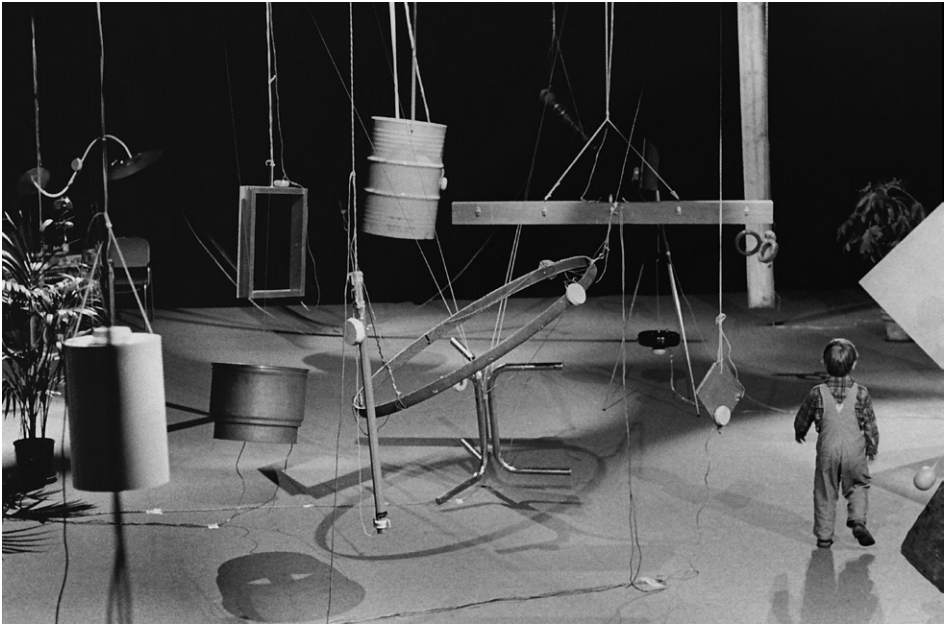


# David Tudor and Composers Inside Electronics Inc. *Rainforest V* (*variation 1*)



**MoMA**



## About

MoMA's inaugural presentation in the Marie-Josée and Henry Kravis Studio highlights a landmark work in the collection: the historic sound installation *Rainforest V (variation 1)* (1973–2015), conceived by pianist and composer David Tudor and realized by Composers Inside Electronics Inc. (John Driscoll, Phil Edelstein, and Matt Rogalsky).

The Kravis Studio is a new space for live events dedicated to performance, music, sound, spoken word, and expanded approaches to the moving image. With a capacity to accommodate multiple configurations, from an open gallery to a black box theater, the Kravis Studio will be activated throughout the year by a range of performances, programs, and installations through commissions, festivals, residencies, rehearsals, and workshops.

*Rainforest V (variation 1)* is a sound environment comprised of 20 constructed sculptures and everyday objects, such as a metal barrel, a vintage computer hard disc, and plastic tubing. The objects are fitted with sound transducers and suspended in a dynamic spatial composition to increase their resonance. Each element produces a unique sound according to its inherent physical properties and resonant frequencies, ranging from chirping and croaking to clicking and ringing. The cumulative effect is a polyphonic chorus of diverse voices that evoke the natural world. According to Tudor, the concept for the piece grew out of a “dream-vision of an orchestra of loudspeakers, each speaker being as unique as any musical instrument.” Visitors are invited to walk among the objects, experiencing the installation both visually and sonically from different positions in the gallery.

This presentation in the Kravis Studio will be the first installation of *Rainforest V (variation 1)* at MoMA since its acquisition in 2015.

←  
David Tudor. *Rainforest IV*  
(1973). Performed  
at L'espace Pierre Cardin,  
Paris, France, 1976

→  
Workshop for David Tudor's  
*Forest Speech* (1978–79),  
September 16, 2019.  
Pictured: C. Spencer Yeh  
and Stefan Tcherepnin



## Rainforest

The genesis of *Rainforest V* comes from the musical score Tudor created for choreographer Merce Cunningham's 1968 dance *RainForest*. The title for *RainForest* came from Cunningham's childhood memories of the Pacific Northwest, and the forest on the Olympic Peninsula. Tudor took this as a prompt, creating animal and birdlike sounds through his custom instruments, which activated the resonant frequencies of everyday objects. Tudor called these objects "instrumental loudspeakers," because their physical properties shaped and amplified the sound. Cunningham's *RainForest* was a collaboration with his peers: the set featured Andy Warhol's *Silver Clouds*, mylar pillows filled with helium that floated freely around the stage, and the costumes were designed by Jasper Johns.

Composer Gordon Mumma, a friend and collaborator of Tudor's, described how crucial collaboration was to the spirit of Tudor's work, referring to his ethos as "a garden of shared ideas with minimal fences." Tudor also worked with several members of the artist and engineer collective Experiments in Art and Technology (E.A.T.), including Robert Rauschenberg and Robert Whitman. E.A.T. was founded in 1966 by Billy Klüver and Fred Waldhauer to encourage collaborations between artists and engineers at the forefront of new technology.

In 1973, Tudor's *Rainforest* expanded from a musical composition to a performative and spatial installation at the New Music in New Hampshire festival in Chocorua, New Hampshire. That year, Tudor presented his *Rainforest* score to a group of young artists and composers. Working in a large barn, they experimented with larger objects, which needed to be suspended in order to resonate freely. The result was *Rainforest IV*, a collaborative sonic environment. The first performance lasted six hours and the audience was encouraged to walk among the objects, taking full advantage of the spatial dynamism of the work. Over the subsequent decades, *Rainforest IV* was shown in a variety of different spaces, from art galleries to black box theaters.

The Chocorua workshop participants included John Driscoll, Phil Edelstein, and Bill Viola, among others. The group would continue performing together, with small changes to the lineup, eventually adopting the name Composers Inside Electronics (CIE)—a name that they felt emphasized their investment in the potential of software, circuitry, and emerging technologies to generate innovative forms of music. CIE continued performing this piece with Tudor through the 1990s, and even after his death in 1996.

In the early 2000s, John Driscoll, Phil Edelstein, and Matt Rogalsky of CIE created an installation version: *Rainforest V*. Described by CIE as an "evolution," rather than a "reconstruction" of a historical work, this version, which is in MoMA's collection, encapsulates different generations of the piece, transforming a work that was once activated by performers into an installation that "performs" itself as generated by computer software.

## Forest Speech

In addition to the installation, CIE will create a new realization of David Tudor's rarely performed *Forest Speech* (1978–79). *Forest Speech* is a Tudor musical composition related to the *Rainforest* family of works. It similarly uses found objects and constructed sculptures as instrumental loudspeakers and has only been performed three times previously: March 20, 1977, at Barnard College, New York, during a Merce Cunningham Dance Company residency; and September 23, 1978, and March 31, 2018, at The Kitchen, New York.

This version of *Forest Speech* is unique in that it uses objects from *Rainforest V* (variation 1) as instruments. While works in the *Rainforest* series often use sounds that may be reminiscent of animals, insects, and birds, *Forest Speech* calls for vocal-like sounds.

The performance was developed in a collaborative workshop led by John Driscoll and Phil Edelstein of CIE here in MoMA's Kravis Studio. Over five days on-site at the Museum in September 2019, the participants created custom sound material for this new series of live performances. This workshop, echoing CIE's collective beginning in 1973, fosters a moment for cross-generational exchange and collaborative artistic approaches. The workshop group includes 15 artists and composers of different backgrounds and generations: Ginny Benson, Lea Bertucci, John Driscoll, Phil Edelstein, Cecilia Lopez, Daniel Neumann, Ed Potokar, Marina Rosenfeld, Margaret Anne Schedel, Sergei Tcherepnin, Stefan Tcherepnin, Spencer Topel, Jeremy Toussaint-Baptiste, Philip White, and C. Spencer Yeh. The use of *Rainforest V* objects as instruments for *Forest Speech* speaks to the possibilities for art and collections to constantly change and evolve, to create new sets of social relationships, and to inspire new ideas and approaches.

→  
Merce Cunningham  
and Meg Harper in  
*RainForest* (1968).  
Performed at the  
Brooklyn Academy  
of Music, 1969





↑  
Installation view of *David Tudor and Composers Inside Electronics Inc.: Rainforest V (variation 1)*, October 21, 2019–January 5, 2020, The Museum of Modern Art, New York

## Forest Speech performance schedule

### October performances

Performers: Phil Edelstein, Marina Rosenfeld, Stefan Tcherepnin, Spencer Topel, Jeremy Toussaint-Baptiste

Thursday, October 24, at 8:00 p.m.

Saturday, October 26, at 8:00 p.m.

Sunday, October 27, at 12:00 and 3:00 p.m.

### November performances

Performers: Lea Bertucci, John Driscoll, Ed Potokar, Margaret Anne Schedel, Phillip White

Thursday, November 14, at 8:00 p.m.

Saturday, November 16, at 8:00 p.m.

Sunday, November 17, at 12:00 and 3:00 p.m.

### December performances

Performers: Ginny Benson, Cecilia Lopez, Daniel Neumann, Sergei Tcherepnin, C. Spencer Yeh

Thursday, December 12, at 8:00 p.m.

Saturday, December 14, at 8:00 p.m.

Sunday, December 15, at 12:00 and 3:00 p.m.

## Bios

**David Tudor** (American, 1926–1996) was an early pioneer of electronic music and sound installation. He worked closely with composer John Cage, whose chance-based compositional style was a great influence on Tudor's work. Tudor was the first to perform several Cage piano works, including the landmark *4'33"*. During the 1950s and early 1960s, Tudor taught at Black Mountain College in North Carolina, and composed for the Merce Cunningham Dance Company, where he would eventually become the music director. Tudor, who participated in the renowned 1966 Experiments in Art and Technology event *9 Evenings of Theatre and Engineering*, was among the first composers to experiment with live electronic modification of sound. The majority of his compositions utilized custom-built modular electronic instruments, positioning him at the forefront of sonic developments in music technology. Developed alongside choreographers, theater-makers, and other visual and performing artists—such as Andy Warhol, Jasper Johns, and Pauline Oliveros—Tudor's practice was highly collaborative.

**Composers Inside Electronics (CIE)** (active 1973–present) is a group of composers, performers, and designers dedicated to the creation of interactive sound installations, compositions, and live collaborative performances. CIE grew out of a 1973 workshop with David Tudor and founding members Paul DeMarinis, John Driscoll, Phil Edelstein, Linda Fisher, Ralph Jones, Martin Kalve, and Bill Viola. The group is known for its performances and installations, including Tudor's *Rainforest IV* project and numerous collaborative realizations of members' works. Additional current members include Tom

Hamilton, Michael Johnsen, Ron Kuivila, Cecilia Lopez, Paula Matthusen, You Nakai, Ed Potokar, Matt Rogalsky, Margaret Anne Schedel, and others. Recent projects include performances at The Kitchen (2018), Ballet de Lorraine, and Lyon Opera Ballet, and a growing repertoire of Tudor's music for Merce Cunningham's choreography with Stephen Petronio Company. Other projects include John Driscoll and Phil Edelstein's sound installation *Cluster Fields* (2018) and adaptations of Tudor's Pepsi Pavilion works.

**Ginny Benson** is an intermedia artist who explores techniques of audiovisual collage. She utilizes synthesis, sampling, and thrift electronics to create immersive compositions and live performances. She has toured extensively under the moniker VX Bliss, and has presented work at New York institutions including Lincoln Center, Pioneer Works, Electronic Arts Intermix, and Roulette Intermedium. She lives and works in Queens, NY.

**Lea Bertucci** is a composer, performer, and sound designer whose work describes relationships between acoustic phenomena and biological resonance. In addition to her long-standing practice with woodwind instruments, she incorporates multichannel speaker arrays, electroacoustic feedback, and tape collage. Her recent projects have moved toward site-responsive sonic investigations of architecture. She has performed extensively across the US and Europe including at Pioneer Works (Brooklyn, NY), The Kitchen (New York, NY), Walker Art Center (Minneapolis, MN), and Muziekgebouw (Amsterdam, The Netherlands), and at the Sound of Stockholm festival in Sweden and the Unsound Music Festival in Kraków, Poland, among many others.

**John Driscoll** is a composer, sound artist, and founding member of Composers Inside Electronics (CIE). His work has focused on robotic rotating loudspeaker instruments, compositions and sound installations for unique architectural spaces, and music for dance. His current work has been exhibited at the Fridman Gallery, Museum of Modern Art in Warsaw, Museum der Moderne Salzburg, Lyon Biennale, and Subtropics Festival (Miami), among others. He recently collaborated with Phil Edelstein on a new sound installation, *Cluster Fields* (2018), using focused speakers.

**Phil Edelstein** is a New York-based sound artist and founding member of Composers Inside Electronics, whose ongoing work on the *Rainforest V* editions allows the project to continue into a next generation. Other recent projects include CIE performances at The Kitchen and a repertoire of mostly Tudor works for Merce Cunningham choreography with dance companies Stephen Petronio Company (as part of Petronio's Bloodlines project) and Lyon Opera Ballet. Other initiatives include a collaboration with John Driscoll on a new installation work, *Cluster Fields* (2018).

**Cecilia Lopez** is a composer, musician, and multimedia artist from Buenos Aires, Argentina, based in New York. Her work explores perception and transmission processes focusing on the relationship between sound technologies and listening practices. She works across the mediums of performance, sound, installation, and the creation of sound devices and systems. Her work has been performed in numerous venues in the US, Argentina, and Europe. She was a Civitella Ranieri Foundation fellow in 2015 and has participated in various international residency programs.

**Daniel Neumann** is a sound artist, organizer, and audio engineer. Working with hybrid installation-performance formats, he explores how sound interacts with space, and how space and spatial perception can be shaped by sound. His work has been presented internationally and is represented by Fridman Gallery, New York. He is the organizer and curator of an event series, CT::SwaM (Contemporary Temporary Sound Works and Music), that engages in spatial sound works and focused listening.

**Ed Potokar** is an artist, musician, and designer who makes sound sculptures, audio architecture, and handcrafted musical instruments. His work and performances have been presented in New York City, Brooklyn, Atlanta, GA, and Hartford, CT, as well as at the Fondazione Prada as part of the Venice Biennale, and at Georgia Tech's Margaret Guthman New Musical Instrument Competition. He has been featured in print and online publications including the *Wall Street Journal*, *New York* magazine, *Modern Painter*, *Elle Décor*, *DesignBoom*, *Guitar Aficionado*, *Fast Company*, and *Co.Create*, as well as on NY1 News, VH1, WNYC's *Soundcheck*, the BBC, and NBC's *Today Show*.

**Matt Rogalsky** focuses on live electronic music composition and performance, sound installation, and the study of late 20th-century compositions by David Tudor and other composers. He has been a performer in Composers Inside Electronics presentations of *Rainforest* and other Tudor works since 1998. He is based in Kingston, Ontario, where he runs the Sonic Arts Studio at Queen's University. Recent projects include the outdoor sound installations *Octet* (2016) and *Into the Middle of Things* (2017, with LJ Cameron).

**Marina Rosenfeld** is a New York-based composer and artist working across disciplines. She has had solo presentations at the Park Avenue Armory, The Kitchen, Portikus Frankfurt, and the Artist's Institute, among others. Rosenfeld has created works for numerous festivals, including the Holland Festival, Borealis Festival, Time:Spans, Donaueschingen Festival, and the Ultima Oslo Contemporary Music Festival, and participated in the Whitney Museum of America Art, Montreal, and Performa biennials, as well as *Every Time A Ear di Soun* for documenta 14, and Dark Mofo in Tasmania. She teaches at Bard College and Brooklyn College.

**Margaret Anne Schedel** creates work at the nexus of computation and the arts, through an interdisciplinary career blending classical training in cello and composition, sound/audio data research, and innovative computational arts education. She has a diverse creative output that spans from interactive multimedia operas to virtual reality experiences, sound art, and video game scores to compositions for a wide variety of classical instruments with interactive audio and video processing. She is an associate professor in the Department of Music at Stony Brook University.

**Sergei Tcherepnin** is an artist operating at the intersections of sound, photography, and theater. His performances and installations have been exhibited at the Museum der Moderne Salzburg; Overduin & Co., Los Angeles; Whitney Biennial, Whitney Museum of American Art, New York; Roulette, New York; The Museum of Modern Art, New York; Pavilion of Georgia at the 55th Venice Biennale; Murray Guy, New York; The Kitchen, New York; Yvon Lambert Gallery, Paris; Karma International, Zurich; Solomon R. Guggenheim Museum, New York; and the 30th São Paulo Biennial. He was a Villa Romana Fellow in 2014.

**Stefan Tcherepnin** is a Brooklyn-based mixed-media artist, composer, and musician. He has had recent solo exhibitions at Galerie Francesca Pia, Zürich; Freedman Fitzpatrick, Los Angeles; Real Fine Arts, New York; Stedelijk Museum, Amsterdam; and Kunsthalle Zürich. His collaborators include his brother Sergei, Ei Arakawa, Tobias Madison, Dan Poston, Emanuel Rosetti, Taketo Shimada, and Paul Sigerhall. He has released records on Blank Forms Editions, Dryers, and Stockholm's PETroleum Recordings. He was a recipient of the 2008 NYFA fellowship in music composition.

**Spencer Topel** combines sound, installation art, and design in ways that connect people with signals. He has collaborated with architect Hana Kassem, violinist Pauline Kim Harris, cellist Seth Parker Woods, and the FIGURA Ensemble, among others. Upcoming exhibitions include an indoor solar-kinetic installation for the Proctor Academy in Andover, NH, as well as works appearing at Art Basel Miami Beach, the Caramoor Festival in Katonah, NY, and the Huddersfield Contemporary Music Festival in the UK.

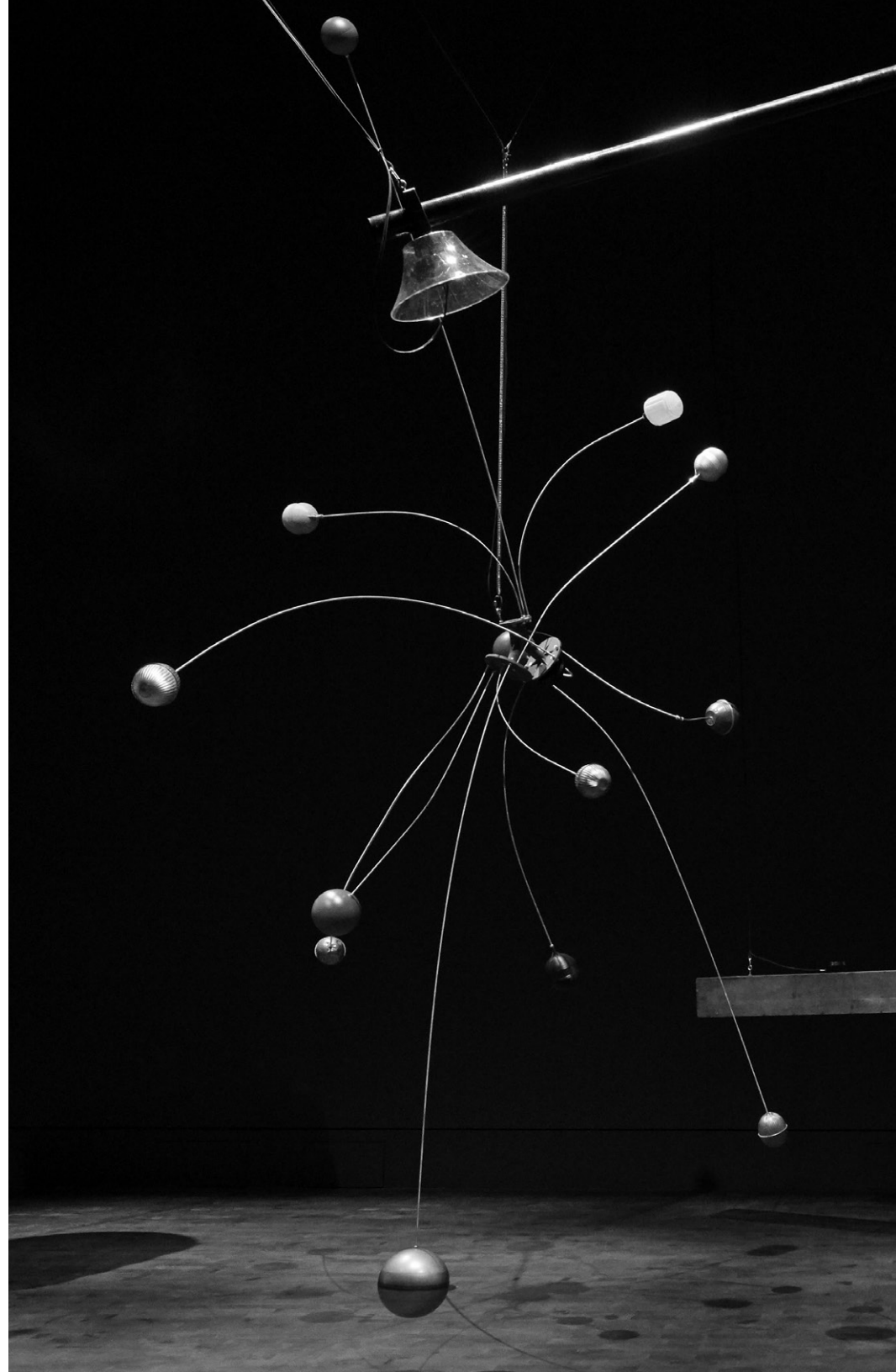
**Jeremy Toussaint-Baptiste** is a New York-based artist. He received a Bessie Award for Outstanding Music Composition/Sound Design in 2018, and has presented visual and performance work at venues including MoMA PS1, Performance Space New York, The Kitchen, and the High Line. Toussaint-Baptiste was a 2017 artist-in-residence at Issue Project Room, has contributed writing to *Artforum*, and frequently collaborates with artists across media, including Jonathan Gonzalez, King Vision Ultra, Tiona Nekkia McClodden, Claudia Rankine, and Will Rawls.

**Philip White** is a composer, performer, and improviser who works with electronics at the intersection of noise, jazz, and contemporary concert music. His music has been released on Anticausal Systems, Carrier Records, New Focus Recordings, Infrequent Seams, Contour Editions, and Tape Drift Records. His work has been described as “utterly gripping” (*Time Out Chicago*), “bona fide evocative music” (*Brooklyn Rail*), and a “vibrant textural tapestry” (*Wall Street Journal*).

**C. Spencer Yeh** is an interdisciplinary artist, improviser, and composer, and is also known for his music project Burning Star Core. In 2019, Yeh was a recipient of the Foundation for Contemporary Arts Grants to Artists award. His video works are distributed by Electronic Arts Intermix. Yeh is also a programmer and trailer editor for Spectacle Theater in Brooklyn, NY. His latest record, *The RCA Mark II*, was released by Primary Information.

For related education programs, see [moma.org/tudor](http://moma.org/tudor).

Installation detail of *David Tudor and Composers Inside Electronics Inc.: Rainforest V* (variation 1), October 21, 2019–January 5, 2020, The Museum of Modern Art, New York



**The Museum of Modern Art  
11 West 53 Street**



↑  
Children interacting  
with David Tudor's  
*Rainforest IV* (1973).  
Performed at Institute  
of Contemporary Art,  
Philadelphia, 1979

**Organized by Ana Janevski, Curator,  
and Martha Joseph, Assistant  
Curator, Department of Media  
and Performance; performances  
produced by Kate Scherer,  
Manager, with Ginny Benson,  
Assistant Performance Coordinator,  
Performance and Live Programs.**

**Hyundai Card**

**The exhibition is presented as part of  
The Hyundai Card Performance Series.**

**Generous support is provided by  
The Sarah Arison Endowment Fund  
for Performance.**

Images: David Tudor. *Rainforest IV* (1973). Performed at L'espace Pierre Cardin, Paris, France, 1976. Photo © 1976 Ralph Jones; David Tudor. *Rainforest IV* (1973). Performed at L'espace Pierre Cardin, Paris, France, 1976. Photo © 1976 Sharon Till; Workshop for David Tudor's *Forest Speech* (1978–79), September 16, 2019. Pictured: C. Spencer Yeh and Stefan Tcherepnin. The Museum of Modern Art, New York. Image © 2019 The Museum of Modern Art. Photo: Heidi Bohnenkamp; Merce Cunningham and Meg Harper in *RainForest* (1968). Performed at the Brooklyn Academy of Music, 1969. Photo: James Klosty. Courtesy of the Merce Cunningham Trust; *Rainforest V (variation 1)*. 1973/2015. Twenty objects, sound. Dimensions variable. Conceived by David Tudor, realized by Composers Inside Electronics Inc. (John Driscoll, Phil Edelstein, and Matt Rogalsky). The Museum of Modern Art, New York. Committee on Media and Performance

Art Funds. © 2019 David Tudor and Composers Inside Electronics Inc. Installation view, October 21, 2019–January 5, 2020. The Museum of Modern Art, New York. Image © 2019 The Museum of Modern Art. Photo: Heidi Bohnenkamp; Installation detail of *Rainforest V (variation 1)*. 1973/2015. Twenty objects, sound. Dimensions variable. Conceived by David Tudor, realized by Composers Inside Electronics Inc. (John Driscoll, Phil Edelstein, and Matt Rogalsky). The Museum of Modern Art, New York. Committee on Media and Performance Art Funds. © 2019 David Tudor and Composers Inside Electronics Inc. Installation view, October 21, 2019–January 5, 2020. The Museum of Modern Art, New York. Image © 2019 The Museum of Modern Art. Photo: Heidi Bohnenkamp; Children interacting with David Tudor's *Rainforest IV* (1973). Performed at Institute of Contemporary Art, Philadelphia, 1979. Photo © Kira Perov (1979)