions: What is the exactitude of a science that reduces the land to straight lines, numbers, and economic value? What is missed or lost through this process? Whose rights are forgone when this happens? What are the rights of *Grandmother Earth* and of the more than human beings that live above or below the land’s surface?

Accompanying the sculpture is a video work, entitled *The Teachings of the Hands* and narrated by Juan Mancias, chairman of the Carrizo/Comanche. In the work, Mancias highlights the tribe’s struggle to maintain its way of life as viewers are presented with footage of observational landscape views, ancient imagery, environmental wounds, and embodied ways of measuring the universe which evade the reductionism of scientific precision. Mancias’ words are echoed in a series of 1930s watercolor reproductions of key pictographic sites in Somi Se’k, presented in the Beall gallery, which serve to acknowledge the enduring Indigenous presence in the region.
Newton Harrison, Sketches for Sensorium

Sketches for Sensorium showcases core elements of the late environmental artist Newton Harrison’s (1932 - 2022) long-term project, Sensorium for the World Ocean. It will premiere at the UCSB AlloSphere as a satellite to the UC Irvine Beall Center for Art and Technology’s exhibition, Future Tense: Art, Complexity, and Uncertainty. The installation will incorporate immersive audio and visual scientific climate and ocean health data provided by the Ocean Health Index of the Halpern Lab at the Bren School of Environmental Science & Management.

Sketches for Sensorium is a project of the Center for the Study of the Force Majeure in collaboration with Virtual Planet Technologies, Almost Human Media, and the AlloSphere Research Group. It will premiere with an original spatialized audio composition and an interactive data world, following Newton’s wish to impart a sense of hope to audiences.

David Familian, Curator

David Familian has worked at the UC Irvine Beall Center for Art + Technology since 2005, initially serving as Associate Director before his appointment as Curator and Artistic Director in 2008. Familian has curated and organized more than thirty exhibitions at the Beall Center with a focus on artist’s projects and exhibitions which intersect new media, scientific innovation, and contemporary socio-political issues. Since initiating the Beall Center’s Black Box Projects residency program in 2013, he has supervised ten visiting artists and facilitated their collaborations with UC Irvine faculty in Art History and Visual Studies, Biology, the Center for Complex Biological Systems, Computer Science, Social Sciences, and Law.
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*Future Tense: Art, Complexity, and Uncertainty*

Fact Sheet - University of California, Irvine (UC Irvine) Venue

**Exhibition:**
Exhibition Dates: August 24 – December 14, 2024
Visiting Hours: Tuesday-Saturday, 12-6pm
Curated by David Familian

**Events and Programming:** *
April 27, 9:30 a.m. – 3:00 p.m. (PDT)  
*Future Tense* Symposium 3.0  
CTSA Colloquium Room, CAC 3201, 
and live streamed via Zoom

August 23, 10 a.m. – 12 p.m.  
Press Preview (RSVP required)

August 24, 2–6 p.m.  
Opening Reception

August 24, 4-6 p.m.  
Artist Panel (Claire Trevor School of the Arts)

October 5, 2–5 p.m.  
UC Irvine Opening Reception

October 5, 5-6 p.m.  
*Future Tense* Artist Program

October 5, 6–8 p.m.  
Performative Reading of  
Tom Stoppard’s *Arcadia* (open to the public)

November 2, TBA  
PST ART – Regional Weekend

Dates TBA  
Docent-Led Tours

**Location:**
Beall Center for Art + Technology  
712 Arts Plaza  
Irvine, CA 92697-2775  
949-824-6206  
beallcenter@uci.edu

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David Familian, Artistic Director, (949) 824-4543 / dfamilia@uci.edu
Future Tense: Art, Complexity, and Uncertainty
Fact Sheet – University of California, Santa Barbara (UCSB) Venue

Exhibition:
Exhibition Dates: Ongoing (Installation activated upon appointment)
Visiting Hours: By Appointment (regular viewing schedule TBA)
Curated by David Familian (UC Irvine) in partnership with Dr. JoAnn Kuchera-Morin (UCSB)

Events and Programming:
December 14, Time TBD: Closing panel with David Familian (UC Irvine Beall Center for Art + Technology,), JoAnn Kuchera-Morin (UCSB AlloSphere), and Gabe Ritter (UCSB Art, Design & Architecture Museum)

Location:
2621 Elings Hall
University of California, Santa Barbara
Mesa Rd
Santa Barbara, CA 93106
805-893-3010
jkm@create.ucsb.edu

*Dates are current as of July 15, 2024.
Description: Today, many scientists and scholars across disciplines agree that an understanding of complex systems is vital for studying a world where conditions, events, and phenomena are too entwined to be predicted or observed individually. Distinct from traditional scientific models which produce predictable outcomes, complex systems churn between order and chaos, generating feedback loops, self-organization, and uncertain, dynamic behavior.

*Future Tense: Art, Complexity, and Uncertainty*, part of Getty’s 2024 PST ART: *Art and Science Collide* initiative, offers artistic frameworks for apprehending complexity in the 21st century. The exhibition presents emerging and established contemporary artists who engage myriad complex systems, including robotics, evolutionary biology, data surveillance, global warming, and bacterial intelligence. Ralf Baecker, Lynn Hershman Leeson, Julie Mehretu, Pinar Yoldas, Fernando Palma Rodríguez, Clare Rojas, Theresa Schubert, Carolina Caycedo, and David de Rozas will exhibit existing paintings, sculptures, and installations that reflect and activate complexity. Chico MacMurtrie, Lucy & Cesar Collective, Laura Splan, Hege Tapio, and Gail Wight are producing newly commissioned, interdisciplinary works under the Beall Center’s Black Box Projects residency, a program that facilitates collaborations between visiting artists and UC Irvine faculty researchers.

**Gallery Hours:**
Tuesday - Saturday from 12:00 p.m. – 6:00 p.m.
Free and open to the public.

**Parking:**
UC Irvine [Mesa Parking Structure], 4000 Mesa Rd., Irvine, CA 92617

**More Info:**
Beall Center for Art + Technology: [https://beallcenter.uci.edu](https://beallcenter.uci.edu)
Claire Trevor School of the Arts: [https://www.arts.uci.edu](https://www.arts.uci.edu)
Getty Foundation: [https://www.getty.edu/foundation](https://www.getty.edu/foundation)
PST ART: [https://pst.art/](https://pst.art/)

**Note to editors:**
Selected high-resolution images for publicity only may be downloaded from [Google Drive](https://drive.google.com) or [bit.ly/3WPGuD8](https://bit.ly/3WPGuD8)
(Key to images attached)
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Beall Center for Art + Technology, Claire Trevor School of the Arts

*Future Tense: Art, Complexity, and Uncertainty*
Curated by David Familian

Press Images:

1. Laura Splan, Baroque Bodies (Ambient Portals), 2022. Still from digital animation. This work was made possible by the Simons Foundation. Created in collaboration with Adam Lamson, Science Collaborator and theoretical biophysicist at Flatiron Institute, a division of the Simons Foundation. © Laura Splan. Courtesy of the artist.


The images are approved only for publication in conjunction with promotion of the exhibition. Reproductions must include the full caption information, and images may not be cropped or altered in any way or superimposed with any printing.

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About Pacific Standard Time
Pacific Standard Time, Southern California’s landmark arts event, returns in September 2024 to present more than 50 exhibitions at institutions throughout the region. Programs are thematically linked by the exploration intersections between art and science, both past and present. PST ART: Art & Science Collide follows Pacific Standard Time: LA/LA (September 2017 to January 2018) and Pacific Standard Time: Art in L.A. 1945-1980 (October 2011 to March 2012). PST ART is a Getty initiative. For more information, visit PST ART: Art & Science Collide.

About the Beall Center for Art + Technology
The Beall Center is an exhibition and research center located at the University of California, Irvine, in the Claire Trevor School of the Arts. Since its opening in 2000, the Beall Center has promoted new forms of creation and expression by building innovative scholarly relationships and community collaborations among artists, scientists, and technologists, and by encouraging research and development of art forms that can affect the future. For artists, the Beall Center serves as a proving ground – a place between the artist’s studio and the art museum – and allows them to work with new technologies in their early stages of development. For visitors, the Beall Center serves as a window to the most imaginative and creative visual arts innovations. The curatorial focus is a diverse range of innovative, world-renowned artists, both national and international, who work with experimental and interactive media. The Beall Center received its initial support from the Rockwell Corp. in honor of retired chairman Don Beall and his wife, Joan – the core idea being to merge their lifelong passions of business, engineering, and the arts in one place. Today major support is generously provided by the Beall Family Foundation. For more information, visit https://beallcenter.uci.edu.

About the Claire Trevor School of the Arts
As UC Irvine’s creative engine, the Claire Trevor School of the Arts has proven itself to be a national leader in training future generations of artists and scholars who go on to inspire audiences in theaters, galleries and concert halls – as well as in entertainment and technology-related venues throughout the world. CTSA combines artistic training with a top-ranked liberal arts education. It is home to the departments of art, dance, drama and music, offering 15 undergraduate and graduate degree programs and two minors. CTSA is currently ranked No. 1 in affordable fine arts, drama/theater, and music degrees by the College Affordability Guide. Courses include extensive studio, workshop, and performance experiences; theoretical and historical studies; and arts and technology practices. CTSA’s nationally ranked programs begin with training but culminate in original 5 invention. The distinguished, international faculty work across a wide variety of art forms and forge interdisciplinary partnerships with others across the campus. For more information, visit www.arts.uci.edu.

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About the University of California, Irvine

Founded in 1965, UCI is the youngest member of the prestigious Association of American Universities. The campus has produced three Nobel laureates and is known for its academic achievement, premier research, innovation, and anteater mascot. Led by Chancellor Howard Gillman, UCI has more than 36,000 students and offers 222 degree programs. It is located in one of the world’s safest and most economically vibrant communities and is Orange County’s second largest employer, contributing $5 billion annually to the local economy.

About the AlloSphere Research Facility at UC Santa Barbara

The AlloSphere is a three-story metal sphere in an echo-free chamber. An incubator of art-science research on the UCSB campus, the AlloSphere was developed to allow researchers to immerse themselves in their data. Directed by Distinguished Professor & Chief Scientist Dr. JoAnn Kuchera-Morin (Ph.D., M.M., B.M.), the AlloSphere intersects Science, Engineering, and the Arts through surround-view capabilities and multiple sensory modalities of interaction. Reenacting complex holistic systems interactively and in real time leads to the possibility of new scientific discoveries as well as new forms of art and entertainment, the interactive cinema of the future and real-world simulations of “nature as it could be,” not nature as it is.

About the University of California, Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. The campus boasts an inquisitive, creative, community-driven, and globally-focused atmosphere. UC Santa Barbara nurtures independent thinkers and consensus builders, Nobel Laureates and leaders chasing noble causes. Named the #5 public university in the United States, UC Santa Barbara is one of only 69 research-intensive institutions in the U.S. and Canada elected to membership in the prestigious Association of American Universities, cementing its status as a higher-education leader.