

PROGRAMMING EMPAC

The First 4,158 Days

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RENSSELAER POLYTECHNIC INSTITUTE | TROY, NY



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PREVIOUS PAGE / *View of EMPAC's north side featuring the Concert Hall*

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PREFACE

Programming EMPAC: The First 4,158 Days presents a vivid mosaic of all the events, projects, and works developed and presented at the Curtis R. Priem Experimental Media and Performing Arts Center from 2014 back to its inception.

Hundreds of people from a wide range of backgrounds and disciplines came to EMPAC to create new work—artists, scholars, researchers, and students—all in collaboration with EMPAC’s team.

The book begins with five essays that describe EMPAC in the context of Rensselaer Polytechnic Institute, its background, and founding framework.

The main section of the book then dedicates one or two pages to each project or event each year, stepping backward in time. Cross sections that exemplify the hundreds of academic and campus events that take place annually at EMPAC appear at the end of each section.

In keeping with EMPAC’s fundamental idea that the senses are the portals to perception and understanding, we place this tactile, physical object in your hands. Art and research at EMPAC are “time-based”: performances, films, and interactive installations; immersive environments; explorations into sensor technology; human-computer interaction or real-time data visualization. Although static, this book is a window through which to view what EMPAC set out to do, and what has been accomplished to date. Open it anywhere and explore, moving forward or backwards through the pages and days.

Most of the projects at EMPAC have also been documented in high-quality, multi-camera video and audio in their entirety. In conjunction with this book, the hundreds of hours of this video archive are being made publicly accessible in the lobby of EMPAC. *Programming EMPAC* is also a companion to *The Architecture of EMPAC: The Tangible and the Tantalizing* (2010), a fully illustrated book on the design and construction of EMPAC from the perspectives of Rensselaer professor of architecture Mark Mistur, as well as its architect, acoustician, and theater designer.

EMPAC is an undertaking of scale, scope, and commitment that has not been dared before. Only the audacious commitment of Rensselaer Polytechnic Institute—the nation’s oldest technological university celebrating its bicentennial in 2024—and the vision of President Shirley Ann Jackson and the vital support of Trustee Curtis R. Priem made it possible for EMPAC to become this exceptional platform in academia, the arts, and cultural life on campus.

And while these books and video documentation give insight into EMPAC’s ambitions, founding ideas, innovations, and accomplishments, we hope you will visit us to experience our remarkable building, the Rensselaer campus, and most of all, witness the work of artists and researchers who seize the unique opportunity at EMPAC to explore new ideas, create new experiences, and bring new insight into the search for meaning.

—THE EDITORS

NAVIGATING THIS BOOK

As the essay *EMPAC: Function and Form* notes, EMPAC approaches every undertaking as a unique project, whether it is a commissioned work, a residency, a public presentation, a research project—or some combination thereof.

This book offers a comprehensive listing of all 413 projects that have taken place at EMPAC, in reverse chronology, from 2014–2004. It begins with EMPAC in its current state, and ends with its first project: the Wooster Group's *THERE IS STILL TIME..BROTHER*. Each project entry is a snapshot, with a brief description and an image or two, which combine to form a portrait of EMPAC.

The projects are arranged in annual sections; EMPAC-curated projects and research conducted here are followed by documentation of the academic collaborations and campus connections during that year.

Each project is placed according to the date of its inception (when a residency began or when a public presentation took place) and lists its end date. Many projects were developed over long periods, sometimes years; for those projects, the number of residency visits is also noted.

Many residencies culminated in a public presentation; when the event was part of the residency, the project has a single entry. However, when a residency and event were separated by a span of time, we have represented this with both a residency page (with more detail about the creative process) and event page. In this way, the book embodies the length of creation and how projects overlap and emerge. For example, *THERE IS STILL TIME..BROTHER* first appears with the EMPAC Opening Festival on page 570, while its residency and commissioning entry falls on page 652—a span of four years and 82 pages.

At the top of each page, the project is identified by a color-coded typology including *Residency*, *Commission*, and *Research*. EMPAC embraces many different types of public events, from single events to wide-ranging festivals, and these are also broadly indicated, including *Colloquia*, *Exhibition*, *Festival*, *Performance*, *Screening*, *Talk*, and *Workshop*. At the top of each event, a small banner indicates when the event is part of a series.

About the Production acknowledges partnering commissioners and producers of the work when a project was substantially created at EMPAC. *Publication* includes information about a related publication (book, recording, etc.) produced at EMPAC.

Because we have chosen to tell EMPAC's story as a chronology, we have included indices as another way to access the projects in the book, including lead creators and project titles. As befits a center committed to experimentation, technology, and research that spans art, science, and the humanities, many of the projects at EMPAC defy easy categorization. However, often the works and the expertise of their creators arise out of or reflect traditional disciplines. Each project has one or more discipline designations on its page, and a discipline index is offered in the appendix to help readers find work in a specific interest area. A list of all publications is also part of the appendix.

The EMPAC staff members and those who made each project possible through their presence and engagement are listed in the back of this book. Thank you!

INTRODUCTION

Shirley Ann Jackson, PhD

The ambitions of Rensselaer Polytechnic Institute never have been modest. We hone the talents of our students with the skills, perspectives, and opportunities for growth that enable them to move on to careers of accomplishment and distinction. Rensselaer was established to enable “the application of science to the common purposes of life”—to forward discovery, to develop useful and important technologies, and to move them into the world. Indeed, we have rededicated ourselves to this goal in recent years, which is reflected in our motto “Why Not Change the World?”

The Curtis R. Priem Experimental Media and Performing Arts Center (EMPAC) likewise reflects these aspirations. Every facet of EMPAC reaches into the future. Its mission is to bring together curious, talented, and audacious experts in the arts, the humanities, the sciences, and engineering. EMPAC is a world-class performance and research platform with a unique set of capabilities in acoustics,

haptics, data exploration and visualization, animation, and immersive technologies of all kinds. The program is demanding, supporting commissions for new works, while enabling innovators and researchers to realize objectives that could not be achieved anywhere else.

One of the striking things about EMPAC is how different it is from other performing arts and media centers. While other centers may stage avant-garde performances, the deliberate engagement with the future is foundational to every endeavor at EMPAC. Whatever the Center undertakes, there always is an understanding that the activities will transcend disciplines. The work of artists, engineers, scientists, and performers is intertwined by virtue of being developed within EMPAC, using shared infrastructure, and being supported by the same team. In this way, a new collective knowledge base is being created, which is revealed by the extraordinary body of work documented in this book.

Shirley Ann Jackson, PhD is the 18th president of Rensselaer Polytechnic Institute.



THE CENTRAL CAMPUS OF RENSSELAER POLYTECHNIC INSTITUTE WITH EMPAC ON THE RIGHT.

These collaborations are true partnerships, moving beyond opportunities, for example, for acoustical engineers to support musicians, or vice versa. EMPAC is as much about introducing new ways of thinking to accomplished people, as it is about enabling explorations of nature, society, and new forms of expression. When people work together at EMPAC, they are expected to reflect deeply on the vocations of others, and to share their own knowledge and perspectives. There is excitement. There is risk. There is a constant questioning.

A WORLD-CLASS CENTER FOR ARTS AND TECHNOLOGY

EMPAC was posited as a key platform and strategy, as Rensselaer set about transforming itself to meet the challenges of the 21st century. It was logical for the Institute to reach into new research areas in biotechnology, information technology, and nanotechnology. But for some, the move into experimental media and the arts seemed to be a bold gamble.

The Institute, however, has had a well-earned reputation for leadership in the electronic arts, with faculty and students working at the forefront of technologies with applications in the performing arts. We established EMPAC to bring our strengths together at the nexus of scientific discovery, and technological and artistic innovation, in order to move into, and support, new domains of inquiry, research, and learning.

In pursuit of this goal, a presidentially-appointed task force was created to interview key constituencies, and to visit arts facilities in the US and abroad. This task force was charged with envisioning “a world-class center,” focused on “both performance and research dedicated to the synergy between technology and the arts.” The results of their investigations recommended that faculty researchers,

artists, and visitors to EMPAC “engage in research, interact with, and enrich the lives of students and faculty, and conduct performances for the Rensselaer and surrounding communities.”

To arrive at a suitable building to house these ambitions, a juried architectural design competition was organized. Fourteen firms expressed interest. Of that group, four finalists were selected in 2001 to submit fully developed proposals. The London-based firm Nicholas Grimshaw and Partners won the competition and was appointed as the project architect.

To work with the EMPAC architects, the president of Rensselaer hired a consultant in media and the arts, Johannes Goebel, who later was named as the director of EMPAC. Mr. Goebel was a known composer of electronic music, and a respected curator and founding director of the Institut für Kunst und Medientechnologie in Karlsruhe, Germany. Today, his charge is to work with artists and students in electronic media, and with our faculty whose research can take advantage of the unique capabilities of EMPAC.

In 2004, Rensselaer Trustee Curtis R. Priem, a co-founder of the technology company Nvidia Corporation, announced an unrestricted gift of \$40 million to Rensselaer. Priem had deep personal interests in both technology and the arts. A major in electrical engineering, he had taken the first electronic music class offered at Rensselaer, where he helped to develop music-generation software for the Rensselaer mainframe. In recognition of his gift, Rensselaer announced that the new center would be named in his honor.

BUILDING BRIDGES BETWEEN ART AND SCIENCE

EMPAC was designed not as a collage of cutting-edge facilities but as a point of intersection for media, arts, science, and technology,

and for the engineers, scientists, and artists whose work is supported there. An appreciation for the value of such trans- and multidisciplinary in education and research is part of the Rensselaer DNA. In the mid-19th century, our third senior Professor and the first Director of the Rensselaer Institute, Benjamin Franklin Greene, spurred our students to discover and innovate by drawing philosophy, rhetoric, and the arts into our program of science and engineering instruction. Under his aegis, in 1861, the university became a “polytechnic” institute, or institute of “many arts.”

Founded in 1824, Rensselaer is the oldest technological research university in the United States, and has thrived for nearly two centuries because it continually has changed to anticipate the future. Today, two factors loom large. First, new technologies and tools—many of them driven by the deluge of data humanity is generating about itself and by computational advances of all kinds—are offering us new opportunities to understand and to reshape our world. Second, all of humanity is challenged by complex and interconnected global issues surrounding our supplies of food, water, and energy; human health and the mitigation of disease; a changing climate; the need for sustainable infrastructure; our physical and national security; and the allocation of scarce natural resources. These issues are far too complex to be addressed by even the most brilliant person working alone, or even by a single discipline, sector, or nation.

What is required is something we term “The New Polytechnic”: the technological research university re-envisioned as a fresh collaborative endeavor across disciplines, sectors, and global regions, using advanced technologies, and uniting a multiplicity of perspectives, so that large, multi-faceted challenges can be considered and confronted. EMPAC has helped to animate and to amplify Rensselaer as “The New Polytechnic.”

Sometimes, the scientist or engineer comes to understand that the artist is the very person who can help to explore and to expand a technological or scientific concept. Conversely, the artist, attracted by the peculiar instruments or the enchanting investigations of the scientist or engineer, may find new forms of expression within them.

Such interactions motivate talented, creative people of all types to build bridges. They find ways to translate their ideas, and to develop a common language that allows for deeper, more complex collaborations. Along the way, they challenge and inspire each other, and new ideas proliferate. Scientists, engineers, and artists, working together, learn from each other in order to contribute more effectively to the solution of global challenges, and to the public discourse.

At EMPAC, researchers and artists are expected to make their way into new territories, where failure is a risk. The partners work across disciplines that have different approaches. As they work together toward project-based goals, they inevitably share their own skills with each other, and grow.

BEYOND THE FAMILIAR

EMPAC demonstrates the commitment of Rensselaer to promoting research, the arts, and culture on its campuses, in the region, and on the national and international stage. As such, it supports the awakening, inculcation, and exercise of a broader spectrum of thought and possibility. EMPAC is intended to expand the boundaries of

perception, and of subsequent action. It is designed to stretch human knowledge and understanding, and to engage all of the senses, as well as all sensibilities.

In part, EMPAC represents an embrace of the concept of the “creative campus.” Several universities have adopted creative campus initiatives. Typically, these involve developing more opportunities for students and non-arts faculty to experience and participate in the arts. With EMPAC, however, the intent always has been to engage students, faculty, and staff on a deeper level.

While EMPAC does not offer traditional courses, its researchers, artists, and performers are integrated into our curricula, and interact with students and faculty in many ways. They engage students and faculty in cutting-edge research, and in the arts—through post-show discussions, workshops, classroom lectures, and “crits” of student work. Students may be attracted to EMPAC by the opportunity to do groundbreaking research. Students also support EMPAC productions and operations: they may advance as apprentices in specific professions at EMPAC during their years at Rensselaer and acquire skills entirely new to them. At Rensselaer, we emphasize the importance of learning to work in cross-disciplinary groups. EMPAC is a perfect learning space for this, and for the development of the very leadership abilities that we want to foster in our students.

Rensselaer is known to be academically demanding. Student participation in research at EMPAC reflects this, and our students attend EMPAC events at a rate that is two to three times greater than at performing arts centers at other universities.

In fact, our students have come to welcome the freshness of the opportunities at EMPAC. They bring their enthusiasm, curiosity, and skepticism there. They do not expect to be cosseted or affirmed, but often, they are inspired. EMPAC stands as a daily reminder to them to reach further in their own ventures and their own lives. In this way, EMPAC helps us to educate young people who are not only technologically brilliant, but also articulate, broad-minded, and humane.

A COMMITMENT TO THE FUTURE

An essential part of the questing, innovative, and forward-looking character of EMPAC is an unwavering dedication to the founding principles of Rensselaer Polytechnic Institute. Surprise, novelty, and renewal are possible only because, in being part of Rensselaer, we never forget that EMPAC is meant to be a champion of the new, and to make major contributions in the performing arts and to research. EMPAC was built—and its people, programming, and structure put into place—with ongoing innovation in mind.

As this book documents, since EMPAC opened in 2008, more than 500 performances and presentations have been shared with the campus and the public. EMPAC has been home to extended research and production residencies, conferences and colloquia, and many hundreds of university events, large and small, reflecting all facets of life on our Troy campus. Artists, researchers, scholars, students, and members of communities reaching far beyond Troy, New York, have been challenged, entertained, provoked, educated, surprised, and transformed by what has transpired within this unique facility.

And yet, we still are at the beginning.

EMPAC: FUNCTION and FORM

Shirley Ann Jackson, PhD, and Johannes Goebel

The Curtis R. Priem Experimental Media and Performing Arts Center (EMPAC) was initiated with a set of radical ideas and approaches, including three ambitious guiding principles: to create a bridge of uncompromising quality between the digital world, with all its potential, and the physical world of human perception, experience, expression, and interaction; to join under one roof the technical infrastructure, expertise, and spaces best suited to serving research and production in the arts and sciences and to enable collaboration across disciplines; and to be an agent for cultural change on the campus of the nation's oldest technological university.

EMPAC was not meant to be a traditional performing arts center, although it is superbly enabled to be one, featuring an acoustically exceptional 1,200-seat concert hall and a theater with a stage tower. Neither would it be a center where the arts could simply be used as a catalyst for scientific research, nor one where scientific criteria

could be applied to contemporary art in an effort to increase its acceptance as a valid academic and societal endeavor.

Instead, EMPAC set out to bring together artistic, scientific, technical, architectural, philosophical, and intellectual inquiry under one roof, confident about crossings, turbulences, and reciprocal influences that would arise both by conscious effort and serendipity. It is a utopian project, realized not only conceptually, but in a deliberate and concrete way through the building, its infrastructure, its staff, and its positioning within the university.

EMPAC posited that meeting the research and production needs of artists using contemporary tools—with a radical commitment to quality in all its facets—will, at the same time, function as an excellent laboratory for any kind of scientific and engineering research at the intersection of human perception and technology. And turning a prevailing notion on its head, EMPAC would not be governed by

Shirley Ann Jackson, PhD is the 18th president of Rensselaer Polytechnic Institute. Johannes Goebel is the founding director of EMPAC.



PERFORMANCE IN GOODMAN THEATER/STUDIO 1 (*THE HANT VARIANCE*, EDWARDS/FRIEDBERG, 2012).

rapidly changing technology, but by how human perception, social interaction, and large-scale activities could best be served by technology, seamlessly integrated into large, flexible spaces.

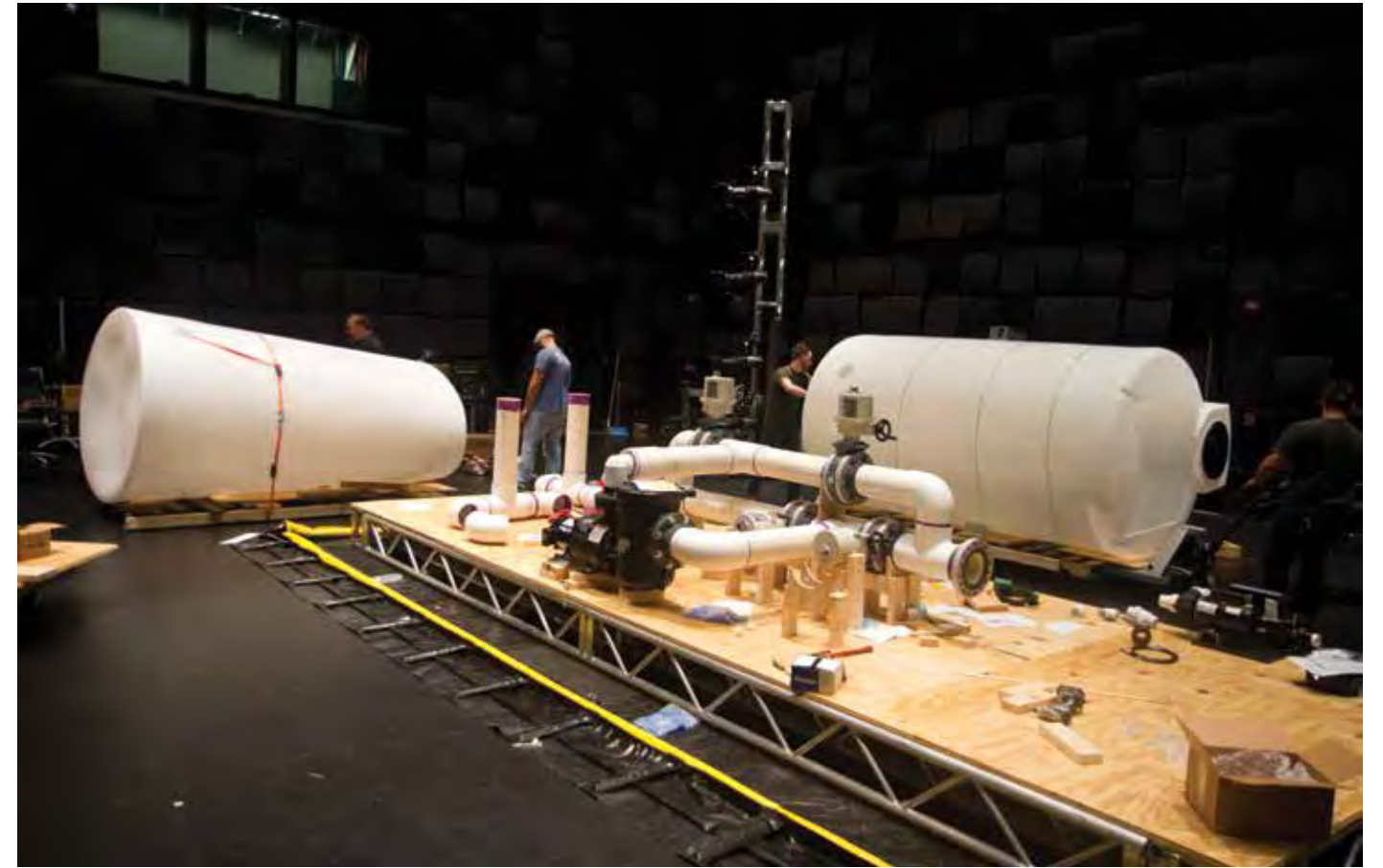
Another unorthodox point of departure taken by Rensselaer was the act of hiring, as EMPAC was being designed, a director with deep roots in the arts and experience in the design and construction of studios and performance spaces at the intersection of digital technology and human experience. He came to Rensselaer having established, over more than a decade, an extensive artistic production program—from architectural planning to fully implemented production and presentation that integrated scientific and engineering research—at ZKM, the Center for Art and Media in Karlsruhe, Germany. Usually, a director is appointed close to the opening of the facility. In this case, he could, from the very outset, coordinate architectural, technological, and building performance parameters so they would serve the envisioned program, from a perspective that none of the architects or building consultants had. At the same time, a team of curators was hired to begin programming immediately using venues across the campus. The campus would be introduced to EMPAC's programming well in advance of the new building; and EMPAC staff would become familiar with operating in an atypical arts environment: a renowned science, technology, and engineering university.

The curatorial team that was assembled specialized in, and encompassed, time-based art in all its manifestations: dance, music, theater, film and video, interactive arts, installations, online art,

spoken word, etc. With a rich and diverse history as long as human life on this planet, time-based art exploded kaleidoscopically in the 20th century under the influence of electricity, electronic media, and then digital technology; political, social, and economic upheaval and shifts in the Western world and beyond; and subsequent globalization. To embrace this diversity, EMPAC began and has continued with a time-based visual arts curator, a dance and theater curator, a music curator, and an assistant curator programming talks at the intersection of science, humanities, and art, among other series.

A UNIVERSITY-WIDE PLATFORM

Unlike other campus-based performing arts centers, EMPAC is a research platform serving the entire university. It is not part of a school or department and the director reports directly to the president. It is not scheduled with recurring classes or routine academics. As this book documents, this approach has allowed EMPAC the flexibility to support research and development projects from across the full spectrum of schools and centers at Rensselaer; to host thousands of campus and student activities; and to collaborate on academic and curricular programs—all while curating an arts production and presenting program with national and international reach. Classes attend EMPAC events as part of their syllabus and may have pre- or post-show meetings with artists and curators. Artists-in-residence give workshops, visit classes, meet with students to discuss their projects, and give insights into their own artistic practice.



INSTALLATION FOR A RESIDENCY (*HOLOSCENCES*, LARS JAN, 2013).

More than 100 students per semester work in different roles from ushering to working on production and research teams, gaining experience and increasing responsibility in an apprentice-like setting. And EMPAC serves as a center for high-level campus events and conferences, supporting more than 250 events per year from campus in general.

CAPACITIES AND CAPABILITIES

When the completed center opened with a widely attended three-week festival in 2008, artists, audiences, and researchers could begin to take advantage of what EMPAC offered: large venues to accommodate sizable groups as well as smaller studios, all with technology that is integrated seamlessly and may be used to address our senses—whether through images, sounds, or movement. And even without using complex technology, each venue is a delight to just be in.

Surprisingly, given EMPAC's highly developed infrastructure, venues themselves are mostly “empty.” That is, there are very few fixed elements like lights, loudspeakers, or screens. However, the entire volume of each space can be used and reconfigured, with literally anything—cameras, projectors, loudspeakers, lights, sensors, etc.—positioned anywhere. Data, video, audio, electricity, light, etc., can be networked to and from any point in the building. And EMPAC supports the highest quality video and audio infrastructure in all its spaces, whether for shooting films, making complex audio recordings, or documenting an event or research project.

Venues can also be linked externally, for instance to Rensselaer's Center for Computational Innovations with its supercomputer clusters, or connected to the outside world. This approach allows for great flexibility to meet diverse needs, since there are no pretexts to limit what can be done. The extraordinary research potential that EMPAC offers, especially for immersive and interactive environments suitable for large groups of people, becomes apparent when EMPAC venues can be connected over networks to any other facility on the campus of a leading science and engineering university.

The complex development, construction, and capacities of the building have been well-documented in *The Architecture of EMPAC: The Tangible and the Tantalizing* (Mark Mistur with Johannes Goebel, 2010), the companion to this publication.

But the building and its infrastructure is only half of what EMPAC offers. The other half comprises the people that program, operate, produce, organize, facilitate, administer, and, literally and figuratively, grease the wheels at EMPAC. Because it is highly interdisciplinary, with a constantly evolving roster of varied projects, each requiring a different configuration of expertise, EMPAC employs a flat hierarchical staff structure.

The curatorial team locates, initiates, and produces artistic projects, events, talks, conferences, and workshops, and connects EMPAC to the academic context of the university as well as to the public in the Capital Region of New York State and to neighboring areas, including other colleges.



SET CONSTRUCTION FOR A FILM SHOOT IN THE THEATER (*NO FOOD, NO MONEY, NO JEWELS*, SUSSMAN/LEE, 2014).

The *production team* has broad and deep knowledge and experience in a great variety of audio, video, stage technologies, IT, and custom-designed interface technology—all the digital or mechanical means to engage the senses and foster interaction among people, whether for artistic or scientific projects, for teaching or performing, or for a gala or a conference. Team members also bring diverse experiences and interests beyond the specific area for which they were hired—a highly valuable asset in a never-predictable stream of project requirements.

EMPAC's administrative needs are quite different from other schools and centers on campus. They require a versatile *administrative team* that can work with timeframes different from academic classes or research projects, negotiate non-academic contracts and manage complex insurance or visa requirements, coordinate resources for university events, research projects, or student projects, and manage EMPAC's public spaces for visitors and housing for resident artists.

The *marketing, design, and web teams* take EMPAC's program and shape the messaging for an audience that reaches beyond the campus and local environs to peers in other similar institutions, nationally, and internationally. Placing and communicating the diverse programmatic range of what forms EMPAC as a whole to an equally diverse base of constituents is certainly of high importance.

A PROJECT-BASED APPROACH

At EMPAC, every activity—university or public event, performance, lecture, concert, workshop, screening, artist residency, student project, research project, or academic activity—is treated as one of a kind. Events may last two hours or several days; projects may be developed in phases over a year or two, or even longer. This enables projects to be developed in a coherent, continuous way to the highest level of quality. Each project gets the necessary, dedicated space, technology, and support for its duration, which is defined by need rather than by a cookie-cutter approach with pre-defined time slots. Each activity gets its own set-up, developed extensively beforehand, while the EMPAC team offers flexible support to navigate changes of direction, unforeseen obstacles, and sudden discoveries.

Scientific and engineering research projects at EMPAC are mostly conducted by Rensselaer faculty, with assistance by graduate and undergraduate students. They can originate with research grants and are based in a department, research center, or school, where initial programming or scaled experiments are done; this then is followed by a phase of full-scale experimentation at EMPAC, which takes advantage of the specialized infrastructure that EMPAC offers. Following evaluation and further development in the offices and laboratories of the home department, the project again can be tested in full-scale at EMPAC—stepping through this cycle as often as needed.

More so than scientific research, artist residencies take many different forms at EMPAC. They may be used to create a new work, commissioned and funded by EMPAC, and developed here from



RUNNING A SHOW FROM THE CENTRAL VIDEO PRODUCTION ROOM (*CALLY SPOONER, AND YOU WERE WONDERFUL, ON STAGE* 2015).

beginning to end; or they may be for a specific phase of development for an existing project. One project may require a group of artists to come for 10 visits over a year and a half, while another needs an initial test period to determine if it is technically or artistically feasible before commencing. One project may be an extension or reimagining of a finished work, while another requires audio recording or video post-production.

Most artist residencies, however, are developed over an extended period of time, involving the artists and their key collaborators, a curator, and EMPAC's production team, and often require much preparation. The use or development of technology is discussed, schedules are coordinated, EMPAC's artist services administrator creates contracts, and if needed, secures visas, and schedules housing and transportation. And then the actual residency can commence, with EMPAC's project manager weaving together a project's production threads.

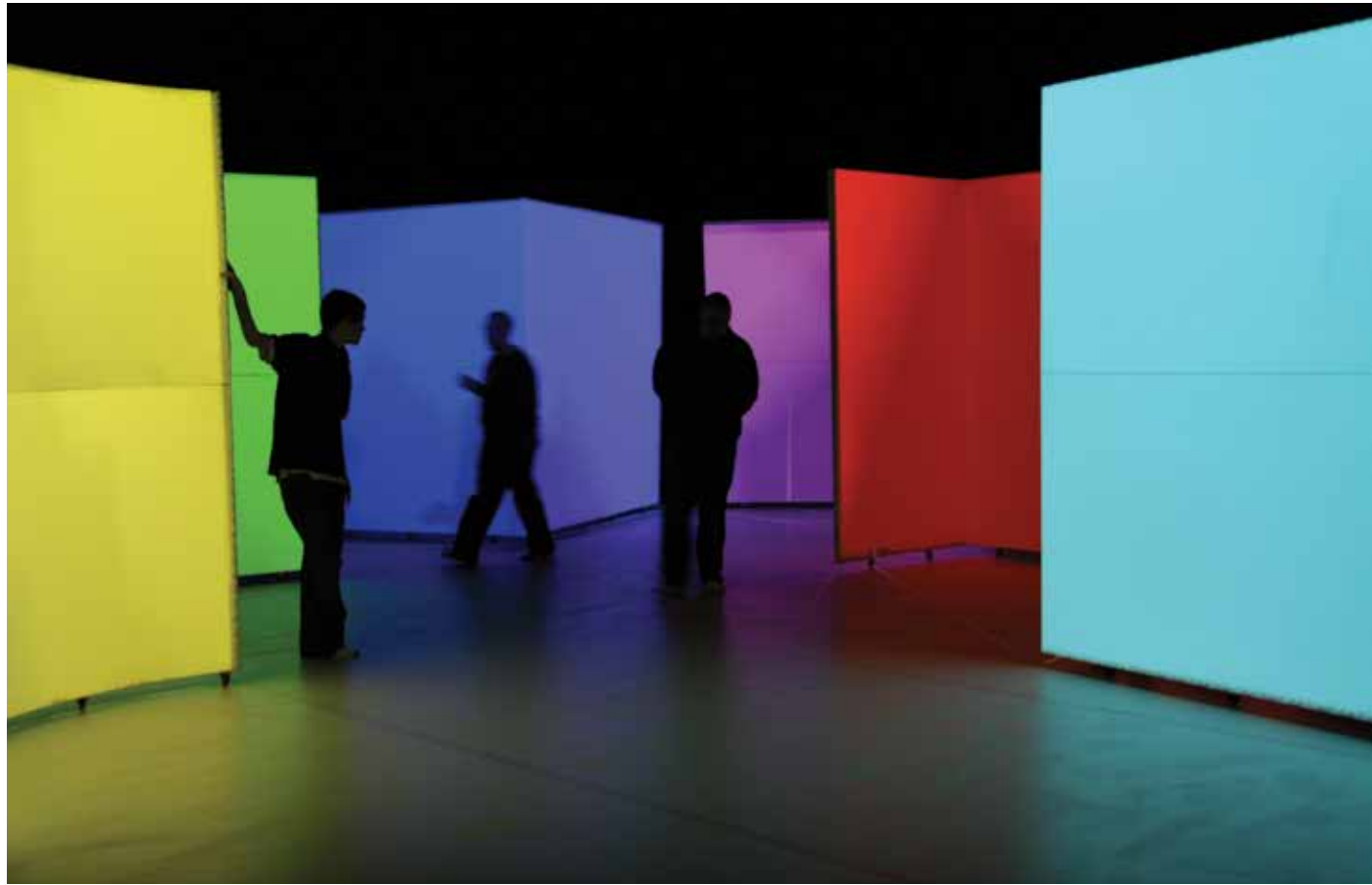
CURATORIAL TEAM AND PRACTICE

Artistic projects at EMPAC are researched, selected, initiated, and stewarded by their curators. When EMPAC was initiated, the word "curator" still mostly related to museums and the visual arts; over time, the performing arts slowly started to adapt the concept and created curatorial positions, especially in smaller organizations and alternative art spaces. Today, everything is "curated": a blogger curates a music playlist, a cook curates a meal, and a website curates

the news. Initially at EMPAC, we might have had to justify the basic idea of a dance or music curator, while now we have to explain that our curators are highly-trained professionals with specific education, expertise, and experience—not just people who recommend what they happen to like at the moment.

Unlike at a museum, where the curator for late medieval sculpture has no connection to the curator of baroque tapestry, the goal was to build a team of experts in their respective fields who would make a conscious effort to cross boundaries and collaborate or take advantage of the expertise of their curatorial colleagues. It's a simple concept, but one that is rather complicated to put into practice: each curator has language, concepts, traditions, cultural positioning, and economies specific to their discipline and training. EMPAC is an idealized situation of interdisciplinary work processes, where each curator can follow their own path, supported by their expertise, but can also expand into other areas, advised by or in collaboration with someone with different expertise. So the music curator could commission a film, the theater curator might work with a composer, or the time-based visual arts curator could program a synthesizer performer.

Finding members for the EMPAC curatorial team has been a challenge. Curators must not only be expert in their respective fields, but also act as producers in the realization of new work through commissions and residencies. They must be knowledgeable about tools in the digital domain, and be open to collaboration in a complex, dynamic production environment. And they must consider history



RESEARCH PROJECT IN STUDIO 2; COLORED PROJECTIONS FOLLOW WALLS AS THEY ARE MOVED (CUTLER, 2010).

and tradition on the one hand, and contemporary experimentation in social, educational, technological, and political contexts on the other.

Curators must also determine the importance of technology in developing a new work. Given its venues, infrastructure, and expertise—as the “experimental media” in the name indicates—EMPAC often focuses on how new tools can advance content-based artistic work. But not every project at EMPAC must involve “experimental media” or digital technology. Contemporary art practice has many sources and approaches, it would be limiting to bypass a project simply because it centered on a violin or a single actor, whether it made use of technology or not.

Essentially, EMPAC has had two curatorial teams through its first 4158 days. The first team began when H  l  ne Lesterlin joined EMPAC at the end of 2004 as curator for dance and theater, followed in the spring of 2005 by Kathleen Forde, curator for time-based visual arts, and Micah Silver as music curator in the fall of 2006. Emily Zimmerman started as curatorial assistant six months before the building opened in 2008. Up to the opening, this founding curatorial team established EMPAC’s initial programmatic direction with commissions and events that used different venues on campus, some site-specific.

A milestone for the team was *EMPAC 360: On Site + Sound* in the fall of 2005 (see page 638). For this event, held at the midpoint between groundbreaking and opening, the EMPAC construction site became a stage for aerial dance, music, live projections, and pyrotechnics performed by local, national, and international artists.

Thousands of people gathered at sunset and walked around the site as, for the first time, performance took over the building. This team also launched the EMPAC building with a three-week opening festival in October 2008 (see page 570), introducing all aspects of what EMPAC would offer in the years to come, including performances, talks, exhibitions, commissioned work, student events, and scientific symposia.

As the first team moved out to the world and seized other opportunities, the next curatorial team emerged. Argeo Ascani arrived as music curator in 2011; Ash Bulayev took the position of curator for dance and theater in 2012; and the team was again completed when Victoria Brooks joined in 2014 as curator for time-based visual arts. And, as expected, these new curators found their own focal points within the framework of EMPAC’s mission.

This book traces the evolution of the curators’ work at EMPAC. Each project, event, and residency lists the name of the curator who initiated and produced it. The reverse chronological order reveals not only the evolution of each individual curator’s concerns and accomplishments, but the collective shaping of EMPAC’s program over time, in particular the growing development and presentation of new works commissioned and produced at EMPAC, many of which would most likely not have been possible anywhere else.



EMPAC BECAME AN ENORMOUS WORKSHOP FOR THE SMARTGEOMETRY CONFERENCE (2012).

RESEARCH

What sets EMPAC apart from other media-research environments is the consideration of “the human scale” as a fundamental principle at the heart of spaces that accommodate multi-modal interaction (seeing, hearing, movement) at the same high degree of quality for each mode. These criteria are constants, as they were “baked into” the design and construction of the building. Technology may need updating, but EMPAC’s fundamental qualities related to the human senses and perception are inherent to the building and venues and independent of such technical developments. (See the essay *Human Scale, the Senses, and the Creation of Meaning* by Johannes Goebel on page 27.)

In this sense, the design of EMPAC itself was its largest research project to date. Years of fundamental and applied research went into the building as it now stands. From networks to acoustics, structural engineering strategies to the relationship of spaces, from budgeting to quality assurance, EMPAC could not rely on previous models but had to invent a new kind of integrated building that could function as the instrument necessary for EMPAC’s mission.

The attributes that make artists’ projects possible—the building and its infrastructure, and a versatile, highly-skilled, and open-minded staff able to support experimentation across disciplines—also create the extraordinary research potential of EMPAC. Research at EMPAC takes a number of forms, including faculty-conducted research projects; collaboration and exchange between resident artists, scholars, and faculty; workshops, symposia, and conferences;

and student competitions. This work is fully documented throughout this book, but a few examples highlight EMPAC’s research potential, especially as it relates to visualization, physical environments, acoustics, and EMPAC as a place to gather and share insights, ideas, and solutions across disciplines.

Several research projects conducted by Professor Barbara Cutler (Computer Science Department) and her students show how EMPAC-enabled human-scale interaction was essential to her work. One project sought to evaluate how daylight in an architectural design could be optimized. In an EMPAC studio, walls on casters were constructed, allowing them to be pushed into new configurations. Projectors mounted on the ceiling acted as light sources, simulating the sun and daylight at a specific time of the day. A computer program then calculated the light distribution projected into the room, depending on the configuration of the walls and the virtual windows on them; cameras detected the positions of the walls as they were rearranged and windows virtually repositioned, all resulting in various lighting conditions perceived immediately as the computer program adjusted the projected “daylight.” This project, which began with planning and a small-scale model in Professor Cutler’s department, leading up to full-scale experimentation within EMPAC, also demonstrates the iterative process of research, development, and testing that EMPAC can accommodate. It exemplifies EMPAC’s powerful potential for human-scale research.

Professor Richard Radke (Department of Electrical, Computer, and Systems Engineering) and his students used the same studio

for a project to analyze the movement of people going through a security checkpoint in an airport. A grid of cameras was mounted in the ceiling overlooking a mocked-up security check area, built to scale and replete with baggage belt, metal detector, and groups of students emulating travelers. Without any construction or modification, EMPAC's technical infrastructure allowed the placement of cameras across the ceiling wherever they were needed and connected them to the project's computer. The combination of a space large enough to simulate a security check accommodating a large number of people, and a ready-to-go technical support system would not have been available anywhere else on campus.

Similarly, Professor David Mendonça (Department of Industrial and Systems Engineering) used EMPAC for his research focused on "understanding and supporting individual- and group-level cognition in high stakes, time-constrained decision making...[such as] post-disaster emergency response and restoration." In the large Studio 1, he convened a group of professionals to simulate an emergency-response scenario. Larger-than-usual projections allowed a different mode of interaction, while the whole scenario was documented with multiple cameras for future analysis. Again, EMPAC provided a major advantage with its resources to set up a realistic scenario with tailored projections, while allowing nonintrusive video and audio recording. In a second scenario, Professor Mendonça used Professor Radke's camera array in the smaller Studio 2 to record a volleyball game, analyzing "the levels and types of communication (verbal as well as physical) within the team and the outcome with regard to overall team performance." Once again, having a space large enough and flexible enough to accommodate human-scale interaction, complete with a high-end video, audio, and lighting infrastructure made this project easy to implement.

Visualization changes radically when it moves from a computer monitor to a human-scale environment where groups of people can explore images at the size and detail best suited for our vision, and where group interaction can take place to explore the projected images jointly. A new perspective in data visualization and exploration opens when the data can be explored visually, modified, and shaped in real time, as if it were a performance. The OpenEnded Group, a collective of digital artists, worked at EMPAC to develop a stereoscopic film as part of the commissioned work *Uprising* (see pages 443 and 528). It became clear that the *Field* programming environment, which was developed by the Group's Marc Downie for their artistic work, offered a new approach for data visualization: not as documentation of the outcome of research, but as a tool to explore, in a live-coding environment, very large sets of data where the outcome was unknown. The use of *Field* on the very large projection screens at EMPAC was a proof-of-concept in how scientific approaches can change in unforeseen directions in an environment like EMPAC. When our human capability to detect patterns and deviations is not limited by smaller or bigger computer screens—requiring us to zoom in and out of details—being immersed in a very large visual context allows us to explore a comprehensive overview by shifting our attention seamlessly to different scales of detail. (See page 162).

Two gatherings also show how EMPAC provides an umbrella for integrated research, art, design, and intellectual inquiry. EMPAC

hosted the third in a workshop series initiated jointly by the National Science Foundation and the National Endowment for the Arts, the first collaboration of its kind. Supported by an NSF grant, EMPAC's director, together with Professor Jonas Braasch (School of Architecture), structured a workshop that gathered 32 leaders in the field of art and technology. It focused on the intellectual, infrastructural, and managerial requirements for the creation of a network of institutions, researchers, engineers, and artists that could realize concrete projects at the intersections of arts, science, and technology. Similarly, in 2012 the annual SmartGeometry Conference came to EMPAC. Conducted in collaboration with the School of Architecture, the conference included a two-day symposium and four days of workshops, resulting in what SmartGeometry refers to as "a unique creative cauldron attracting attendees from across the world of academia and professional [architectural] practice, as well as many of the brightest students." Approximately 100 international workshop participants collaborated on projects that turned the building into a research and production shop, with more than 300 joining the conference following the workshop. The entire EMPAC facility was used. In addition to the Concert Hall, Theater, and smaller studio spaces, wood and ceramic shops were set up in the lobbies; a robotic arm was installed to be used in a manufacturing process; immersive, interactive environments with large projections were developed; and a large multi-faceted acoustic ceiling was moved by the computer-controlled theatrical rigging system to explore different acoustic effects.

EMPAC has also opened the doors for independent student research projects. More than 80 undergraduate and graduate students participated in meetings for the 2015 Jaffe Student Production Competition. Two award winners received a summer production residency, a stipend, and staff support to conduct ongoing research, work on a thesis, or engage in other academic activities connected to any degree program that could uniquely benefit from EMPAC's resources.

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EMPAC is not just a home for the experimental, but is itself an experiment. Experts from all over the world have visited EMPAC—described by one expert as the "gold standard for performance and production networking"—to understand what a performing arts center in the 21st century could be. Architects, engineers, academics, acousticians, and curators from other universities, performing arts centers, and museums have come to EMPAC to discuss projects for new centers or production facilities. They have come from New York City and Tasmania, San Francisco and Singapore, Hong Kong, the United Kingdom, Poland, and Sweden to visit and learn from the EMPAC model. This book offers a mosaic of projects, events, and activities at the intersection of art, science, and technology that Rensselaer has made possible with this unique facility and its dedicated team.



HUMAN SCALE, THE SENSES, and THE CREATION OF MEANING

Johannes Goebel

This essay is an iteration and abbreviation of a text entitled EMPAC: Scales, Senses, and the Creation of Meaning published in The Architecture of EMPAC: The Tangible and the Tantalizing (2010).

FROM ELECTRONIC TO EXPERIMENTAL

Originally, *EMPAC* stood for Electronic Media and Performing Arts Center. This was a straightforward name at the end of the 20th century when *EMPAC* was conceived. Combining electronic media and performing arts in a large center was a testament to over 100 years of performing arts under the influence of electricity and electronics, from light bulbs and loudspeakers to image and sound synthesis and then the use of computer technology.

However, the acronym soon changed to *Experimental Media and Performing Arts Center*, indicating an intent to bridge the scientific understanding of “experiment” with the tradition of experimental art.

(“Tradition of experimental art” may seem like a contradiction, but experimental art can be seen as having evolved in parallel with the electrification of media over the past 100 years.)

The performing arts traditionally comprise music, dance, and theater. These art forms are moving in time, in contrast to the fine arts that traditionally produce static works, like a painting or a sculpture. With the advent of electricity, new media were discovered; sound and moving images could be recorded or synthetically generated, and computers became instruments and artistic tools. New visual worlds, new forms of movement through space, and new methods of making our senses feel and interact were created. We may call all these arts, which move and change perceptibly on a vector of time, “time-based arts.”

Scientific experimentation may be defined as the process of discovering, establishing, and verifying causal relationships while

striving to represent these in systems that can be communicated in unambiguous ways. Art is not defined by “right” or “wrong,” and quickly gets boring when it sets out to verify literal or causal relationships. Experiments in the artistic domain stand in opposition to scientific experiments. They are not about a repetition and expansion of the known or agreed upon, but about an active change of contexts and relationships, of perception, experience, and interpretation of us humans as part of this world.

Today, the time-based arts meet science and engineering through the use of common tools, such as computer technology, image projections, sensor technology, and robotics. The Experimental Media and Performing Arts Center provides a shared environment where the different approaches, agendas, motivations, and goals use the same infrastructure, where they can be in interchange with one another and influence each other by developing new tools and shaping new experiences. At the center of this, we as humans stand to create and communicate; to explore, discuss and develop; to move beyond where we are now; to change.

MEDIA AND THE ARTS

The Pythia, the Oracle of Delphi in ancient Greece, was a medium. A medium is a channel between two worlds and may carry messages from the world of the dead to the world of the living; or from eternal beings to us mortals; or it may serve to view the future. Indeed, such a medium mediates a message by passing from one world to the other. At some point in time, medium started to be used for naming scientific and technical relations. The *medium* that was seen as carrying electromagnetic waves was called ether, where *aether* was the name for an ancient Greek concept of what filled the space above the earth; and today we call one specific medium carrying digital information ethernet. Air carries sounds and voices and smells; light moves through and around materials and to our eyes; warmth and touch meet our skin. Our senses are interfaces optimized to specific media, which mediate that which is outside of us to our inside. A medium allows us to communicate with others, through images, written words, sounds, smells, or touch. There is no way between my thinking and feeling to your sensing and interpreting except through the media that provide an interface between my “inside” and your “inside.”

Artists have always used media. Just as there is no art without spectators, listeners, or participants, there is no art without media. Indeed, art is always mediation. Art is about using and shaping media, be it paint on a canvas, marble in a sculpture, sounds of music or words, written text, movements in dance, or an algorithmically defined visual environment. One could say that art has always been media art.

“The media” as a term came about in the first half of the 20th century, when mass media, such as radio, and later television, together with newspapers and magazines, created a new force in public communication and in politics. “The media” always incorporated, among others, three conditions: the specific technology as carrier; that which is communicated from “one to many;” and the interdependency and reciprocal influence between the technology and that which is “brought across”—most obvious in propaganda or mass communication.

Parallel to this use of the term media implying a technology-based political and societal power, media also became a label for technology that uses electricity to produce, store, and reproduce something we can perceive, see, hear, or feel. If we talk about media today, we mean images or sound, words, texts, plans or drawings captured, created, and distributed by electricity—all of which can be converted from and to electricity and light, and stored on yet other media such as “digital storage media.” We cannot see, feel or hear these media unless the bits get converted back into a form that can meet our senses—through loudspeakers, video monitors and/or projectors, or other computer-controlled systems that “speak to our senses.”

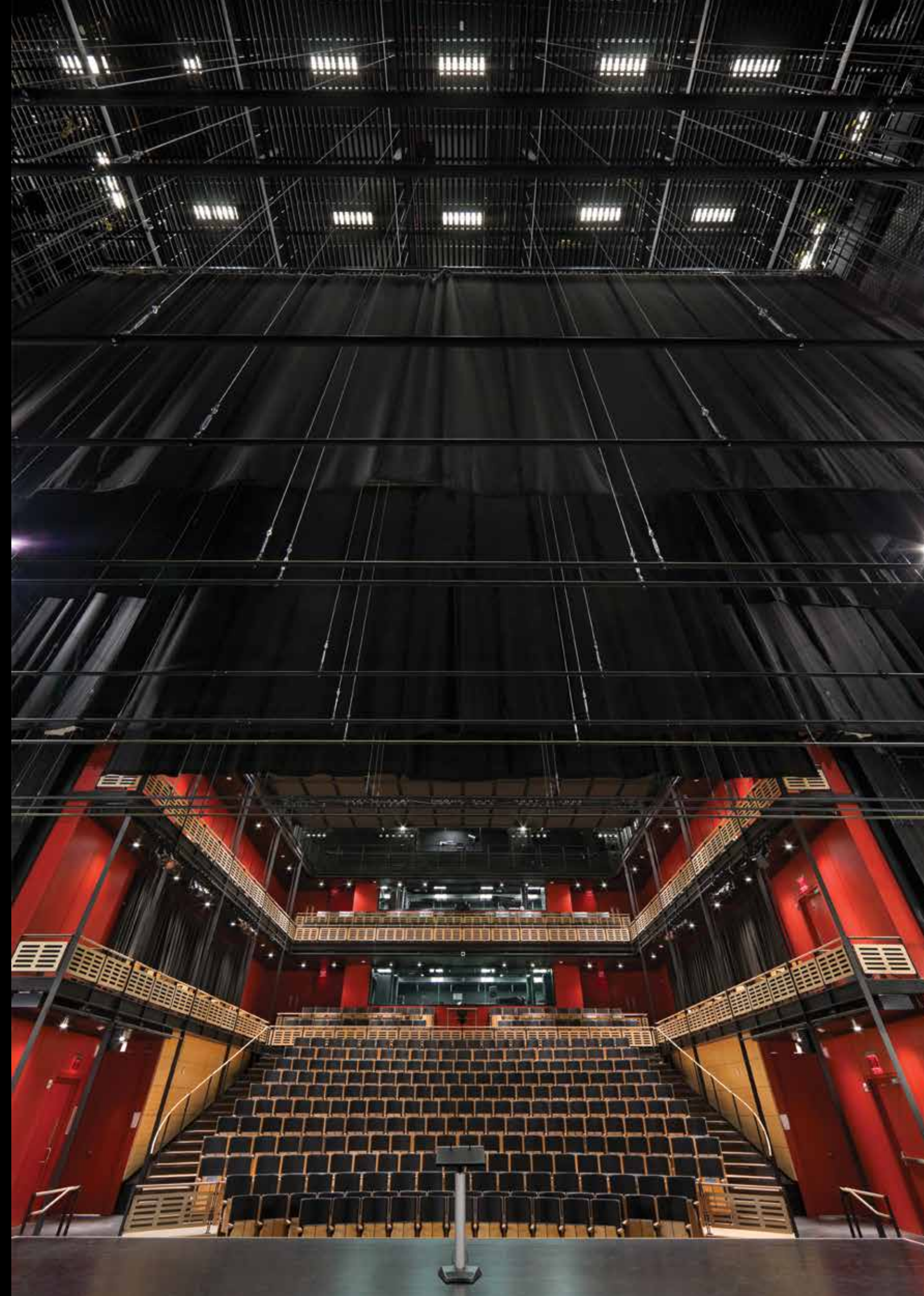
Performing arts always take place as social gatherings. Performing arts imply that a performance with a beginning and an end brings an audience together to jointly experience an event during which performers and audience share the same space and time. Over the past century, performing arts have expanded in many different directions, and often even “beginning” and “end” are no longer clear-cut. Meanwhile, performing arts have been complemented by “performance art,” which, as a genre, has come out of the visual arts and moved to the performing, time-based arts.

By merging media, technological and scientific research and development, computer technology, artistic creation, production, and performance under one roof, EMPAC creates new potential for all disciplines involved. The interface of all these areas lies in our human senses, which we use to communicate, to make sense, to create meaning. EMPAC is focused on our senses, without which media are senseless, and without which we cannot create meaning. As a result, EMPAC has been designed with our “human scale” as the common ground for experimental media and performing arts, for research and production, for arts, science, and technology.

TO HUMAN SCALE

With EMPAC, a center for experimental media and performing arts has been created that is centered on the expression and experience of our bodies and minds, through our senses. It is defined by the physical requirement of our senses and anchored in our physical interaction in the world we live and move in. Our innate sensory modes of perception and our deep-rooted skills to comprehend and maneuver in complex physical environments, combined with us being social beings that depend on each other through action and communication, were the guiding principles for EMPAC.

EMPAC is filled with more technology than perhaps any other performing arts center. Implementing this technology certainly influenced the layout of the building. Designing and building with technology as primary driver for the design is relatively straightforward. But integrating technology into a building, which at the same time is to support the fundamental sensory and social conditions for human communication and interaction in an all embracing way, is complicated. Politics, economics, and technology have created such conflicting priorities for buildings that basic human requirements are often not met. We got used to or must accept buildings without daylight or high-quality artificial light, pleasant humidity, or quiet—all of which are essential for us.



RIGHT / VIEW FROM THE STAGE OF THE THEATER OF AUDIENCE SEATING AND THE FLY TOWER ABOVE.



PERFORMANCE IN THE CONCERT HALL (DEERHUNTER, 2009).

Technology changes faster and faster with every passing year, but the fundamental ways our senses enable us to communicate have probably changed very little over the past centuries and millennia. Our minds and our interpretations of the world do change with changes in science and technology—as well through changes of the media we are using to communicate through. Our understanding of our senses changes equally with scientific inquiry drilling deeper and deeper into our physiologic and perceptual conditions. Yet, the senses themselves as the channels and interfaces through which we build bridges between our inside and the outside remain relatively unchanged (...so far).

Our senses cannot be simply separated as functional units from our way of “making sense.” It is hard to delineate perception and meaning in the path from the mechanical stimulation of a sense through the biochemical processes in our nerves all the way to the unknown happenings that create memory and meaning. Making sense indeed starts right away when something meets one of our senses. The processing of the signals that meet our senses begins at once—within the sense organs, not just when the converted signals reach the brain. We can train our perception to a very high degree to become more and more refined in what we see, hear, feel, taste, or smell. How such training and sharpening of our senses actually occurs in any or all stages from the sense organ to the brain to the creation of meaning is little understood. Yet it seems highly likely that such heightening of a sensitivity can also influence the physical properties of our senses, not only the mental space. One might say

that our perception and our senses can be tuned by our intentionality, and that our senses and perception in turn tune our intentionality.

This interdependency and reciprocal change of senses, perception, and meaning is the fundamental condition for our growing up, for our learning, for our becoming part of our culture, for our adopting the world around us, and for our adaptation to the world around us. This unbelievably complex interplay between the physical world around us and the world of experience, sense, sensitivity, and sensibility is the domain of art. Art consciously and explicitly shapes matter and time for an aesthetic experience that cannot be subsumed under semantics or logic (which does not mean that semantics and logic cannot be part of art).

In shaping physical material for artistic works, we have always applied new tools and technologies in the arts as quickly as they arose in other domains and even though they were not developed for the arts. There are probably few technologies, which have not been drawn on one way or another by the arts. First we used only our bodies by singing, clapping, dancing, acting, and telling stories. We then built drums and flutes, painted on walls, and marked our faces. With each new tool and technology, art changed, as well as our perception and what we considered “meaningful.” Once a technology becomes available, one can be sure that some artists will use it right away for their work. And artistic use may move technology in a direction that was not foreseen by the inventors of that technology.

With science, we learned to discover, describe, and define the physical parameters of our senses, and we explored how meaning

might be created. By applying quantitative methods, the threshold and bandwidth of each sense could be established. In parallel, technology has resulted in rising levels of sensory pollution, with sound and light sensations, in particular, occurring beyond the control of the individual. This means that we rarely have an opportunity to use the natural bandwidth of our senses to their fullest potential. In our society, we hardly have places in our neighborhoods where we can gather with others that are not under the influence of unwanted light and sound. At the same time, technology offers us the opportunities to create new, refined impressions for our senses, which can actually span the full sensory bandwidth.

If we want to create art that allows us to address the wonderfully wide range of our senses, buildings and spaces need to be created that support this range while shielding us from the technically produced levels of sensory bombardments to which we are continuously exposed. Such spaces should be large enough for us to move through: to walk and jump and run and dance. They should allow for social communication and interaction among groups of people. They should be quiet enough for the softest sounds we can hear, and make use of all the options we have to use light. We should be able to speak and sing without amplification, or to use technology to make a whisper as loud as a howling wind.

We create instruments, tools, and machines that are stronger than our muscles, sharper than our eyes, more sensitive than our skin, and faster and more accurate than our hands. Technology also enables us to make visible what our eyes cannot see unaided, manipulate that which our hands cannot touch, and shape and model what only our minds could imagine. In all this, technology changes the scale at which we can think, imagine, and create.

With technology, the scales of time and of size have been externalized, disembodied, and extended beyond what our senses are able to perceive directly. But as scale is expanded with the help of technology (such as spectrometers, telescopes, or microscopes), it needs to be translated to meet our senses. The shadows of X-rays have to be transposed to visible light, and the split-second finish of a car race is frozen in time so we can determine who won. Similarly, text stored digitally has to be given the physical appearance of letters on paper or on a computer monitor. And digitized images or sounds have to be brought back into the realm of our senses.

We have an inherent sense of volume, distance, and of being outdoors or indoors. We have a measure within us that allows us to have “a feeling” for the scale of things around us: for what is within reach of our hands, ears, or eyes, for how tall a tree in the distance might be or how fast a bird might be flying. But once we move beyond the consistent frame of our unaided view, like looking through a microscope or a telescope, we have to create a frame of reference to be able to determine an actual size. Technologies like painting, photography, film, and video allow us to scale those things, large and small, to “fit the frame.” As we zoom in and out on a computer screen, we have to re-establish a frame of reference so we can judge the original size of what we look at. And, once we enter totally synthetic environments or virtual worlds, we may have to adapt to continuously changing scales and find ways to make what we see commensurable to what we can readily judge in our “natural world.”

Technology toward the end of the 20th century increasingly allowed us to move to “virtual worlds”: worlds that are created with technology and that we seem to be able to “inhabit” more and more independently of our actual physical environment. Limited to small screens or goggles that allow us to peek into such virtual spaces, where we listen through headphones to acoustical spaces our bodies are not in, or move in a “cave” of generated projections with a few others, we find that the technology of virtual worlds has not (yet?) met the “human scale” at its fullest.

EMPAC, as mentioned, was not designed to the scale of what technology can offer but to what is commensurate with us as humans by providing spaces with a volume and height that serve both individuals and groups, that can be filled with images and sounds, and where any object can be placed in the three-dimensional volume of the space, where we do not have to zoom in or out, but where we independently move closer and farther away, and where our sense of volume, space, and scale is immediate and directly understood through physical presence and perception.

The concept of the “human scale” embraces also our characteristic existence as social beings. We have not only the scale of our senses, but also the scale of our human communication and interaction commensurate with our senses, both being interdependent. We like to gather in groups of three, four, five, 10, or 15 to look at things, to walk around to get a better view, to move closer or farther away from what we see or hear, to extend our arms and point with our fingers and say, “Look over there. Do you see that?”

We get together for events such as a talk, a concert or a show, and then naturally mingle in groups, talking about what we just experienced. EMPAC can accommodate events and projects that do not require technology, like audio amplification to reach audiences of one, two, or five persons; 10, 20, 80, 200, 400 or maybe even up to 1,200—depending on the project or program and the venue it takes place in. And if we are to explore while walking around or by sitting still to take in the experience, these groupings allow communication and sharing at a “comprehensible scale,” where individuals and the group as a whole can relate. In such spaces designed to allow us to open our senses to their fullest capability for perception and experience, media technology then can align with the human scale. EMPAC may be seen as a hopeful symbol in a time when individually distributed and accessed information seems to make getting together and sharing quality spaces obsolete—spaces that are geared to our fundamental communication potential and needs.

THE SENSES: PORTALS FOR THE CREATION OF MEANING

The link between all scales from the smallest to the largest, which our technological tools allow us to explore, are our senses. The senses are the interfaces that allow the flow between “internal” to us and “external” to us. There is no clearly defined boundary between internal and external, but let’s assume for this discussion that our senses are the portals for experience, communication, and collaboration between you and me, through hearing, moving in space, using our voices and hands, smelling, tasting, talking and writing, making films, building houses, developing mathematical proofs, touching and feeling, programming computers, making music, preaching, and going places. We likely can agree that what happens



PERFORMANCE IN GOODMAN THEATER/STUDIO 1 (*MOUSE ON MARS*, 2015).

between you and me has to use the passage through the portals of the senses, which are parts of our body at the boundary between “inside me” and “outside of me,” opening “to you” and “from you.”

What we communicate is also shaped by our senses. I cannot speak pictures; I cannot sing with my leg. A sense is not a mere apparatus receiving external impulses and relaying that information in a neutral way to the brain. Our senses are highly refined and complex interpreters of what is around us. Our senses, as physical interfaces between “outside” and “inside,” shape our view of reality as much as we shape the physical reality around us based on what reaches us through these very senses.

Technology has always had, as a core motivation, that we make things to extend beyond the scale of our senses—smaller than we can see, faster than we can move, larger than we can reach, heavier than we can carry, without losing our breath, without getting tired. Most advances in science over the past century have come from areas that are beyond the capabilities of our senses to perceive and to carry out directly.

However, that a computer works as intended can only be evaluated when we can see, feel, or perceive the result with our senses: as a printout in text and numbers; as a graph or picture; as a sound; or as force-feedback in a joystick. Or through material results of how we applied that computer technology: a building collapses because of wrong calculations; the cattle grow too fast because a computer dispensed the wrong amount of hormones; or we become happy upon seeing a great computer-generated movie.

To see if what we collected as data actually makes sense, we again have to use technology to “comprehend:” to make visible what we cannot see, to make audible what we cannot hear, and to make touchable what our bodies cannot feel or move.

This is the central challenge behind our expanding relationship to realities from which we can gather data but which we cannot sense directly. We have to transpose all such events we want to evaluate and interpret into the realm of our senses. Only then can we find out if they make sense. Only then can we interpret the information and assign it meaning. This mapping process for data, which is derived from contexts smaller, larger, or more innumerable than our senses can perceive, is where experimental media and time-based arts on the one side, and science and engineering on the other can learn from and benefit from each other. Art has always dealt with the construction, mediation and mapping of complex experiences. Artists of time-based arts are experts in moving through time and space perceivable by our senses, understanding the conditions of the material and media used. Simultaneously, art is not focused on or qualified by unambiguous, formalized, and “correct” communications, even when using tools that are rooted in the formal logic of computer design and applications. At this intersection between tools, goals, and methods, science and art may sharpen their goals and methods reciprocally. Science and engineering can observe how the arts are tackling their objectives based on their focus on senses, sense and experience; and the arts can use and understand the construction of reality as



DANCE RESIDENCY IN STUDIO 2 (WAYNE MCGREGOR | *RANDOM DANCE*, 2010).

embodied in the manifest technology created by science and engineering, which they in turn use as their tools for shaping their artistic works.

SEEING, HEARING, AND MOVING IN SPACE

EMPAC’s building and its technical infrastructure are centered on seeing, hearing, and moving in space, which are most fundamental to how we connect as social beings within groups. While, unlike seeing and hearing, “moving in space” is not properly a sense, this phrase subsumes the sense of balance and acceleration of our body (kinesthesia), the experience of our body—including arms, feet or back—in space (proprioception), and how we localize ourselves and our surroundings, including auditory and visual cues. Seeing, hearing, speaking, and moving in space engage the senses that we use most to shape and mediate meaning with more than one person. They connect to symbolic thinking, expression, and language, and allow us to create with and for others who are with us.

Other senses—such as touch, smell, and taste—are no less determinate in the creation of meaning, but work on different social scales than seeing, hearing, and moving in space. Voluntary touch within a group is, in our culture, accepted only in very specific settings, like in sports or within an emotionally homogenous group. Certainly smell and taste can be perceived in equally rich and differentiated ways as the other senses, but they can be used in

the arts only in broad ways, since the reactions to these sensory perceptions are often highly personalized and often overpower a new context in which they might be placed.

EMPAC was designed to meet seeing, hearing, and moving in space with equal refinement and uncompromising quality in each venue. This is probably one of the most striking characteristics of EMPAC. Human actors and musicians, technical experiments, synthetic environments generated by computers, things heavy and light and dark and bright should be able to be combined and shared without compromising the quality or interfering directly with what is presented to each sense. To achieve this, EMPAC was not built as an ensemble of multi-purpose spaces that would only end up with an average level of quality. Rather, the venues and studios support all three modes of perception, production, and interaction simultaneously at the same high level. Integrating high-end technology without disturbing human perception and action stretched EMPAC’s team of architects and engineers to the limit.

The idea that the feet of a pianist should be visible from all seats; that computer-controlled theater-rigging machinery should noiselessly fly cameras or people through space; that sound should be able to emerge from anywhere around an audience; that the orchestra pit needed network connectivity for “computer players” to collaborate with actors on stage; that pianos and computer hardware needed their respective controlled climates—all these and many more goals required innovation, communication, and collaboration among EMPAC’s designers.

An example of what was achieved can be seen in EMPAC's treatment of sound and acoustics. All venues at EMPAC are equally quiet, in technical terms, effectively achieving the noise criterion RC8, which means that the perceived noise of the air-handling systems is very quiet. Machine rooms keep noisy equipment outside the spaces. All the theatrical lights in each venue are on sine-wave dimmers, so dimming the lights does not result in a buzzing sound. Sound comes out of silence. The acoustics of all the spaces are designed to sound excellent without any technical enhancement, such as an artificial reverberation system. If a space is optimized for the hearing of "natural sounds," it will be possible to project any amplified or electronically generated sound into the space and experience it fully. Similarly, light, as a source for seeing, can be created by a highly complex lighting and video-projector infrastructure. And the floors of the stages and large studios are resiliently mounted to support humans moving, dancing, and jumping and running.

THE BUILDING AS A VESSEL

The overall EMPAC design process took shape by constantly considering how the architecture, with all its different venues and spaces, would relate to and support people in their different reasons for being in the building: those who visited or worked in the building, those who came for events and performances, or those who did research and created new works.

Creativity can only grow and prosper in an environment that emanates and provides the assurance of being protected, to be safe to open up, to come together, to work collaboratively, to communicate without fear, to propose and develop new ideas, to be receptive for yet unknown experiences.

The lobby spaces are all flooded with daylight, as opposed to the venues, which exclude daylight as part of their "media" focus on lights and projections. Yet, the Concert Hall was designed to be light and uplifting—the sails of the fabric ceiling, the maple wood and white wall panels, the cast-stone wall elements with their slight shimmer, and the vertical movement of the upstage wall—supporting individual perception while providing a communal experience for performers and audience in a continuous space, where the stage is embraced by seating, the rows on side galleries frame the main floor, and the balcony covers very few back rows of the main seating underneath and hovers only attached to the back wall.

The Theater creates an intimate environment through its seating layout, resembling a backyard where some people sit in the yard while others lean out of the windows of the upper floors. The stage is not even a foot higher than the first row of audience seating, creating an intimate continuum between spectators and spectacle. Yet the stage is almost as large as the auditorium.

The only space with dark surfaces is the large Goodman Theater/Studio 1. But the black walls soar high and are covered with patterns created by the acoustic panels, so one can have visions or dreams that glide into the space beyond the walls. Next door, the smaller Studio 2, with its white acoustic panels and hardwood floor, seems to ask us to make sounds or dance, or to take the atmosphere in and listen.

Studio Beta has large windows opening to a group of old trees, while the residency studios, high up in the southwest corner of the building, overlook the Hudson Valley. The smaller production and office spaces also consider the human scale. The internal workspaces for artists, researchers, and staff, as well as the green rooms and changing rooms, are of the same quality as the public spaces; offices have daylight and windows that can be opened to let in fresh air.

Standing outside the building, EMPAC presents a multitude of different faces, expressions, and impressions. Set into a hillside, the building's entrance from the top of the hill is no higher than a two-story building, in contrast to the high-rise west façade seen from the bottom. There is a riddle posed by the transparent glass wall of the north block, revealing the warm wood and curved shapes of the Concert Hall, juxtaposed with the opaque greenish-white rectangular sheaths of glass covering the façade of the south block. The curved wooden shape of the Concert Hall changes its character when viewed through the windows, looking down its length from inside, or gazing up at its hull from the long stairwell that runs its length.

These perspectives present a challenge to those seeking to create a single, integrated perception of EMPAC. The answer may best come by entering and exploring the building, following the architecture's constant emphasis on moving from the outside to inside (which, in turn, may be the outside of yet another inside). Such constant movements between different levels of inside and outside may be seen as the guiding principle and experiential goal behind EMPAC's program of communication, experimental media, and the performing arts.



A RESEARCHER'S PERSPECTIVE

Jonas Braasch

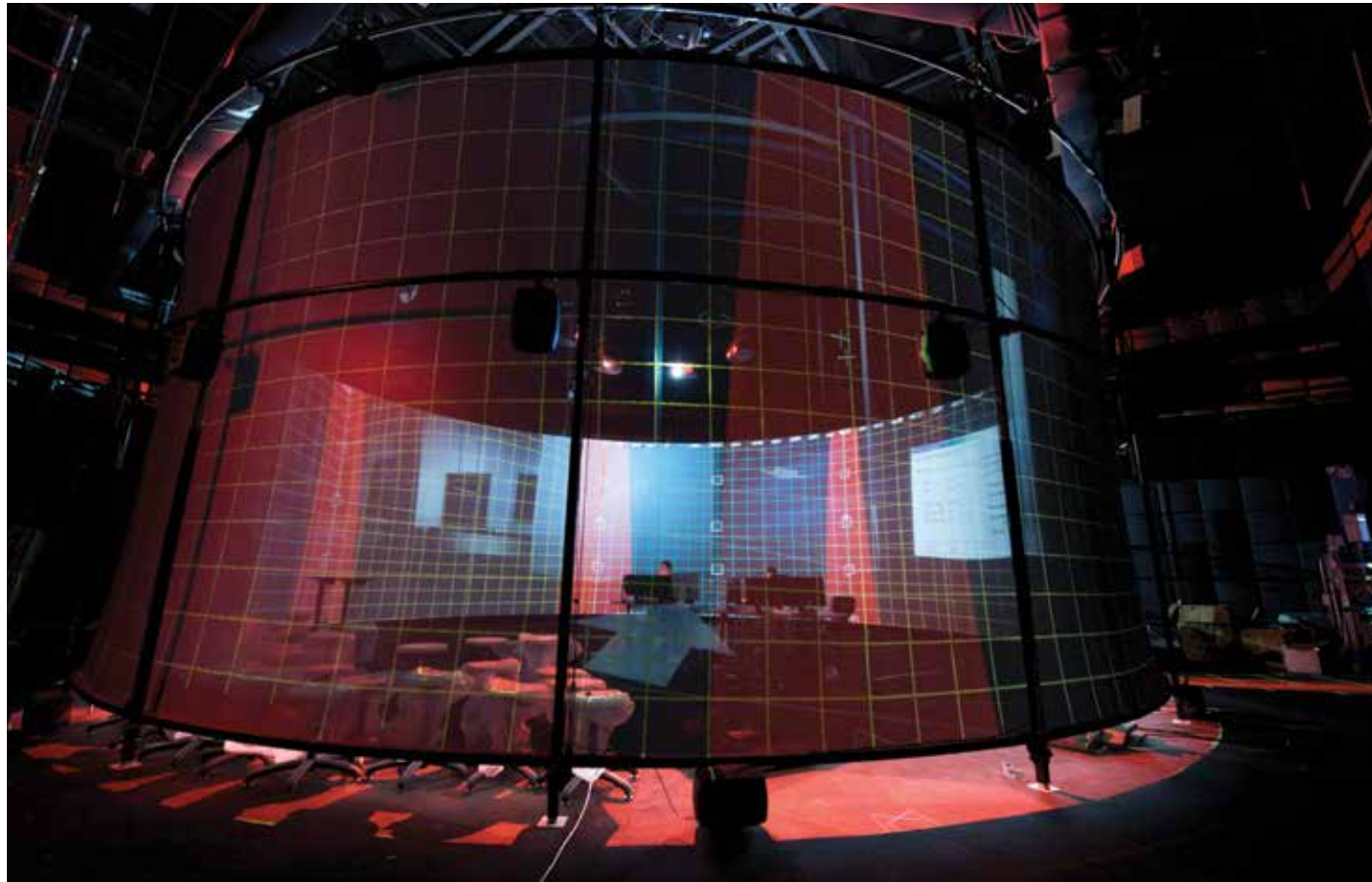
In 2005, I worked at McGill University's sound recording department on immersive multichannel audio systems. McGill had just opened its new Centre for Interdisciplinary Research in Music Media and Technology (CIRMMT, pronounced *Kermit*), with a research focus on music perception, information, practice, and musical instruments. That year, news began to quickly spread in CIRMMT's hallways about a one-of-a-kind center being built at Rensselaer that would cross the boundaries of art and science in many ways. Soon after, in part inspired by the potential of EMPAC, I left McGill to join Rensselaer and almost immediately found myself working on an exciting research project with EMPAC's director, Johannes Goebel, and his team.

EMPAC had commissioned The Wooster Group to create an installation, *THERE IS STILL TIME..BROTHER*, for EMPAC's 2008 opening festival (see page 570). Before joining Rensselaer in 2002, Johannes was the founding director of the Institute for Music and

Acoustics at the Zentrum für Kunst und Medientechnologie (ZKM) in Karlsruhe, Germany, where he collaborated with Jeffrey Shaw, director of ZKM's Institute for Visual Media. At ZKM, Shaw had created the PanoramaScreen, a seamless video system with a 360° panorama screen that also featured real-time image processing and a projection system for complex surfaces developed by Bernd Lintermann. Johannes brought the PanoramaScreen to EMPAC for The Wooster Group project.

As an acoustician and researcher, *THERE IS STILL TIME..BROTHER* posed a number of exciting challenges. I was impressed by Johannes' commitment to making the project's acoustic quality equal to that of its outstanding video; and since the existing audio system did not meet our criteria, we had our first research project. One of the challenges was that we needed a stable system that could run unsupervised for weeks at a time, not only for a few minutes

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VIEW OF THE 360° PANORAMIC ENVIRONMENT THROUGH THE MICRO-PERFORATED PROJECTION SCREEN.

during a technical lab demo. Also, in a typical lab setup, small errors can often be ignored, but given the size of the PanoramaScreen—with a diameter of 40’ and height of 14’—that was not possible.

ARRAYS, ANGLES, AND ACTORS

The main challenge we undertook was how to acoustically track the actors during the video shoot so their sound would be spatially correct when reproduced. In the 360° environment, it was immediately noticeable when an actor’s voice was off by a few degrees from the image (which was recorded live with an array of 12 cameras hung from the ceiling). Our approach was to create an array of five spatially-distributed microphones, also hung from the ceiling; depending on the position of an actor, the sound arrived at some microphones earlier than others. Using a computer program, we could measure the delays among all five microphones and track the actor’s position accurately. Johannes had also chosen an acoustically transparent screen to avoid echoes from its surface. Given the screen’s cylindrical shape, a non-perforated screen produced an uncomfortable acoustic experience with the audio focused in the center of the viewing area. The perforated screen allowed us to position an array of 32 loudspeakers at three heights behind the screen. As a result, a viewer could clearly identify individual auditory objects within the acoustically dense scenes.

In Jeffrey Shaw’s design for the PanoramaScreen, a person sat in a swivel chair in the center of the space. When he or she rotated

the chair, a window moved over the screen, bringing that section into focus, while the rest of the panorama was blurred like peripheral vision. We added a sound sensor to the chair that transmitted its angle to the computer that now controlled an automated audio mixer along with the video projection. An actor’s voice was clearly audible when the chair pointed in his or her direction, while other sound was partially muted. Working with Bernd Lintermann from ZKM, Todd Vos (EMPAC’s lead audio engineer), and Geoff Abbas (then the technical director of the Wooster Group), we spent endless nights fine-tuning the installation. A testament to the creative and technical complexity of the piece, it never became tedious but only grew more interesting as time went by. By focusing on different parts of *THERE IS STILL TIME..BROTHER*, one could discover new sounds and images, experiencing the 20-minute piece differently each time.

SCIENTIFIC APPLICATIONS AT HUMAN SCALE

We soon realized the potential of the PanoramaScreen technology for scientific applications. In particular, we saw how it could be used for sharing large data sets, adding spatialized audio to high-resolution video to enhance the exploration and understanding of such data sets. Several research projects at EMPAC were already exploring large-scale sensing and imaging. My colleague Rich Radke and his students, for example, set up a large camera array in the ceiling of EMPAC’s Studio 2 to develop a screening process at airports to more effectively keep track of people and their belongings.



COMPUTER SYSTEM SET UP FOR A RESEARCH PROJECT IN STUDIO 2 (CUTLER, 2009).

Using a statistical model, the system detects when a person and an object are separated—such as when someone places a bag on the X-ray belt—and notices if and when the two are reunited. Using a to-scale setup in EMPAC, Rich’s team was able to test this system under realistic conditions, not just in a computer simulation, where many things can just be assumed to be working. In another example, Barb Cutler from computer science used the EMPAC Studio 2 infrastructure to develop a to-scale architectural lighting simulator, where the effect of daytime-varying sunlight could be simulated using video projectors and movable walls to mimic the interior of an architectural building. EMPAC made it possible to move the walls, mounted on rollers, while Barb’s system continuously tracked the wall positions using infrared markers to project the simulated effect of sunlight based on the current position of the walls.

These projects pointed the way to bringing a variety of research teams on campus together for collaborative projects to make use of EMPAC as a venue for large-scale, multi-investigator research. Rensselaer has expertise in many interrelated fields including engineering, computer science, electronic arts, acoustics, and cognitive science. In current practice, small research teams comprised of students and faculty advisers work on specialized, isolated projects, with outcomes disseminated through journals and conference proceedings. While this type of research can be interesting and important, the physical limitations of research facilities often pose a barrier to addressing the most challenging questions.

For example, in audio research, small headphones or loudspeakers are used in perceptual tests to determine the acoustical quality of a space. While much can be learned about the human auditory system this way, it neglects the visual cues that influence us when we determine the acoustics of spaces. The human brain has very complex mechanisms to integrate multi-modal information, and one cannot expect that test participants are using only one sense. We also experience spaces by moving through them, something that most audio-perceptual tests do not allow because they just simulate the acoustics of a single location. In real life, however, we most likely have made our initial acoustic assessment of, let’s say, a concert hall, before we even sit down. Assessing the complexity of human perception requires a multidisciplinary team, including computer graphic specialists like Barb Cutler and Rich Radke, to track and monitor the participants. With such a team, a large number of research areas can be covered—from social robotics to other intelligent agents and multimodal data displays to immersive laboratories for teaching—to name a few.

Our core faculty group conducting research at EMPAC soon realized that to get the greatest benefit from collaboration required extensive, continuous time, and more than discrete, time-limited research residencies at EMPAC. To make the leap from small, laboratory-based activities to research at the human scale, which EMPAC affords, ideally required a joint laboratory that was constantly accessible for research. We soon agreed that the prototype for this lab would be an expansion on the PanoramaScreen that was used for the Wooster Group project. We had gained practical

and positive experience with this large-scale system and had already started to form a collaborative team around it.

CRAIVE-Lab

I remember a car ride with Johannes from a National Science Foundation workshop at the Rhode Island School of Design in 2010 where we imagined what the next generation PanoramaScreen System might look like. It would include a rectangular design with round corners for a 360° video projection, and a 128-channel audio wave field system. Unlike a traditional stereo or surround sound system, where sound is only spatially correct in its center—the so-called “sweet spot”—our system would generate complex audio environments where sounds always came from the same location, independent of where the listener is. For example, one could simulate a concert hall, with the loudness of orchestra instruments changing realistically as one moved closer or farther from a simulated stage. This new version of the panoramic system was realized in 2012 with a generous grant from the National Science Foundation that also supported a collaborative faculty investigator team including Johannes, Rich Radke, Barb Cutler, Ben Chang (director of Rensselaer’s Games and Simulation Arts and Sciences program and an expert in game-engine based virtual reality), and me.

The resulting Collaborative-Research Augmented Immersive Virtual Environment Laboratory (or CRAIVE-Lab) is located in Rensselaer’s Technology Park and is an outcome of the larger EMPAC research initiative to develop technologies for immersive systems at human scale, which can later be integrated into EMPAC’s research residency system. CRAIVE-Lab provides an infrastructure for different levels of technology, including common tools like PowerPoint and standard stereo or surround sound deployed in a 360° environment to highly specialized software to generate very accurate visual renderings with optimized perspective distortion and dynamic immersive sound fields based on wave-field synthesis. This range provided points of access so a variety of other faculty members could use the lab.

The data science team of Deborah McGuinness, professor in the Tetherless World Constellation, is working on data exploration to find new treatments that use existing FDA approved drugs, speeding up treatment instead of waiting for a new drug to get FDA approval. The research led by Deborah is an interesting collaborative constellation among data science (Rensselaer’s IDEA, the Institute for Data Exploration and Applications), biotechnology (carried out by Rensselaer professor Jonathan Dordick and his Dordick Research Group at the Center for Biotechnology and Interdisciplinary Studies) and immersive technology provided by the CRAIVE-Lab team. Instead of working on separate workstations, this multidisciplinary team can collaborate at the large surrounding screen and share each expert or subgroup’s expertise and insight simultaneously. Part of the data exploration work is to understand how additional acoustic information can be used to augment the information provided by the visual display, for example, to draw somebody’s attention to something that is outside this person’s visual field.

SIMULATING THE CISTERN

In the past, research using immersive systems and virtual reality technologies has typically been focused on recreating realistic or at least plausible scenes. One thing I particularly appreciated about EMPAC was the emphasis on sensory experiences that were highly unusual—for example, Kurt Hentschläger’s FEED, which was presented by EMPAC in 2006. The second half of the piece consisted of a dense field of fog with stroboscopic lights that formed fascinating and surreal patterns on your retina. Through these kinds of unusual sensory experiences I believe we not only better understand how the human brain works, but also inspire students and faculty to think “out of the box.”

In 2009, my colleague Pauline Oliveros, professor in the Department of the Arts, took me to the Dan Harpole Cistern near Seattle to record her Deep Listening Band. The cistern is an underground, emptied water tank with reverberation times of a staggering 45 seconds at low frequencies. Being in the tank for a whole day was one of the most intensive sensory experiences I have ever had. Unfortunately, one could not bring an audience for live music into the cistern for obvious reasons. But even if one could, the audience would absorb most of the reverberated sound. Later, I proposed to the EMPAC team that we simulate the cistern at EMPAC, and we soon found ourselves preparing a concert with the Deep Listening Band as part of Pauline’s 80th birthday celebration. With this project, I learned much about the extraordinary capabilities of EMPAC. Even the Concert Hall, the most traditional looking among EMPAC’s venues, provides a technical infrastructure that goes way beyond that of a traditional hall. EMPAC audio engineers Todd Vos and Steve McLaughlin set up a 40-channel audio system with distributed loudspeakers across the whole hall to process the artificial reverberation of the cistern that my research team had developed. Everything sounded good—except that no sound was coming from the floor. So Todd crawled into the space below the floor of the Concert Hall to place three additional loudspeakers whose sound was projected through the air vents in the floor.

Stuart Dempster, who co-founded the Deep Listening Band with Pauline, flew in from Seattle the night before the main rehearsal. Stuart knows the cistern like no one else and has recorded several albums in it. I picked him up from the airport in the late evening, and we decided to test the cistern simulation that night. When he played his trombone—there it was, the characteristic reverberant sound of the cistern I knew so well from his recordings! (The Deep Listening Band later released an album that used the cistern simulation technology we developed at EMPAC.) When we set up the cistern simulation, a number of our acoustics students also came by to take over the microphones and play their own instruments. It became apparent that listening to the system versus making your own sounds were very different experiences; and the latter was certainly more exciting.

CAIRA

At EMPAC, we also had many discussions about best practices for intelligent interactive installations, where users are more than passive, sensing bodies. I believe a successful, intelligent, interactive

system strikes a balance between providing a user with feedback directly in response to his or her input and with a response that is not predictable. Further, it is advantageous if the system can enact its own strategic initiatives. With funding from the National Science Foundation, we explored how such an intelligent system, the Creative Artificially-Intuitive and Reasoning Agent (CAIRA), could handle free music improvisation. We picked improvised music because we wanted to go beyond traditional rule-based systems. The CAIRA project enabled me to work with two colleagues who explore intelligence from opposing viewpoints. On the one hand there was Selmer Bringsjord, who is renowned for his work on logic reasoning and a storytelling system called Brutus that he developed together with David Ferrucci (who later went on to lead the development of the IBM Watson computer). Selmer believes that all thinking can be explained through logic.

On the other hand, musician Pauline Oliveros stands for embodied intelligence like no one else I know. Pauline believes that once an improviser thinks rationally about music while performing, he or she will fall into repetitive pre-learned patterns. In her practice, it is important to free the mind during an improvisation and give the body the opportunity to do things much better unconsciously. My main instrument is the soprano saxophone and, a few years ago, Pauline advised me to follow her practice. Since I like to be in control, I was reluctant to do so. One day, Pauline’s spouse Ione—a noted author, playwright, and poet—asked me to perform at her Dream Festival. I didn’t have time to even think about my solo performance, because I was busy preparing for a presentation at the Audio Engineering Society just before the concert. When I arrived at the Festival, my only choice was to follow Pauline’s advice, since I had not prepared anything. She immediately recognized the change in my performance and was delighted that I had let go of my preconceived thoughts and patterns.

In the CAIRA project, these opposing views of Pauline and Selmer—integrated with input from other team members, including Doug Van Nort and several students—inspired new thinking, yielding a modular software system that could either operate “intuitively” using the *FILTER* subsystem or make logic decisions based on a module named *Handle*. The latter system could draw from “intuitive” decisions based on a “best guess” if there was no time for logic reasoning. This tradeoff between logic and the “intuitive” was very appealing to me, because the machine could react in a very analytical way, but would not do so in a way that the system response was obvious. I believe the future of such machines lies in this combination of competing mechanisms, since biological systems rarely rely on a single strategy. In 2010, we had a week-long recording session at EMPAC playing with the CAIRA system as a quartet partner. A number of these tracks appeared on a recording I released with Pauline Oliveros, Doug Van Nort, and Chris Chafe on Pogus Records.

FUTURE RESEARCH

Working with the EMPAC team for nearly a decade has been a fascinating and rewarding journey for me. EMPAC enables multi-investigator projects with faculty and student participants that would be impossible in ordinary faculty lab environments. By working at

human-scale, we were able to move from the typical additive approach—developing systems separately to join them later—to an integrative approach where all the interdependent components are brought together at the same time. Rich Radke and Qiang Ji’s work on visual tracking of objects and face expressions in immersive virtual environments is a good example of this. In a classic laboratory scenario, illumination of objects and faces typically remains constant, unlike in real life. In a virtual environment at human-scale conditions using the 360° environment, lighting levels and color compositions constantly change, which has to be considered and compensated for in the tracking process.

EMPAC continues to offer opportunities for new projects and opens new horizons. We are currently intensifying our focus on big data, where domain experts in Super Computing (Chris Carothers) and Healthcare Analytics (Deborah McGuinness, Jim Hendler, and Kristin Bennett) are working with visual simulation experts to explore scientific data. We are also in the process of further diversifying our team by integrating expertise in immersive virtual environments and artificially intelligent systems to better understand how our social robots can interact with their environment, and the underlying importance of embodied intelligence. Our robots were created by a Rensselaer team centered on John Wen (robotics) and Mei Si (embodied conversational agents). One of our major goals is to develop the first integrated testbed for human-scale immersive systems and social robotics for civil applications, studying and modeling human perception, human-robotic interaction, and developing new health-care solutions. We hope we can contribute to spreading exciting news across the nation’s hallways this way.



EMPAC and THE ARTIST-IN-RESIDENCE

Laurie Anderson

I remember the first artist-in-residence I met very clearly. She was my first grade painting teacher. Since our school didn't offer art as part of the curriculum, it brought in local artists to teach the kids. I will never forget this painter. Every week she swept into our classroom wearing a large hat and flowing clothes in vibrant colors. She was full of enthusiasm and ideas about color and beauty and form. And suddenly we were allowed to paint anything we wanted to. Originality was prized. There were no rules.

School life was regulated by bells. Every time a bell rang we dropped what we were doing and automatically moved to another subject or to another room. But our painting teacher could arrive in class after the bell rang or leave before another one signaled the end of the period. This made a huge impression on me. She was free. She acknowledged the structure of school but wasn't bound to it. Beauty, creativity, and freedom came first. This was my first

experience with a real artist and I vowed that someday I would become an artist and be free like she was.

INVENTING RESIDENCIES

Since becoming a multimedia artist, I have had the opportunity to be artist-in-residence at a wide range of places and programs from a Benedictine convent, to NASA, to programs in Europe such as DAAD in Berlin, the STEIM Studio in Amsterdam, and the American Academy in Rome, to various museum programs in the United States and abroad.

During the '70s, I did several residencies at Midwestern colleges. I was invited to a Benedictine convent because the nuns had seen my name in a brochure of cultural events in the Midwest. The brochure blurb said I was an artist who "deals with the spiritual issues of our time" (undoubtedly something I had written myself).

Laurie Anderson was the Distinguished Artist-in-Residence 2012–2014.

When I arrived at the convent, they were in the front garden digging potatoes. I spent several days with very little idea about what I was doing there. I became a kind of fly on the wall and followed them as they worked in the gardens and had their pizza party at the bowling alley. I also joined them in their many prayer sessions. The project I eventually did had to do with the fact that, when they prayed or sang, their naturally rather low voices became childlike sopranos. We did a series of seminars together on what happens to the voice when praying or when asking for things. These discussions became key to much of my thinking and work about spoken language.

On the other end of the spectrum was my residency at NASA. I was having a bad afternoon in the studio in New York City one day when the phone rang. A voice said, “I’m from NASA and we’d like you to be the first artist-in-residence here.” And I said, “You’re not from NASA.” I simply didn’t believe him. Eventually I realized that this man was from NASA, so I asked, “What does an artist in residence do? What does that mean with a space program?” The NASA man said they didn’t know what that meant. What did I think it meant? It took me two years to figure this out.

I spent my time visiting different NASA centers: the Hubble Space Telescope in Baltimore, Mission Control in Houston, and the Jet Propulsion Lab in Pasadena. I met a lot of people: robotics engineers, astronauts, designers, dreamers, and nanotechnologists. One of the most basic things I learned was that artists and scientists have a lot more in common than I’d thought. Scientists don’t know what they’re looking for either. Like artists, they get a hunch or an inspiration. They keep their eyes open and try to make something. Then they face the same question: how do you know when you’re done?

The NASA nanotechnologists were really interested in that question. They often cited Einstein on this point and said that Einstein rejected some of his major theories. Why? Because he said they weren’t beautiful. So what does this mean? What exactly was Einstein looking for? And what was beautiful to him?

ACROSS BOUNDARIES

When I had the honor of becoming EMPAC’s first distinguished artist-in-residence, I described my inspiring experiences at NASA to the university’s students who, as artistic engineers and engineering artists, were in a unique position to understand what I was telling them. Many of the NASA projects seemed like giant utopian art projects, for example, a stairway to space which is a kind of elevator, made out of carbon nanotubes and electronics, that grows like biology—a work that might be celebrated at some contemporary art biennial as the borderlines between art and science and academia continue to blur.

As I learned from my first grade art teacher, following the rules and breaking the rules are complex activities that are synergistic as well as contradictory. The best institutions I have worked within, like NASA, have acknowledged the importance of creative thinking across boundaries. But none more so than EMPAC and Rensselaer Polytechnic Institute.

I first came to EMPAC in 2009 to work on a piece called *Delusion*, a multimedia performance work with music and multiple screens

created for the 2010 Olympic Games in Vancouver; two years later I returned as artist-in-residence. As such, I have been able to work for an extended time on various projects at EMPAC, while sharing my practice with the Rensselaer campus through lectures, work in progress demonstrations, workshops, and more. This experience has changed the way I work and think—and hopefully has changed the way students and others at the university think as well.

At EMPAC I completed several major works. In addition to *Delusion*, I worked on *The Gray Rabbit* (a film installation shown in Rio de Janeiro and Sao Paolo); on the visual language software, music, and staging for *Landfall*, a quartet for the Kronos Quartet; and staging, shooting, and editing for a feature-length film for Arte TV.

As a multimedia artist, I often have to spend a lot of time and energy working with scale models, trying to imagine what something will be like when heard or seen full-scale. EMPAC makes it possible to create pieces as they will be experienced by audiences. I can work at actual scale—say, 14 feet not 14 inches—and make aesthetic and technical decisions that completely change the work. When I compose music or make sound, I do not have to imagine what this sound will be like once it passes through big amps and then a system involving multiple speakers and out into a theater or large room; at EMPAC, I can hear it as I create it. And it is a completely different experience to make a small drawing or shoot film or video, then edit it, and be able to project it onto multiple screens at the right scale.

Working with the EMPAC production and curatorial team is also very different from other institutions. Most places only deal with how to mount a finished piece. They don’t consider how to create something, to invent rather than streamline things. I worked on several music pieces involving multiple speakers and the construction and testing of a complex live music rig. The people who work at EMPAC are designers and fabricators, and because they are at a university like Rensselaer, they are on the cusp of technology. And they are not afraid to say there is a completely different way to do something: for example, a new way to do lighting versus just doing a light plot, not just how to fit it into the grid.

FUTURE ARTISTS

Throughout all of my major projects at EMPAC, I have had a lot of contact with art students and engineering students, and I was able to work with them on technical as well as theoretical levels. In addition, Johannes Goebel and I presented a series of related lectures, conversations, and concerts. Perhaps my favorite was the discussion and panel with some of the designers I work with. Sometimes I think people assume that artists work in isolation, so I was pleased to share my actual work process.

At EMPAC I have also been struck by the response of students to the range of projects, of varied scale and diverse media, that I have done. For better or worse, universities define a fairly narrow niche of jobs and careers. Even art students are encouraged and trained to specialize in increasingly narrow professional roles. Universities that offer courses in the arts and media have an obligation to expose their students not only to artists who teach music, dance, electronics or film, but also to give them the opportunity to meet and work with artists who are not primarily teachers. When



LAURIE ANDERSON AT FILM SHOOT DURING RESIDENCY (2013).

I talked with young artists and other students about my work process, I gave them an unvarnished version of what I do. One of the most important things young artists don’t realize is that you throw a lot of your work away. I get rid of most things I make. I learned from Brian Eno, who loves it when something doesn’t work, that a mistake can lead to a chance to make something completely new. I think it is inspiring to realize that artists we admire can fail. And to understand that making something new is not easy. It doesn’t just leap out in a perfect state.

Unaligned artists, like myself, work very differently in the larger world of cultural institutions, and I believe we are also able to give students a unique perspective on the many options and opportunities open to full-time artists. As EMPAC’s artist-in-residence, I have truly enjoyed encouraging Rensselaer students in the arts, technology, and engineering to prepare themselves for a wider range of opportunities. I emphasize in my talks that creativity is needed not only when doing the work, but in getting it out into the world. For example, one of my most extended and satisfying residencies was at EXPO 05 in Japan, designing a series of projects—from an enormous film to interactive sound and sculpture works—throughout a giant park. I was not asked to do this residency but instead made a very elaborate unsolicited proposal that was, against all odds, approved and then realized. I also told students they would never get the opportunity to do exactly what they wanted to do and that they had to define and create new ways of

working. I had the feeling that for many of the students this was basically new and challenging information.

Residencies are ways to expand the world and cross-pollinate disciplines. They are crucial to the way we can reinvent our world. This is because I think that artists have very different viewpoints than most other people. I think there should be an artist in residence in the White House, in the Supreme Court, in Congress. Artists have a unique point of view and should be part of the way we all design the future. There’s a Department of Defense, a Department of Health and Human Services, and so on—so why not a Department of Art?

It seemed that many of the students at Rensselaer were cautious about saying they were artists. Perhaps they thought it was pretentious. Instead they might say they were designers. But I encouraged them to say: I am an artist. Because nobody really knows what being an artist is supposed to mean. When you say you are an artist, you have a lot of room to move around in, which is a wonderful thing. Just like my first grade art teacher.

2014
Days 4,158-3,818

NEW FILM (A PERSONAL ESSAY)

Laurie Anderson

DISTINGUISHED ARTIST-IN-RESIDENCE
SCREENING



DECEMBER 12, 2014

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance

CURATOR Johannes Goebel

Produced for French-German Arte TV, Laurie Anderson's personal essay film features a series of interconnected confessional stories set against a soundtrack of original music. The screening was accompanied by a discussion with Anderson about her artistic process, how making film soundtracks differs from making music, and what it's like making something that gradually turns into another thing altogether. Anderson's genre-crossing work encompasses performance, film, music, installation, writing, photography, and sculpture. She is widely known for her multimedia presentations and musical recordings and has numerous major works to her credit. In 2002, she was appointed NASA's first artist-in-

residence, and she was also part of the team that created the opening ceremony for the 2004 Olympic Games in Athens. She has published six books, and produced numerous videos, films, radio pieces, and original scores for dance and film. In 2007, she received the prestigious Dorothy and Lillian Gish Prize for her outstanding contribution to the arts.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

SEE RELATED RESIDENCY ON PAGE 214.

MATERIAL PERFORMANCE
TALK

DUST TO DIGITAL: LOOSE REMARKS
ON THE ECONOMY OF "CRAFT"

Dieter Roelstraete



DECEMBER 10, 2014

DISCIPLINE Humanities; Science

CURATOR Emily Zimmerman

Curator Dieter Roelstraete discussed a wide range of practices invested in the notion of craft, and the relationship of these practices to issues such as time and materiality. Roelstraete's recent exhibition for the Museum of Contemporary Art Chicago, entitled *The Way of the Shovel: Art as Archaeology*, traced the interest in history, archaeology, and archival research through the art production of the last decade. It also considered art and archaeology's shared approaches to issues such as material, time, process, performance, and liveness. Dieter Roelstraete is Manilow Senior Curator at the Museum of Contemporary Art Chicago, where he organized *Goshka Macuga: Exhibit, A* (2012), and *Simon Starling: Metamor-*

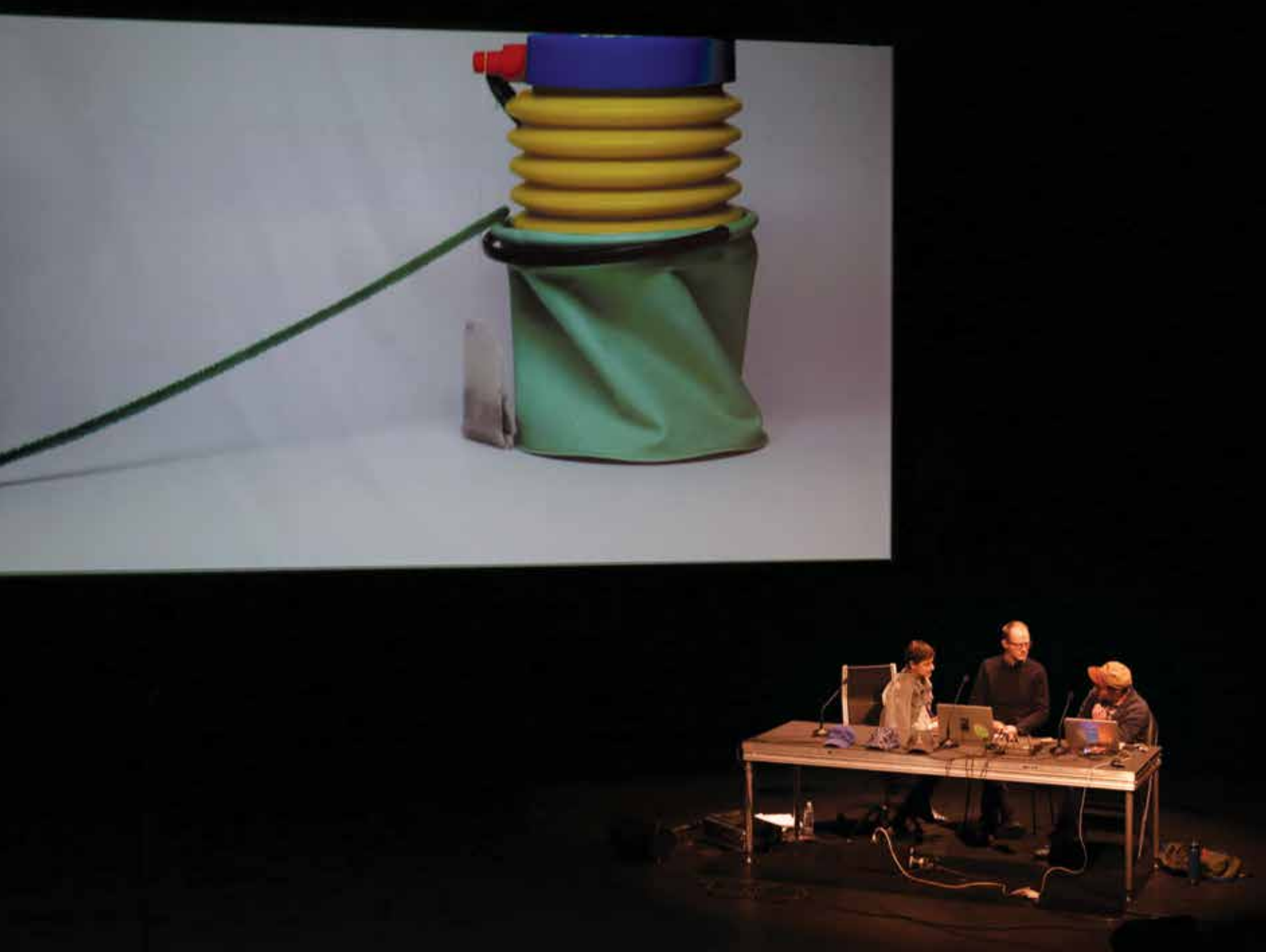
phology (2014) in addition to *The Way of the Shovel: Art as Archaeology* (2013). Roelstraete has published extensively on contemporary art and related philosophical issues in numerous catalogues and journals including *Artforum*, *e-flux journal*, *frieze*, *Metropolis M*, *Monopol*, *Mousse Magazine*, and *Texte zur Kunst*.

Material Performance was a series of talks focused on materiality and time—how material and passing time can be seen as reciprocal conditions for each other's qualities. The series brought together material scientists, biochemists, philosophers, curators, and media theorists to unravel the relationship of time and materiality within each discipline.

BLOOPERS #1

Michael Bell-Smith,
Sara Magenheimer, & Ben Vida

PERFORMANCE / COMMISSION



DECEMBER 6, 2014

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Victoria Brooks

Bloopers #1 was a new iteration of the performance-driven collaboration by artists Michael Bell-Smith, Sara Magenheimer, and Ben Vida. Presenting a joyously subversive take on popular culture and the social connections produced through sound and music, *Bloopers #1* took the question “Why do we hate some objects and love others?” as its starting point, and used set pieces, dance-pop, cinematic cliché, and live performance to playfully tease the boundaries of language, crowds, and the nature of things that draw them.

Michael Bell-Smith is an artist and musician whose work has been presented at MoMA PS1, Museum of the Moving Image, and SFMOMA,

among others. Sara Magenheimer is an artist and musician who has toured extensively in two bands Flying, and WOOM, releasing five records; she has screened video work and performed at the Berkeley Art Museum, MoMA PS1, the Brooklyn Academy of Music, and ISSUE Project Room, among others. Ben Vida is an artist and composer; in the mid 1990s he co-founded the group Town and Country and has worked as a solo artist under his own name and as Bird Show.

SEE RELATED RESIDENCY ON PAGE 92.

PERFORMANCE / COMMISSION

A POSSIBILITY OF AN ABSTRACTION

Germaine Kruip



DECEMBER 6, 2014

DISCIPLINE Contemporary Performance;
Visual Art

ABOUT THE PRODUCTION Commissioned by
EMPAC with additional support from the
Mondriaan Fund

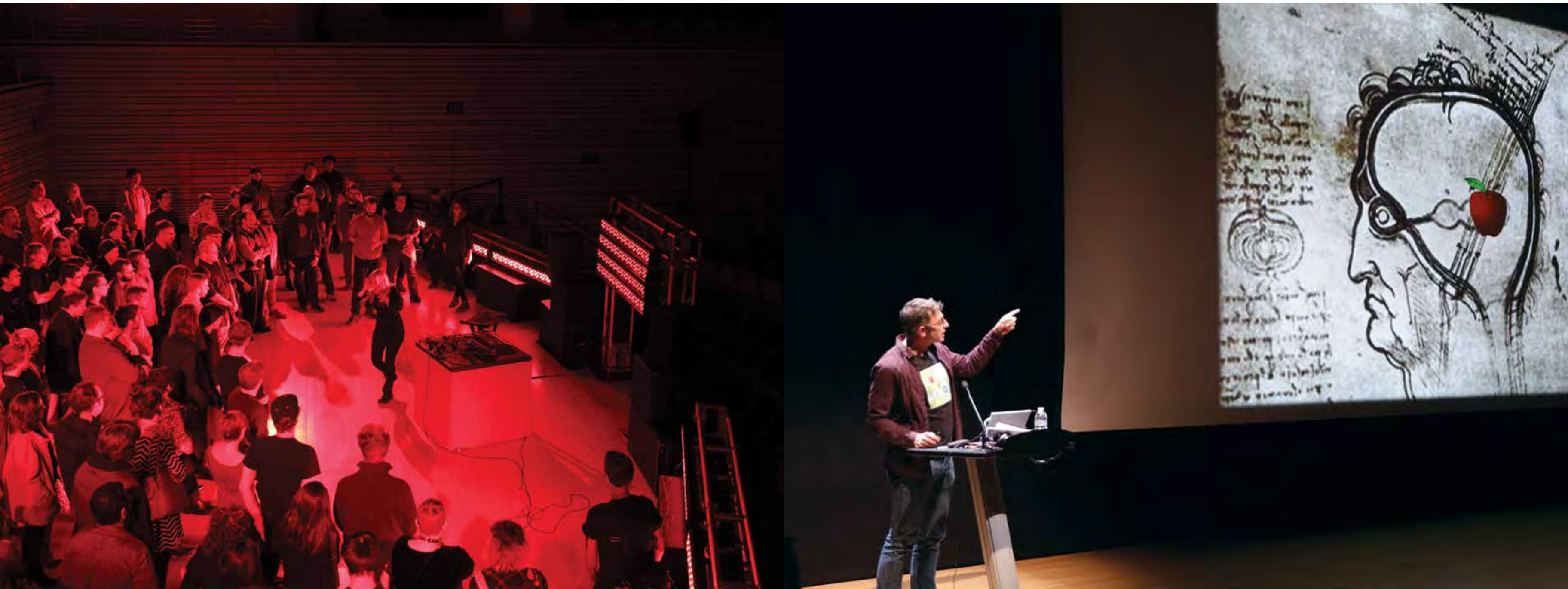
CURATOR Victoria Brooks

In *A Possibility of an Abstraction*, Germaine Kruip created an atmospheric film-like effect without actually using film, accomplished by manipulating light across the proscenium stage that served as a stand-in for the screen. Shifting between the cinematic, the theatrical, and the sculptural, *A Possibility of an Abstraction* created a meditative space at the edges of our perception with optical illusions and the passage of time.

Kruip's artworks often take the form of “architectural interventions.” Manipulating daylight with geometric, kinetic sculptures, these interventions transform each site into a stage, with the audience as actors in a play of substantive absence. Kruip's

work has been exhibited at List Visual Arts Center at MIT, Boston; Stedelijk Museum, Amsterdam, Netherlands; Art Basel 41, Basel, Switzerland; the Approach, London; Hiroshima Museum of Contemporary Art, Tokyo; the Drawing Centre, New York, and in the MARZ Gallery, Lisbon, among others.

SEE RELATED RESIDENCY ON PAGE 82.



DECEMBER 5, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Margaret Chardiet, who performs under the name Pharmakon, created an intensely intimate and confrontational performance experience in EMPAC's Concert Hall. Chardiet's performance undermined the traditional roles of performer and audience, and questioned the boundaries of private and public space. Using an array of ultra-directional loudspeakers and hidden microphones, Chardiet recorded the chatter of the audience, playing it back at increasing volume, confronting listeners with themselves and with her brand of death-industrial sound. She concluded the performance with whispered conversations with each attendee that were exposed and layered into a swirling cacophony of secrets.

Chardiet describes her drive to make noise music as a kind of exorcism, expressing her "deep-seated need/drive/urge/possession to reach other people and make them FEEL something [specifically] in uncomfortable/confrontational ways." In addition to being one of the few females working in a male-dominated noise scene, Chardiet stands out for her meticulous rigor and attention to form, with every element methodically planned out in advance for maximum emotional impact. Chardiet was born and raised in New York City. A founding member of the Red Light District collective in Far Rockaway, NY, she has been a figurehead in the underground experimental scene since she was 17.

DECEMBER 4, 2014

DISCIPLINE Humanities; Science

CURATOR Emily Zimmerman

According to popular wisdom, consciousness takes place inside the mind, something with which Galileo, neuroscience, and the movie *The Matrix* would all agree. How are neurons able to create this internal mental world? Scientists have gone so far as to conclude that most of what we see around us exists only as an acquired image in the mind of the spectator, separated from what is perceived. In this talk, presented in conjunction with Melvin Moti's installation *The Vision Machine*, Riccardo Manzotti made the case for "externalism," or consciousness that spreads beyond the brain, out into the world.

Riccardo Manzotti is a philosopher, psychologist, and artificial intelligence scholar; he is a Fulbright visiting scholar at MIT's Department of Linguistics and Philosophy. Manzotti has published more than 100 scientific papers, and has written two books that explore the place of consciousness in the physical world.

Material Performance was a series of talks focused on materiality and time—how material and passing time can be seen as reciprocal conditions for each other's qualities. The series brought together material scientists, biochemists, philosophers, curators, and media theorists to unravel the relationship of time and materiality within each discipline.



DECEMBER 4–6, 2014

DISCIPLINE Film/Video; Science; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Emily Zimmerman

The Vision Machine is a kinetic light sculpture that produces a 20-minute film based on the behavior of light in prisms. Drawing on optics and material science, this optical box harnesses the same physical principles that give rise to everyday atmospheric effects such as rainbows and sundogs by shining light through a series of rotating prisms and focusing it back onto a wall with a lens. *The Vision Machine* is conceptually based on Riccardo Manzotti's idea of the "Spread Mind," which proposes that consciousness is spread between physical phenomena and the individual. The viewer doesn't see the world; he is part of a world process. In the installation, diffracted light serves as a metaphor for our

consciousness as an interrelated process of worldly phenomena, partly external and partly internal, but never static. The artist worked collaboratively with a team of Rensselaer undergraduate physics and engineering students to create *The Vision Machine*.

SEE RELATED RESIDENCY ON PAGE 189.

ON THE NOTION OF 'CAPTURE':
ARCHÉ, TECHNÉ, EPISTEMÉ

Thomas Zummer

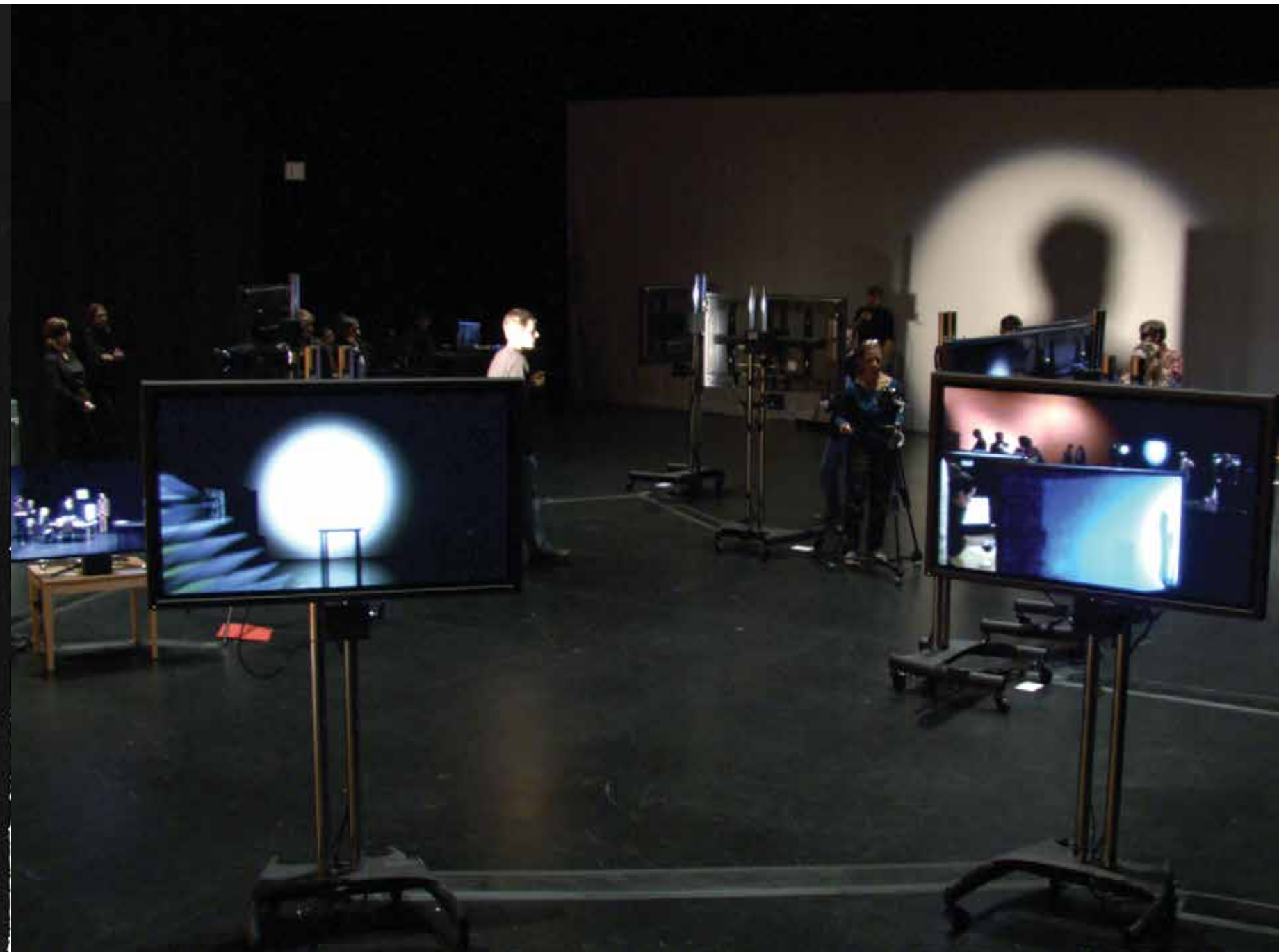
MATERIAL PERFORMANCE

TALK

PERFORMANCE

THIS PIECE IS STILL TO COME

Begüm Erciyas



DECEMBER 03, 2014

DISCIPLINE Film/Video; Humanities; Visual Art

CURATOR Emily Zimmerman

What happens when one writes about or photographs another? In this talk, artist and scholar Thomas Zummer addressed the idea of “capturing” subjects in media—photography, cinema, radio, digital video, transmission—and how the captured subject is drawn into the fabricated media space while its own world is forcibly occluded. Zummer traces this phenomenon through the depiction of places, people, and events in all such media—how the media start to “speak for” the captured, take the place of the captured, and make the otherness of the captured disappear.

Thomas Zummer is a scholar, writer, artist, designer, and curator. He is the founder and

director of Z-Grafik, a design bureau based in Brussels and New York City. His drawings and sculptural works are exhibited worldwide.

Material Performance was a series of talks focused on materiality and time—how material and passing time can be seen as reciprocal conditions for each other's qualities. The series brought together material scientists, biochemists, philosophers, curators, and media theorists to unravel the relationship of time and materiality within each discipline.

NOVEMBER 21, 2014

DISCIPLINE Contemporary Performance

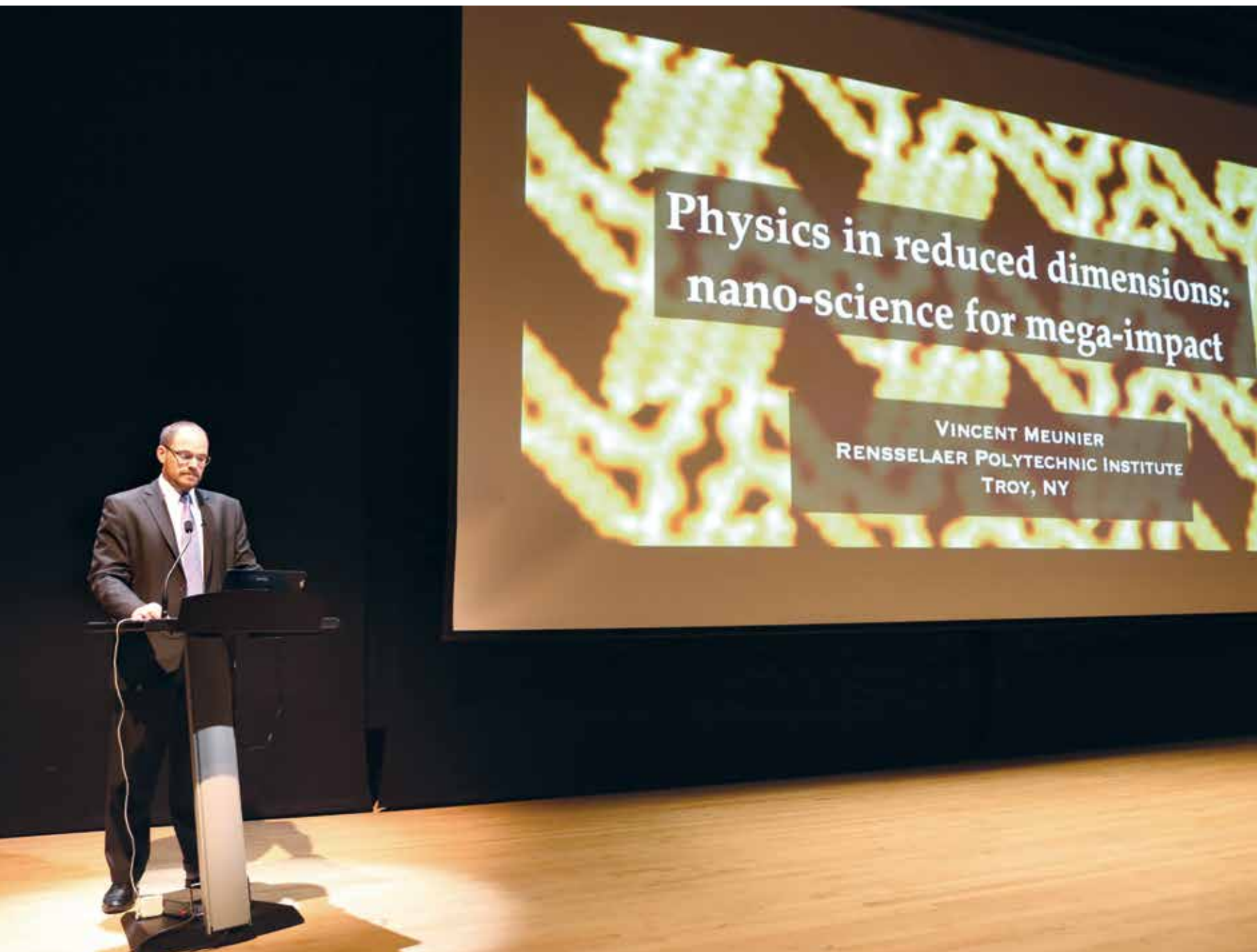
CURATOR Ash Bulayev

Can an artist oppose completion? What if a work is never finished or if every presentation is a premiere of a new version? In *This Piece Is Still To Come*, Begüm Erciyas rejects conclusions in favor of repetition. The image and sound recordings of each version of the performance form the basis of a new performance. The artist invites the audience to become part of this long-term project with no conclusions. Each new audience is suspended at some middle point, knowing there is at least one more performance to come, for which the record of current acts will serve as foundation.

Begüm Erciyas was born in Ankara, Turkey, and has lived and worked in Berlin since 2010. While

studying molecular biology and genetics in Ankara, Erciyas worked on several different dance projects and subsequently joined [laboratuar], a performing arts research and project group. She has been an active member of Sweet and Tender Collaborations, and has been an artist-in-residence at Akademie Schloss Solitude, K3-Zentrum für Choreographie | Tanzplan Hamburg, the Tanz Werkstatt Berlin; and at Villa Kamogawa /Goethe Institute Kyoto.

Vincent Meunier



NOVEMBER 18, 2014

DISCIPLINE Science

CURATOR Emily Zimmerman

“There is plenty of room at the bottom,” Richard Feynman told a group of physicists in 1959, in a famous call for new investigations into subatomic science. The many new wonders of nanoscience demonstrate the prescience of Feynman’s claim. Over the last few decades, the effort to turn molecular and atomic building blocks into functional materials has energized scientists and engineers, and eventually led to the field of nanotechnology. With the emergence of nanotechnology, scientific scrutiny must now shift again, tracing these nano-level discoveries back up to a larger scale, where materials with predictive functionality can be assembled atom by atom. In this talk, Rensselaer professor Vincent Meunier presented examples

from the quest to optimize properties at the nano-scale for macroscopic applications in areas such as energy harvesting, storage, water purification, and nanomaterials design.

Vincent Meunier is an associate professor in the Departments of Physics, Applied Physics, and Astronomy and Materials Science and Engineering at Rensselaer, where he is the Gail and Jeffrey L. Kodosky ’70 Constellation Chair.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.

NOVEMBER 15, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Centered around two pianists and percussionists, Yarn/Wire uses a combination of thundering rhythms, unconventional sounds, and precision execution. The ensemble has quickly become a key player in the American new music scene, driven by their adventurous programming and dedication to performing music from young composers. Returning to EMPAC, this performance included two movements of David Brynjar Franzson’s *the Negotiation of Context* (recorded and produced at EMPAC and released by WERGO), as well as a series of shorter new works by Thomas Meadowcroft, Ann Cleare, and Øyvind Torvund. Yarn/Wire frequently presents US premieres by leading international composers, in addition to

premieres of music written specifically for the ensemble, and maintains an active performing and teaching schedule at festivals, chamber music series, and universities across the country.

PROGRAM
DAVÍD BRYNJAR FRANZSON *the Negotiation of Context (C)*
ANN CLEARE *I should live in wires for leaving you behind*
THOMAS MEADOWCROFT *Walkman Antiquarian*
DAVÍD BRYNJAR FRANZSON *the Negotiation of Context (B)*
ØYVIND TORVUND *Untitled School*

ERIC WUBBELS: being time

Mivos Quartet

PERFORMANCE

EXHIBITION

**THE ONLY THING THAT MAKES LIFE POSSIBLE
IS NOT KNOWING WHAT COMES NEXT**

Jacqueline Kiyomi Gordon

NOVEMBER 14, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

The Mivos Quartet, one of the most sought-after string quartets in the international new music scene, performed the world premiere of a new work for string quartet and electronics by American composer Eric Wubbels, developed while in residence. Titled *being time*, the piece is an audio variation on the psychological experience of time. Extending nearly an hour, it moves from sections of extreme slowness and static sustains to high-energy plateaus of dense, saturated sound textures. The electronics in the piece build on Maryanne Amacher's pioneering work with otoacoustic sound, deploying high sine waves to create vivid psychoacoustic illusions as well as sounds that seem to originate in the listener's ear itself, presented both in isolation and knotted with the acoustic sound of the string quartet.

The Mivos Quartet is devoted to performing the works of contemporary composers and presenting new music to diverse audiences, appearing at such venues as the Guggenheim Museum, Kennedy Center, Zankel Hall, MoMA, the Stone, ISSUE Project Room, and Roulette. Eric Wubbels is a composer, pianist, and executive director of the Wet Ink Ensemble, a New York City collective devoted to creating, promoting, and organizing adventurous contemporary music.

PROGRAM

ERIC WUBBELS *being time*, for string quartet and electronic sound

SEE RELATED RESIDENCY ON PAGE 74.



NOVEMBER 14, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

In this work-in-progress installation, sound artist Jacqueline Kiyomi Gordon investigated how one's perception of sound can be changed as he or she moves through space. Using an interconnected series of listening rooms, each built with a variety of materials (stone, metal, wood, cloth, etc.), Gordon created a perpetually shifting audio experience from diffused sound projected from a ring of loudspeakers. As listeners moved through the space, they were made aware of the parameters of the room and how they can actually control what they are hearing by altering their movement.

Gordon is a visual and sound artist who integrates audio technologies into sculptural forms to question relationships of affect to an environment. She has had solo shows at Yerba Buena Center for the Arts (2014), Pro Arts Gallery (2013, Oakland), Eli Ridgway Gallery (2012, San Francisco), and Queens Nails (2009, San Francisco). She is also a member of the music and performance collective, 0th.

SEE RELATED EVENT ON PAGE 96.

TAI CHI, MEDITATION, AND MAKING ART

Laurie Anderson

DISTINGUISHED ARTIST-IN-RESIDENCE
WORKSHOP



NOVEMBER 12, 2014

DISCIPLINE Contemporary Performance

CURATOR Johannes Goebel

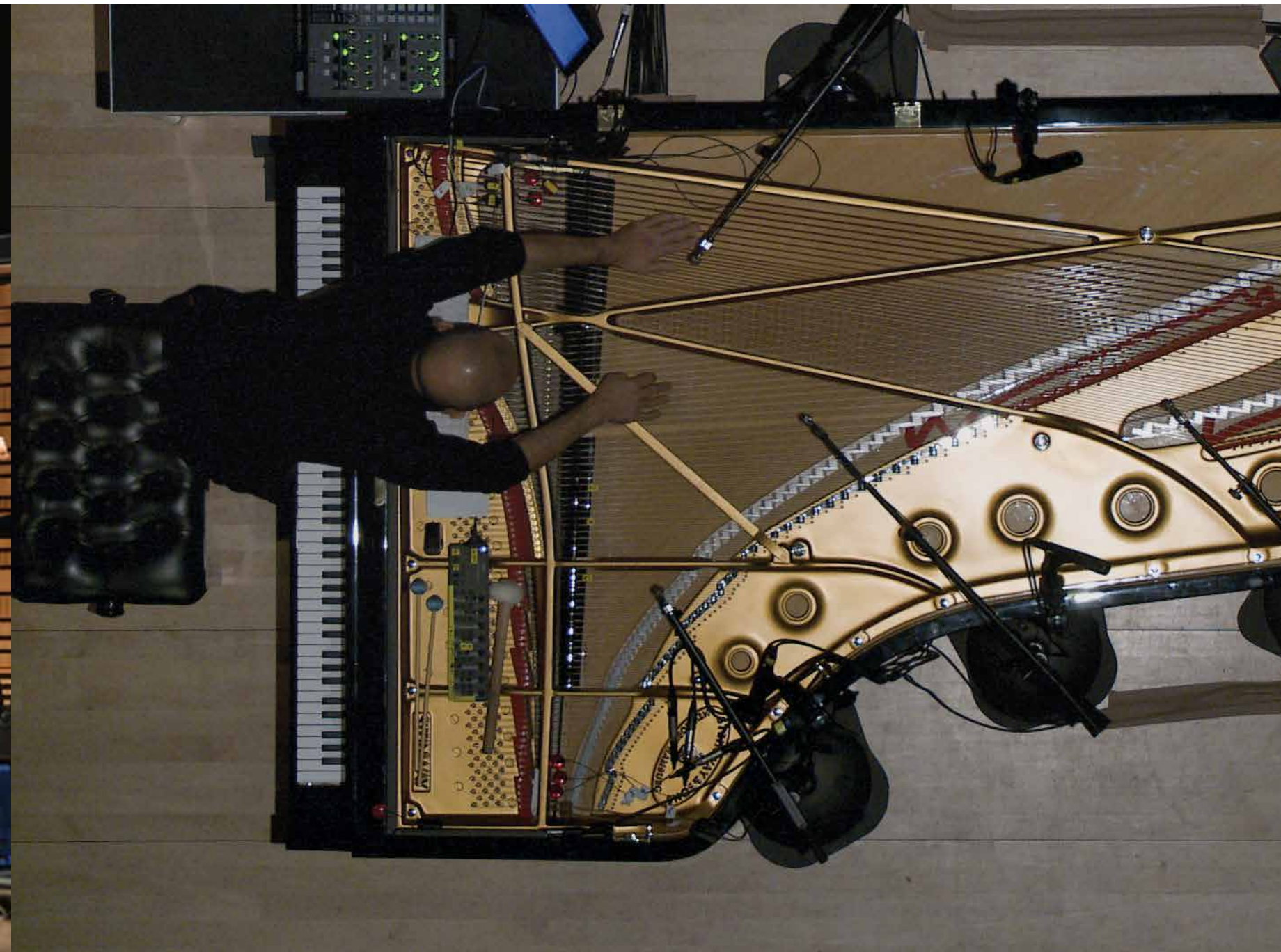
In a pair of two-hour sessions, Laurie Anderson led an exploration of how tai chi and meditation can shape the music and art we make. Building on her celebrated career as a performer, artist, and musician, Anderson shared her insights into the complementary practices of disciplined physical movement and creative expression in all its forms. Acknowledging that “as a martial artist, I am not expert enough to teach a real tai chi class,” Anderson offered this introduction to the practice in the belief “that artists can benefit greatly from this way of blending the physical, mental, and spiritual disciplines.” One of America’s most renowned performance artists, Anderson’s genre-crossing work encompasses performance, film,

music, installation, writing, photography, and sculpture. She is widely known for her multimedia presentations and musical recordings and has numerous major works to her credit. She has published six books, and produced numerous videos, films, radio pieces, and original scores for dance and film. In 2007, she received the prestigious Dorothy and Lillian Gish Prize for her outstanding contribution to the arts.

Laurie Anderson, EMPAC’s inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

PERFORMANCE / COMMISSION

EXPANDED PIANO
Stavros Gasparatos



NOVEMBER 7, 2014

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Ash Bulayev

Imagine being inside a piano; then imagine the piano expanded to the size of a concert hall. This EMPAC-commissioned concert and installation was grounded in the idea of “prepared piano,” a tradition where screws, rubbers, bolts, etc., are attached to the strings inside a piano, altering the sound. Building on the many famous mechanically prepared piano compositions from John Cage to Aphex Twin, *Expanded Piano* transforms the idea into a uniquely electronic form. An acoustic piano is wired with both regular microphones and contact microphones attached to the body of the piano, its strings, and mechanisms. Each microphone’s signal is manipulated in real-time through a computer and then routed to its own

loudspeaker, creating a multi-channel space around the audience that puts the listeners “inside” the piano.

Gasparatos is a composer and digital sound artist who lives and works in Athens, Greece. He composes music for dance, theater, and cinema, and frequently works on solo music projects. His work has been performed internationally in London, Macao, Naples, Berlin, Toronto, Amsterdam, Paris, and Sofia. Gasparatos is often a collaborator of the National Greek Theatre.

SEE RELATED RESIDENCY ON PAGE 87.

NO FOOD, NO MONEY, NO JEWELS

Eve Sussman & Simon Lee

RESIDENCY / COMMISSION

NOVEMBER 5–27, 2014

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Ash Bulayev

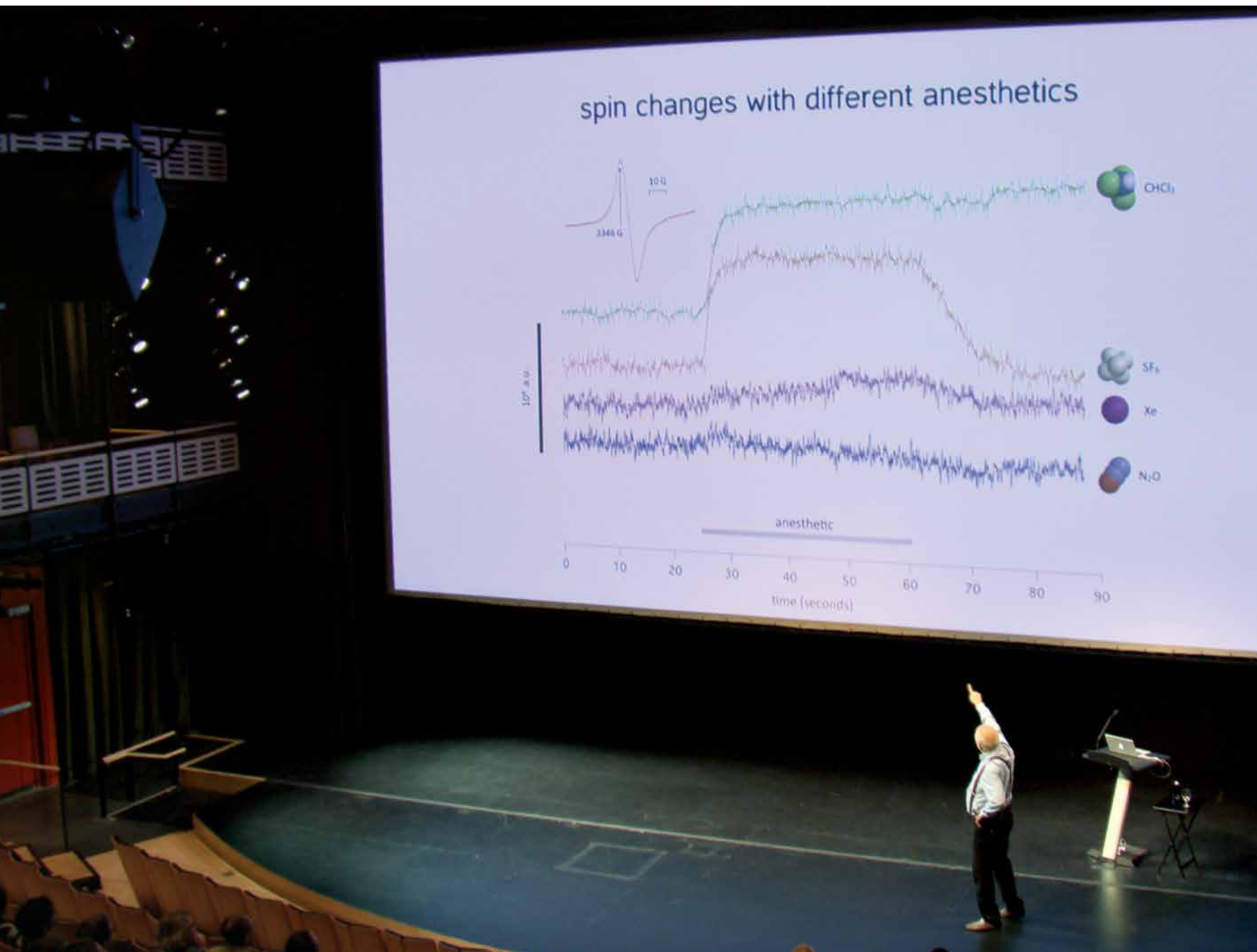
Eve Sussman, an award-winning film director and visual artist and Simon Lee, a film director and installation artist, along with their full creative team, engaged in research and development for this EMPAC commission. During a three-week film production residency, the team installed a large structural set, prepared all the props, costumes, lighting setup, as well as camera testing, leading up to a week-long filming period that transformed EMPAC's Theater stage into a full-scale soundstage.

Eve Sussman creates work that incorporates film, video, installation, sculpture, and photography. In 2003 she began working in collaboration with The Rufus Corporation—an international ad hoc ensemble of performers, artists, and musicians—producing motion picture and video art pieces including *89 Seconds at Alcázar* (2004) and *The Rape of the Sabine Women* (2007). With humble materials and straightforward means—found snapshots, plastic toys, pinhole cameras, and projectors—Simon Lee creates evocative, dream-like videos, projections, and photographs.

WHY DOES CONSCIOUSNESS DISSOLVE IN CHLOROFORM?

Luca Turin

MATERIAL PERFORMANCE
TALK



NOVEMBER 5, 2014

DISCIPLINE Science

CURATOR Emily Zimmerman

What is time? Does our understanding of time depend on the human mind in some fundamental way? Biophysicist Luca Turin investigated one of the stranger mysteries of human consciousness in this presentation, subtitled *The Story of an Enduring Mystery*, using images and 3D animations to share the many unusual discoveries from his research with general anesthesia and its influence on internal sense of duration. Unlike sleep, time essentially stops for the anesthetized subject, who frequently wakes with a feeling of “the next thing I knew...” In this bizarre phenomenon, Turin finds a richer understanding of the human mind.

Luca Turin worked at the French National Center for Scientific Research and was the CTO of a startup company creating new fragrance and flavor molecules, which was also the subject of the book *The Emperor of Scent*. He has also worked at MIT, and is a visiting professor at the Institute for Theoretical Physics in Ulm, Germany.

Material Performance was a series of talks focused on materiality and time—how material and passing time can be seen as reciprocal conditions for each other's qualities. The series brought together material scientists, biochemists, philosophers, curators, and media theorists to unravel the relationship of time and materiality within each discipline.

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PERFORMANCE

AKOUSMA @ EMPAC

NOVEMBER 01, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

An acousmatic music performance of work from the annual AKOUSMA festival in Montréal, Quebec, which is produced by Réseaux, a composer-run organization dedicated to presenting and commissioning electroacoustic music. Known as “cinema for the ear,” acousmatic music is a compositional form traditionally presented in the dark to help focus and intensify the audience's sense of hearing. Dozens of loudspeakers were placed throughout EMPAC's lobby and hallways. The performers manipulated their pieces in real-time, creating an all-encompassing aura as electronic sound moved throughout the building. Performers included Adam Basanta (Canada), Olivia Block (US), Gilles Gobeil (Canada), Seth Nehil (US), and Louis Dufort (Canada). Adam Basanta's work traverses electroacoustic and instrumental composition, audiovisual installations, site-specific interventions, laptop performance, and dynamic light design; he explores notions of listening and audiovisual perception, the reanimation of quotidian objects, and the articulation of site and space. Olivia Block creates original sound compositions for concerts, site-specific multi-speaker installations, live cinema, and performance; compositions often include field recordings, chamber instruments, and electronic textures. Many of Gilles Gobeil's pieces have been inspired by literary works and attempt to let us see through sound; he has won over 20 national and international awards and is a co-founder of Réseaux. Seth Nehil has crafted a unique and unusual sonic world, mixing acoustic and electronic sources, field recordings, granular synthesis, and voice; he has released over 15 albums and has collaborated with dance companies, performers, and video artists. Montréal composer Louis Dufort's music ranges from a cathartic form of expressionism to a focus on the inner structure of sound matter; he is the artistic director of the AKOUSMA festival.

PROGRAM

LOUIS DUFORT *Étude no.1 for the EMPAC Lobby*
GILLES GOBEIL *Des temps oubliés*
SETH NEHIL *Collide*
ADAM BASANTA *instant gris*
ADAM BASANTA *is not a / a / is not*
OLIVIA BLOCK *Dissolution*
LOUIS DUFORT *Étude no.2 for the EMPAC Lobby*

4117



,000,
Isabelle Pauwels

PERFORMANCE / COMMISSION

OCTOBER 30, 2014

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance; Visual Art

ABOUT THE PRODUCTION Commissioned by
EMPAC with additional support from the British
Columbia Arts Council

CURATOR Victoria Brooks

,000, is a multimedia theatrical production that tracks the history of the Canadian city of New Westminster along with biographical details of its residents and the urban landscape that they inhabit. Layering sculpture, light, audio, and video, the performance guides the audience through the story of two entwined characters: a dying rust-belt town unable to let go of nostalgia for the “old days,” and a small-time actress struggling against the indignities of the film industry while making ends meet as a part-time dominatrix. Working in collaboration with composer Paul Kajander, the audio and visual elements combine the competing voices of the players—the actress, her clients, the wives and girlfriends, the critics, and the town bureaucrats—into a collaged narrative, with the pre-recorded voice of each character (recorded by the artist while in residence) embodied by a related object that includes props, sculptures, lights, speakers, and screens.

Isabelle Pauwels’ work blends performance and documentary realism to highlight the fraught relationship between narrative conventions and everyday social interaction. Her recent exhibitions include the Power Plant, Toronto; the Western Front, Vancouver; National Gallery of Canada, Ontario, and the Art Gallery of Nova Scotia.

SEE RELATED RESIDENCY ON PAGE 97.





OCTOBER 28, 2014

DISCIPLINE Humanities

CURATOR Emily Zimmerman

In this talk, physicist and feminist theorist Karen Barad discussed her recent work on time and her reflections on the entanglement of time and materiality.

Karen Barad is professor of feminist studies, philosophy, and history of consciousness at the University of California at Santa Cruz. Barad holds a PhD in theoretical particle physics and quantum field theory, and was tenured in the Physics Department at UCSC before moving into more interdisciplinary spaces. Barad is the author of *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Duke University Press, 2007) and numerous

articles in the fields of physics, philosophy, science studies, post-structuralist theory, and feminist theory. She is the co-director of the Science & Justice Graduate Training Program at UCSC.

Material Performance was a series of talks focused on materiality and time—how material and passing time can be seen as reciprocal conditions for each other's qualities. The series brought together material scientists, biochemists, philosophers, curators, and media theorists to unravel the relationship of time and materiality within each discipline.

OCTOBER 15, 2014

DISCIPLINE Humanities

CURATOR Emily Zimmerman

This talk used many words about words to create a view of what is beyond that which is said. The point of departure: without language there is no art. Art is not congruent with language. And certainly art can be made with words. Art, any kind of art, was only possible once we had language and were wondering about the meaning of life. Art can be a sword that cuts through language. It can let us experience something beyond language, beyond right and wrong, on this side of yesterday and tomorrow. There is a lot of talking and thinking before art is made. There is a lot of speaking after experiencing art. There is a lot of past and a lot of future outside of an artwork, which in turn shapes how the work appears and

approaches us and how we approach it. A work of art can only be alive in the moment when we experience it. We use language to shape past and future. When we talk or write and reflect and ponder on art, we are outside of the experience. Which is fine—just different.

Johannes Goebel joined Rensselaer as director of the Curtis R. Priem Experimental Media and Performing Arts Center (EMPAC) in July 2002.

INTENSIVE: OCTOBER

OCTOBER 4, 2014

Intensive October: Three new EMPAC-commissioned works were presented on a single day to showcase diverse achievements from the artist-in-residence program spanning art installation, musical performance, and a dramatic trip through the countryside in a bus.

PERFORMANCE
MICK BARR

DISCIPLINE Music/Sound
CURATOR Argeo Ascani

Mick Barr presented a solo performance of his electric guitar works. Barr has been an active musician for almost 20 years, has released over 50 recordings, and is known for his experimental, improvisational music that exists somewhere between progressive black metal, hardcore, and avant-jazz.

SEE RELATED EVENT ON PAGE 73.

PERFORMANCE/COMMISSION
OBSOLESCE: THE THING IS FALLING
Anthony Marcellini

DISCIPLINE Contemporary Performance
ABOUT THE PRODUCTION Commissioned
by EMPAC
CURATOR Emily Zimmerman

In *Obsolescere: The Thing is Falling*, objects were presented in a lush visual environment capturing their relative obsolescence, from a Ford Taurus to an encyclopedia. Marcellini's work captures the obsolete object in a state of historical flux, not quite a dead end but a condition that allows new properties to emerge once a thing is freed from the narrow presumptions of its no-longer necessary use.

SEE RELATED RESIDENCY ON PAGE 76.

PERFORMANCE/COMMISSION
MY VOICE HAS AN ECHO IN IT
Temporary Distortion

DISCIPLINE Contemporary Performance
ABOUT THE PRODUCTION Commissioned
by EMPAC
CURATOR Ash Bulayev

My Voice Has An Echo In It was a six-hour performance that combined live music, text and video. The performers were enclosed in a capsule of two-way mirrors, through which the audience could see them but the players could only see themselves, reflected infinitely backward in all directions. A slight audio delay ensured the sounds produced by the performers were heard by the audience two seconds after being produced, challenging the nature of both performance and spectation.

SEE RELATED RESIDENCY ON PAGE 77.

PERFORMANCE/COMMISSION

EMPATHY SCHOOL
Aaron Landsman & Brent Green

DISCIPLINE Contemporary Performance
ABOUT THE PRODUCTION Commissioned
by EMPAC
CURATOR Ash Bulayev

Empathy School took the audience on a bus ride through the post-industrial landscape of Troy and its surrounding countryside, while theatrical stories about the community and its history were told (by performer Jim Findlay). Created in collaboration between artists Aaron Landsman and Brent Green, *Empathy School* sought to merge participatory performance with long-term community engagement in a thrillingly unconventional setting.

SEE RELATED RESIDENCY ON PAGE 91.

PERFORMANCE

MICK BARR

OCTOBER 4, 2014

DISCIPLINE Music/Sound
CURATOR Argeo Ascani

Mick Barr presented a solo performance of his electric guitar works. A guitarist of the highest technical caliber, Barr makes music that exists somewhere between progressive black metal, hardcore, and avant-jazz. Alternating between witheringly complex and gutturally primal, Barr is at the center of the extreme sound scene with works of unrivaled experimental improvisation. Noted for his relentless speed and agility on guitar, and avant-garde compositions, Barr has been an active musician for almost 20 years and has released over 50 recordings. He is most known in the experimental and metal worlds for his work with the technical duos Orthreim and Crom Tech, the progressive black metal band Krallice, and for his two solo projects, Octis and Ocrilim. He has released records with notable labels such as Tzadik, Ipecac, Profound Lore, Hydrahead, and Kill Rock Stars.

ERIC WUBBELS: being time
Mivos Quartet

RESIDENCY

SEPTEMBER 24–29, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

The Mivos Quartet was in residence at EMPAC to develop and perform a new work for string quartet and electronics by American composer Eric Wubbels. Titled *being time*, the work explores the psychological experience of time through aural effects. Using a ring of eight loudspeakers specifically positioned in the room, the piece builds on Maryanne Amacher's pioneering work with otoacoustic sound, deploying high sine waves to create vivid psychoacoustic illusions. These electronic sounds blend with the acoustic sounds of the string quartet, fusing them together into a tangled, sonically complex knot. The Mivos Quartet is devoted to performing the works of contemporary composers and presenting new music to diverse audiences, appearing at such venues as the Guggenheim Museum, Kennedy Center, Zankel Hall, MoMA, the Stone, Issue Project Room, and Roulette. Eric Wubbels is a composer, pianist, and executive director of the Wet Ink Ensemble, a New York collective devoted to creating, promoting, and organizing adventurous contemporary music.

SEE RELATED EVENT ON PAGE 60.

**OBSOLESCERE:
THE THING IS FALLING**
Anthony Marcellini

RESIDENCY / COMMISSION

RESIDENCY / COMMISSION

MY VOICE HAS AN ECHO IN IT
Temporary Distortion



**SEPTEMBER 21–
OCTOBER 6, 2014**

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

Obsolescere: The Thing is Falling was a performance that captures objects at the moment their usefulness becomes uncertain. The title is drawn from the Latin *obsolescere*—“falling into disuse”—the idea that when an object falls out of use over the course of time it shows that obsolescence is not a fixed point, but instead is an active and fluctuating state. Over the course of 25 minutes, a house cat, a Ford Taurus, seven fluorescent light bulbs, a goldfish, several cornstalks, the *Encyclopedia Britannica*, and a rusted portrait bust spoke about their conditions, narrating perspectives on utility, breakdown, and contradiction.

Anthony Marcellini is an artist and writer whose practice examines the social relationships of seemingly disparate objects, artworks, individuals, historical events, and natural phenomena. His work has been exhibited internationally at museums, galleries, and art institutions, including Galerie Michael Janssen, Singapore (2014); Witte De With, Rotterdam (2013, 2014); Yerba Buena Center for the Arts, San Francisco (2013); The Gothenburg Konsthall (2013); and Wilkinson Gallery, London (2012-13), among others.

SEE RELATED EVENT ON PAGE 72.

**SEPTEMBER 15–
OCTOBER 6, 2014**

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC, with additional funding from the New York State Council on the Arts (with the support of Governor Andrew Cuomo and the New York State Legislature), and by a NYSCA Composer Commission. Additional residency support provided by The Watermill Center and Ideal Glass Gallery.

CURATOR Ash Bulayev

A six-hour performance—combining live music, text, and video—where the performers were confined in a freestanding 24' x 6' soundproof box. Free to come and go, the audience was able to see the inside, stationed at windows, and listen to the performance through headphones whenever they chose. But the performers could only see their reflections in the two-way mirrors, stretching off infinitely in both directions. This EMPAC-commissioned work called into question the very nature of live events. All sounds created by the performers were captured, processed, and stored by a computer before being played back for the listener after a few seconds delay. The audience experienced the perfor-

mance both as a live spectacle and a disembodied record of what had just been presented.

Temporary Distortion pushes the boundaries of theater with unsettling and meditative acts staged in claustrophobic, boxlike structures. In New York City its work has been shown at Anthology Film Archives, Baryshnikov Arts Center, The Chocolate Factory, Harvestworks Digital Media Arts Center, Museum of the Moving Image, The New School, and displayed internationally.

SEE RELATED EVENT ON PAGE 72.

SEPTEMBER 12, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Electronic musician Laurel Halo performed new works that fused techno and dance-driven sounds with a heavy dose of synths and samples. Halo's diverse output incorporates danceable rhythms, meditative aural washes, and pensive vocals into a singular, pulsing whole. Built around a slightly off-kilter sense of time and forward-looking production techniques, her music coheres around themes of physical process and virtual violence.

Laurel Halo is a producer and live electronic musician from Ann Arbor, Michigan. Influenced by her Midwestern roots, Halo's music speaks to new club ecologies explored through abstract rhythms, chaotic ambience, and moody jazz elements. She has released two full-length albums on the London-based electronic label Hyperdub Records.



SEPTEMBER 9, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

One of the most influential and iconic DJ/producers working today, Kode9 presented a solo set of new and experimental electronic works as part of the 10th year of the Hyperdub Tour.

Also known as Steve Goodman, Kode9 founded the influential record label Hyperdub and has been a pioneer in the electronic music scene since the early 1990s. Kode9 has performed at Sonar Festival, Sonar Tokyo, Mutek, Glastonbury, Unsound, Melt, and Coachella and in clubs across Europe, Asia, North and South America, Australia, New Zealand, and South Africa.



SEPTEMBER 9, 2014

DISCIPLINE Humanities; Music/Sound; Science

CURATOR Argeo Ascani

Steve Goodman, otherwise known as electronic musician Kode9, presented a rare talk on his investigations into the weaponization of sound. How can sound produce discomfort, become threatening, or create an ambiance of fear? Goodman mapped the many different ways vibrations in air can be transformed into force, combining philosophy, science, fiction, aesthetics, and popular culture. Taking examples from police and military research into acoustic crowd control, corporate uses of sonic branding, and intense works of sound art and music culture, Goodman revealed a startling new dimension of sound in society.

Steve Goodman is a lecturer in music culture at the School of Sciences, Media, and Cultural Studies at the University of East London, a member of the CCRU (Cybernetic Culture Research Unit), and the founder of the record label Hyperdub.

SEPTEMBER 4–
NOVEMBER 13, 2014

DISCIPLINE Film/Video

CURATOR Emily Zimmerman

Surface Tension was a film series where image trumps the narrative: special effects, intense lighting, extreme image resolution, and hyper-real sound heighten the subject of the film through the tension between surface-level sensuality and the narrative. As a result, the intuition of the senses has more interpretive power than what words can hold.

SEPTEMBER 4, 2014: *The Big Combo* (1955) Directed by Joseph H. Lewis, *The Big Combo* is a classic film noir credited with ushering in a new era of cinematic violence in which the villain is often more interesting than the hero. The film's visual composition was the real star of the movie, with camera work and expressionistic lighting effects that externalize the shifting dynamics of its moral universe.

OCTOBER 10, 2014: *Visitors* (2013) Directed by Godfrey Reggio, *Visitors* reveals humanity's trancelike relationship with technology, which connects humans in extreme emotional states to experiences far outside themselves. The fourth feature film collaboration between Reggio and composer Philip Glass, *Visitors* was made with filmmaker Jon Kane. A panel discussion with Reggio and Langdon Winner, Rensselaer professor of science and technology studies, followed the screening.

NOVEMBER 13, 2014: *Leviathan* (2013) Directed by Lucien Castaing-Taylor and Véréna Paravel and produced at the Sensory Ethnography Lab at Harvard, *Leviathan* is a vivid, kaleidoscopic representation of the sea and contemporary commercial fishing industry that avoids romanticizing or caricaturing the labor of fisherfolk. In conjunction with the screening, Castiang-Taylor, Paravel, and sound designer Ernst Karel participated in a master class (including the premiere of a sound work by Karel entitled *Morning and Other Time*) and post-screening discussion.

A POSSIBILITY OF AN ABSTRACTION

Germaine Kruip

RESIDENCY / COMMISSION

SEPTEMBER 2–
DECEMBER 5, 2014
(2 VISITS)

DISCIPLINE Contemporary Performance;
Visual Art

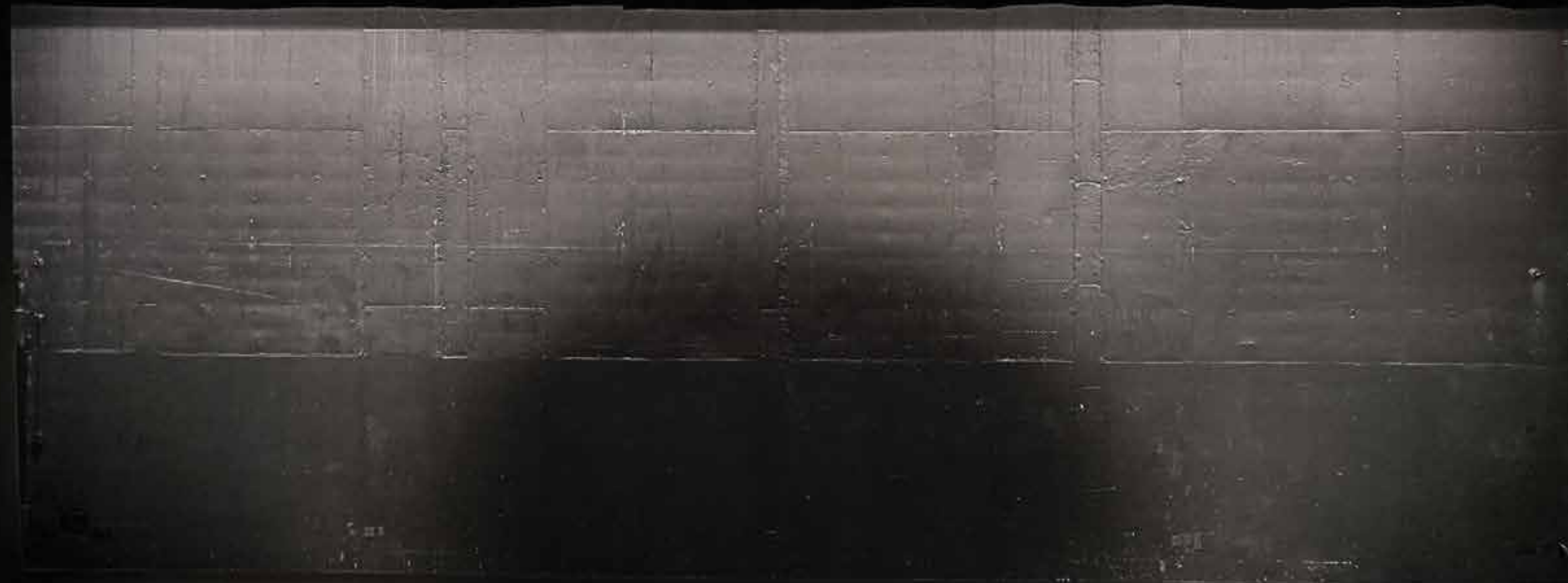
ABOUT THE PRODUCTION Commissioned by
EMPAC with additional support from the
Mondriaan Fund

CURATOR Victoria Brooks

In *A Possibility of an Abstraction*, Germaine Kruip created an atmospheric film-like effect accomplished by manipulating light across the proscenium stage. Shifting between the cinematic, the theatrical, and the sculptural, *A Possibility of an Abstraction* creates a meditative space at the edges of our perception with optical illusions and the passage of time. The artwork recalls pre-cinematic traditions of shadow play, and what Ken Jacobs termed paracinema (denoting experimental film practice from the 1960s in which films lacked material or mechanical elements). Commissioned by EMPAC, Kruip worked in residence with composer Hahn Rowe, lighting designer Laura Mroczkowski, dramaturge Bart Van den Eynde, and the EMPAC stage technologies team to precisely choreograph the light so that shadow, reflection, and architecture become the characters in a filmic experience that is created in the moment itself. Kruip's artworks often take the form of "architectural interventions." Manipulating daylight with geometric, kinetic sculptures, these interventions transform each site into a stage, with the audience as actors in a play of substantive absence.

Germaine Kruip's work has been exhibited at List Visual Arts Center at MIT, Boston; Stedelijk Museum, Amsterdam, Netherlands; Art Basel 41, Basel, Switzerland; the Approach, London; Hiroshima Museum of Contemporary Art, Tokyo; the Drawing Center, New York City, and in the MARZ Gallery, Lisbon, among others.

SEE RELATED EVENT ON PAGE 51.



TIME SQUARED

Ken Jacobs

PERFORMANCE



AUGUST 29, 2014

DISCIPLINE Film/Video;
Contemporary Performance

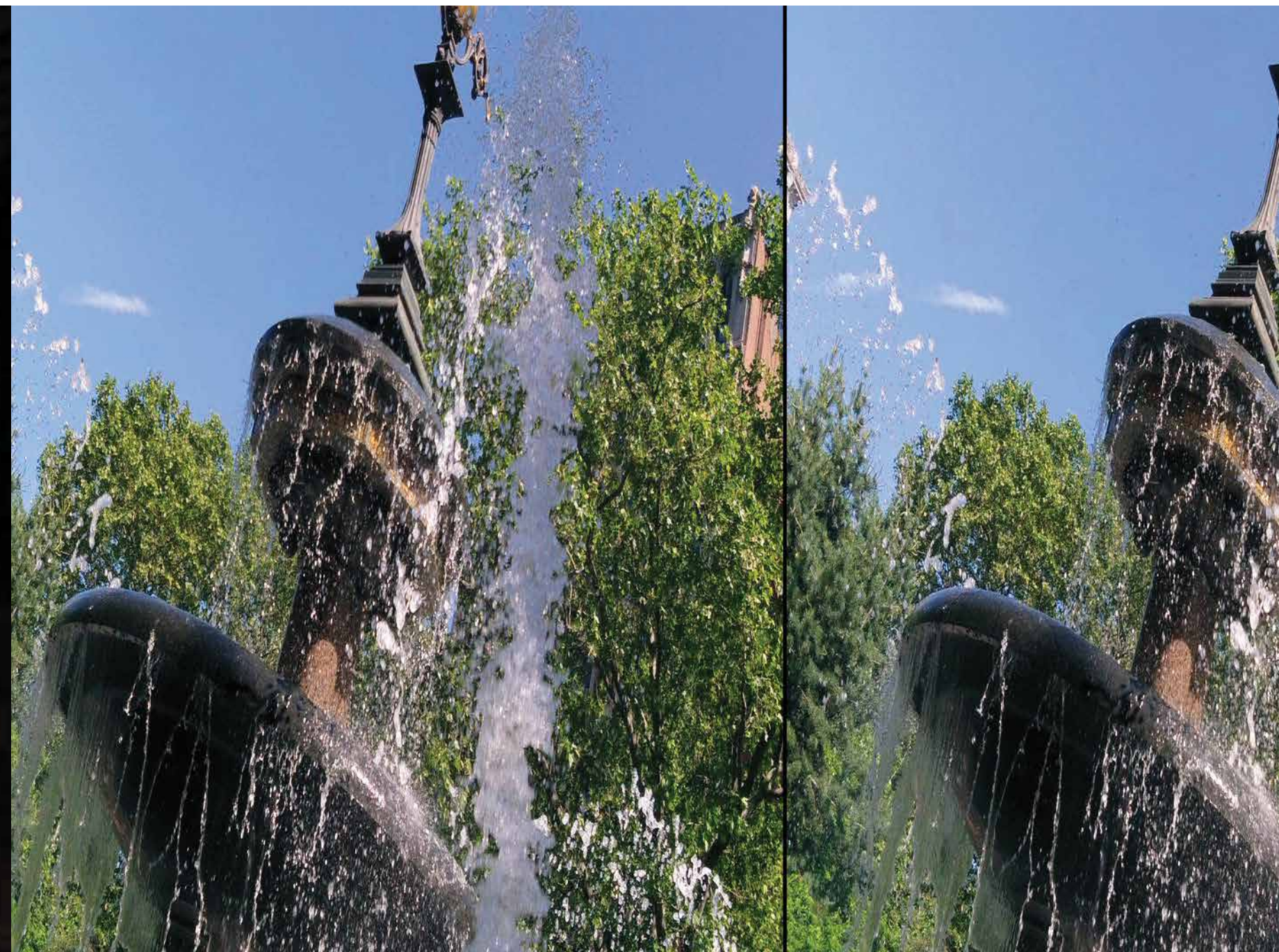
CURATOR Victoria Brooks

Time Squared, one of avant-garde film pioneer Ken Jacobs' iconic *Nervous Magic Lantern* performances, uses projected light, the most basic ingredient of cinema, to create hallucinatory optical effects. Colored slides, a lens, and a spinning shutter are hand-manipulated by the artist—assisted by Florence Jacobs—to animate the patterns reflected onto the screen, creating stereoscopic effects without celluloid or video. Alongside numerous film and video productions, and extensive work with 3D filmmaking techniques, Jacobs has explored the histories and technologies of the moving image through projector performances for the past five decades, both in shadow plays and with *The Nervous System*—

an apparatus consisting of two 16mm projectors with identical strips of film that create the illusion of spatial depth.

Ken Jacobs is a pioneer of the American film avant-garde and a central figure in post-war experimental cinema. His films, videos, and performances have been received at such international venues as the Berlin Film Festival among many others; and MOMI, the Whitney, and MoMA, New York City. He was a featured filmmaker at the International Film Festival Rotterdam in 2004, and Courtisane Festival, Ghent, in 2014.

SCREENING



AUGUST 28, 2014

DISCIPLINE Film/Video

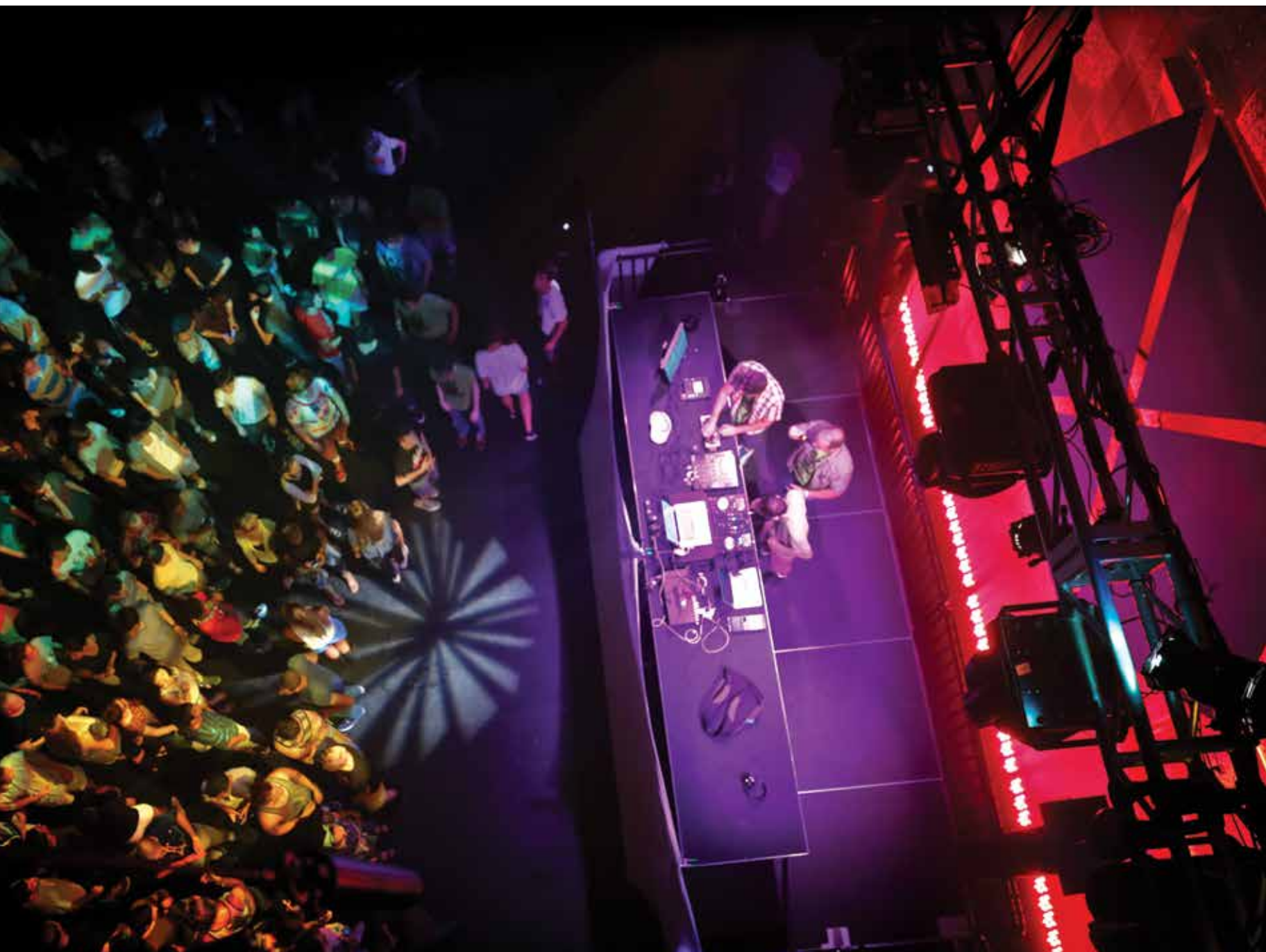
CURATOR Victoria Brooks

Blankets for Indians blends a stereoscopic study of water spurting from New York City's Hall fountain with an intimately detailed portrait of an Occupy Wall Street march. While in the process of shooting the fountain in 2012, Jacobs serendipitously turned his camera toward a large protest marching to Zuccotti Park in support of Occupy Wall Street. The unexpected connection gives the film new life, seamlessly moving between sensual observation and political commentary, reflection, and abstraction. Using freeze-frames, text, and 3D manipulation, Jacobs questions the contemporary conditions of socio-political struggle, its relation to aesthetics, and the labor necessary to produce both.

BLANKETS FOR INDIANS

Ken Jacobs

Ken Jacobs is a pioneer of the American film avant-garde and a central figure in post-war experimental cinema. His films, videos, and performances have been received at such international venues as the Berlin Film Festival among many others; and MOMI, the Whitney, and MoMA, New York City. He was a featured filmmaker at the International Film Festival Rotterdam in 2004, and Courtisane Festival, Ghent, in 2014.

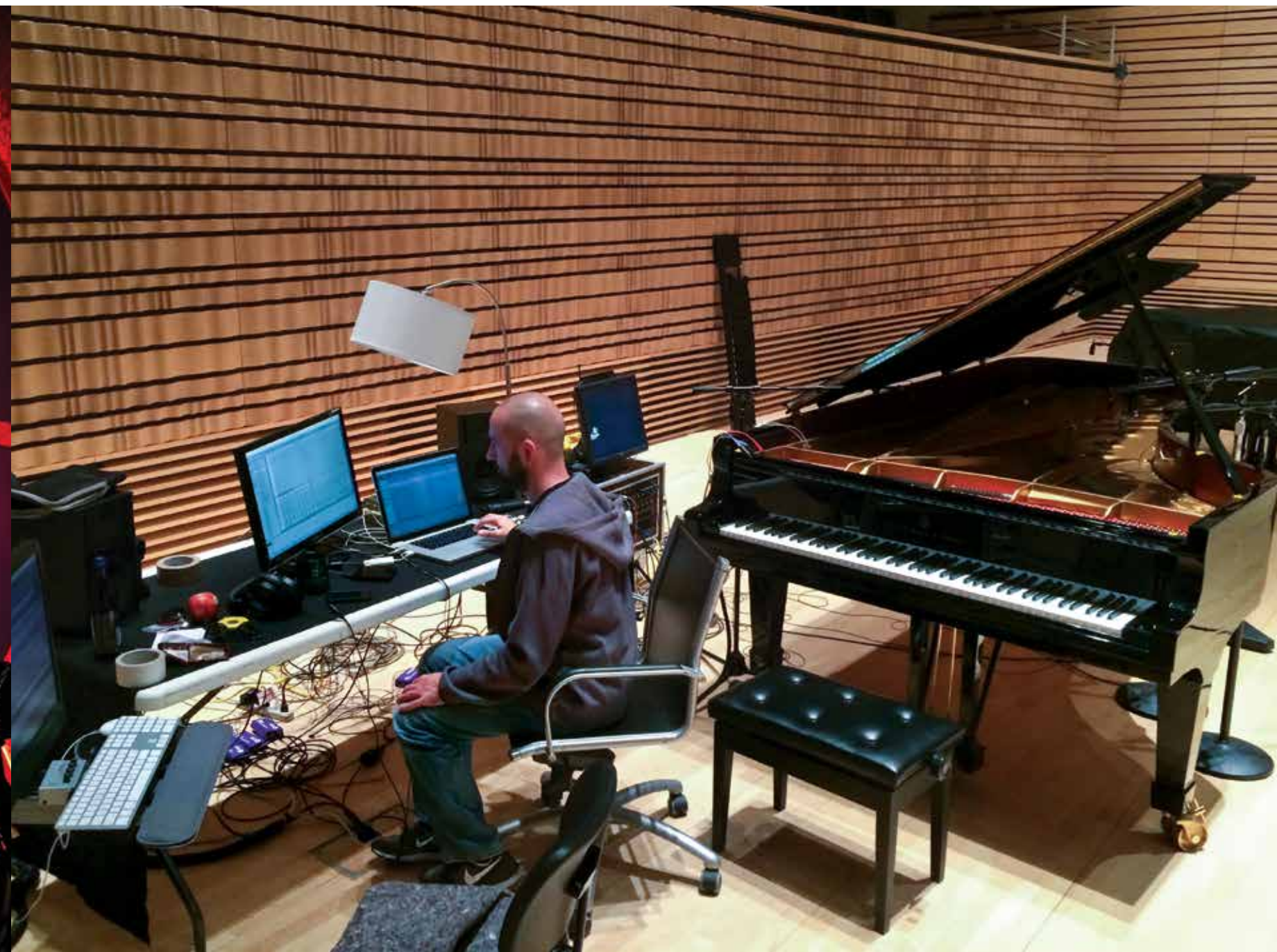


AUGUST 25, 2014

DISCIPLINE Dance; Music/Sound;
 Tools and Technology

This annual event, featuring student performances as part of an electronic dance music mini-festival for the entire incoming class, is the culmination of a two-day workshop. Incoming freshmen participating in the workshop have the opportunity to work with fellow students and EMPAC staff to learn firsthand about the technology and work that goes on behind the scenes at EMPAC. The hands-on workshop paired students with EMPAC mentors, who guided them through the creative process with lighting, audio, video, and stage technologies.

This event was curated by Eric Ameres.



**AUGUST 3–
 NOVEMBER 13, 2014
 (2 VISITS)**

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
 by EMPAC

CURATOR Ash Bulayev

During two production residencies, Stavros Gasparatos—a composer and digital sound artist—prepared for the world premiere of *Expanded Piano*, an EMPAC commission. Working in residence, the artist concentrated on finalizing the audio composition for the electronically prepared piano, testing and creating the sound design for the 24-channel speaker setup, as well as doing final audio mastering of the performance. For *Expanded Piano*, an acoustic piano is wired with both regular microphones and contact microphones attached to the body of the piano, its strings, and mechanisms. Each microphone's signal is manipulated in real time through a computer and then routed to its own loudspeaker,

creating a multi-channel space around the audience that puts the listeners “inside” the piano.

Gasparatos is a composer and digital sound artist who lives and works in Athens, Greece. He composes music for dance, theater, cinema, and frequently works on solo music projects. His work has been performed internationally in London, Macao, Naples, Berlin, Toronto, Amsterdam, Paris, and Sofia. Gasparatos is a frequent collaborator of the National Greek Theatre.

SEE RELATED EVENT ON PAGE 63.

THE COLOR OUT OF SPACE

Rosa Barba

AUGUST 2–18, 2014

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

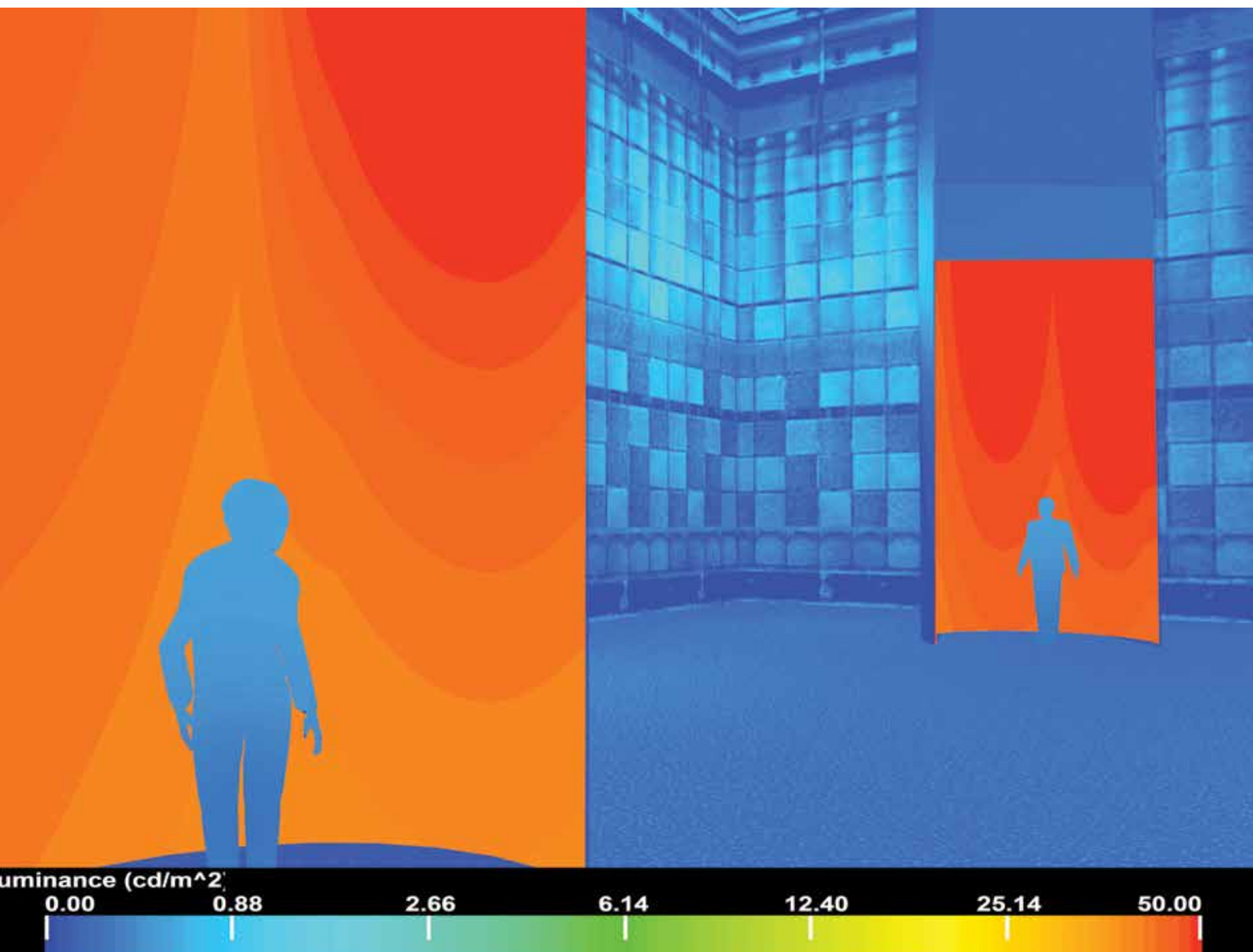
CURATOR Victoria Brooks

Berlin-based artist Rosa Barba was in residence for the development of a site-specific EMPAC commission, working in collaboration with Heidi Newberg, professor of physics, applied physics, and astronomy and director of Rensselaer's Hirsch Observatory, and Rensselaer physics undergraduate students Nicholas Palmieri, Jake Weiss, and Thomas Hartmann. A large-scale projection covering the building's 8th Street façade in Spring 2015, it was to be viewable from downtown Troy and beyond, and the accompanying sound composition broadcast via audio stream. Using voices collaged by composer Jan St Werner from interviews, fictions, and readings by artists and astronomers from around the world, the artwork hovers at the speculative intersection of astronomy and art.

Rosa Barba's publications, sculpture, and installation work is rooted in the material of cinema. In 2010, she won the Nam June Paik Award, and was a resident artist at Artpace in San Antonio in 2014, Chinati Foundation in Marfa in 2013, and the Dia Art Foundation in 2008. Her work has been presented in exhibitions worldwide, including the Bergen Kunsthall; Temporäre Kunsthalle Berlin; the 53rd *Venice Biennale*; and the Palazzo Grassi in Venice; and the Museum of Contemporary Art, Chicago.

RESIDENCY / COMMISSION





AUGUST 1–DECEMBER 31, 2014

The Jaffe Student Production Competition was an inaugural opportunity, open to any undergraduate or graduate student at Rensselaer, to support projects that would take advantage of EMPAC's infrastructure and the expertise of its team. Competition winners receive a summer production residency at EMPAC technical and production support by teams, a two-month stipend, and material support for up to \$5,000. Projects were encouraged that would take advantage of EMPAC's distinct resources to create a bridge between digital technology and physical human interaction, and to demonstrate how technology can connect with our senses and with our being in our physical environment. This

includes images and video, sounds or music, lights, large floor spaces, and big volumes of space. Projects could come from science and engineering (for instance, visualization with large-scale projections, immersive environments, responsive environments, robotics, human-computer interaction in human-scale settings, multi-modal environments, etc.), as well as from the humanities, architecture, or the arts. Students were asked to partner with a faculty member for their project and to propose projects rooted in the student's degree program, and could be part of ongoing research, a thesis or other academic activities, or a project outside of academic requirements.

JUNE 23–OCTOBER 5, 2014
(3 VISITS)

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC with additional funding from The MAP Fund, a program of Creative Capital, primarily supported by the Doris Duke Charitable Foundation, with additional funds from the Andrew W. Mellon Foundation.

CURATOR Ash Bulayev

Theater director Aaron Landsman, visual artist and filmmaker Brent Green, and performer Jim Findlay collaborated on *Empathy School*, an EMPAC commission that combined travel, theater, and audio in a contained space—a bus trip—where listening to another person's stories is the only possible act of togetherness. The work was conceived, while Landsman lived in central Illinois. He traveled out of town frequently, and to get home, flew into Chicago and then took a night bus for three hours, overhearing riders as they spoke to relatives on the phone or talked to one another. Their stories were of financial desperation and separated families, reflecting the difficult circumstances of those abandoned by the post-industrial economy. In residence, the artists engaged in final audio mastering, installation of audio and video hardware on the bus and in locations along the route, as well as rehearsals.

Aaron Landsman creates participatory performances that combine formal experimentation with long-term community engagement. His works are often staged where people go every day—homes, offices, meeting rooms, and sidewalks. He has taught at the Juilliard School, the University of Illinois, and New York University, and has guest lectured widely. Brent Green is a visual artist, filmmaker, and storyteller working in the Appalachian hills of rural Pennsylvania. Green's films have screened, often with live musical accompaniment, in venues such as MoMA, the J. Paul Getty Museum, Walker Art Center, Hammer Museum, Museum of Fine Arts Boston, Wexner Center for the Arts, The Kitchen, and the Sundance Film Festival.

SEE RELATED EVENT ON PAGE 72.



BLOOPERS #1

Michael Bell-Smith,
Sara Magenheimer, & Ben Vida

RESIDENCY / COMMISSION

JUNE 17–
DECEMBER 7, 2014
(3 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Victoria Brooks

Brooklyn-based artists Michael Bell Smith, Sara Magenheimer, and Ben Vida were in residence to produce a new video for their commissioned performance *Bloopers #1*. Using EMPAC's Black-magic 4K camera, they filmed multiple household objects, as well as actors, on a custom-built rotating platform embedded into a vinyl green screen. Close-ups, wide angles, and tracking shots were then edited in post-production onto multiple backgrounds to create the effect of stock footage in the style of commercials and television shows. The video was incorporated into a live multimedia performance presented later at EMPAC. With the question "Why do we hate some objects and love others?" as its starting point, *Bloopers #1* used set pieces, dance-pop, cinematic cliché, and live performance to playfully tease the boundaries of language, crowds, and the nature of things that draw them.

Michael Bell-Smith is an artist and musician whose work has been presented at MoMA PS1; Museum of the Moving Image; and SFMOMA, among others. Sara Magenheimer is an artist and musician who has toured extensively in two bands, Flying, and WOOM, releasing five records; she has screened video work and performed at the Berkeley Art Museum, MoMA PS1, the Brooklyn Academy of Music, and ISSUE Project Room, among others. Ben Vida is an artist and composer; in the mid-1990s he co-founded the group Town and Country and has worked as a solo artist under his own name and as Bird Show.

SEE RELATED EVENT ON PAGE 50.





MAY 27–JUNE 13, 2014

DISCIPLINE Dance; Contemporary Performance

ABOUT THE PRODUCTION *Scaffold Room* is a production of Cross Performance and MAPP International Productions, commissioned by the Walker Art Center, and co-commissioned by Maggie Allesee National Center for Choreography at Florida State University, Bard College/The Fisher Center for Performing Arts, and EMPAC.

CURATOR Ash Bulayev

Ralph Lemon calls this work a “lecture-performance-musical.” In *Scaffold Room*, two women (both performing live and on video) enact iconic characters drawn from history, popular culture, and science fiction with source materials ranging from Moms Mabley to Amy Winehouse and Kathy Acker to Samuel R. Delany. The space for *Scaffold Room* is a confined, constructed two-story environment: in essence, its own theater. Over three weeks, Lemon and his team of designers and performers used EMPAC’s infrastructure to prepare *Scaffold Room* for its world premiere. The designers assembled the modular and adaptive scaffold construction (designed by Lemon and R. Eric Stone); tested

control and movement of video projection, along with lighting and audio elements; and conducted final rehearsals with the performers. The work also featured an electronic/turntable-based sound score created by composer Marina Rosenfeld.



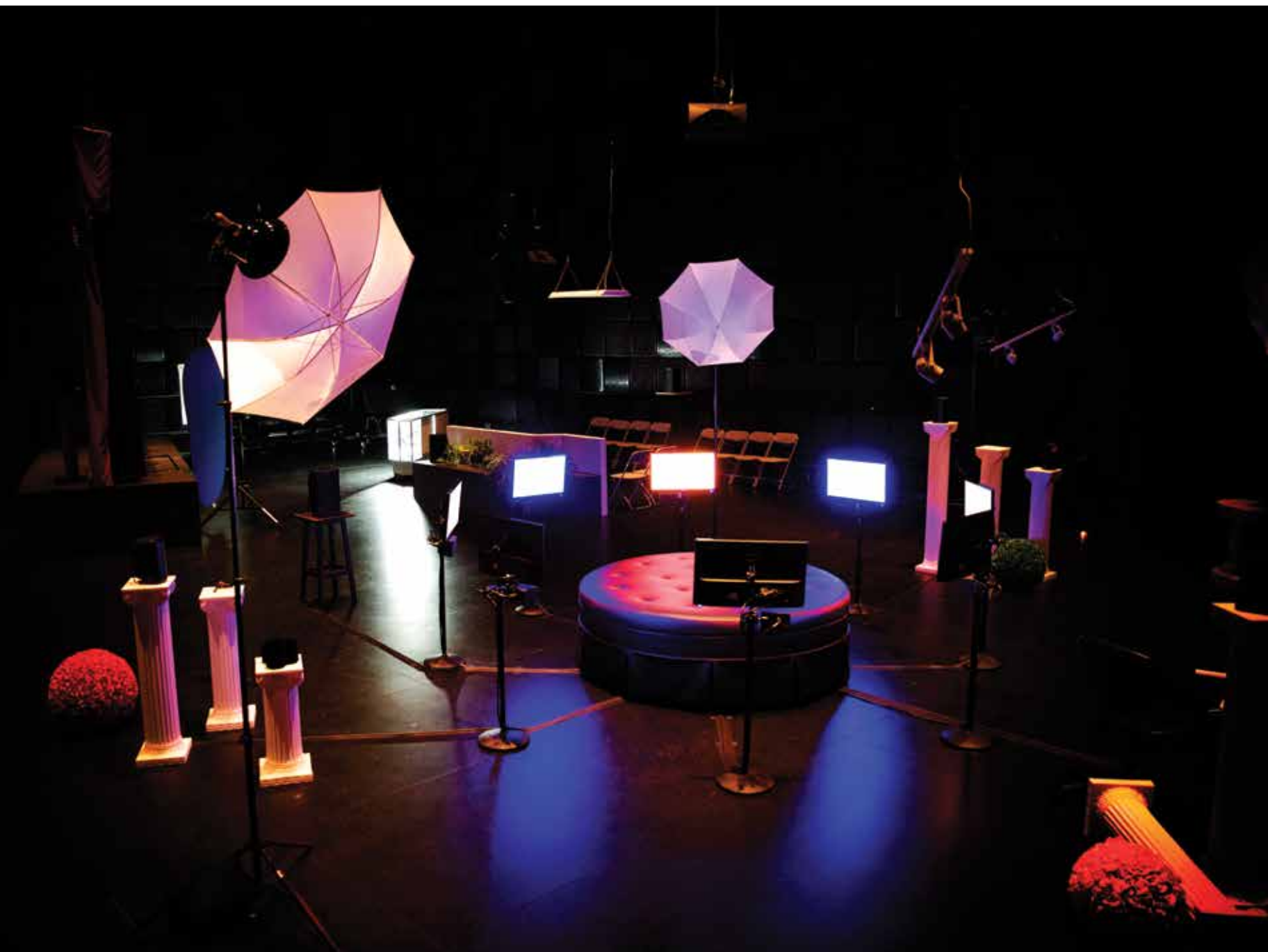
THE ONLY THING THAT MAKES LIFE POSSIBLE
IS NOT KNOWING WHAT COMES NEXT

Jacqueline Kiyomi Gordon

RESIDENCY

RESIDENCY / COMMISSION

,000,
Isabelle Pauwels



MAY 17–NOVEMBER 17, 2014
(2 VISITS)

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

For this installation, sound artist Jacqueline Kiyomi Gordon worked in residence to investigate how one's perception of sound can be changed as he or she moves through space. Gordon created an interconnected series of listening rooms, each built with modular walls composed of a variety of materials (stone, metal, wood, cloth, etc.), and within it created a perpetually shifting audio experience from diffused sound projected from a ring of loudspeakers.

Gordon is a visual and sound artist who integrates audio technologies into sculptural forms to question relationships of affect to an environment. She has had solo shows at Yerba Buena

Center for the Arts (2014), Pro Arts Gallery (2013, Oakland), Eli Ridgway Gallery (2012, San Francisco), and Queens Nails (2009, San Francisco). She is also a member of the music and performance collective 0th.

SEE RELATED EVENT ON PAGE 61.

MAY 11–OCTOBER 30, 2014
(3 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC with additional support from the British Columbia Arts Council

CURATOR Victoria Brooks

,000, is a multimedia theatrical production that tracks the history of the Canadian city of New Westminster (near Vancouver) along with biographical details of its residents and the urban landscape that they inhabit. Layering sculpture, light, audio—including a score by composer Paul Kajander—and video, the performance guides the audience through the story of two entwined characters: a dying rust-belt town unable to let go of nostalgia for the “old days,” and a small-time actress struggling against the indignities of the film industry while making ends meet as a part-time dominatrix. The audio and visual elements combine the competing voices of the players—the actress, her clients, the

wives and girlfriends, the critics, and the town bureaucrats—into a collaged narrative, with the pre-recorded voice of each character (recorded by the artist while in residence) embodied by a related object that includes props, sculptures, lights, speakers, and screens. Isabelle Pauwels' work blends performance and documentary realism to highlight the fraught relationship between narrative conventions and everyday social interaction. Her recent exhibitions include the Power Plant, Toronto; the Western Front, Vancouver; National Gallery of Canada, Ontario, and the Art Gallery of Nova Scotia.

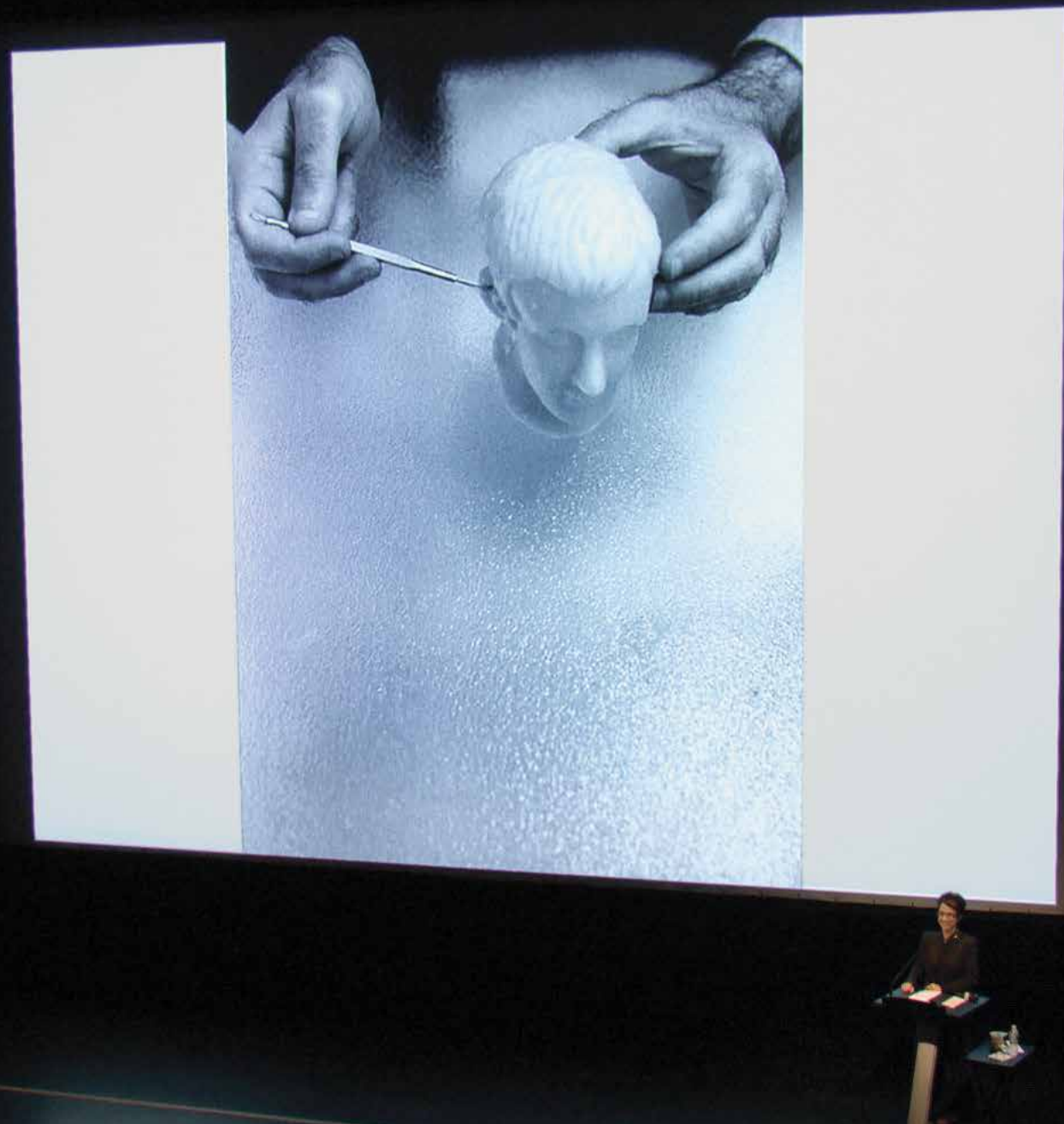
SEE RELATED EVENT ON PAGE 68.

THE TEST DRIVE
Avital Ronell

IN OTHER WORDS
TALK

THE JAFFE COLLOQUIA
COLLOQUIUM

HELD IN TRUST
*Caitlin Berrigan, Annie Dorsen, David Levine,
Ryan McNamera, Laura Mott,
Michael Oatman, and Marnix Rummens*



MAY 7, 2014

DISCIPLINE Humanities

CURATOR Emily Zimmerman

New York University professor Avital Ronell explored our contemporary cultural obsession with testing. We increasingly use tests to determine what is true, in fields ranging from science to athletics to law and education. What is the origin of this incessant drive to test?

Ronell is a professor of humanities and of German, English, and comparative literature at New York University, where she co-directs the Trauma and Violence Transdisciplinary Studies program. She is also the Jacques Derrida Professor of Media and Philosophy at the European Graduate School in Switzerland. She is the author of *Dictations: On Haunted Writing, The*

Telephone Book, Crack Wars, Finitude's Score, Stupidity, The Test Drive, and Fighting Theory.

In Other Words included six artists who delivered lecture-performances, juxtaposed with talks by six thinkers in order to cross boundaries and make dialogue a continuous process of renewal. This talk was presented in conjunction with Xavier Le Roy's performance *Product of Circumstances* (see page 100).

MAY 1 + 2, 2014

DISCIPLINE Contemporary Performance;
Visual Art

CURATOR Emily Zimmerman

Held in Trust examined the intangible economies of trust that underpin participatory, performative, and interactive works. Hybridized works that exist between the structures and behavioral codes of visual arts and performing arts, and that challenge inherited forms of spectatorship, ask individuals to act outside of familiar parameters. These situations can be riddled with anxiety, and place pressure on the tacit trust between the audience, the artist, and the institution. This colloquium was an interdisciplinary inquiry into the nature of trust, and considered its inflection within power relations, raising issues such as agency, ethics, and hospitality. It considered polarizing theoretical terms used to conjure

audiences, and the critical concepts that limn discussions around these artistic practices.

The Jaffe Colloquia were a series of exchanges bringing together small groups of artists, curators, and theorists to informally discuss ideas centered around the conditions of, and perspectives on, time-based arts.

PRODUCT OF CIRCUMSTANCES

Xavier Le Roy

IN OTHER WORDS
PERFORMANCE



APRIL 26, 2014

DISCIPLINE Dance

CURATOR Ash Bulayev

The genesis of *Product of Circumstances* began when, as Xavier Le Roy says, “I began to take two dance classes a week at the same time that I started to work on my thesis for my PhD in molecular and cellular biology.” Many years later, after ceasing work as a biologist, Le Roy was invited to present a lecture on theory and praxis in performance. That lecture then became a performance, *Product of Circumstances*, where actions subvert the traditional hierarchy of organization and form, and in turn inspire an awareness of the ways that hierarchies are manifested in society today—and the complex rationalizations that support them. Le Roy holds a doctorate in molecular biology from the University of Montpellier,

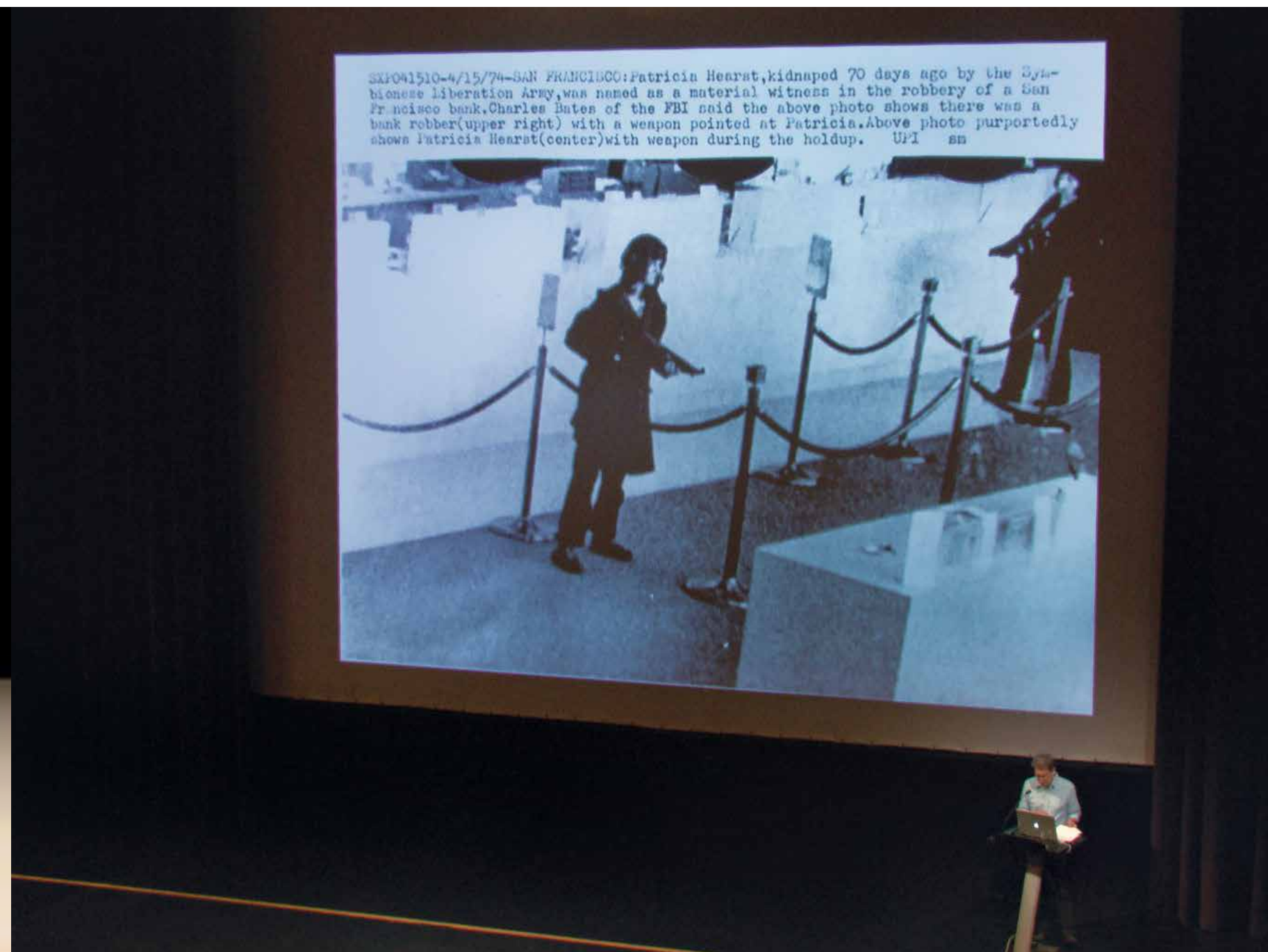
France, and has worked as a dancer and choreographer since 1991. Le Roy develops his work like a researcher while simultaneously focusing on the relationships between process and product and his own involvement in the process. He regularly initiates projects to question modes of production, collaboration, and conditions of group work.

In Other Words included six artists who delivered lecture-performances, juxtaposed with talks by six thinkers in order to cross boundaries and make dialogue a continuous process of renewal. This talk was presented in conjunction with Avital Ronell’s talk. (See page 98).

IN OTHER WORDS
TALK / COMMISSION

NEW MEDIA, NEW DOCUMENTS: ON IMAGES, EXAMPLES, AND EVIDENCE

Thomas Keenan



APRIL 23, 2014

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

In this commissioned talk, Thomas Keenan considered new forms of documentary in relation to the rise of social media.

Keenan teaches media theory and human rights at Bard College, where he directs the Human Rights Project and helped create the first undergraduate degree program in human rights in the US. He is co-author with Eyal Weizman of *Mengele’s Skull* (Sternberg, 2012), and is co-editor, with Wendy Chun, of *New Media, Old Media* (Routledge, 2006), and of *The Human Snapshot* (Luma/Sternberg/CCS, 2013) with Tirdad Zolghadr. Keenan has served on the boards of a number of human rights organizations

and journals, including WITNESS, Scholars at Risk, the Crimes of War Project, the *Journal of Human Rights*, and *Humanity*.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks build connections across boundaries and make dialogue a continuous process of renewal. This talk was presented in conjunction with Rabih Mroué’s performance 33 RPM and a Few Seconds (see page 103).



APRIL 21–30, 2014

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION An EMPAC DANCE MOVIES Commission

CURATOR Ash Bulayev

A DANCE MOVIES Commission, *Ward of the Feral Horses* is a contemporary noir film that tells the story of R., an immigrant from an Eastern culture who is experiencing difficulty in bridging his past and present. As the film proceeds, the protagonist's internal and external worlds—and the narrative reality of the film itself—collapse. At EMPAC, Ben-Shitrit and her team, including choreographer Kate Corby, participated in an intense 10-day residency culminating in a three-day shoot with more than 20 people.

A Moroccan-Israeli interdisciplinary artist, Ben-Shitrit's past work has used movement and bodies to address issues of domination and the potential

for violence, addressing the cycles of violence in the Middle East; invisible mechanisms of political, religious, and economic control; and conflicted beings trapped in bodies.

APRIL 19, 2014

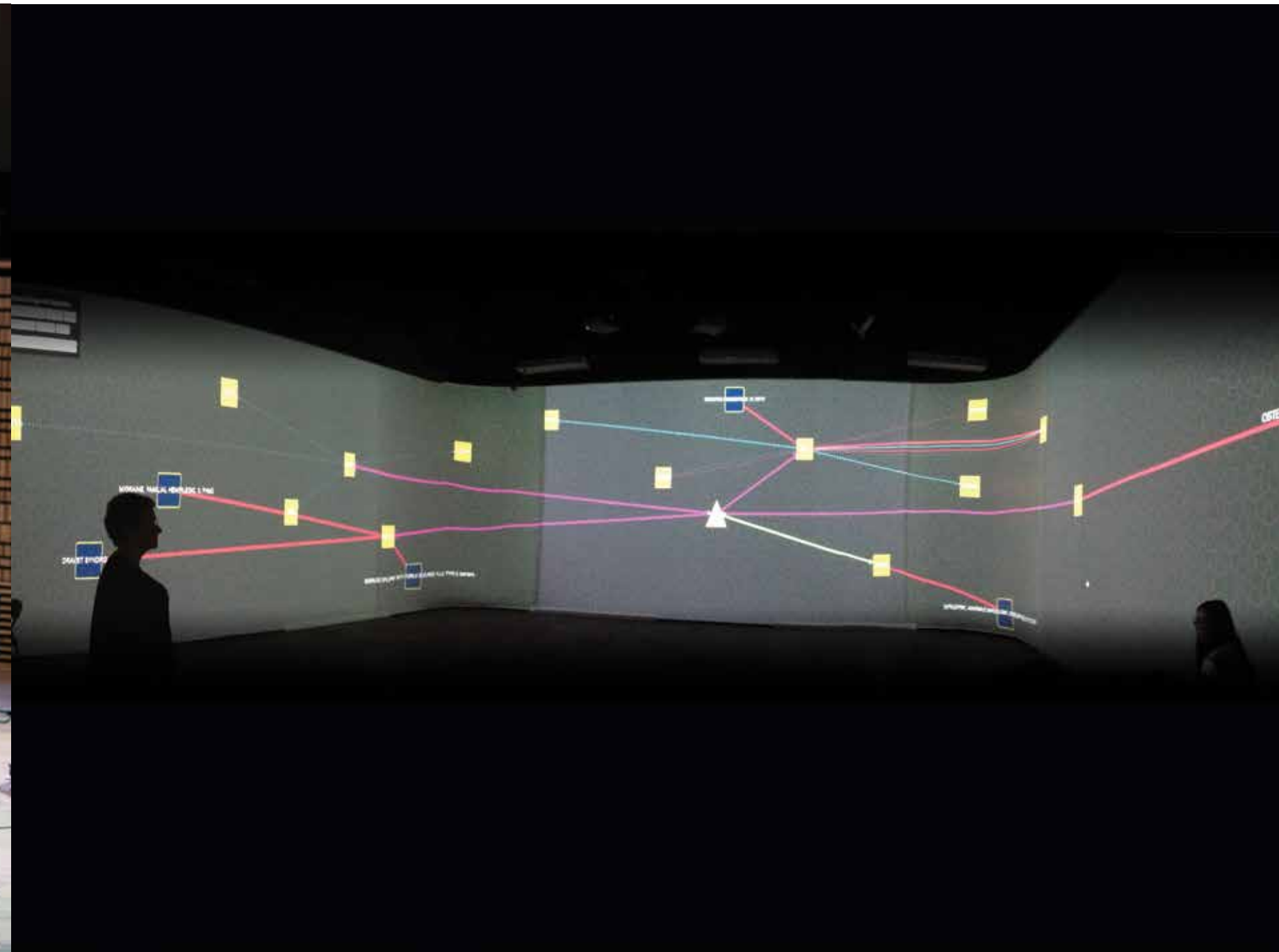
DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

This semi-documentary performance without actors reconstructed the final moments of a young Lebanese man who takes his own life and, in a farewell letter, declares that his reasons are personal and have nothing to do with politics. The young man is dead, but everything in his bedroom lives on—the television, the answering machine, the computer—vibrating and communicating. Time pauses and begins anew; history is pieced together—never constructed, of course—from so many fragments of communication. Mroué is a Lebanese actor, director, and playwright whose work draws attention to issues and events in the Middle East. Winner of the 2010 Spalding Gray Award, his work pits facts against

made-up truths and propaganda imbued with a visual sensibility honed from years as a visual artist. Saneh is a theater maker, who in addition to collaborating with Mroué, writes and directs works utilizing physical theater as a way of addressing how our bodies are imprinted by sociopolitical conflicts and contradictions in the Middle East.

In Other Words included six artists who delivered lecture-performances, juxtaposed with talks by six thinkers in order to cross boundaries and make dialogue a continuous process of renewal. This performance was presented in conjunction with Thomas Keenan's talk. (see page 101).

**APRIL 18, 2014****DISCIPLINE** Music/Sound**CURATOR** Argeo Ascani

The collective Wet Ink is a formidable vehicle for new music in the form of a presenting organization and two performing ensembles. Wet Ink takes its vernacular from the European avant-garde, but views it through a distinctly New York City lens—at times visceral and unrelenting, but still maintaining a complexity and richness in structure and sound. The members of the Wet Ink Ensemble, a septet, collaborate in a band-like fashion—writing, improvising, and preparing pieces together over long stretches of time. Since 2008, Wet Ink has been engaged in a series of residencies with various arts organizations, including The Kitchen, the Walden School, Amherst College, Northern Illinois University,

UC San Diego, Santa Clara University, Sacramento State University, UC Davis, Duke University, and at the Jazz Composers Orchestra Institute (Miller Theater, NYC). Wet Ink has recorded extensively.

PROGRAMALEX MINCEK *Of Concentric Circles**(for Alvin Lucier)**PETER ABLINGER *Book of Returns**ERIC WUBBELS *katachi, part I*KATE SOPER *cipher*SAM PLUTA *Broken Symmetries (or the Masses of Gauge Bosons)***World premiere***APRIL 14–AUGUST 15, 2014**

This summer research project in scientific data exploration was hosted by the Center for Cognition, Communication, and Culture (CCC), EMPAC, and the Institute for Data Exploration and Analysis (IDEA), with support from Rensselaer's Office for Research. The goal of the program was to explore new ways of visualizing, sonifying, and interacting with big data in large-scale virtual reality systems. Student projects, conducted by groups of 3-4 students with a background in programming, design, electronic music, and computer/human user interfaces for this interdisciplinary project were selected. The summer program began with a workshop in the programming language and data visualization software

Field, led by *Field*-inventor Marc Downie. The program also began a user group among students focused on applications to navigate big-data exploration, and was the first program for Rensselaer's Collaborative-Research Augmented Immersive Virtual Environment Laboratory (CRAIVE-Lab), a large-scale virtual environment with panorama projection and a 128-channel loudspeaker system for data sonification.



APRIL 9, 2014

DISCIPLINE Music/Sound

PULSE Live! is an annual evening of experimental and danceable electronic music in an immersive atmosphere composed, visualized, performed, mashed up, remixed, VJ'ed and DJ'ed by members of EMPAC's People Using Live Software and Electronics (PULSE) users group. Ambient and electronic performances are showcased first, followed by a test of the bass and beat limits of EMPAC's Studio 1. PULSE Live! was simulcast on campus radio station WRPT's *Sounds of Now* electronic dance music show.

This event was curated by Eric Ameres.

APRIL 1, 2014

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

Titled after a line from composer John Cage's remarkable 1959 *Lecture on Nothing*, Gordon Hall's lecture-performance—commissioned by EMPAC and developed in residence—used sculptural objects, sound, and projected images to offer a history of the form.

Hall is the founder and director of the Center for Experimental Lectures, a roving series of curated lecture-performances that embraces the lecture format itself as a creative medium. The Center for Experimental Lectures emerged from Hall's studio practice, where sculptures and performances pose questions about the possibilities created and foreclosed by different

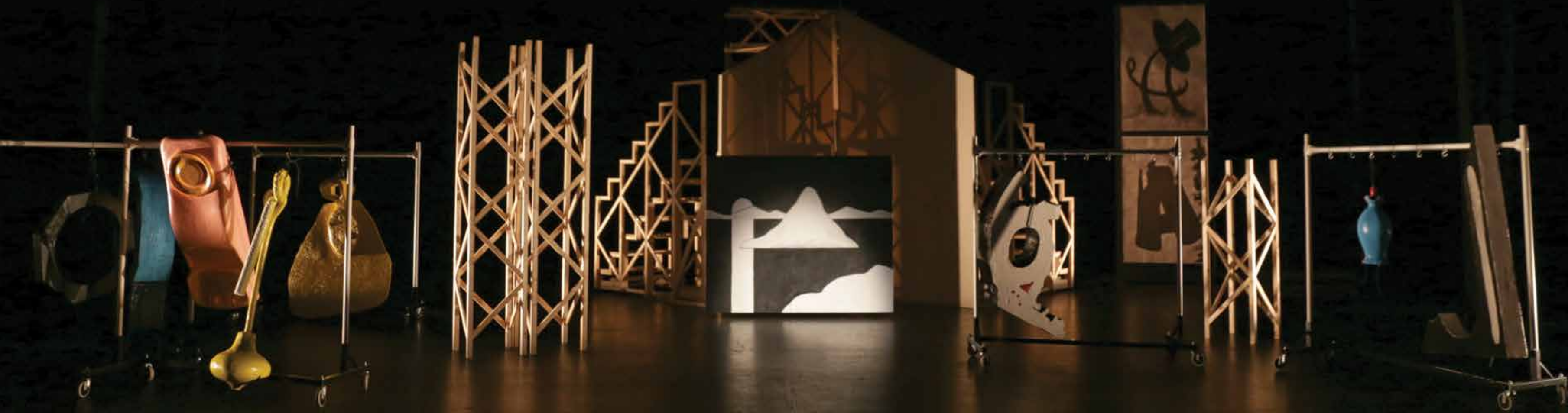
kinds of platforms, from furniture to politics. Past lectures have been presented by MoMA PS1, Recess, the Shandaken Project, Alderman Exhibitions, and the *Whitney Biennial*. Hall has exhibited and performed at SculptureCenter, The Kitchen, Movement Research, and the Museum of Contemporary Art Chicago, among others.

SEE RELATED RESIDENCY ON PAGE 150.

THE ARTIST THEATER PROGRAM

*Erika Vogt, Math Bass, Shannon Ebner,
Lauren Davis Fisher, Mariah Garnett, MPA,
Silke Otto-Knapp, Adam Putnam, Mark So,
and Flora Wiegmann*

PERFORMANCE
RESIDENCY / COMMISSION



PERFORMANCE
APRIL 11, 2014

RESIDENCY
MARCH 31–APRIL 13, 2014

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance; Visual Art

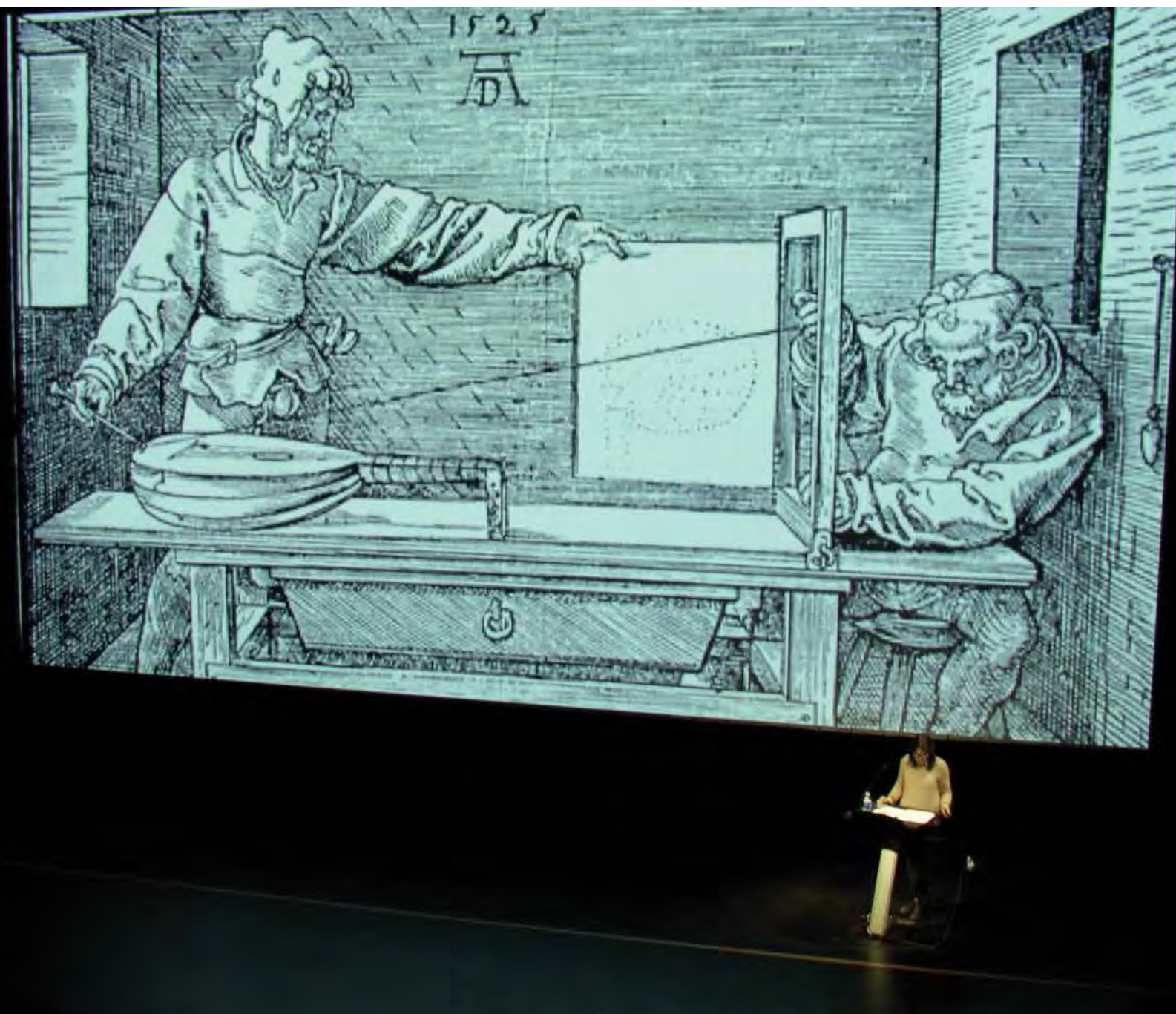
ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Victoria Brooks

Los Angeles-based artist Erika Vogt presented a collaborative theatrical production that brought together visual artists and performers who work across media, including Math Bass, Shannon Ebner, Lauren Davis Fisher, Mariah Garnett, MPA, Silke Otto-Knapp & Flora Wiegmann, Adam Putnam, and Mark So. *The Artist Theater Program* was a choreographed chorus of individual works that moved, collided and overlapped in time, responding to the space and mechanics of EMPAC's architectural infrastructure by combining performers, artworks, sets, props, and lighting effects that echo the corporeal, erotic, sensual, expressive, and strange. By acting collectively upon physical or sculptural forms, the

artists created an alternate framework for an experiential exhibition, one rooted in the desire to build and present an artistic community.

Erika Vogt's work has been included in major international shows at New Museum, New York City; Hepworth Wakefield, Leeds; Triangle, Marseille; Whitney Museum, New York City; the Hammer Museum, Los Angeles; and SFMOMA, San Francisco. Vogt's video *Darker Imposter* was screened on Channel 4 television, co-commissioned by Frieze Foundation, London; and EMPAC.



MARCH 28, 2014

DISCIPLINE Film/Video; Humanities; Visual Art

CURATOR Victoria Brooks

In this illustrated lecture, Lucy Raven investigated depictions of spatial depth and the roots of 3D image making. An introduction to one aspect of her extensive research into how we see images and how images are made, *Low Relief* focused on the history and evolution of contemporary applications of 3D film technologies. Winding through a wide range of research and materials, Raven linked two lines of inquiry: an art-historical reading of both American and Indian bas-relief sculpture, and the outsourcing of the laborious 2D-to-3D conversion process of Hollywood movies to Mumbai-based production houses. In doing so, she explored the fluid cultural perception of spatial depth and uncovered the

mechanisms of industrial cinema processes through analysis of the transnational circulation of labor and materials.

Lucy Raven's work has been included in exhibitions and screenings internationally including *Curtains*, Portikus, Frankfurt (2014); *Hammer Projects*, the Hammer Museum, LA (2013); *Whitney Biennial*, Whitney Museum of American Art, New York (2012); and *11 Rooms*, Manchester International Festival, Manchester, United Kingdom (2011). She teaches at the Cooper Union School of Art and the School of Visual Arts in New York City.

PERFORMANCE
MARCH 22, 2014

RESIDENCY
MARCH 10–23, 2014

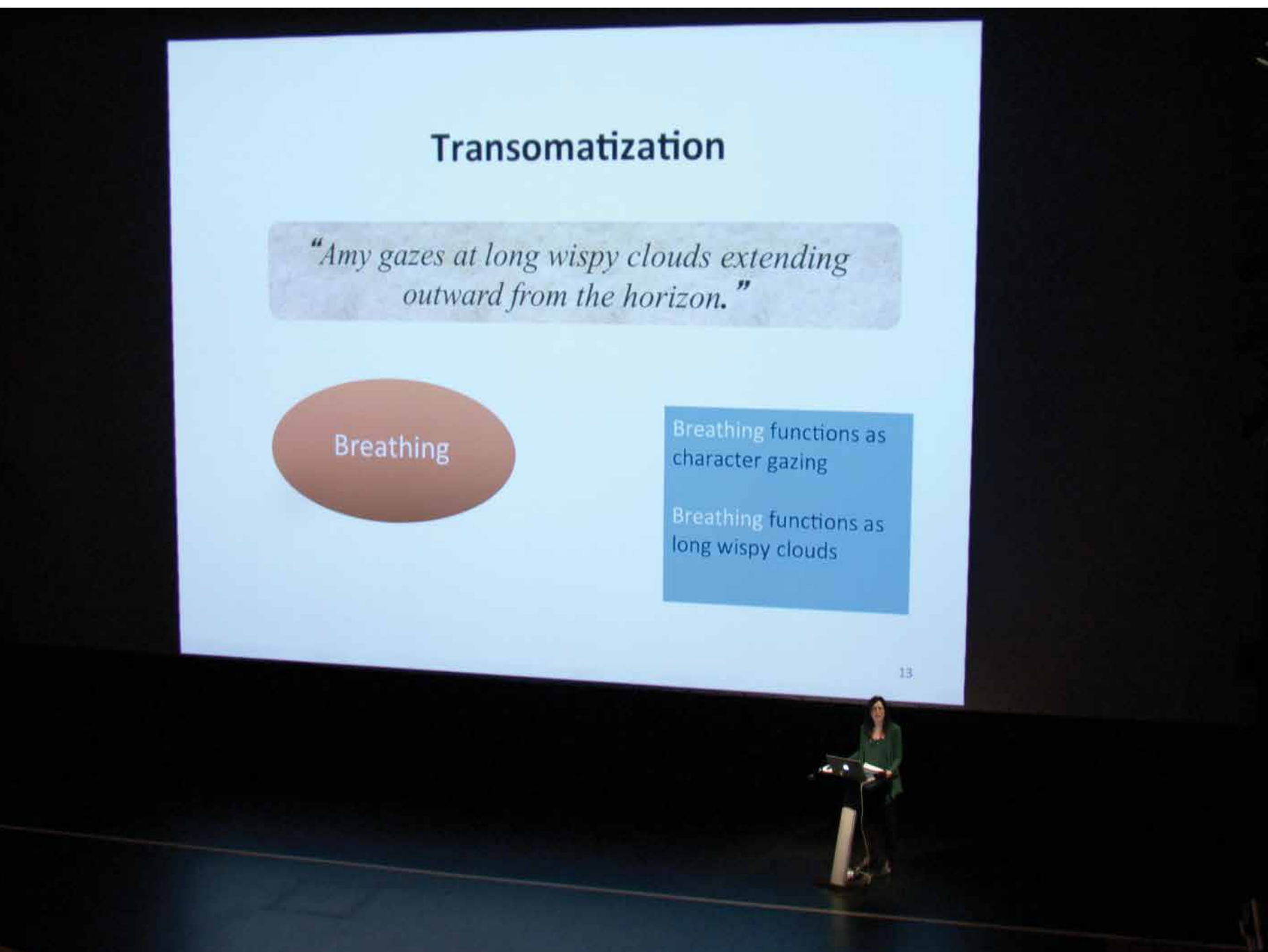
DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC, with support from the Goethe Institut

CURATOR Ash Bulayev

In 1988 and 1989, philosopher Gilles Deleuze sat in his living room and participated in a multi-part television interview discussing topics literally from A to Z—one letter, one concept, from “A as in Animal” to “Z as in Zigzag”—yielding seven-and-a-half hours of philosophy on the go. Nearly 20 years after Deleuze's suicide in 1995, *26 Letters to Deleuze* reworks this original *Abécédaire* interview into 26 performative “letters,” mixing performance, installation, concert, and symposium. Commissioned by EMPAC, it was presented as a work-in-progress. The multidisciplinary collaborators included: Alain Franco, who has worked with the Ensemble Modern (Frankfurt), the Ictus ensemble (Brussels), the Musiques

Nouvelles ensemble (Brussels), and the Liège Philharmonic Orchestra, among others; Berlin-based Jörg Laue, whose LOSE COMBO has been realizing live art projects on the borders of stage performance, visual arts, and contemporary music; and Peter Stamer, who has worked as director, dramaturge, mentor, and curator in the field of contemporary theater across Europe, as well as in China, Egypt, the US, and Israel.



MARCH 4, 2014

DISCIPLINE Music/Sound; Science

CURATOR Emily Zimmerman

When applied to sound, enclosure geometry points to a potential future for acoustic architecture. In this future, acoustic performance is an integral component of the design process, with surface geometries determined from the largest room scales down to the smallest sound-absorbing pores. A continuous spectrum of geometric possibility encompasses traditional applied acoustic treatment, such as absorption and diffusion, and the debate surrounding the function of ornament is partially resolved.

Zackery Belanger is an acoustic designer, consultant, and researcher; he holds BS and MS degrees in physics from Oakland University in

Rochester, Michigan, and an MS degree in architectural sciences from Rensselaer. From 2002 to 2010 he worked for Kirkegaard Associates, the acousticians for EMPAC's Concert Hall.

SEE RELATED RESIDENCY ON PAGE 218.

FEBRUARY 25, 2014

DISCIPLINE Humanities; Visual Art

CURATOR Emily Zimmerman

Ellen Esrock researches the effect that our sense of touch, temperature, body position, and pain has on our perceptions of visual art and literature. In this talk, she explored how spectators and readers use their own body to reshape the boundary between themselves and an imagined fictional world. This softening of boundaries permits readers and viewers to immerse themselves in worlds outside of their own and to locate these worlds within the self. Touch, as part of the somatosensory system, functions along with the viscerosensory and motor systems to deepen our emotions and cognitions of these blended realities. Esrock is an associate professor in the Department of Communication and Media

at Rensselaer; she integrates humanistic and cognitive/neuropsychological approaches to the bodily experiences of viewing art and reading literature. Select publications include "Embodying Art: The Spectator and the Inner Body," *Poetics Today* (2010); "Embodying Literature," *Journal of Consciousness Studies* (2004); and "Touching Art: Intimacy, Embodiment, and the Somatosensory System," *Consciousness and Emotion* (2001).

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.

FEBRUARY 24–
MARCH 29, 2014
(2 VISITS)

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION An EMPAC DANCE
MOVIES Commission

CURATOR Ash Bulayev

For this DANCE MOVIES Commission, Seline Baumgartner worked with professional choreographers/dancers over the age of 62 (Meg Harper, Sally Gross, and Vicky Shick) to explore how contemporary dance forms indulge in the eternal cult of youth. The resulting three-channel video and audio installation was created in residence from pre-production through post-production. Baumgartner worked with EMPAC's production team to build a seamless wall that would serve as a backdrop for the filming and to create a minimalist, "shadowless" lighting aesthetic during the filming. Rehearsals and filming of four performers was followed by post-production with the artist previewing the footage in scale to the final installation sizes.



KRISTIAN BEZUIDENHOUT

PERFORMANCE

FEBRUARY 23, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Kristian Bezuidenhout is known for bringing a new dimension to the interpretation of Mozart's piano music. Trained as a modern pianist, Bezuidenhout fell in love with the fortepiano— forerunner of the contemporary piano that is most commonly heard today. For this solo performance, Bezuidenhout performed music (on a fortepiano made by R. J. Regier) by Mozart and Carl Philipp Emanuel Bach. Bezuidenhout divides his time among concerto, recital, and chamber music engagements, appearing in music festivals in Barcelona, Boston, Bruges, Edinburgh, Innsbruck, St. Petersburg, Venice, Utrecht, Salzburg, Luzern, Schleswig-Holstein, Tanglewood, and Mostly Mozart; and at many of the world's most important concert halls including the Berlin and Kölner Philharmonie, Suntory Hall, Théâtre des Champs-Élysées, Symphony Hall, Konzerthaus Vienna, Wigmore Hall, and Carnegie Hall. He was nominated as *Gramophone Magazine's* Artist of the Year 2013.

PROGRAM

C.P.E. BACH Rondo in C minor, Wq. 59/4
W.A. MOZART Suite in C major, K. 399
W.A. MOZART Minuet in D major, K. 355
W.A. MOZART Gigue in G major, K. 574
C.P.E. BACH Sonata in E minor, Wq. 59/1
W.A. MOZART Rondo in A minor, K. 511
W.A. MOZART Prelude and Fugue in
C major, K. 394
W.A. MOZART Sonata in A major, K. 331,
Alla Turca



IN OTHER WORDS

TALK

PROGRAMMING THE UNIVERSE

Seth Lloyd



FEBRUARY 19, 2014

DISCIPLINE Science

CURATOR Emily Zimmerman

In the traditional scientific account, the universe is composed of matter and energy. However, there is another key ingredient: information. Every atom and elementary particle carries with it bits of information, and when two atoms collide, those bits flip. The universe computes. The history of the universe is an intricate dance in which energy and information twirl and entwine. By understanding how and why the universe computes, we gain insight into the nature of reality itself.

Dr. Lloyd is a professor of mechanical engineering and director of the W.M. Keck Center for Extreme Quantum Information Theory at MIT.

He was the first person to develop a realizable model for quantum computation and is working with a variety of groups to construct and operate quantum computers and quantum communication systems. He is the author of over 100 scientific papers, and of *Programming the Universe* (Knopf, 2004).

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was presented in conjunction with Clément Layes' performance, Allege (see page 121).



FEBRUARY 18–20, 2014

DISCIPLINE Dance; Contemporary Performance; Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Victoria Brooks

Charles Atlas was in residence to develop a commissioned theatrical production intertwining dance, live 3D video, and music, working in collaboration with choreographers Rashaun Mitchell and Silas Riener.

Atlas has created numerous works for stage, screen, museum, and television, consistently pioneering the synthesis of technology and performance. A key figure in the development of “media-dance”, in which performance is created directly for the camera, Atlas was videographer-in-residence with Merce Cunningham Dance Company for a decade, and continues to collaborate extensively with choreographers, dancers,

and performers including Michael Clark, Yvonne Rainer, Diamanda Galas, and Mika Tajima/New Humans, among many others. His work has been exhibited internationally in such institutions as Tate Modern, London; the Museum of Modern Art, New York; the Centre Pompidou, Paris; the Institute of Contemporary Art, Boston; the New Museum, New York; Bloomberg SPACE, London; and the Gwangju Biennial.

FEBRUARY 12, 2014

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

At the forefront of the classical and jazz worlds respectively, Mariel Roberts (cello) and Nate Wooley (trumpet) each performed solo sets, along with a duo improvisation. Both artists have quickly developed international reputations: Wooley for his iconoclastic, expectation-defying playing, and Roberts for a fearless technical prowess. Roberts is a dedicated interpreter and performer of contemporary music. She holds degrees from the Eastman School and the Manhattan School of Music, where she specialized in contemporary performance practice. She has appeared as a soloist and with ensembles such as Signal, Wet Ink, Dal Niente, S.E.M., the Nouveau Classical Project, and the Wordless Music

Orchestra. Wooley is one of the most in-demand trumpet players in the burgeoning Brooklyn jazz, improv, noise, and new music scenes. He has performed with John Zorn, Anthony Braxton, Fred Frith, Peter Evans, and Mary Halvorson.

PROGRAM

Performed by Mariel Roberts:
SIMON STEEN-ANDERSON *Study for String Instrument No. 2*
ALEX MINCEK *Flutter*
IANNIS XENAKIS *Kottos*

Performed and composed by Nate Wooley:
For Kenneth Gaburo: TCACNO



**FEBRUARY 3–
MARCH 20, 2014**

DISCIPLINE Dance

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Ash Bulayev

Extra Shapes is a new work commissioned by EMPAC that explores ideas of spectatorship and the perceptual and functional differences between movement, sound, and light. The piece occupies a rotating, rectangular space divided into three equal and autonomous spaces dedicated to sound, light, and dance, respectively (compared by the artist to a “gently rotating slice of Neapolitan ice cream on a plate in front of you”), that is experienced from all sides over the course of the piece. As in her prior work, Dorvillier considers the boundaries of sound, light, and dance, presenting the three mediums simultaneously but separately.

Dorvillier is a dancer, choreographer, and teacher whose projects have been presented in New York City at Danspace Project, The Kitchen, NY Live Arts, and PS 122, among others, and abroad. In 2000, she founded her company—human future dance corps—to support her individual work and collaborations, which have included Jennifer Monson, Jennifer Lacey, Zeena Parkins, Yvonne Meier, and Sarah Michelson, among others.



FEBRUARY 1, 2014

DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

Humorous and conceptual, this solo by Clément Layes mixed performance art, philosophy, and dance with Chaplinesque virtuosity. Balancing a glass of water on his head for the duration of the performance, he took the audience on a contemplative journey involving habit and expectation, the absurdities of life, and overlooked small moments of beauty. In *Allege*, Layes offered both a remarkable physical feat and deep thinking about the daily life of objects. Layes has a background in circus arts, dance, and philosophy. In 2008, with Jasna Layes-Vinovrski, he founded Public in Private; the company’s primary aim is to further develop choreography as a contemporary art form. Public in Private researches, reflects,

and questions social, political, and cultural structures, as well the individual’s position in these structures. It uses a collaborative approach to broaden the borders of choreographic language and inspire different thinking, perception, and reflection of various mediums of creation.

In Other Words included six artists who delivered lecture-performances, juxtaposed with talks by six thinkers in order to cross boundaries and make dialogue a continuous process of renewal. This talk was presented in conjunction with Seth Lloyd’s talk. (see page 117).

FRIEZE FILM

JANUARY 21–APRIL 3, 2014

DISCIPLINE Film/Video

ABOUT THE PRODUCTION Commissioned by EMPAC and the Frieze Foundation for Channel 4

CURATOR Victoria Brooks

In collaboration with the London-based Frieze Foundation, *Frieze Film* was a series of commissioned short-form moving image works by Petra Cortright, Peter Gidal, Patricia L. Boyd, Oraib Toukan, and Erika Vogt. The three-minute films were broadcast on Channel 4 (UK) as part of the series *Random Acts*; presented at Frieze Art Fair in London; and screened at EMPAC, preceding feature films as part of the series *A Door Ajar*.

January 21: Patricia L. Boyd's *Carl dis/assembling w/self* features Carl self-recording the assembly and breakdown of a Dodge truck engine. The structure of the video—with credits placed at its midpoint—displays a circular, over-literalized logic that is often deployed in Boyd's sculptural work. The performed language of handheld camerawork plays with and against the idea that gesture can be read as a transparent revelation of authorship.

SEE RELATED RESIDENCY ON PAGE 171.

January 30: Petra Cortright's *Bridal Shower* moves beyond her past Internet-based experiments to test new production values associated with broadcasting. DIY aesthetics characterize Cortright's practice, which embraces and subverts the home user's attitude toward social media and technologies.

SEE RELATED RESIDENCY ON PAGE 180.

February 20: Peter Gidal's *CODA I & CODA II* are 16mm films with a soundtrack that consists of three lines from a 1,000-word story Gidal wrote in 1971, read by William Burroughs. Gidal describes the films' so-called imagery as "a complex of barely visible cuts in space and time, the opposite of erasure, but nothing so much as visible."

SCREENING / COMMISSION

March 6: Erika Vogt's *Darker Imposter* uses images, including drawings and footage of friends collected throughout the preceding months. Vogt creates episodic video compositions that are broken up through editing. This extends Vogt's previous interest in circumventing the video signal, as seen in her works *Stranger Debris Roll Roll Roll*, and *Temple Drawn—OFF* (both 2013).

SEE RELATED RESIDENCY ON PAGE 122.

April 3: Oraib Toukan & Ala Younis' *From the impossibility of one page being like the other* uses found film footage from the former Soviet Cultural Center in Amman, identified using a crowd-sourced database. From this starting point, Toukan and Younis developed a peculiar archeology of research that looks at early Palestinian film production, technocratic Soviet friendships, cine clubs, and Russian language films in Amman. The beginning of the project was locating the key early films of two members of the former Afham Falistine collective (Palestine Films). The commission for Frieze Film 2013 is based on material from this growing archive.

Curated and produced in collaboration with Nicola Lees (Frieze Foundation, London).

SCREENING

FILMMAKER FOCUS

Mika Taanila

JANUARY 21–MARCH 25, 2014

DISCIPLINE Film/Video

CURATOR Victoria Brooks

Filmmaker Focus presents work by a filmmaker investigating the implications of technological development and innovation to experiment with the documentary form. This series was inaugurated with the documentary films of Mika Taanila, who has created acclaimed works of film, video, photography, installation and sound over the past 20 years. Reflecting on utopian technological innovators across the fields of engineering, architecture, and music, Taanila's films explore unsung genius and delve into the gap between technological progress and society's looming destruction to uncover the successes and failures of a century of progress. Taanila lives and works in Helsinki; his films and installations have been featured at more than 200 international film festivals and exhibitions, including DOCUMENTA, Kassel, Germany; Kiasma, Helsinki, and Contemporary Art Museum St. Louis.

January 21: *Futuro: A New Stance for Tomorrow* (1998) uses amateur film and archival footage to investigate the futuristic imaginings of the Futuro House, designed in 1968 by architect Matti Suuronen as a mass produced, mobile plastic housing unit—a utopian idea that was shattered by the 1972 oil crisis. This film captures the optimism of the post-war era and the perceived failure of the 1960s vision of the future.

February 25: *Future is Not What it Used to be* (2002) is a lyrical portrait of Finnish designer, philosopher, and artist Erkki Kurenniemi, the pioneering designer of digital and interactive instruments in the 1960s and 70s (such as the DIMI synthesizer), robotic systems, and industrial automation. Using archival footage and Kurenniemi's own experimental films, this essay film follows the designer's obsessive recording of every aspect of his daily life in order to create a reconstruction of his life, or a "virtual persona," by July 2048.

March 25: *RoboCup 99* (2000) follows the antics of soccer-playing robots, pitted against each other at the annual RoboCup tournament on the eve of the 21st century. With RoboCup 99, the Finnish filmmaker continues his investigations into the unwieldy dynamic between man and machine. Using deliberately aged footage from the tournament to highlight the failed experiments of the past, the film tracks the clumsy desire of the makers' drive toward technological progress. It was screened with Taanila's short film *Optical Sound* (2005), a symphony for an array of obsolete ink-jet printers.

CODA I & CODA II

FUTURO: A NEW STANCE FOR TOMORROW

CHAMBER INDUSTRIAL
Per Bloland & ECCE

RESIDENCY

PERFORMANCE
RESIDENCY
TALK

SABISHA FRIEDBERG



**JANUARY 17–
SEPTEMBER 18, 2014**
(2 VISITS)

DISCIPLINE Music/Sound

PUBLICATION *Chamber Industrial* by Per Bloland with ECCE Ensemble, Audio recorded at EMPAC and released by Tzadik

CURATOR Argeo Ascani

The contemporary music ensemble ECCE was in residence in EMPAC's Concert Hall to make video and audio recordings of works by composer Per Bloland. Best known for his compositions using the electromagnetically-prepared piano, Bloland's music fuses acoustic instruments with electronic sound, creating a richly unified whole that neither element alone could produce. Bloland has received awards and recognition from IRCAM, ICMA, SEAMUS/ASCAP, and ISCM, among others. His music can be heard on the TauKay (Italy), Capstone, Spektral, and SEAMUS labels, and through MIT Press. ECCE has interpreted works by composers such as Georg Friedrich Haas, Philippe Hurel, Lee Hyla, Helmut

Lachenmann, Fabien Levy, Hanspeter Kyburz, Louis Karchin, and many others.

WORKS RECORDED

BLOLAND *Solis-EA*
BLOLAND *...walk now and then...*
BLOLAND *Wood Machine Music*
BLOLAND *Shadows of the Electric Moon*
BLOLAND *Negative Mirror II*



RESIDENCY
JANUARY 13–MAY 31, 2014

PERFORMANCE
MARCH 21, 2014

TALK
MAY 8, 2014

DISCIPLINE Music/Sound

PUBLICATION *There Will Never Be Silence* featuring *A Concentric Crowned: Plain Hi-Roller* by Sabisha Friedberg, recorded at EMPAC, released by The Museum of Modern Art and MoMA PS1.

CURATOR Argeo Ascani

Sound artist Sabisha Friedberg's work explores perceptual thresholds, focused sub-sonic compositions, and low-frequency levitation. It pulls together concepts from the perceptual, phenomenological, and phantasmagorical to create thought-provoking, mystifying pieces. During her residency, Friedberg offered a talk and a work-in-progress installation/performance. For *Chasing the Phantasmagorical: Challenges and Process*, Friedberg discussed her past practice as well as the elements investigated during her time at EMPAC. Continuing her explorations into sound and frequency, the performance *Strange Cloak-Sub-Flight Infinity* investigated the relationship of levitation, suspension, and low-end thresholds through metaphor, pseudoscience, and real physics. The piece was built around bass-frequency sonic levitation with objects made to float and flutter as a ghostly effect of the sound waves themselves.

Born in South Africa and currently based out of Brooklyn and Paris, Friedberg has performed and presented installations widely in Western and Eastern Europe, Russia, Japan, and Northern America.

PERADAM

Robert Aiki Aubrey Lowe & Sabrina Ratté

PERFORMANCE
RESIDENCY

PERFORMANCE
JANUARY 25, 2014

RESIDENCY
JANUARY 6–25, 2014

DISCIPLINE Film/Video; Music/Sound

CURATOR Victoria Brooks

Peradam was a new audio and visual performance that intertwined voice with synthetic sound and image. Created in residence over three weeks, the artists worked in collaboration; using real-time synthesis, Ratté modified live video while Lowe used his voice as the source of his sonic manipulations. Inspired by René Daumal's novel *Mount Analogue*, the first work of literature to use the word *peradam* to describe "an object that is revealed only to those who seek it," Lowe's composition for the modular synthesizer focused on the texture of a consistent equilibrium between the peak and valley of a sound wave to create a heightened experience akin to ecstatic music.

Robert Lowe is a Brooklyn-based artist, composer, and multi-instrumentalist working with long-form improvisation utilizing voice and modular synthesis. The creation of ecstatic forms has been the focus of collaborations with Doug Aitken, Tarek Atoui, Lee Ranaldo, Ben Russell, Ben Rivers, Lucky Dragons, and many others. Sabrina Ratté is a Montréal-based visual artist whose videos create virtual environments where architecture and landscapes fall into abstraction. Her work is also inspired by the relationship between electronic music and the video image, and she often collaborates with musicians.

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research. In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



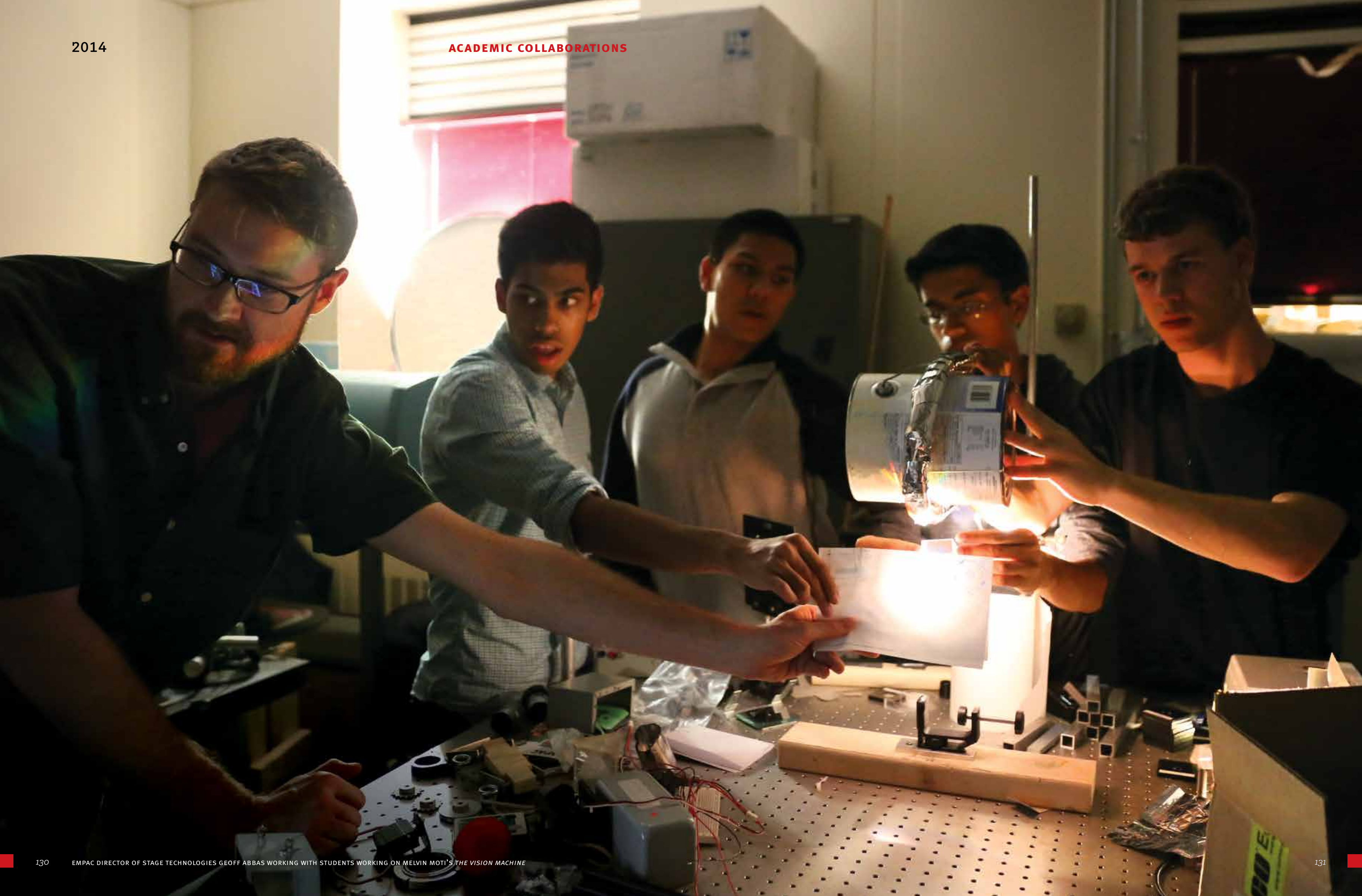
KAREN BARAD MEETING WITH STUDENTS.

In 2014, two major projects were created by artists-in-residence in collaboration with faculty and students. EMPAC curator Emily Zimmerman and Peter Persans, professor of physics, applied physics, and astronomy, facilitated a collaboration between Dutch artist Melvin Moti and physics and engineering undergraduate students Parviz Alam, Henry Choi, Eduardo Gonzalez, Joe LaPierre, Ravi Panse, and Philip Sweeting to produce a new artwork based on light refraction called *The Vision Machine* (see page 55). Often working with the students via Skype, Moti guided the creation of the work while also empowering the students to troubleshoot design and construction problems using their understanding of mechanics and optical physics. The artist and students collaborated with EMPAC's production team to finalize the exhibit for public viewing.

Rosa Barba's site-specific artwork for Rensselaer's Hirsch Observatory was a collaboration between the artist and Heidi Newberg, professor of physics, applied physics, and astronomy, and undergraduate students Nicholas Palmieri, Jake Weiss, and Thomas Hartmann. The two-part commission *The Color Out of Space* (see page 88) curated by Victoria Brooks, transformed EMPAC's façade into an outdoor cinema with the solar system as source material for a speculative film, while a site-specific artwork—a film projected from the observatory's dome and into the sky—juxtaposed the 1960s-era 16" Boller & Chivens dome telescope with the film projector, suggesting a reciprocal relationship between astronomy and cinema.

Other academic interactions with visiting artists and scholars included lecture-performance artist Gordon Hall, physicist and feminist theorist Karen Barad, who visited with classes to discuss her recent work on time and materiality. Filmmakers Lucien Castiang-Taylor, Ernst Karel, and Véréna Paravel, who created *Leviathan*, a portrait of the contemporary commercial fishing industry, conducted a master class for students as part of a day of programming devoted to their Sensory Ethnography Lab. Anthony Marcellini spoke about usefulness, obsolescence, and his EMPAC commission *Obsolescere: The Thing is Falling* with professor Langdon Winner's design, culture, and society class, and resident artists Charles Atlas and Lucy Raven made class visits to the Arts Department with curator Victoria Brooks. media-dance pioneer Atlas was in residence at EMPAC to produce a newly commissioned theatrical production intertwining dance with live and pre-recorded 3D video; Raven was on campus doing research on the history and evolution of contemporary applications of 3D film technologies.

Students also learned about audio and video production at MashUP!, an annual mentored workshop developed in collaboration with Rensselaer's Office of First-Year Experience, where freshmen learned the basics of producing a multimedia event, culminating in a campus dance party. EMPAC also hosted the People Using Live Software and Electronics (PULSE) users group. In addition, more than 100 students worked at EMPAC in technical, production, and administrative capacities, learning skills and advancing through an apprenticeship model.







Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2014.



NATIONAL MANUFACTURING DAY

ALUMNI RELATIONS

REUNION & HOMECOMING 2014: A CAPPELLA WITH VOICEPLAY AND STUDENT GROUPS An evening featuring VoicePlay, which recreates the sound of an entire musical production with solely the human voice, along with Rensselaer student groups Duly Noted, Partial Credit, Rensselyrics, and Rusty Pipes.

CAMPUS AND PRESIDENTIAL EVENTS

2014 PRESIDENT'S COMMENCEMENT COLLOQUY: CREATING CLARITY IN COMPLEXITY TO ENABLE TRANSFORMATIONAL CHANGE President Shirley Ann Jackson was joined by Ginni Rometty, the chairman, president, and chief executive officer of IBM, World Wide Web inventor Sir Timothy Berners-Lee, and pioneering geneticist Mary-Claire King as part of the annual commencement ceremony at Rensselaer.

2014 STATE OF THE INSTITUTE ADDRESS: LOOKING BACK TO LOOK FORWARD President Jackson highlighted significant milestones in Rensselaer's history, discussed three fundamental ways in which Rensselaer is transformative—the global impact of its research, its innovative pedagogy, and in the lives of its students—and looked forward to the Institute's transformation into "The New Polytechnic . . . a crossroads for people of brilliance in all disciplines."

2014 TOWN MEETINGS President Jackson's spring theme, *Promising News and Soaring Ambitions*, addressed the transformation of Rensselaer resulting from the bicentennial Rensselaer Plan; the fall theme was *Seizing the Future*.

LEFT / LIVE FROM THE INTERNATIONAL SPACE STATION



NATIONAL MANUFACTURING DAY

EMMATALKS Troy's Emma Willard School presented six talks by women cultivating meaningful and sustainable change, emceed by Elizabeth Colton '66, founding president of the International Museum of Women; Shabana Basil-Rasikh, head of the School of Leadership, Afghanistan; Eleanor Tabi Haller, president and CEO of The Paradigm Forum, GMBH; Courtney E. Martin, author, feminist activist, strategist with TED and Aspen Institute; Eden Full, Princeton undergraduate and innovator of the Sun Saluter; Meg Lowman, tropical rainforest canopy biologist; and Shamin Okolih, educator and community organizer.

HOLIDAY CONCERT: CELESTIAL SONGS, EARTHLY DANCES... AND SOME FIREWORKS

The Rensselaer community gathered for a holiday tradition: the Rensselaer Orchestra and the Concert Choir performing selections by Mozart, Dvořák, and Handel; the suite from Aaron Copland's most famous ballet, *Appalachian Spring*; and a new work by Rensselaer Orchestra Conductor Nicholas DeMaison.

HONORS CONVOCATION: LIGHTING UP THE WORLD Parents, family, and friends gathered and watched as the Rensselaer Medalists—along with students with a 4.0 GPA, graduate student fellowship awardees, and faculty—were honored at this convocation that celebrates their outstanding academic achievements.



LALLY SCHOOL OF MANAGEMENT 50TH ANNIVERSARY CELEBRATION

LIVE FROM THE INTERNATIONAL SPACE STATION Astronaut Rick Mastracchio '87 had a long-distance Q&A session with students from his three alma maters—Rensselaer, UConn, and the University of Houston—live from the International Space Station via Skype.

ROTC PRESIDENTIAL AWARDS CEREMONY: DEVELOPING MULTI-FACETED LEADERSHIP President Jackson congratulated the outstanding achievements and leadership of ROTC graduates. Recognizing the dedication, discipline, and determination required in their preparation as officers, she recounted the history of Rensselaer's ROTC program and its graduates and honored their service and sacrifice.

2014 FIRST YEAR CONVOCATION: CONNECTING TO CHANGE THE WORLD President Shirley Ann Jackson welcomed the Class of 2018 with a discussion about “the new tools in the computational realm [that] are transforming the very nature of discovery and innovation” and the importance of “convening exceptional people to find solutions to problems, given the challenges humanity faces.”



PRESIDENT SHIRLEY ANN JACKSON ON THE CONCERT HALL STAGE WITH HER CABINET AND FACULTY DURING THE 2014 HONORS CONVOCATION.

OFFICE OF ADMISSIONS

ACCEPTED STUDENT CELEBRATION: POISED TO CHANGE THE WORLD In her speech welcoming new students to Rensselaer, President Jackson highlighted the exciting and challenging environment that they can look forward to: innovative teaching and learning, exciting new academic offerings, technology-enabled education, and the chance to witness the global impact of Rensselaer's research.

FIRST YEAR EXPERIENCE SUMMER ORIENTATION The Office of the First-Year Experience conducts Student Orientation in July and August, introducing new students to life at Rensselaer, for them to become familiar with the campus—including EMPAC—and to meet faculty, staff, and upperclass students.

NAVIGATING RENSSELAER AND BEYOND Navigating Rensselaer & Beyond is a five-day program for all first-year students, including freshmen, transfers, and graduate students, to help with the transition to Rensselaer as well as to provide opportunities to meet new students. NRB programs at EMPAC include MashUP! (described under Academic Collaborations) and Fanfare, an annual concert presented by the Rensselaer Music Association.

STAR PROGRAM The Science, Technology, Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current Rensselaer students.



HOLIDAY CONCERT

SCHOOLS AND CENTERS

LALLY SCHOOL OF MANAGEMENT

INTERACTIVE DEMO DAY The Department of Communication and Media and the Severino Center for Technological Entrepreneurship at Rensselaer inaugurated this event to showcase recent student work, bringing together interactive student projects from across campus to share with industry and community partners, as well as the on-campus community.

LALLY SCHOOL OF MANAGEMENT 50TH ANNIVERSARY CELEBRATION In celebration of its 50th anniversary, the Lally School hosted a day of conversations, start-up pitches, and educational sessions, designed to increase the pool of angel investors and entrepreneurial talent.

CENTER FOR AUTOMATED TECHNOLOGIES AND SYSTEMS

ADVANCED MANUFACTURING PARTNERSHIP 2.0 REGIONAL MEETING AT RENSSELAER The Center for Automation Technologies and Systems invited manufacturers, policy makers, academics, and other regional and national manufacturing stakeholders to help inform national policy recommendations on creating an advanced manufacturing ecosystem for President Obama.

SCHOOL OF ARCHITECTURE

SCHOOL OF ARCHITECTURE LECTURE SERIES The annual lecture series included Angelo Bucci/SPBR on *Recent Projects*, Neil Spiller on *Communicating Vessels*; Guy Nordenson on *Reading Structures*, Florencia Pita on *#Colorforming*, Theo Jansen on *Strandbeest Evolution: A New Form Of Life*, Roger Duffy on *SOM: An Evolving Legacy*, Catherine Ingraham on *Plasticity: Architecture and New Natures*; Hernan Diaz Alonso on *Form and Gloom*, Smiljan Radic on *Surroundings*, and Ming Fung on *Recent Work*.



GAMEFEST 2014: NEXT10

SCHOOL OF ENGINEERING

NATIONAL MANUFACTURING DAY More than 200 high school students from around New York's Capital Region attended this event which aims to inspire young people to pursue careers in technology and advanced manufacturing. Students visited EMPAC to learn about student clubs and organizations, including the Formula SAE racing team and the *Design, Build, Fly* team.

RENSSELAER MOTORSPORT'S ROLLOUT EVENT Each year Rensselaer's Formula SAE team designs and builds a car for entry in the Formula SAE Collegiate Design Series; this event began with a reception, followed by the formal unveiling of Rensselaer Motorsport's latest car, the RM20, and a chance for guests to examine the car up close.

SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/ DEPARTMENT OF THE ARTS

ARHANT RAO (SENIOR RECITAL) Pianist Arhant Rao's recital included Mozart's Sonata for 2 Pianos in D Major, K. 448 - *I. Allegro Con Spirito*; Beethoven's Sonata Opus 53 (*Waldstein*); Chopin's Second Ballade (Op. 38); Ravel's *Une Barque sur*

EXPO 14: WORLDS ON DISPLAY Students from the School of Humanities, Arts, and Social Sciences Inquiry course *Worlds on Display* presented exhibits for their final projects examining world's fairs and expositions through the lenses of technology, futurism, design, architecture, anthropology, history, and art.

GAMEFEST 2014: NEXT10 GameFest returned to EMPAC for its 10th anniversary with more than 40 teams of students showing off new games; a game design competition with students from Rensselaer, Rochester Institute of Technology, Champlain College, and the NYU Game Center; as well as talks, panel discussions, music, and more.

HASS GRADUATE COLLOQUIUM Peter Galison, professor in History of Science and Physics at Harvard University and director of the Collection of Historical Scientific Instruments, explored the complex interaction between the three principal subcultures of 20th century physics: experimentation, instrumentation, and theory.

HASS INQUIRY LECTURES Lecturers included Dr. Carl Hart, author of *High Price: A Neuroscientist's Journey of Self-Discovery That Challenges Everything You Know about Drugs and Society*; Alison Griffith, *Visions of Immersion: Technologies and Fantasies of the Hyperreal*; and David Lisak, PhD, *Exploring the Nature of Interpersonal Violence*. These lectures and related Inquiry courses provide first-year students with new interdisciplinary ways to approach problems from a humanities perspective.



THE RENSSELAER MUSIC ASSOCIATION ANNUAL CONCERTS

HELEN J. BULLARD, *AFTER THE RUN (MFA THESIS)* Using video, sound, and lights in an installation with storytelling, Bullard's work began with an eel run, a migration that happens each September on the coming of the new moon. The story then wound into a myriad of conjoined tales, crossing oceans, histories, memories, and lives.

LEV MANOVICH LECTURE, *LOOKING AT ONE MILLION IMAGES: VISUALIZING PATTERNS* An overview of Manovich's research on media visualization, and an introduction to his research program in digital humanities/cultural analytics. Manovich is professor of computer science at City University Graduate Center in New York City.

MICHAEL CENTURY, *BACH AND BEYOND* This concert presented a broad vista of the keyboard music of Johann Sebastian Bach in counterpoint to an unusual selection of compositions by four of the leading voices in creative music from the mid-20th century.

MICHAEL CENTURY, *NEW MUSIC* The first half of this program presented the Michael Century Trio, a jazz ensemble playing Century's original compositions and featuring Mark Foster on drums and Kevin Barcomb on saxophones. The second half presented the premiere of the *Triple Duo* for accordion, disklavier piano, and electronics.

ORON CATTS WORKSHOP, *GROWING MEAT AND SYNTHETIC BIOLOGY* Catts has grown both meat and leather using tissue engineering and was the first person to grow and eat a piece of in-vitro meat. Sponsored by *iEAR Presents!*, Catts and MIT artist and research affiliate Joe Davis led this workshop covering some of the main techniques of regenerative biology that are used for in-vitro meat and explored the broader cultural and artistic implications of using living tissue within non-medical context.

RAVEN KWOK, *ALGORITHMIC MENAGERIE (MFA THESIS)* This interactive virtual environment by Raven Kwok (Guo Ruiwen) was inhabited by algorithmic creatures programmed in Processing, and explored artificial life and self-organization in the field of computer-based generative art.

RENSSELAER CHAMBER ENSEMBLES Students presented a recital of music for small ensembles by Dvořák, Brahms, Debussy, Borodin, Busch and others.

RENSSELAER ORCHESTRA CONCERTS Under the direction of Nicholas DeMaison, the Orchestra's fall concert featured Schubert's *Symphony #8 (Unfinished)*, Mendelssohn's *Hebrides Overture*, Borodin's *From the Steppes of Central Asia*, and a world premiere of a new work written for the orchestra by Arts graduate student Kelly Michael Fox. In the spring, the Orchestra joined forces with the Saint Rose Symphony Orchestra to perform Tchaikovsky's *Swan Lake Suite*.



RENSSELAER MEDALISTS AT HONORS CONVOCATION

SENSIBILITIES SYMPOSIUM: ARTISTS, ANIMALS, AND PLANTS This symposium, supported by a Vollmer W. Fries award, and organized by Professor Kathy High, explored how language and animal form can be jointly considered. Participants included Steve Baker, art historian and author of *The Postmodern Animal*, and Dr. Monika Bakke, who writes on contemporary art and aesthetics, with a focus on post-humanist, gender, and cross-cultural perspectives.

SIGNALS, SOUNDWAVES, AND SYNTHESIS: AN EXHIBITION Five composers from the Composition Projects seminar, directed by composer and Rensselaer faculty member Pauline Oliveros, presented their work in Studio Beta at EMPAC.

WILLIAM GIBSON READING The visionary author of speculative fiction read from his work, co-sponsored by HASS, Union Speakers Forum, Department of Communication and Media, and New York State Writers Institute.

SCHOOL OF SCIENCE

THE COMMAND, CONTROL AND INTEROPERABILITY CENTER FOR ADVANCED DATA ANALYSIS (CCICADA) CCICADA'S annual research retreat came to EMPAC and Rensselaer with more than 50 researchers from 10 partner universities discussing social media, text mining, US Coast Guard projects, cyber security, visualization analysis, and numerical methods and applications.

STUDENT PROGRAMS

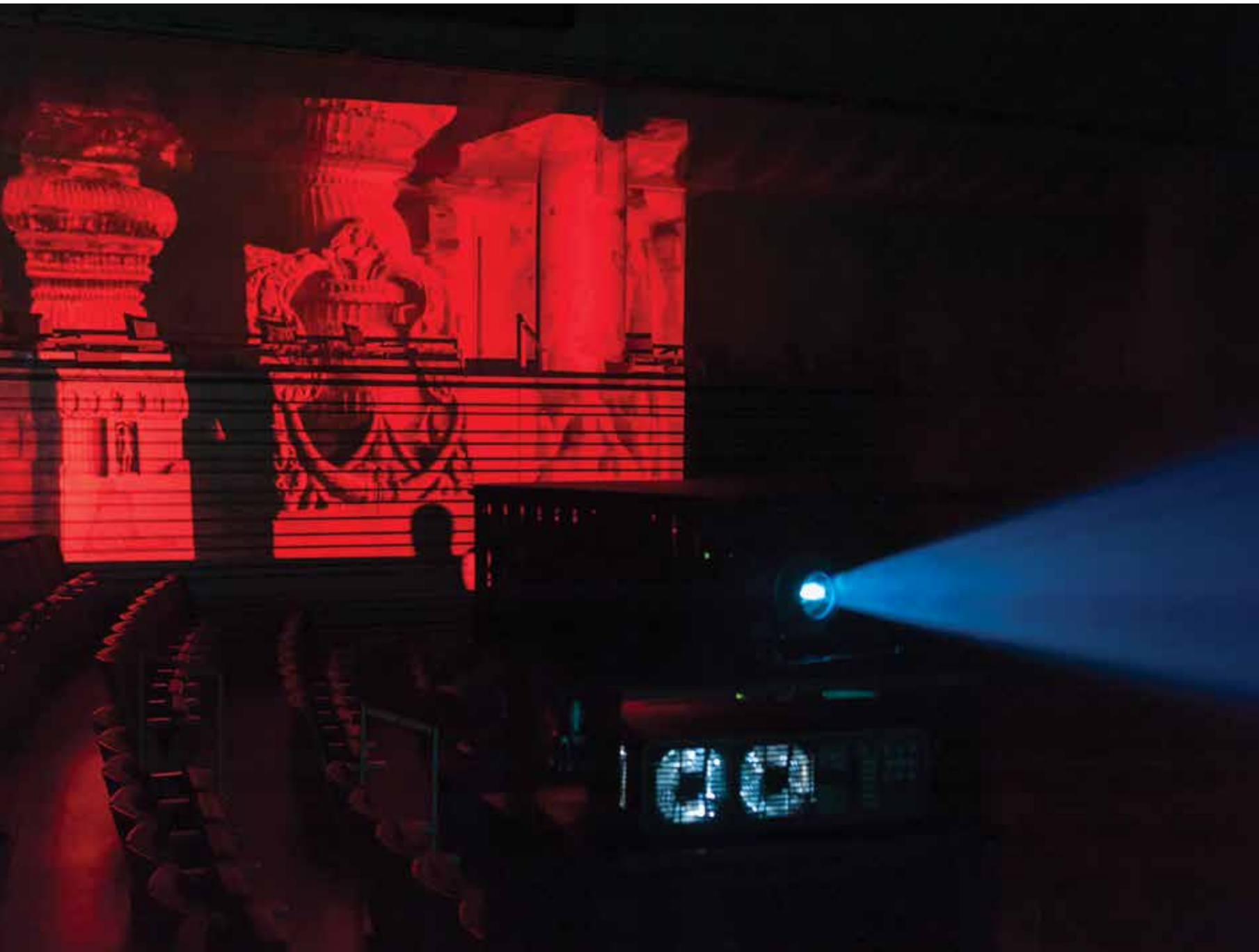
JAMES MCLURKIN LECTURE, *DANCES WITH ROBOTS* James McLurkin, 2003 Lemelson-MIT Student Prize winner and assistant professor in Computer Science at Rice University presented *Dances with Robots: The Story of 112 Little Robots and the Toys, Insects, and Star Wars Movies that Made it All Possible*. Sponsored by the Rensselaer Science Technology Entry Program (STEP), with support from the Boeing Company and United Technologies.

THE RENSSELAER MUSIC ASSOCIATION ANNUAL CONCERTS RMA's spring concert showcased performances by talented student musicians including the Symphony Orchestra, Jazz Ensemble, Symphonic Band, Concert Choir, Percussion Ensemble, Campus Serenaders, and others. The winter concert offered festive pieces including performances by Tuba Christmas and Partial Credit.

DANCE CLUB RECITAL The Dance Club held their annual recital with hip-hop, jazz, and ballet among the dance styles. The recital also included performances from *West Side Story* with 17 student dancers, as well as solo dances by club members.

2013

Days 3,798–3,448



**DECEMBER 17, 2013–
AUGUST 8, 2014**
(2 VISITS)

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Victoria Brooks

Lucy Raven's residency at EMPAC focused on her research into the history and evolution of 3D-film technologies. Raven investigated the fluid cultural perception of the form's use of spatial depth, and uncovered the mechanisms of industrial cinema production through analysis of the transnational circulation of labor and materials. The culmination of this research, *Tales of Love and Fear*, is an EMPAC-commissioned, site-specific artwork for the Concert Hall. Conceived as a cinema for a single image, *Tales of Love and Fear* expands and unifies our perception of the cinematic beyond the screen. Working with EMPAC's production team, Raven developed a custom-built rig of counter-rotating platforms,

on which two projectors are used to split the left and right eye of a single stereoscopic photograph taken by the artist during her research in India.

Lucy Raven's work has been included in exhibitions and screenings internationally including *Curtains*, Portikus, Frankfurt, and Yerba Buena, San Francisco; *Hammer Projects*, the Hammer Museum, LA; *Whitney Biennial*, Whitney Museum of American Art, New York; and *11 Rooms*, Manchester International Festival, Manchester, UK. She teaches at the Cooper Union School of Art and the School of Visual Arts in New York City.



DECEMBER 6, 2013

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Two masterful pianists from different musical worlds: Vicky Chow is a champion of new music, who performs as a soloist and with ensembles like the Bang on a Can All-Stars, and Craig Taborn is an unparalleled jazz keyboardist who tours as a soloist, band leader, and sideman with musicians like Dave Holland and Tim Berne. Chow and Taborn's contrasting solo sets represented the wide spectrum of virtuoso pianism today.

Chow has performed extensively as a classical and contemporary soloist, chamber musician, and ensemble member; While at the University of Michigan, Taborn became a member of saxophonist James Carter's band. He has subsequently worked

with many musicians, including Dave Douglas, Hugh Ragin, Eivind Opsvik, Marty Ehrlich, Drew Gress, Chris Potter, David Torn, Michael Formanek, and Tomasz Stanko, as well as with members of the Bad Plus.

PROGRAM

Performed and composed by Craig Taborn:
Avenging Angel Solos and Improvisations

Performed by Vicky Chow:
TRISTAN PERICH *Surface Image*



DECEMBER 2, 2013– JUNE 6, 2014

DISCIPLINE Music/Sound

PUBLICATION *Surface Image* by Tristan Perich, and performed by Vicky Chow. Audio recorded and produced at EMPAC, released by New Amsterdam Records

CURATOR Argeo Ascani

Canadian pianist Vicky Chow is known for her innovative programming and fearless technique. A member of the New York City-based ensemble the Bang on a Can All-Stars, Chow was in residence to record *Surface Image* by Tristan Perich. A work for solo piano accompanied by 40 channels of 1-bit electronic sounds, *Surface Image* is a 60-minute composition that juxtaposes acoustic human performance and the sounds of hand-built electronics.

Chow has performed extensively as a classical and contemporary soloist, chamber musician, and ensemble member; she has worked with leading composers and musicians such as John Adams,

Louis Andriessen, Bryce Dessner (the National), Philip Glass, Glenn Kotche (Wilco), David Longstreth (the Dirty Projectors), Steve Reich, Terry Riley, and Lee Ranaldo (Sonic Youth). In addition to performing, she also produces and curates *Contagious Sounds*, a music series focusing on adventurous contemporary artists and composers in New York City.

NOVEMBER 22, 2013

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION *Time Will Tell* commissioned by EMPAC

CURATOR Argeo Ascani

Intricate and meticulous sounds are hallmarks of the work of acousmatic composer Manuella Blackburn. Using a ring of loudspeakers situated around an audience in the dark, Blackburn created a sound-only environment where hearing took precedence over everything else. (“Acousmatic” is a term to define sounds, which can be heard, but have no visible point of origin). The sound samples she uses in her works are sometimes recognizable clicks, often frantically moving, and always crisply detailed. Blackburn received a bachelor’s degree in music, a master’s in electroacoustic composition, and a PhD from the University of Manchester. She is a lecturer in music technology at Liverpool Hope University.

PROGRAM

All compositions by Manuella Blackburn:
Vista Points
Karita oto
Time will tell—World Premiere of EMPAC Commission
New Shruti—performed with Dr. Rajeeb Chakraborty, Sarod
Switched On
Origami (The Crane)
Javaari

SEE RELATED RESIDENCY ON PAGE 187.

VOICES

Laurie Anderson

DISTINGUISHED ARTIST-IN-RESIDENCE

TALK

PERFORMANCE

SMALL NARRATION

Wojtek Ziemilski



NOVEMBER 20, 2013

DISCIPLINE Music/Sound; Contemporary Performance; Tools and Technology

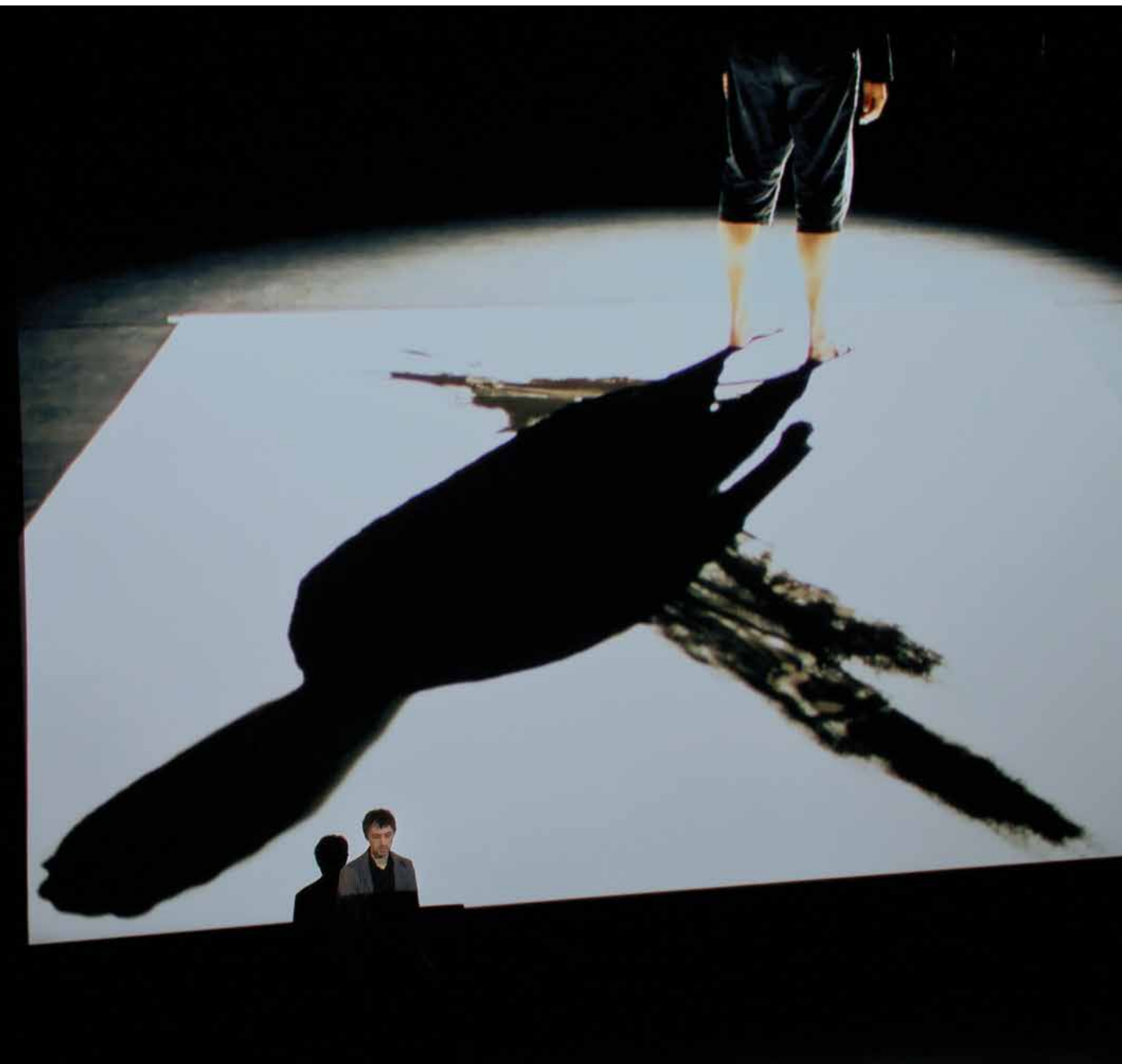
CURATOR Johannes Goebel

Altering her voice through electronics—creating an alter ego—is as much a part of Laurie Anderson's work as her singing, talking, and storytelling. This talk explored the many voices she has created over the years.

One of America's most renowned performance artists, Anderson's genre-crossing work encompasses performance, film, music, installation, writing, photography, and sculpture. She is widely known for her multimedia presentations and musical recordings and has numerous major works to her credit. In 2002, she was appointed NASA's first artist-in-residence, and she was also part of the team that created the opening cere-

mony for the 2004 Olympic Games in Athens. She has published six books, produced numerous videos, films, radio pieces, and original scores for dance and film. In 2007, she received the prestigious Dorothy and Lillian Gish Prize for her outstanding contribution to the arts.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.



NOVEMBER 16, 2013

DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

In 2006, Wojtek Ziemilski learned that his grandfather, a notable citizen of the city of Wrocław in Poland, was for many years a collaborator with the communist secret police. To better understand the full story, Ziemilski created this lecture-performance using various forms of public address and artistic expression including personal confession, academic lecture, video art, and contemporary choreography. Theater intermingles with reality, private narration with historical commentary—all to cope with the painful problem of memory and the manipulations it undergoes.

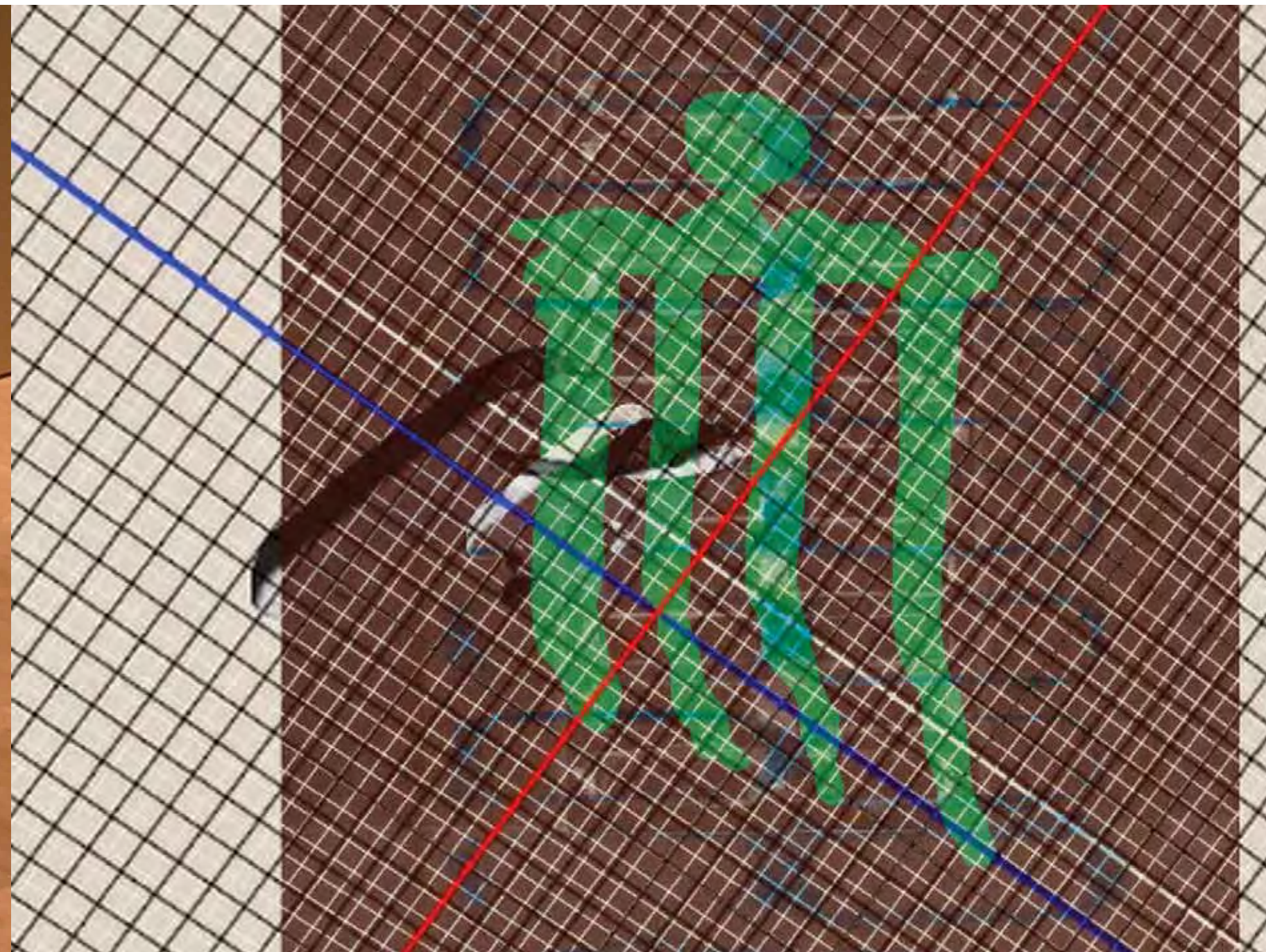
Ziemilski is a theater director and visual artist who graduated from the theater directing course at the Gulbenkian Foundation in Lisbon, Portugal. He teaches contemporary approaches to theater making with a particular focus on devising techniques and the use of new dance (or so-called "non-dance") in theater. He is the author of the art blog new-art.blogspot.com.

“Read me that part a-gain,
where I disin-herit everybody”
Gordon Hall

RESIDENCY / COMMISSION

RESIDENCY / COMMISSION

DARKER IMPOSTER
Erika Vogt



NOVEMBER 12–
APRIL 2, 2014
(3 VISITS)

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Emily Zimmerman

Hall worked in residence at EMPAC conducting research on the history of lecture-performances, from the tradition of the soapbox lecture to the relationship between contemporary artists Robert Morris and Simone Forti. The culmination of Hall's research was a presentation that used sculptural objects, sound, and projected image, titled “*Read me that part a-gain, where I disin-herit everybody*” after a line from composer John Cage's 1959 *Lecture on Nothing*. Hall's lecture-performance offered a succinct history of the form. Hall is an interdisciplinary artist based in New York City and the founder and director of the Center for Experimental Lectures, a roving series of curated lecture-performances that embraces

the lecture format itself as a creative medium. The Center for Experimental Lectures emerged from Hall's studio practice, where sculptures and performances pose questions about the possibilities created and foreclosed by different kinds of platforms, from furniture to politics. Past lectures have been presented by MoMA PS1, Recess, the Shandaken Project, Alderman Exhibitions, and the *Whitney Biennial*. Hall has exhibited and performed at SculptureCenter, The Kitchen, Movement Research, and the Museum of Contemporary Art Chicago, among others.

SEE RELATED EVENT ON PAGE 107.

NOVEMBER 11–17, 2013

DISCIPLINE Film/Video

ABOUT THE PRODUCTION Commissioned
by EMPAC and the Frieze Foundation
for Channel 4

CURATOR Victoria Brooks

Erika Vogt filmed and edited *Darker Imposter* during her Frieze Film commission production residency at EMPAC. The video combined densely layered and quickly edited images, including drawings and animations collected throughout the preceding months, and footage of her own sculptures and EMPAC's collection of gongs. Erika Vogt employs 16mm film, video, animation, and sculpture to explore the intersection of science and the supernatural. She has been included in major international shows including at the New Museum, New York City; Hepworth Wakefield, Leeds; Triangle, Marseille; Whitney Museum of American Art, New York; the Hammer Museum, Los Angeles; SFMOMA.

Curated and produced in collaboration with Nicola Lees (Frieze Foundation, London).

SEE RELATED EVENT ON PAGE 122.



PERFORMANCE
NOVEMBER 23, 2013

RESIDENCY
NOVEMBER 7–25, 2013

DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

In the 1950s, the CIA participated in the promotion of American art for propagandistic purpose, investing funds to turn an unexpected group of artists—Jackson Pollock and other abstract expressionists among them—into international art stars exemplifying America’s creativity. *Central Intelligence Agency* centers on stories, the difficulty of objectivity, and how judgment can become hostage to what we see.

Polish performance artist Wojtek Ziemilski collaborated with German interaction designer Sebastian Neitsch on this performance, installation, and interactive environment; while in residence, the artists prototyped robotic arms

with cameras programmed to automatically follow audience members. Ziemilski is a theater director and visual artist who graduated from the theater directing course at the Gulbenkian Foundation in Lisbon, Portugal. He teaches contemporary approaches to theater making with a particular focus on devising techniques and the use of new dance (or so-called “non-danse”) in theater. He is the author of the contemporary art blog new-art.blogspot.com.



NOVEMBER 2, 2013

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

The Calder Quartet presented a concert of new and not-so-new music that framed Schubert’s *Death and the Maiden* quartet with works by Webern, Mozart, and a Calder commission by film composer Don Davis: *Vexed Man* (inspired by Messerschmidt).

The Calder Quartet performs a broad repertoire striving to channel the true intention of the work’s creator. Known for the discovery, commissioning, recording, and mentoring of some of today’s best emerging composers (with over 25 commissioned works to date), the group continues to work and collaborate with artists across musical genres, spanning the classical and con-

temporary music worlds, as well as rock, dance, and visual arts, performing in venues ranging from art galleries and rock clubs to Carnegie and Walt Disney concert halls.

PROGRAM

W.A. MOZART

String Quartet No. 14 in G major, K. 387

ANTON WEBERN

Five Movements for String Quartet, Op. 5

DON DAVIS

Vexed Man (inspired by Messerschmidt)

FRANZ SCHUBERT

String Quartet No. 14 in D minor—*Death and the Maiden*

MARK FELL

PERFORMANCE
RESIDENCY

PERFORMANCE
NOVEMBER 9, 2013

RESIDENCY
OCTOBER 28–
NOVEMBER 9, 2013

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

British electronic musician Mark Fell was in residence to create three site-specific audio and light installations and an immersive performance in the Concert Hall. Each of the installation pieces used the same algorithm to generate different effects: a cube of color-scrolling lights; a three-floor, haze-filled room permeated by vibrantly oscillating light and sound; and a massive, dark space filled by a strobe-lit skydancer. Fell's invitation for the audience to explore the places less traveled culminated in a performance with a 50-channel audio and 84-channel light work, during which each panel of the fabric ceiling in EMPAC's Concert Hall was independently lit. Fell is a multidisciplinary artist based in Sheffield, UK. The variety of institutions that present his work—from large super clubs, such as Berghain (Berlin), to the Hong Kong National Film and Sound Archive—speak to the diversity of Fell's work. He received an honorary mention in the digital music category at Prix Ars Electronica, and was shortlisted for the Quartz award for his contributions to research in digital music. Fell has also been involved in a number of academic research projects ranging from computer science to musicology and, as a curator, he is recognized for his contributions to the development of experimental electronic music in Europe.



CHAINREACTION

Dana Gingras

RESIDENCY

PERFORMANCE

NOCTURNES

William Basinski



**OCTOBER 28–
NOVEMBER 2, 2013**

DISCIPLINE Dance; Film/Video

CURATOR Ash Bulayev

Choreographer and director Dana Gingras came to EMPAC to create a short film based on the dance performance *Chainreaction*; the result was a collision of dance, animation, and sound that juxtaposes the movements of two live performers with the motion of animated projections, in a continuous interactive evolution. Gingras and her creative team used EMPAC as a film stage, shooting from a bird's eye view, projecting intricate CGI animation onto a white rectangular dance floor with live performers. The goal was to record the dancers' reactions and projections simultaneously.

Dana Gingras is a Canadian dance artist and filmmaker; in addition to *Chainreaction*, she co-directed the short films *Poetry and Apocalypse*, *Aurelia*, and *Double Bubble*.

OCTOBER 26, 2013

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Best known for ambient, slowly evolving sound compositions, tape-loop tinkerer William Basinski presented *Nocturnes*. Originally recorded in 1979, the piano metallic tape loop used in *Nocturnes* had been waiting for more than 30 years, gradually becoming transmuted by time. Basinski further altered the identity of the sound by removing the attacks of the piano and overlaying them, creating an underwater-like atmosphere still strangely recognizable as the ghost of a piano.

A classically trained musician and composer, Basinski has been working in experimental media for over 25 years. His haunting and melancholy soundscapes explore the temporal nature

of life, resounding with the reverberations of memory and the mystery of time. His epic four-disc *The Disintegration Loops* was chosen as one of the top 50 albums of 2004 by Pitchfork Media, and *Artforum* magazine selected *The River*, Basinski's shortwave music experiment, as one of the top 10 albums of 2003. His concerts, installations, and films made in collaboration with artist-filmmaker James Elaine have been presented internationally, including at the *Venice Biennale*.

EVERY MOVEMENT DOES HAVE A BACKGROUND, BUT
EVERY BACKGROUND IS POTENTIALLY USELESS

Boru O'Brien O'Connell

RESIDENCY

PERFORMANCE

THE ANGOLA PROJECT
Jeremy Xido & CABULA6

OCTOBER 19, 2013

DISCIPLINE Contemporary Performance

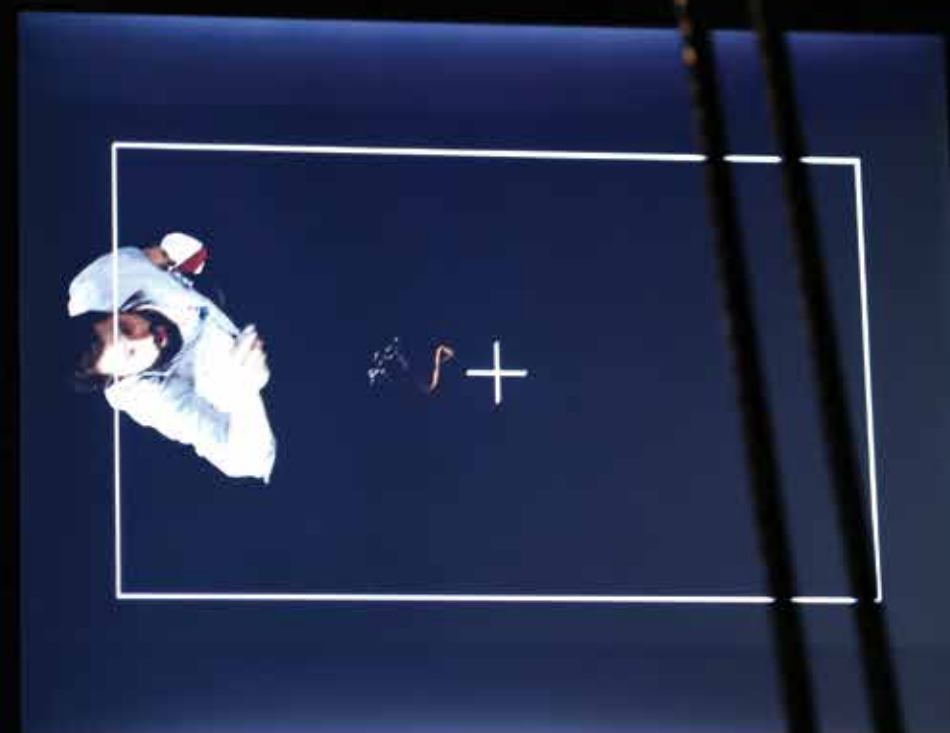
ABOUT THE PRODUCTION Part Three commissioned by EMPAC; *The Angola Project* was created in part during residencies at EMPAC, Lower Manhattan Cultural Council (NYC), Dance New Amsterdam (NYC), Transforma (Portugal), Tanzfabrik (Berlin), Maria Matos Theater (Portugal), and Impulstanz (Vienna).

CURATOR Ash Bulayev

An expedition through the history of colonial Portugal, the travelogues of Burton Holmes, the films of Bruce Lee and Jim Kelly, the Detroit race riots/rebellion, Berlin documentary film crews in Africa, and the blood-thirsty mechanisms of international film finance. A solo performance in three parts, *The Angola Project* is a journey into Jeremy Xido's real-life attempts to finance a film and confront the truths about mortality in the 21st century. Part one, *LISBON* follows Xido's captivation by the city of Lisbon's sunset-timed gas lamps and his growing idea for a feature film, twisting random encounters into fanciful story lines as he conducts a slew of interviews with the people he meets there. Part two, *ANGOLA*, delves deeper into his quest to script the film as he travels to Angola along the Benguela railway, carefully navigating the minefield of international film financing. In *XIN*, the improbable yet inevitable third part, death brings us to the heart of the matter.

CABULA6 is an internationally acclaimed performance and film company led by artistic co-directors Claudia Heu and Jeremy Xido. They search out non-traditional performance spaces that make it possible to walk the line between what is "real" and what is constructed, bringing audience members face-to-face with their assumptions and expectations about who they are and with whom they live. CABULA6's work ranges from stage pieces to site-specific works, and films to projects of social intervention. The company has presented work in Europe, the US, South America, Asia, and Africa.

SEE RELATED RESIDENCY ON PAGE 184.



OCTOBER 21–
NOVEMBER 8, 2013

DISCIPLINE Film/Video

CURATOR Victoria Brooks

Boru O'Brien O'Connell came to EMPAC to shoot and edit this two-channel video installation in preparation for a solo exhibition at The Kitchen. Taking the work of industrial designer and illustrator John Vassos as the starting point, production involved a complex video shoot utilizing slow overhead tracking shots of desks, cameras, and microphones in a black and white set. O'Connell's work, including moving image, photography, and writing, focuses on the act of reading and writing, speech and movement. Each work comes out of extensive research into a literary or historical artifact, from which he abstracts formal archetypes, be they sonorous, aesthetic, or behavioral.

Boru O'Brien O'Connell is based in New York City. He uses video, film, photography, writing, and sculpture to work within a wide range of venues, media, and collaboration. Projects include an installation for *Works Sited*, a program at the Los Angeles Central Public Library.

LA JEUNE-FILLE ET LA MORT
(THE YOUNG-GIRL AND DEATH)

Bureau de l'APA

IN OTHER WORDS
PERFORMANCE



OCTOBER 12, 2013

DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

The bell rings. The teacher instructs the audience to take out their textbooks. The class begins. The textbook is based on *Raw Materials for a Theory of the Young-Girl* (by the Tiqqun collective) and the “Young-Girlization” of the world is the class topic. Sound poetry, lessons from a one-of-a-kind ballet instructor, songs, sculptures, and music by a string quartet combine to form this multifaceted and symbolic portrait of the Young-Girl, created by Quebec-based Bureau de l'APA and collaborators from diverse artistic domains. Based in Quebec City, Laurence Brunelle-Côté is a writer, performer, and designer who works with artists from a variety of disciplines Simon Drouin is a performer, designer, musician, and

member of the 'Orchestre d'Hommes-Orchestres, a multidisciplinary arts collective that makes “music that can be seen.” In 2001, the pair founded the Bureau de l'APA, an undisciplined performing art company whose aim is to bring together artists from all fields to work on atypical creative projects.

In Other Words included six artists who delivered lecture-performances, juxtaposed with talks by six thinkers in order to cross boundaries and make dialogue a continuous process of renewal. This performance was presented in conjunction with Seth Lloyd's talk. (see page 161).

IN OTHER WORDS
TALK / COMMISSION

DANCE AND FINANCE—SOCIAL KINESTHETICS
AND DERIVATIVE LOGICS

Randy Martin



OCTOBER 9, 2013

DISCIPLINE Dance; Humanities

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Emily Zimmerman

New York University professor Randy Martin linked the movement of capital within financial markets to the history of dance, drawing parallels between choreographies of currency and bodily movement. Using the concept of the derivative as a key example, he showed how logics from financial markets inform social values and ultimately impact cultural production.

Martin is a professor of art and public policy and director of the graduate program in arts politics at NYU. He is the author of *Performance as Political Act: The Embodied Self*; and *Empire of Indifference: American War and the Financial Logic of Risk Management*. He has edited col-

lections on US communism, sport, and academic labor, and most recently, *Artistic Citizenship: A Public Voice for the Arts* (with Mary Schmidt Campbell). He has studied, taught, and performed in dance, theater, and clowning in the US and abroad.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was presented in conjunction with Bureau de l'APA's La Jeune-Fille et la Mort (see page 160).

EXPLORATION OF “DARK DATA” IN A
LIVE-CODING ENVIRONMENT USING FIELD

*Marc Downie, Johannes Goebel,
Christopher Carothers,
Misbah Mubarak, & Nick Rothwell*

OCTOBER 7–
DECEMBER 13, 2013

Interactive data exploration—as opposed to the documentation of research outcomes—requires a hard- and software environment that allows quick turnaround (as in live coding), accelerated graphics processing and projection (utilizing GPUs for data processing), an “agnostic” parsing of data, and the ability to tap into the endless existing libraries available online. This approach allows quick access to and navigation of “big data.” The open-source software programming environment *Field* provides all of the above. It allows the user to quickly manipulate different representations of a given data set, to navigate representation interactively, to create animations, and to discover new perspectives. Mathematical processes applied to the data can be changed as quickly as the mapping in the visual domain. Other modalities of representation, like stereoscopic visual representation, immersive projections, or auditory mapping can easily be accessed. This proof-of-concept project explored a “dark data set” (the simulation output of a high-performance computing Dragonfly network topology) where the source and desired evaluation of the data were not revealed to the researcher visualizing the data. Immediately, insights into the data were unfolded and properties in the simulation were discovered that had gone unnoticed before.

A PRIMER IN SKY SOCIALISM

Ken Jacobs

SCREENING



OCTOBER 5, 2013

DISCIPLINE Film/Video

CURATOR Victoria Brooks

A Primer in Sky Socialism is a joyful, digital 3D meditation on the iconic Brooklyn Bridge, inspired by the Roebling family. (Washington Roebling, a Rensselaer graduate, became chief engineer of the Brooklyn Bridge following his father's death in 1869.) Shot on the bridge, this long-form film focuses on the expressive and aesthetic experience of cinematic form, using digital 3D processing to delve into the human perception of depth in a dizzying, brightly colored nighttime perspective of a bustling New York City.

Born in Brooklyn in 1933, Jacobs is a pioneer of the American film avant-garde, and a central figure in post-war experimental cinema. From

his first films in the late 1950s to his recent experiments with digital video, his investigations and innovations have influenced countless artists. He has received numerous awards, including the Maya Deren Award and a John Simon Guggenheim Fellowship, and his work has been presented at numerous international museums and film festivals.

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SCREENING

A DOOR AJAR

OCTOBER 2, 2013– APRIL 3, 2014

DISCIPLINE Film/Video

CURATOR Emily Zimmerman

A Door Ajar presented enigmatic films that refuse clichéd cinematic endings, and instead revel in openness, leaving the door ajar for interpretation after the ending of the film.

October 2, 2013: The launch for *A Door Ajar* brought together a screening of Beckett's *Film*, and Jean Genet's *Un Chant D'Amour* (1950), both directed by Alan Schneider, and a talk by curator and film theorist Ed Halter. *Film* (1965) features Samuel Beckett's only screenplay, and Buster Keaton, in one of his last film appearances, observed by an all-seeing eye. *Un Chant D'Amour* (*A Song of Love*) is the only film created by the French novelist Jean Genet, a powerful work of homoerotic cinema depicting the relationships between male prisoners in adjacent cells and the guard who watches over them.

October 31, 2013: *House* (*Hausu*) (1977) Directed by a pioneer of Japan's experimental cinema, Nobuhiko Ôbayashi, is a psychedelic cult-horror classic about a schoolgirl named Gorgeous and six of her classmates who vacation at her aunt's home in the country; the screening was introduced by writer and theorist Evan Calder Williams.

December 5, 2013: *Mulholland Drive* (2001) Director David Lynch's last work shot on celluloid, is a surrealist neo-noir thriller that scrutinizes the collective dream that is Los Angeles through a famously disjointed narrative.

November 21, 2013: *In the Mood for Love* (2000) Wong Kar-wai's hauntingly beautiful film about unfulfilled relationships, the fallibility of memory, and endings without resolution; it stars Tony Leung and Maggie Cheung.

IN THE MOOD FOR LOVE

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January 30, 2014: *eXistenZ* (1999) David Cronenberg's sci-fi thriller, delves deep into fears and techno-fetishistic desires about the future of virtual reality gaming in a world where players can physically connect their bodies to games via bio-ports, outlets surgically inserted into their spines.

February 20, 2014: *The Short Films of George Lucas & Arthur Lipsett* The work of experimental filmmaker Arthur Lipsett deeply influenced George Lucas; rarely screened in the US, they combine found footage with seemingly unrelated soundtracks, creating a cinema of fragmentation and disconnection. In addition to four of Lipsett's shorts, George Lucas' student film, *Electronic Labyrinth: THX 1138 4EB* (1967) was screened.

March 6, 2014: *Orpheus (Orphée)* (1950) Jean Cocteau's second film in the *Orphic Trilogy*, is a contemporary retelling of the Greek myth that follows the poet Orpheus as he turns away from a world in which he is shunned toward the underworld's promise of inspiration.

April 3, 2014: *Playtime* (1967) Jacques Tati's final film, is a gloriously choreographed cinematic masterpiece about the modern city and the confusion it creates, turning a critical eye on commercialism, entertainment, mass media, tourism, and modernist architecture.

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OCTOBER 1, 2013

DISCIPLINE Music/Sound; Contemporary Performance; Tools and Technology

CURATOR Johannes Goebel

In a conversation with EMPAC Director Johannes Goebel, Laurie Anderson discussed the concrete steps she takes to archive her tapes, instruments, performances, texts, films, videos, drawings, sculptures, and media—intangible and tangible. One of America's most renowned performance artists, Laurie Anderson's genre-crossing work encompasses performance, film, music, installation, writing, photography, and sculpture. She is widely known for her multimedia presentations and musical recordings and has numerous major works to her credit. In 2002, she was appointed NASA's first artist-in-residence, and she was also part of the team that created the opening ceremony for the 2004 Olympic Games

in Athens. She has published six books, produced numerous videos, films, radio pieces, and original scores for dance and film. In 2007, she received the prestigious Dorothy and Lillian Gish Prize for her outstanding contribution to the arts.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

SEPTEMBER 27, 2013

DISCIPLINE Film/Video; Music/Sound

PUBLICATION *Gravity Was Everywhere Back Then* by Argeo Ascani and Brent Green, book, DVD, and Blu-ray, produced, recorded, and published by EMPAC

CURATOR Argeo Ascani

This event celebrated the release of a DVD and Blu-ray, produced at EMPAC, of Brent Green's *Gravity Was Everywhere Back Then*, with a screening and a discussion with the artists and curator. Through live action and hand-drawn stop-motion animation, *Gravity Was Everywhere Back Then* tells the true story of a man who fought against reason and nature to save the woman he loved from illness. Heartbreaking, darkly humorous, and philosophically challenging, *Gravity* touches on everything from the vastness of space and the existence of God to the futility of our actions and the power of human will. Green narrates the film and provides a soundtrack along with his band.

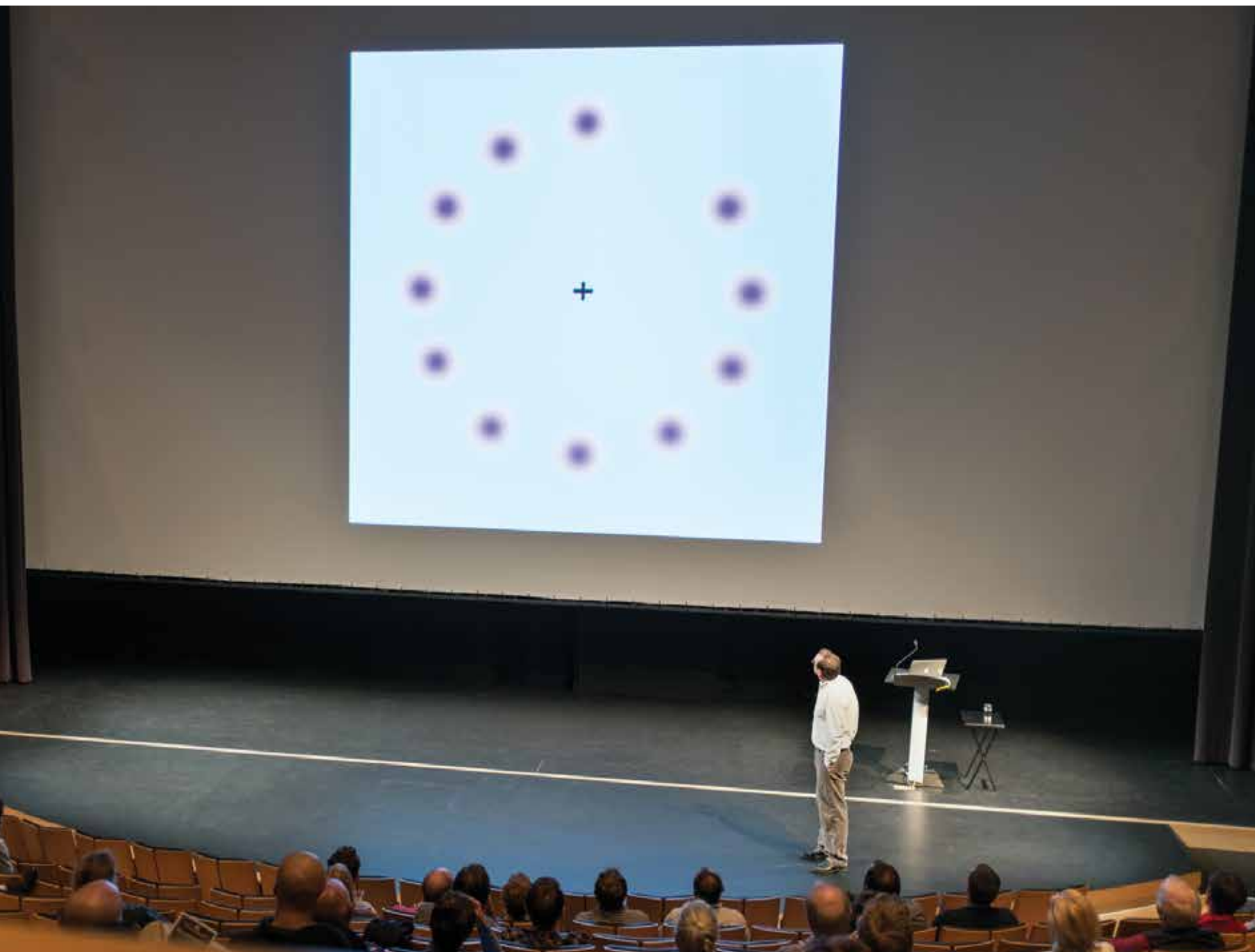
Green is a storyteller, singer, songwriter, and self-taught filmmaker. He often performs his films with live musicians, improvised soundtracks, and live narration in venues ranging from rooftops to art institutions, such as the Getty Center, the Walker Art Center, the Hammer Museum, the Wexner Center for the Arts, The Kitchen, and MoMA. He lives and works in the Appalachian hills of Pennsylvania.

SEE RELATED RESIDENCY ON PAGE 275.

DECONSTRUCTING PERCEPTION

Flip Phillips

IN OTHER WORDS
TALK / COMMISSION



SEPTEMBER 25, 2013

DISCIPLINE Science; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

In this talk, Skidmore College professor of psychology and neuroscience Flip Phillips tackled a series of questions about the nature of human perception: are the senses related, and how do they interact? What sort of “information” do we need to perceive our world? Can that information be decomposed into simpler, atomic parts? Phillips is a professor of psychology and neuroscience at Skidmore College, where he teaches and researches perception and action, and visual and haptic three-dimensional shape. He has also been a computer programmer, a medical imaging researcher, a cyclist/rower/cross-country skier, a professional musician, and an animation scientist at Pixar Animation Studios.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was commissioned in conjunction with Julien Maire’s lecture-performance, Open Core (see page 172).

IN OTHER WORDS
TALK / COMMISSION

HOW A SAUSAGE DOG WORKS

Ewa Borysiewicz



SEPTEMBER 24, 2013

DISCIPLINE Film/Video

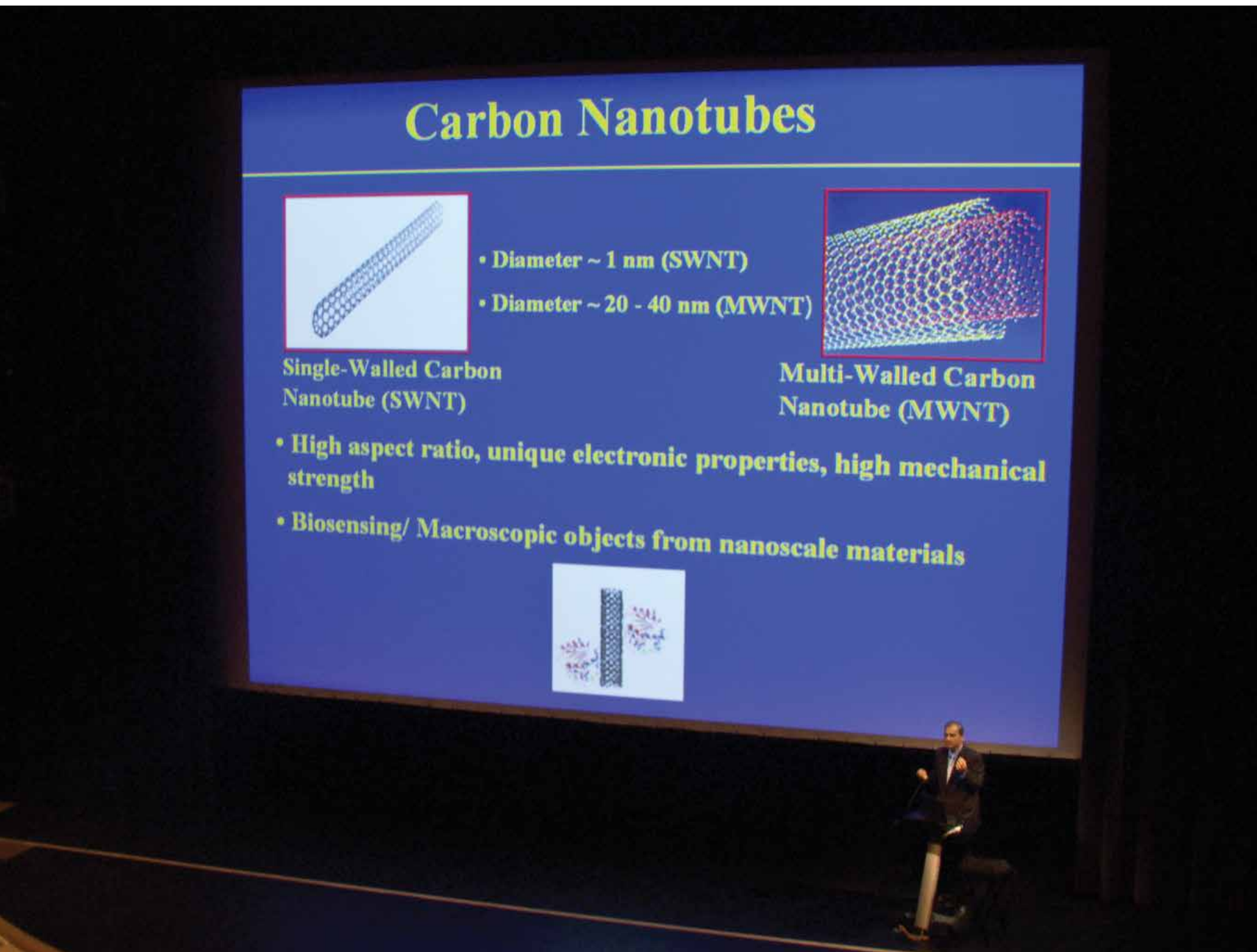
ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

In this talk, subtitled “The cameraless animation films of Julian Józef Antoniszczak and their political meaning,” curator Ewa Borysiewicz discussed the work of this Polish avant-garde filmmaker who scratched images directly onto film. Antoniszczak (1941-1987) is commonly associated with naïve, trashy fables and harmless humoresque, but Borysiewicz discovers a hidden and carefully considered political dimension in the filmmaker’s work. Borysiewicz co-curated the exhibition *A Few Practical Ways to Prolong One’s Life* (Zachęta National Gallery of Art, Warsaw, 2013) revolving around Antoniszczak’s ideas about the distribution of knowledge. Most recently, Borysiewicz authored *Rausz kinetyczny*,

a book exploring the political and emancipatory aspect of Antoniszczak’s artistic practice. She currently works at the Adam Mickiewicz Institute in Warsaw, Poland, as a curator of visual arts.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was commissioned in conjunction with Julien Maire’s lecture-performance, Open Core (see page 172).



SEPTEMBER 24, 2013

DISCIPLINE Science

CURATOR Emily Zimmerman

This talk described efforts to interface bioactive molecules with nanomaterials and nanoscale scaffolds for designing potent therapeutics and functional nanocomposites. Potent inhibitors of bacterial toxins are being produced based on the concept of polyvalency—the simultaneous binding of multiple ligands on one biological entity to multiple receptors on another. This talk described the design and characterization of polyvalent inhibitors that are several orders of magnitude more potent than the corresponding monovalent inhibitors and are effective in vivo.

Dr. Ravi Kane is the P. K. Lashmet Professor of Chemical and Biological Engineering at Rensse-

laer. In 2004, he was recognized by MIT's *Technology Review Magazine* as one of the top 100 young innovators in the world, and, in 2008, received the young investigator award from AIChE Nanoscale Science and Engineering Forum and a NYSTAR faculty development award. In 2011, he received the Trustees' Outstanding Teacher Award at Rensselaer. Dr. Kane has published more than 100 research articles in refereed archival journals.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.

SEPTEMBER 23–
OCTOBER 4, 2013

DISCIPLINE Film/Video

ABOUT THE PRODUCTION Commissioned by EMPAC and the Frieze Foundation for Channel 4

CURATOR Victoria Brooks

Patricia L Boyd's short film was produced during her Frieze Film commission production residency at EMPAC. It features an EMPAC production technician self-recording the assembly and breakdown of his Dodge truck engine. During a two-week shoot at EMPAC, Boyd experimented with different scenarios for capturing and combining handheld camera motion to create a film that resists the idea that gesture can be read as a transparent revelation of authorship. Curated and produced in collaboration with Nicola Lees (Frieze Foundation, London).

Patricia L Boyd lives and works between San Francisco and London. Selected solo exhibitions

include *Under Glass*, TG Gallery, Nottingham (2015); *Metrics*, Modern Art Oxford, Oxford (2014); *Clinic*, YEARS gallery, Copenhagen (2-person, 2014); *Ovum*, Ohio, Glasgow (2013); *The Pull*, The Vanity, Los Angeles (2012); and a solo event, *Nudes*, at Cubitt gallery, London (2013). In 2013 Boyd participated in the 12th Lyon Biennale and produced a Frieze Film commission. Her work has been exhibited in group exhibitions at Steirischer Herbst, Graz (2014); Gasworks, London (2014); as well as events at Chisenhale Gallery, London (2012) and The Showroom, London (2014).

SEE RELATED EVENT ON PAGE 122.

OPEN CORE *and* TO SUBLIMATE

Julien Maire

IN OTHER WORDS
PERFORMANCE

SEPTEMBER 20 + 21, 2013

DISCIPLINE Contemporary Performance

CURATOR Ash Bulayev

In his performances and installations, Julien Maire moves between the habits of visual perception and new ways of looking, and the confusion between reality and illusion. Through experiments enacted in front of an audience—mechanical, electronic, graphical, sculptural, chemical—Maire presents “an emptiness that is not transparent.” In *Open Core*, Maire revisited public demonstrations of anatomic dissection from the 16th century with a presentation in which he deconstructed cameras; the machines’ organs are then transplanted to gradually build new instrument prototypes. *To Sublimate* was a lecture-presentation where Maire staged experiments in search of a “blurry matter”—closely related to speed and optics, philosophy, and mathematics. A visual and performing artist, Maire’s work deconstructs and re-invents the technology of audiovisual media. He renews obsolete cinematic techniques and develops alternative interfaces to produce moving images. His research confronts immobility and movement, reality and fiction, and interrogates the notion of time and memory in the film image. Maire’s performance *Digit* and the installation *Exploding Camera* both received an honorary mention at Ars Electronica 2007. His work has been exhibited at venues such as the French Pavilion, 25th Alexandria Biennale, Egypt; *Behind the Image*, Artefact Festival, Belgium; 5th Seoul International Media Art Biennale, Seoul, Korea; and *Elandscapes*, Eart Festival, MoMA Zendai, Shanghai, China.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was presented in conjunction with talks by Flip Phillip talks (see page 168) and Ewa Borysiewicz (see page 169).



IN OTHER WORDS
TALK / COMMISSION

THE BEAUTIFUL VIOLENT FUTURES OF J.G. BALLARD

Ursula Heise



SEPTEMBER 11, 2013

DISCIPLINE Humanities; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Emily Zimmerman

The novels and short stories of renowned English writer J.G. Ballard—author of *Crash*, *Empire of the Sun*, and *The Atrocity Exhibition*, among others—frequently depict scenes of violence through lyrical language. In this EMPAC-commissioned talk, Ursula Heise recounted examples of these violent scenes and reflected on the role the media plays in them.

Heise is a professor of English at UCLA, a Guggenheim Fellow, and past president of the Association for the Study of Literature and the Environment. Her research and teaching focus on contemporary environmental culture, literature, and art in the Americas, Western Europe,

and Japan; theories of globalization; literature and science; and the digital humanities. Her books include *Sense of Place* and *Sense of Planet: The Environmental Imagination of the Global* (Oxford University Press, 2008), and *After Nature: Species Extinction and Modern Culture* (Suhrkamp, 2010).

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. Heise’s talk was presented in conjunction with Kris Verdonck’s new work ISOS (see page 177).



RESIDENCY
SEPTEMBER 6–13, 2013

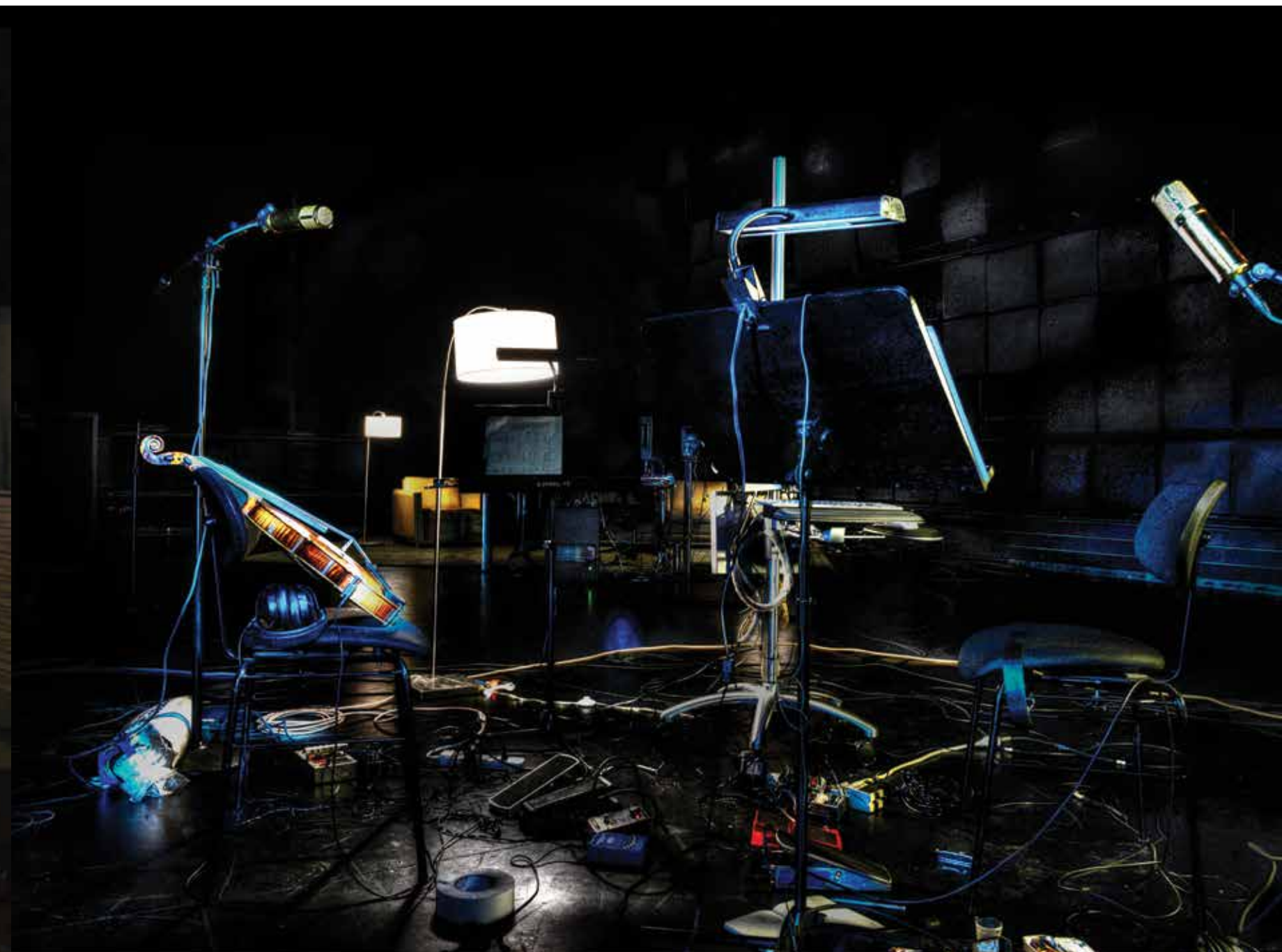
PERFORMANCE
SEPTEMBER 12, 2013

DISCIPLINE Music/Sound; Film/Video

CURATOR Argeo Ascani

Oneohtrix Point Never—aka Daniel Lopatin—is a Brooklyn-based composer who creates electronic music that is often described as “cinematic” and “orchestral.” While broad in range, Lopatin does not ignore the small stuff; his sound engineering crafts and controls every detail and effect. Pulling from a wide range of influences—synth sounds, television commercials, classical minimalism, and high-end audio production—Lopatin condenses the disparate sounds to form music that slopes forward with self-contained narratives. In preparation for the performance, Lopatin was in residence in the Concert Hall with visual artist Nate Boyce developing the live touring show for his album *R Plus Seven*.

Lopatin’s work deftly balances the experimental with the accessible, having produced albums under his Oneohtrix Point Never moniker on independent labels as well as a large catalogue of mini-album tape releases. In addition to his work as OPN, Lopatin has built live soundscapes at the MoMA, collaborated with Montréal-based ambient electronic music composer Tim Hecker, and provided production and arrangement work for Antony Hegarty, Doug Aitken, Fennesz, and Hans-Peter Lindstrøm, among others.



AUGUST 27–
DECEMBER 13, 2013
(2 VISITS)

DISCIPLINE Music/Sound

PUBLICATION *The Surveyors* by Architeuthis Walks on Land, Audio recorded and produced at EMPAC, Released by Carrier Records

CURATOR Argeo Ascani

Violist Amy Cimini and bassoonist Katherine Young have been performing together as Architeuthis Walks on Land since 2003. The duo is known in the free improvisation and noise scenes for their jagged and kinetically transfixing works and performances. Cimini and Young were in residence to record, mix, and master their album *The Surveyors*.

The duo developed their approach to improvisation in Chicago and New York City’s experimental music communities, where they have collaborated with artists like Anthony Braxton, Peter Evans, Jessica Pavone, Hans Joachim Irmiler from Faust, and the Tri-Centric Orchestra.

WORKS RECORDED
(all by composers Katherine Young & Amy Cimini):

The Speculators
2-84°03'N 174°51'W
The Asseyers
82°06'S 54°58'E
The Surveyors



IN OTHER WORDS
PERFORMANCE
RESIDENCY
TALK

ISOS

Kris Verdonck/A Two Dogs Company

PERFORMANCE TALK
SEPTEMBER 7, 2013

RESIDENCY
AUGUST 23–
SEPTEMBER 9, 2013

DISCIPLINE Film/Video; Visual Art

CURATOR Ash Bulayev

ISOS is a 3D video installation inspired by the apocalyptic science fiction novels of J.G. Ballard. Theater maker and visual artist Kris Verdonck worked extensively in residence on this installation, which focuses on the feeling of estrangement and “unheimlichkeit” (or eeriness) that arises from the tension between man and machine. Following the residency, an audience was invited to an open studio and lecture demonstration of his innovative stereoscopic filming techniques. Verdonck and his collaborators worked at EMPAC to construct precision sets, create custom lighting effects for microcosmic sets, and on a challenging 3D shoot with two high-definition cameras mounted for a bird’s-eye perspective.

Kris Verdonck’s visual arts, architecture, and theater training is reflected in the work he creates: his creations are situated between visual arts and theater, installation and performance, and dance and architecture.

In Other Words brought together six artists who delivered lecture-performances, and six thinkers who gave traditional talks. Juxtaposed, these talks built connections across boundaries and made dialogue a continuous process of renewal. This talk was presented in conjunction with Ursula Heise’s talk (see page 173).

MashUP!

PERFORMANCE

COLLOQUIUM

BEFORE THE MUSIC STARTS

*Susanna Bolle & Benjamin Nelson,
Keith Fullerton Whitman, Miki Kaneda,
Lawrence Kumpf, Mark Lewis, Robert AA Lowe,
Justin Luke, Pauline Oliveros, Jessica Rylan,
Frank Smigiel, and Robert Snowden*

AUGUST 14 + 15, 2013

DISCIPLINE Music/Sound; Visual Art

CURATORS Argeo Ascani, Victoria Brooks

The Jaffe Colloquia was a series of exchanges bringing together small groups of artists, curators, and theorists to informally discuss ideas centered around the conditions of, and perspectives on, time-based arts.

Almost a decade after EMPAC presented *Wow and Flutter*—featuring music, performances, and artists of the 1960s multidisciplinary San Francisco Tape Music Center—this two-day colloquium gathered varied perspectives on the current trend of cross-disciplinary artistic practice from those who produce and present visual arts performance and music. The colloquium explored the disconnect between visual and performance artists working with sound, and composers/musicians working with electronics. Despite collaboration, there remains a slippage of presentation and theorization between the disciplines. Currently, it seems that the modular synthesizer could be a bridge between the two. Through the process of obsessive planning, the tactility of performance, and the creation of dense soundfields, the analog mod synth is experiencing a resurgence among visual artists and musicians. Questions explored included: How do such old technological concepts have relevance in a digital world? Is knob twisting influencing a new generation of visual artists with its ease of entry, and entrancing composers and musicians with its physical controls? Will that one module that makes everything truly awesome ever be found? Does the experience of a satisfying click create a different sonic outcome than the reassuring LCD flash onscreen? Or is it really all the same to a lay audience? Is anyone even paying attention?

AUGUST 22, 2013

DISCIPLINE Dance; Music/Sound;
Tools and Technology

This annual event, featuring student performances as part of an electronic dance music mini-festival for the entire incoming class, is the culmination of a two-day workshop. Incoming freshmen participating in the workshop have the opportunity to work with fellow students and EMPAC staff to learn firsthand about the technology and work that goes on behind the scenes at EMPAC. The hands-on workshop paired students with EMPAC mentors, who guided them through the creative process with lighting, audio, video, and stage technologies.

This event was curated by Eric Ameres.

BRIDAL SHOWER

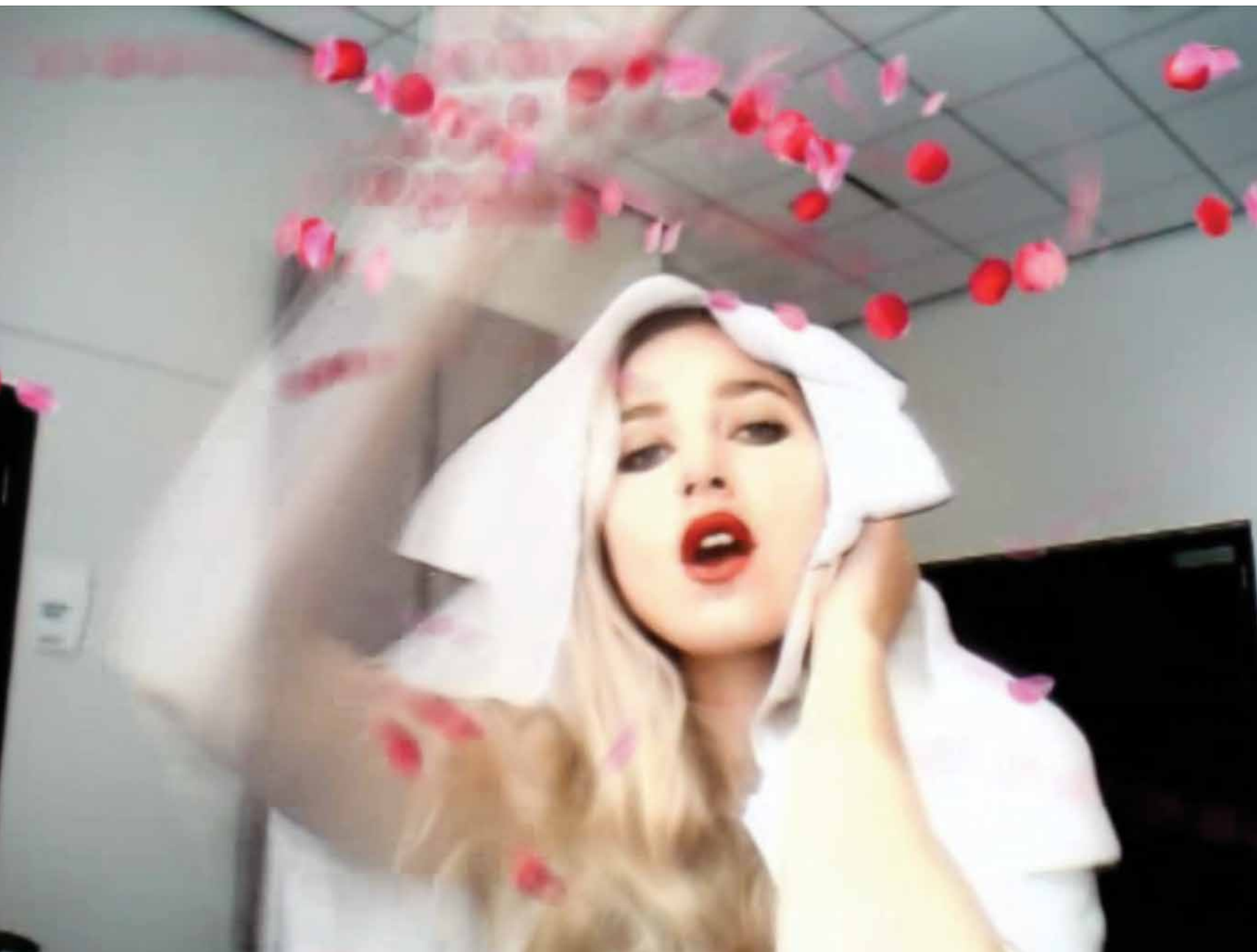
Petra Cortright

RESIDENCY / COMMISSION

COLLOQUIUM

ON CINEMA & CIRCULATION

Thom Andersen, Caetlin Benson-Allott, Richard Birkett, Evan Calder Williams, Ed Keller, Maryam Monalisa Gharavi, Carla Leitao, Pablo de Ocampo, Lucy Raven, Jason Simon, Alberto Toscano, and Oraib Toukan



AUGUST 5–21, 2013

DISCIPLINE Film/Video

ABOUT THE PRODUCTION Commissioned by EMPAC and the Frieze Foundation for Channel 4

CURATOR Victoria Brooks

Petra Cortright's *Bridal Shower* was produced during a Frieze Film commission production residency. The work moves beyond Cortright's past Internet-based experiments to test new production values associated with broadcasting. Cortright used the time, space, and technical support that the residency afforded to produce multiple videos that played with online language, particularly focusing on the representation of the physical body within the computer screen. Curated and produced in collaboration with Nicola Lees (Frieze Foundation, London).

Petra Cortright lives and works in Los Angeles, and is a member of the Nasty Nets Internet Surfing Club, Loshadka Internet Surfing Club, and Computers Club. Her work has been included in numerous exhibitions, including at the New Museum, New York; Rhizome, New York; the 12ième Biennale d'art contemporain de Lyon; San Jose Biennial; and the Internet Pavilion at the Venice Biennale. She has also had solo exhibitions at Club Midnight, Berlin, and Preteen Gallery, Mexico City.

SEE RELATED EVENT ON PAGE 122.



JULY 15–17, 2013

DISCIPLINE Film/Video; Humanities

CURATOR Victoria Brooks

On Cinema & Circulation was a three-day colloquium that allowed a group of artists, curators, and theorists a period of focused discussion to gather varied perspectives on the connections between industrial cinema and artist film, and attempt to bridge the slippage in discourse between film studies and art history. This discussion begins on the literal surface of films, with the scratches, dust, patches, and stains that come to mark a reel over the course of its circulation, as it is projected again and again over weeks, months, and years. In this process of material and economic degradation, we get a glimpse of a different map of the city—not the one filmed, but the one where the film was

projected; not in what the images contain, but in what obscures them.

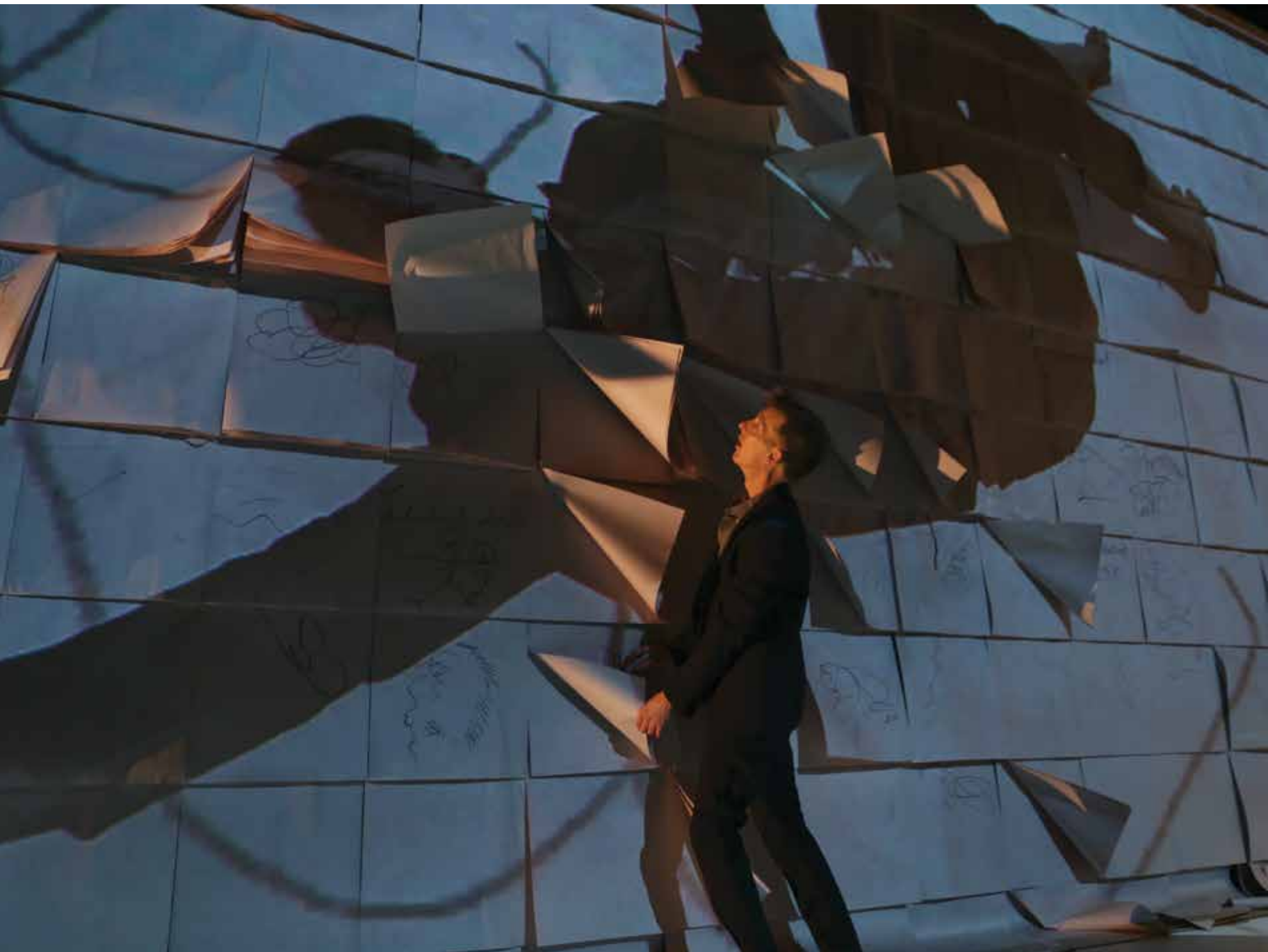
The Jaffe Colloquia was a series of exchanges bringing together small groups of artists, curators, and theorists to informally discuss ideas centered around the conditions of, and perspectives on, time-based arts.

LOST & FOUND
Marianne Kim

RESIDENCY / COMMISSION

RESIDENCY / COMMISSION

EUREKA, A LIGHTHOUSE PLAY
Ellie Ga



**JUNE 24, 2013–
JANUARY 17, 2014**
(2 VISITS)

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION An EMPAC DANCE
MOVIES Commission

CURATOR Ash Bulayev

Lost & Found is a DANCE MOVIES Commission utilizing pedestrian and abstracted movement, Dada-inspired vocals, original text, and music. It wanders, forgets, and reinvents as it traverses a psychological and musical fugue-scape layered with coordinates, musical fragments, messages, and textual shards—and remembers the body in crisis. Kim and her team worked with EMPAC staff on location filming topographical material to be projected as a backdrop on a giant wall constructed at EMPAC, which consisted of hundreds of layered paper panels to create a pixel-like effect. An intricate lighting design to accentuate these panels/pixels was created, followed by rehearsals and filming of the two performers on the set.

**JUNE 24–
OCTOBER 22, 2013**
(2 VISITS)

DISCIPLINE Contemporary Performance,
Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Ash Bulayev

Ever since it was destroyed by an earthquake in the Middle Ages, many have tried to reconstruct the Great Lighthouse of Alexandria, a wonder of the ancient world. Most recently, archaeologists have attempted to piece the lighthouse together after underwater remains were discovered lying outside Alexandria harbor. Drawing on an archive of photographs, video footage, documents, objects, and interviews, this performance recounts

Ellie Ga's experience at the marine archaeology program at Alexandria University, and describes the journey of an artist lost in the process of research and the impossible effort to piece together the thousands of stones barely visible

on the seabed. Spanning a variety of media, Ga's work probes the distinctions between documentary and fiction, private and public histories, writing and visual inscriptions, and the still and moving image. Her work has been presented at The Kitchen, New York; the Power Plant, Toronto; Fondation Cartier, Paris; and the New Museum, New York. Ellie Ga is represented by Bureau, New York.

THE ANGOLA PROJECT

Jeremy Xido & CABULA6

JUNE 12–OCTOBER 20, 2013
(2 VISITS)

DISCIPLINE Contemporary Performance

ABOUT THE PRODUCTION Part Three commissioned by EMPAC; *The Angola Project* was created in part during residencies at EMPAC, Lower Manhattan Cultural Council (NYC), Dance New Amsterdam (NYC), Transforma (Portugal), Tanzfabrik (Berlin), Maria Matos Theater (Portugal), and Impulstanz (Vienna).

CURATOR Ash Bulayev

The Angola Project is a series of multimedia lecture-performances that investigate the convoluted nature of storytelling, global travel, colonial history, and shifting notions of home in our age of poly-cultural mashup identities. It has its roots in travel lectures that emerged in the 19th century with figures such as Burton Holmes, and eventually led to contemporary documentary filmmaking—as well as slippery notions of “authenticity” and “truth.” This trilogy of performances straddles performance, dance, filmmaking, and flat-out lying, as the lectures follow the real-life travels of Jeremy Xido from Europe to Africa to Asia, trying to get a feature film financed. The film is constructed and falls apart before the audience’s eyes again and again, as different versions of truth clash and collide. The third part of the work, *Part 3–XIN*, was commissioned by and developed at EMPAC, where the artists surrounded a boxing ring with four screens and tested interactive components, including a heart-monitor sensor, which could trigger audio and video, as well as speech-recognition software. CABULA6 is an internationally acclaimed performance and film company led by artistic co-directors Claudia Heu and Jeremy Xido. They search out non-traditional performance spaces that make it possible to walk the line between what is “real” and what is constructed, bringing audience members face-to-face with their assumptions and expectations about who they are and with whom they live. CABULA6’s work ranges from stage pieces, to site-specific works, to films, to projects of social intervention. The company has presented work in Europe, the United States, South America, Asia, and Africa.

SEE RELATED EVENT ON PAGE 159.





**MAY 13, 2013–
JANUARY 10, 2014**
(2 VISITS)

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Ash Bulayev

Rosane Chamecki and Andrea Lerner, a.k.a. *chameckilerner*, are Brazilian choreographers and filmmakers whose collaboration began with the shared desire to create work based on bold physicality. Moving from live performance to film did not diminish their interest in the body as a map of oneself. In residence to produce an EMPAC-commissioned dance film, *chameckilerner* experimented in the use of high-speed video to achieve extreme slow-motion images of dancers' bodies—of various ages and shapes—in an Eskasizer vibrating belt massager. Zooming in to the point of abstraction, the result is a dance of the flesh. To achieve this result with 4,000-frames-per-second filming with the Phantom camera,

EMPAC's lighting team created a high-power lighting effect with custom-made diffusion panels.

During their 15-year collaboration, between 1992 and 2007, Rosane Chamecki and Andrea Lerner created more than 10 evening-length dances that toured internationally to much critical acclaim. In 2007, they premiered *EXIT* at The Kitchen in New York City. *EXIT* was a goodbye to their dance career and marked the beginning of their filmmaking collaboration. In 2008, the two were awarded a Guggenheim Fellowship.

MAY 13–JUNE 3, 2013

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Argeo Ascani

British acousmatic composer Manuella Blackburn is widely acclaimed for her intricate and meticulous compositions. Blackburn was in residence to work on a composition commissioned by EMPAC called *Time Will Tell*. Assembled from the sounds of various clocks recorded across upstate New York, Blackburn transformed their mechanistic tick into a frantic and moving world of sound. Blackburn is a lecturer in music technology at Liverpool Hope University, and has received many awards for her work, including first prize for Vista Points in the 10th Electroacoustic Composition Competition Música Viva 2009, Portugal, and the grand prize at the Digital Arts Awards, Japan, for *Kitchen*

Alchemy. Blackburn is also a member of The Splice Girls, a live laptop improvisation duo that performs at experimental music events.

SEE RELATED EVENT ON PAGE 147.

IT'S GOING TO GET WORSE AND
WORSE AND WORSE, MY FRIEND

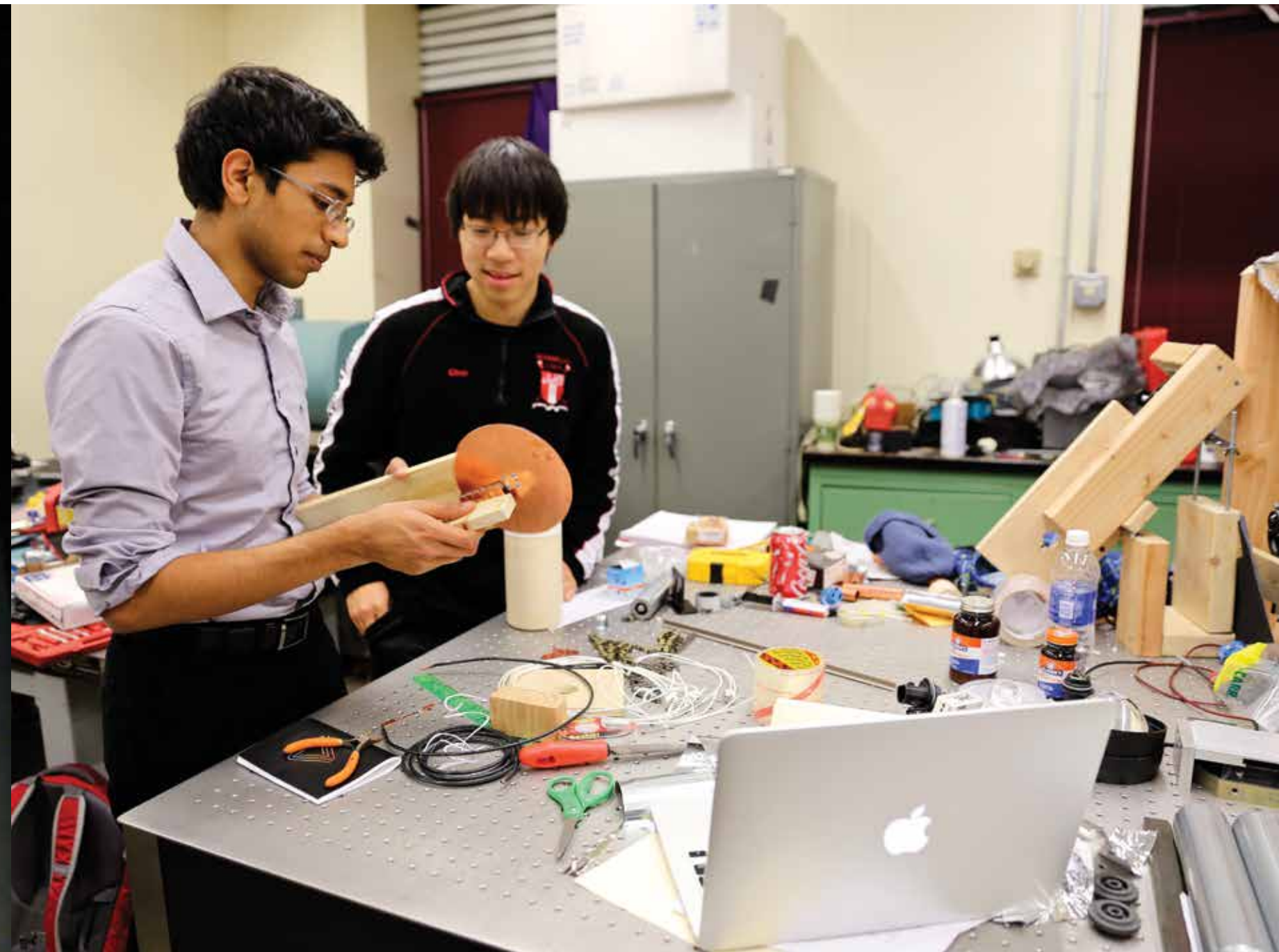
Lisbeth Gruwez & Voetvolk

PERFORMANCE

RESIDENCY / COMMISSION

THE VISION MACHINE

Melvin Moti



MAY 10, 2013

DISCIPLINE Dance

CURATOR Ash Bulayev

A speech can be a mighty weapon. Throughout the centuries it has enthused countless masses and mobilized them into action, for better or worse. It has unleashed revolutions and fueled wars. Such is the power of words. Belgian-based choreographer and dancer Lisbeth Gruwez transformed a recorded speech by ultraconservative American televangelist Jimmy Swaggart into a disturbing gesture and dance form. Her body juggles with words, makes syllables, shouts, stammers, horrifies, and fascinates. The piece deals less with the direct meanings of words and phrases and more with the violence that can lie in the rhetorical strategies of someone in a trance-like state.

Gruwez founded the dance performance group Voetvolk with Maarten Van Cauwenberghe in 2006.

MAY 10, 2013—
DECEMBER 6, 2014

DISCIPLINE Film/Video; Science; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Emily Zimmerman

The Vision Machine is a kinetic light sculpture that produces a short film based on the behavior of light in prisms. Melvin Moti led a team of undergraduate physics and engineering students to assemble the components of *The Vision Machine*: a light source shines through a prism and reflects off a series of Mylar-covered panels affixed to a rotating bike chain, projecting a kaleidoscopic display on the wall. The effect evokes rainbows, sundogs, halos, and other atmospheric optical effects that rely on the position and perspective of the viewer to become visible. The project is, in part, Moti's response to the obsolescence of celluloid film: an attempt to create a movie that will still be

viewable 50 years or more from today, due to its mechanical rather than electronic construction.

Melvin Moti lives and works in Rotterdam, Netherlands. He examines neurological, scientific, and historic processes in relation to visual culture. Over the last several years he has produced films, artist books, objects, and drawings. His two most recent films, *Eigengrau* (2011) and *Eigenlicht* (2012), were included in *The Encyclopedic Palace* at the 55th International Art Exhibition, Venice.

SEE RELATED EVENT ON PAGE 54.

VOLLEYBALL

David Mendonça & Rich Radke

RESEARCH



MAY 7–12, 2013

Biometric and other sensor technologies are enabling a re-examination of the cognitive underpinnings of effective teamwork. One test case is volleyball: a high velocity game with tightly interlocking patterns of coordination, but ample room for improvisation. A pilot study combined biometric sensors and continuous object tracking (via ceiling-mounted cameras) to stitch together a rich pattern of data on movement, communication, and strategic behavior. The results of this pilot study are expected to provide the foundation for a fuller-fledged study of how teams balance strategy and improvisation to achieve success.

PERFORMANCE

syn_

Ryoichi Kurokawa



MAY 3, 2013

DISCIPLINE Music/Sound; Film/Video

CURATOR Argeo Ascani

Ryoichi Kurokawa's audiovisual work *syn_* obscures familiar everyday imagery with vibrating, impossibly detailed geometric constellations. Performed live on dual projection screens, his visuals were accompanied with clouds of sound that pulsed in accord to construct a sensory experience of overwhelming energy.

Kurokawa's works take multiple forms, including installations, recordings, and live performance. His audiovisual compositions bring visual and sonic materials together using a completely revolutionary perspective. His works have been shown at international festivals and museums including the Tate Modern (London), *Venice Biennale*,

Transmediale (Berlin), and *Sonar* (Barcelona). In 2010, he was awarded the Golden Nica at Prix Ars Electronica in the Digital Music and Sound Art category. He lives and works in Berlin.



MAY 2, 2013

DISCIPLINE Film/Video; Music/Sound

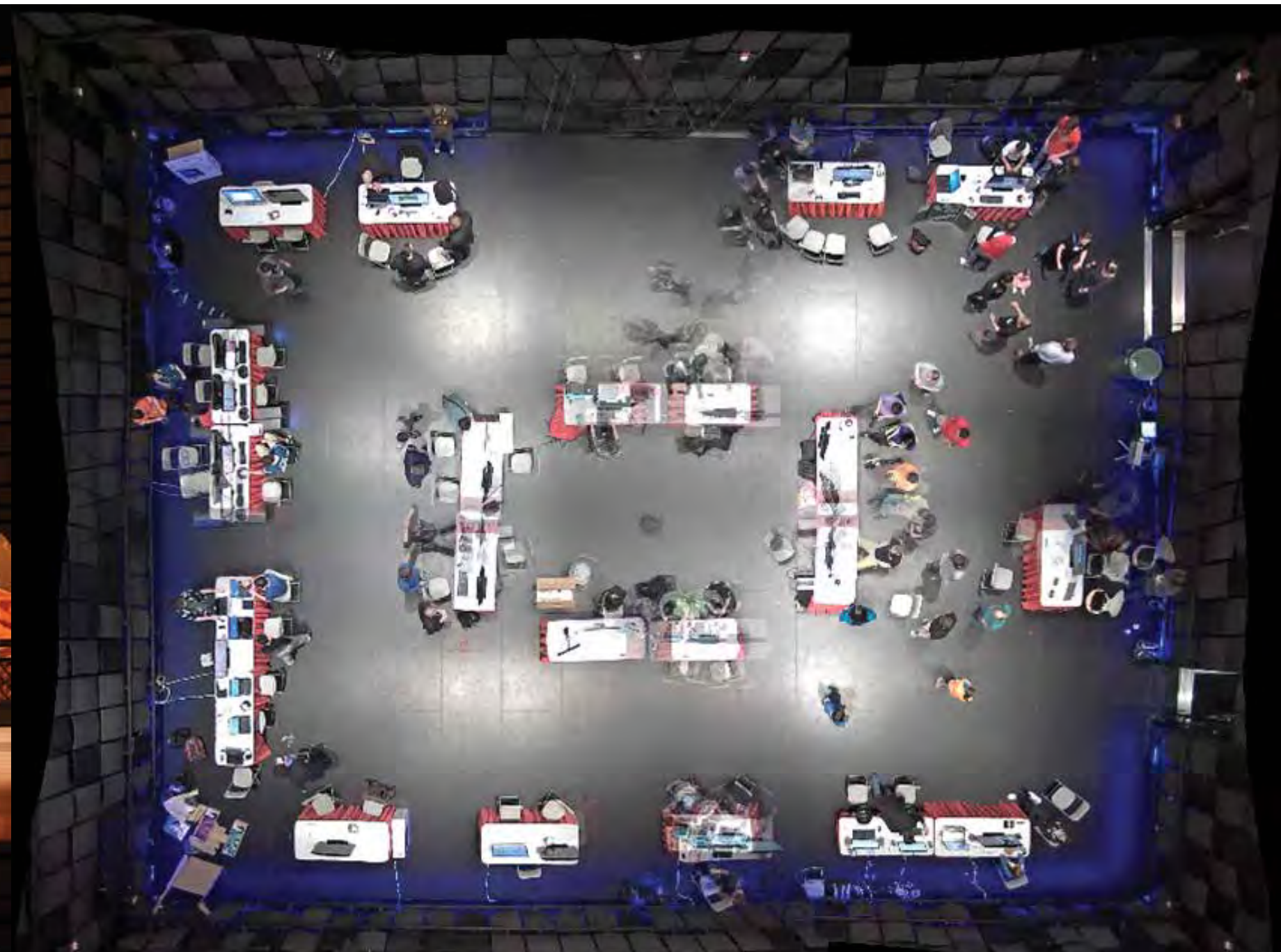
CURATOR Johannes Goebel

In two back-to-back screenings in one evening, Laurie Anderson presented many of her films and videos, culminating in a silent film with live music performed by Anderson and Pauline Oliveros.

One of America's most renowned performance artists, Laurie Anderson's genre-crossing work encompasses performance, film, music, installation, writing, photography, and sculpture. She is widely known for her multimedia presentations and musical recordings and has numerous major works to her credit. Pauline Oliveros is widely recognized as one of America's most important contemporary composers. A leader of the avant-garde and a pioneer of improvisatory

music, alternate tuning systems, contemporary accordion playing, electronics, and multimedia events, Oliveros continues to be a vital force through her performances, and through Deep Listening, a lifetime practice fundamental to her work. Oliveros is Distinguished Research Professor of Music at Rensselaer, and the Darius Milhaud Artist-in-Residence at Mills College in Oakland, California.

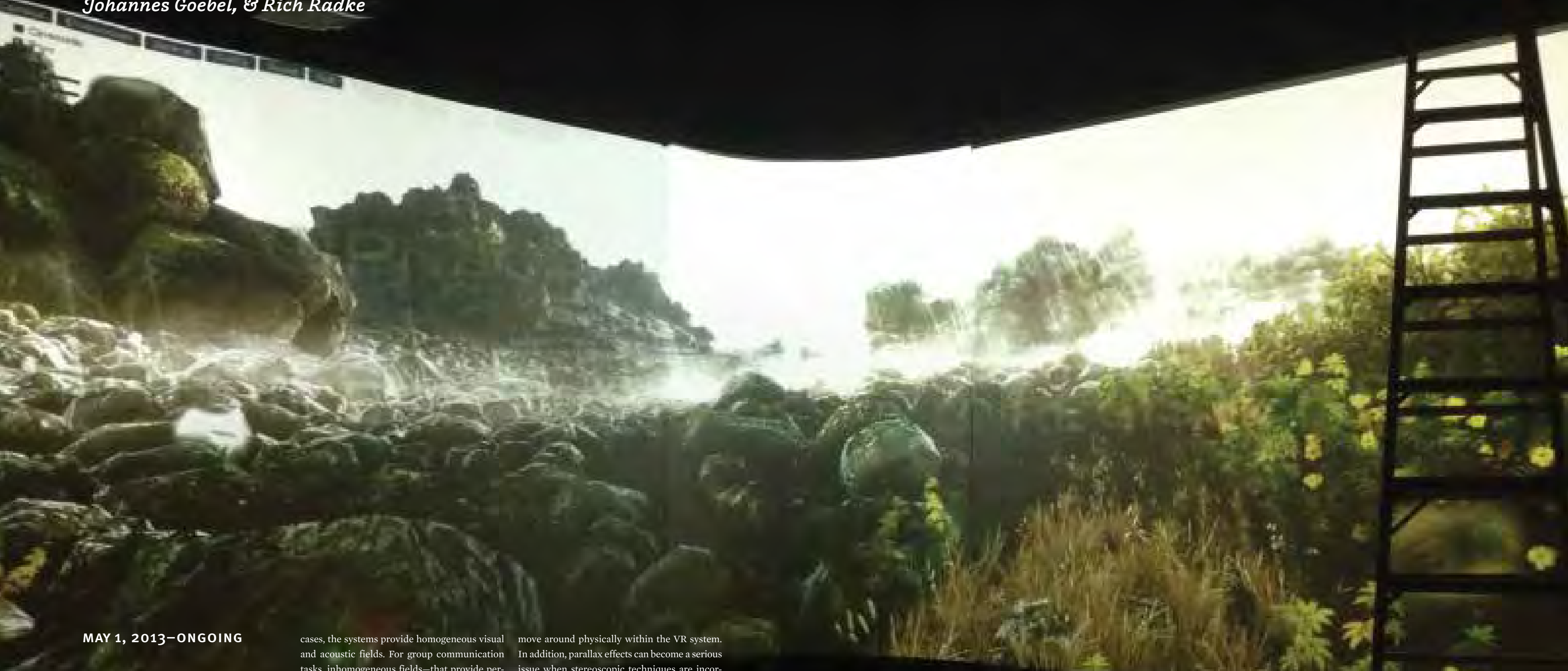
Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.



MAY 1–JUNE 30, 2013

Due to the congregation of infectious individuals, mass gatherings create environments that are conducive for acute respiratory infectious disease transmission, such as influenza. It has been difficult to estimate mixing patterns and disease transmission at mass gatherings using standard methods: after-the-fact contact surveys are often inaccurate, and require high participation among attendees. As an alternative, in collaboration with the Centers for Disease Control and Oak Ridge National Labs, Professor Rich Radke designed an overhead multi-camera system at EMPAC to automatically estimate contact rates in mass gatherings by processing video data. The system was installed and demonstrated at Rensselaer's

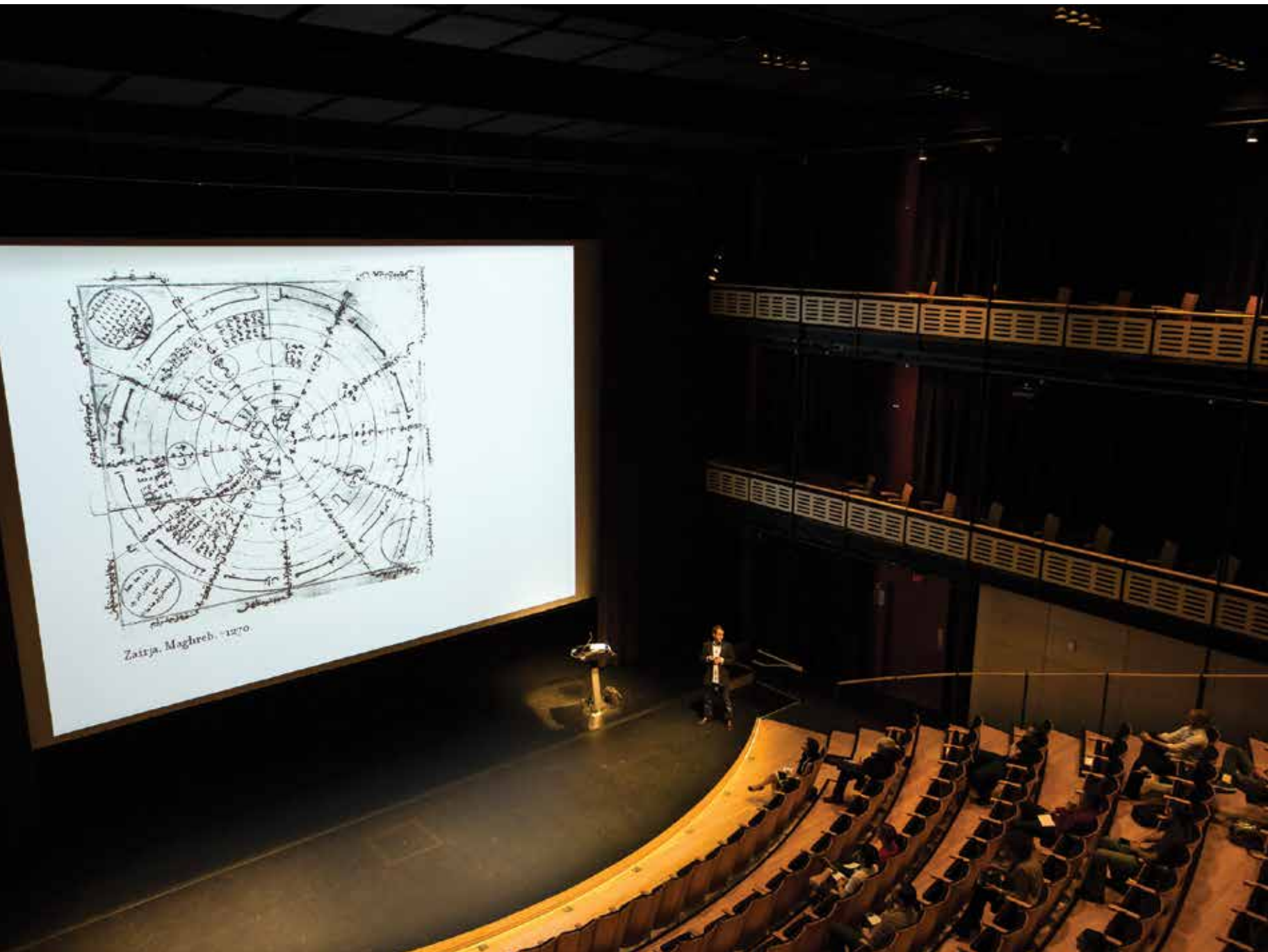
annual Gamefest event in April 2013. The results will be used to simulate infectious disease transmission in mass gatherings to help design better prevention and control strategies.

**MAY 1, 2013—ONGOING**

This project addresses the needs for specialized virtual-reality (VR) systems to enable and study communication-driven tasks with groups of users located in the same physical location, in which creatures and objects from the digital realm appear as “real-world” entities. While current multi-modal VR systems have achieved a high degree of realism, they either focus on the immersion of a single or very small group of users or on presenting material to a larger group of users in a cinema-type environment. In both

cases, the systems provide homogeneous visual and acoustic fields. For group communication tasks, inhomogeneous fields—that provide personalized visual and acoustic perspectives for each user—could provide better access to relevant information from the VR system’s display, and, at the same time, increase the experiential degree of presence and perceived realism. The reason for limiting current VR systems to a single perspective throughout the user area is manifold. In the visual domain, the reduction of a 3D physical space to a 2D projection on screens forces designers to render the images for a fixed point of convergence. Consequently, the perspective no longer changes naturally when the participants

move around physically within the VR system. In addition, parallax effects can become a serious issue when stereoscopic techniques are incorporated. In the acoustic domain, only wave field synthesis systems are known to be able to render inhomogeneous acoustic fields without using headphones. However, large-scale systems, as anticipated here, have only been established for pure acoustic systems or to create a large homogeneous sound field for cinemas. This project addresses the technical hurdles that need to be surmounted to establish a large-scale multi-user, multi-perspective, multi-modal display.



MAY 1, 2013

DISCIPLINE Humanities; Visual Art

CURATOR Emily Zimmerman

The Ferranti Mark 1 (1948–1958), the world's first commercially available electronic computer, was used to create some of the earliest computer music and video games. This talk, by artist and media archaeologist David Link, detailed the problems and solutions of resurrecting software for the Ferranti Mark 1.

Link's research in the field of software archaeology, which belongs to the broader field of archaeology of algorithmic artifacts, proceeds in a theoretical and practical way at the same time. As humans increasingly problem solve through machines and software, history must also account for algorithmic artifacts. Link's art installations

and performances have been shown all over the world, and he won the 2012 Tony Sale Award for computer conservation. His current research focuses on the development of an archaeology of algorithmic artifacts. Recent exhibitions include at Arnolfini, Bristol; MU, Eindhoven; and dOCUMENTA (13), Kassel.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

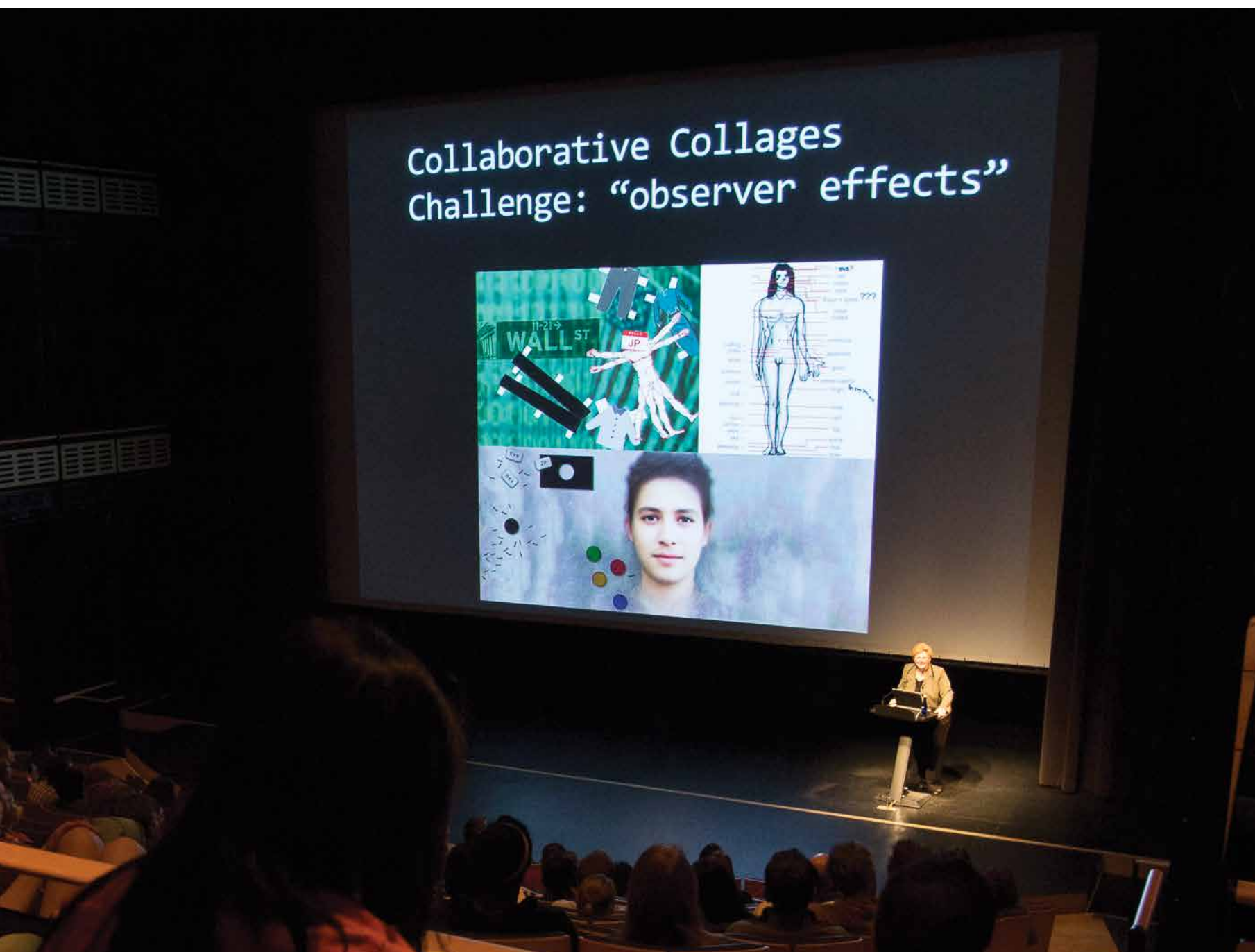


APRIL 18, 2013

DISCIPLINE Music/Sound

PULSE Live! is an annual evening of experimental and danceable electronic music in an immersive atmosphere composed, visualized, performed, mashed up, remixed, VJ'ed and DJ'ed by members of EMPAC's People Using Live Software and Electronics (PULSE) users group. Ambient and electronic performances are showcased first, followed by a test of the bass and beat limits of EMPAC's Studio 1. PULSE Live! was simulcast on campus radio station WRPI's *Sounds of Now* electronic dance music show.

This event was curated by Eric Ameres.



APRIL 17, 2013

DISCIPLINE Science; Tools and Technology

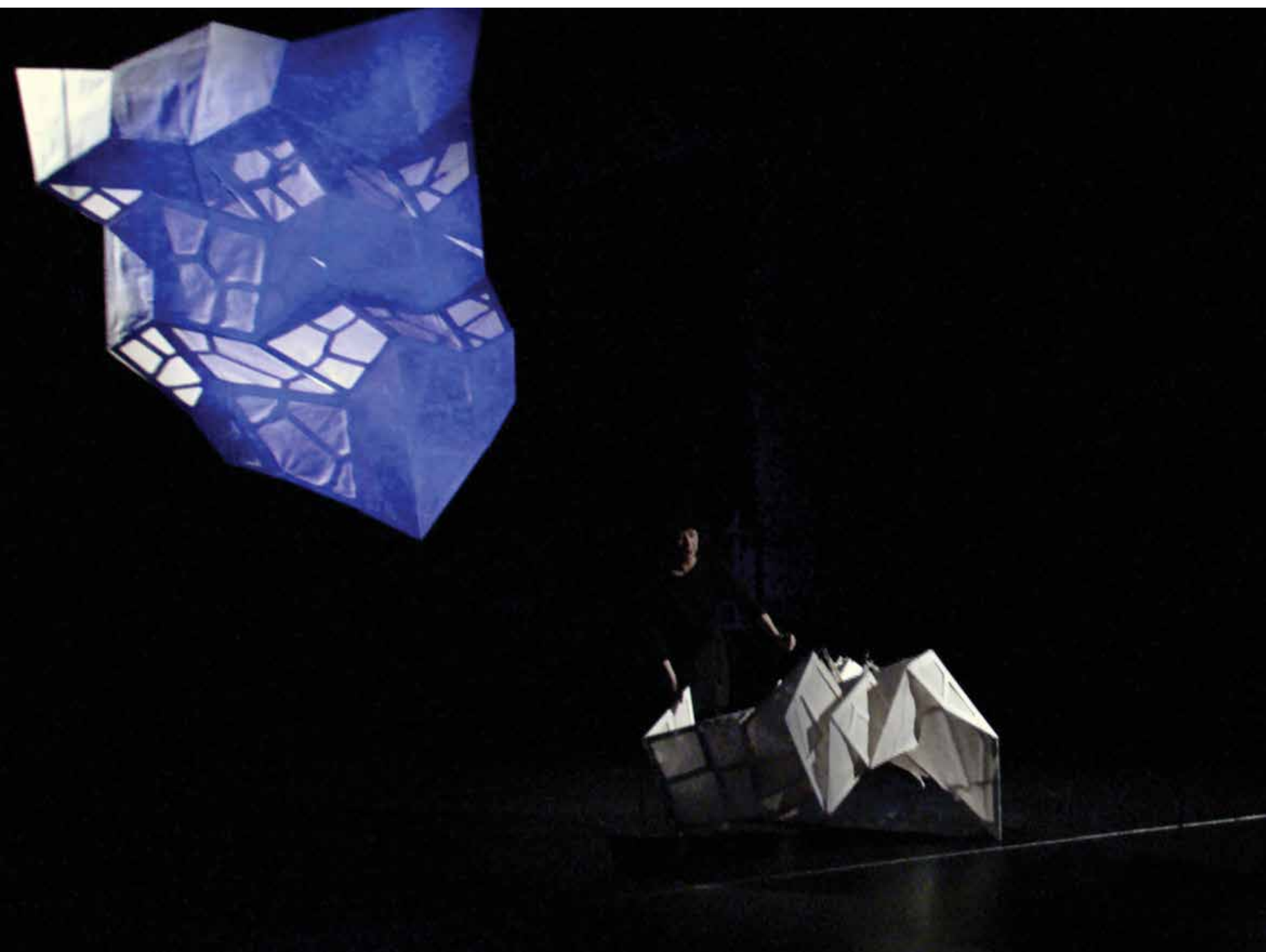
CURATOR Emily Zimmerman

In this talk, N. Katherine Hayles explored how digital media is changing us, and on what levels and in what ways. She examined the co-evolution of technical objects and contemporary humans, arguing that our intense engagements with digital media affect us not only through conscious channels but also through unconscious and nonconscious modes, as well, illustrated with examples drawn from gaming and electronic literature.

Hayles, professor of literature and director of graduate studies at Duke University, writes and teaches on the relationships of literature, science, and technology in the 20th and 21st centuries. Her most recent book is *How We Think: Digital Media*

and *Contemporary Technogenesis*. Hayles has received numerous awards and fellowships, including a Guggenheim, two National Endowment for the Humanities fellowships, and a Rockefeller Residential Fellowship at Bellagio.

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PERFORMANCE
APRIL 27, 2013

RESIDENCY
APRIL 15–28, 2013

DISCIPLINE Theater

CURATOR Ash Bulayev

Trieste is a contemporary fable inspired by the Italian city of the same name located on the Adriatic Sea. The performance unfolds in five segments, each relating to one feature of *Trieste: The Abyss, The Caves, The Sea, The Castles, and The Bora*. As in the board game Snakes and Ladders, where destiny is randomly decided, protagonists climb or fall from one level to another through breaches in the storyline.

Marie Brassard and Infrarouge, her Montréal-based theater company, completed the work in residence and then premiered it at EMPAC. The company developed reactive video, light, and sound environments that would respond to per-

formers in a mix of accidental and planned ways. After years of collaboration with director Robert Lepage, actress, director, and author Marie Brassard formed her own company, Infrarouge, to create multidisciplinary works throughout Europe, the Americas, and in Australia.

APRIL 5 + 6, 2013

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION An EMPAC DANCE
MOVIES Commission

CURATORS Ash Bulayev, Hélène Lesterlin

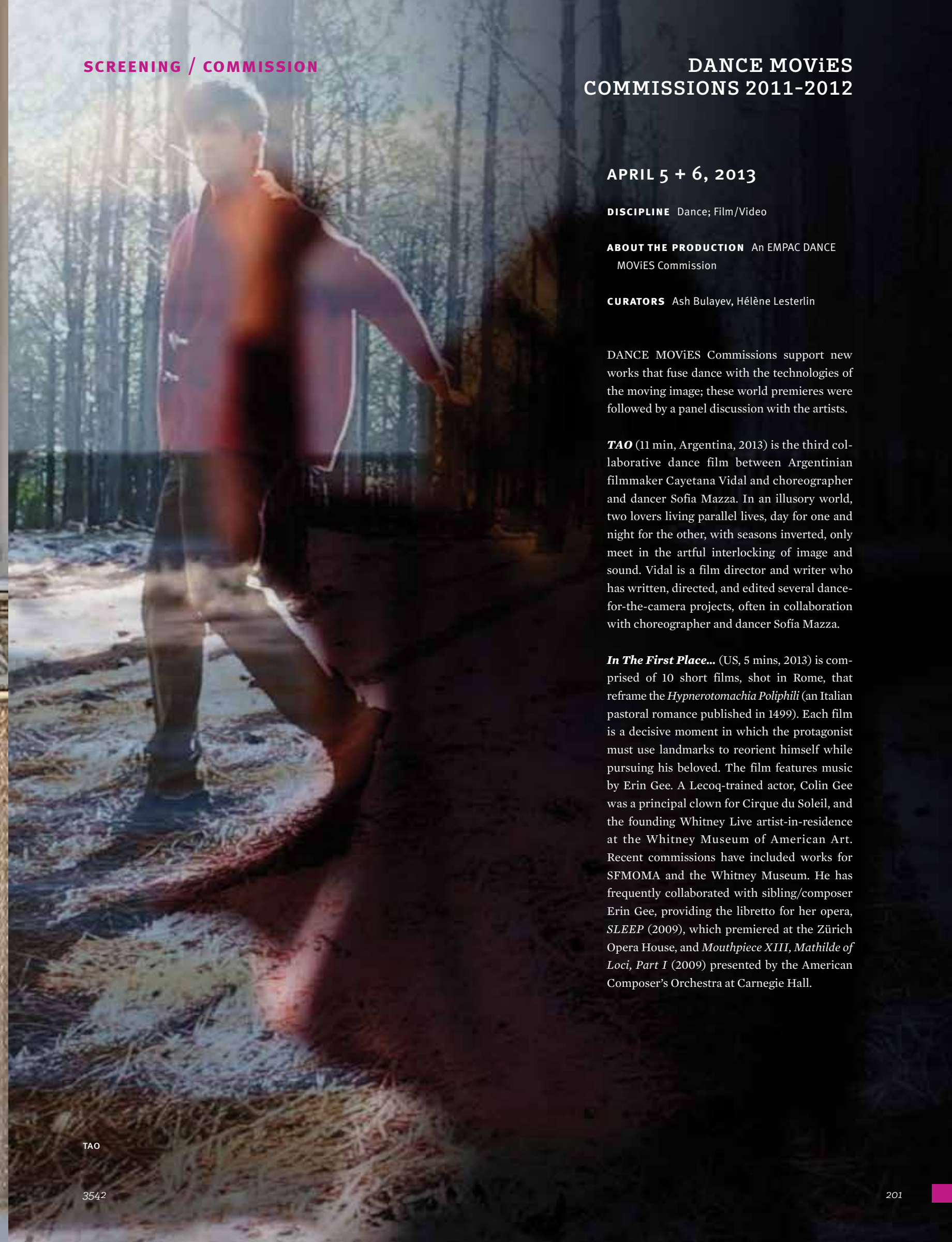
DANCE MOVIES Commissions support new works that fuse dance with the technologies of the moving image; these world premieres were followed by a panel discussion with the artists.

TAO (11 min, Argentina, 2013) is the third collaborative dance film between Argentinian filmmaker Cayetana Vidal and choreographer and dancer Sofia Mazza. In an illusory world, two lovers living parallel lives, day for one and night for the other, with seasons inverted, only meet in the artful interlocking of image and sound. Vidal is a film director and writer who has written, directed, and edited several dance-for-the-camera projects, often in collaboration with choreographer and dancer Sofia Mazza.

In The First Place... (US, 5 mins, 2013) is comprised of 10 short films, shot in Rome, that reframe the *Hypnerotomachia Poliphili* (an Italian pastoral romance published in 1499). Each film is a decisive moment in which the protagonist must use landmarks to reorient himself while pursuing his beloved. The film features music by Erin Gee. A Lecoq-trained actor, Colin Gee was a principal clown for Cirque du Soleil, and the founding Whitney Live artist-in-residence at the Whitney Museum of American Art. Recent commissions have included works for SFMOMA and the Whitney Museum. He has frequently collaborated with sibling/composer Erin Gee, providing the libretto for her opera, *SLEEP* (2009), which premiered at the Zürich Opera House, and *Mouthpiece XIII, Mathilde of Loci, Part I* (2009) presented by the American Composer's Orchestra at Carnegie Hall.



IN THE FIRST PLACE...



TAO

**ABOUT DIFFERENCES:
ART, SCIENCE, ENGINEERING**

Johannes Goebel

TALK

OBSERVER EFFECTS
TALK

**SEE ME IF YOU CAN! ART AND
THE LIMITS OF NEUROSCIENCE**

Alva Noë



APRIL 4, 2013

DISCIPLINE Science; Tools and Technology;
Visual Art

Engineering, science, and art are often seen as having common ground. This is fed by a romantic view of Leonardo da Vinci, the genius who brought these disciplines together in his mind, life, and practice, and by an enthusiastic view of computer technology that continuously provides new scenarios and tools, which are used in all three fields. Rather than putting everything into one bag and shaking it before deep-frying the mixture, Goebel instead looked at the differences of the three fields in their motivations, methodologies, and goals. From a clear and respectful view of these differences, a potential for collaboration and cross-pollination might evolve.

Johannes Goebel joined Rensselaer as director of the Experimental Media and Performing Arts Center (EMPAC) in 2002.

MARCH 27, 2013

DISCIPLINE Humanities; Science; Visual Art

CURATOR Emily Zimmerman

New ways of thinking about the nature of visual consciousness allow us to reconsider art and its place in our lives. In this talk, Alva Noë, a leading figure in cognitive science, argued that art is philosophical and philosophy is aesthetic. Against this background, there are new possibilities for understanding what it is to be a person, asking if our experience of the world stems from the firing of neurons in our brains or from our interactions with our surroundings.

Noë is a writer and a philosopher who works on the nature of mind and human experience. He is the author of *Action in Perception* (MIT Press, 2004) and *Varieties of Presence* (Harvard Univer-

sity Press, 2012). Noë is a professor of philosophy at the University of California, Berkeley, where he is also a member of the Institute for Cognitive and Brain Sciences and the Center for New Media. Noë is a 2012 recipient of a Guggenheim fellowship, and is a weekly contributor to National Public Radio's science blog *13.7: Cosmos and Culture*.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.



PERFORMANCE
MARCH 29, 2013

RESIDENCY
MARCH 26–30, 2013

DISCIPLINE Music/Sound

PUBLICATION *Destination: Void*, Audio recorded at EMPAC, released by More Is More Records

CURATOR Argeo Ascani

One of the most beguiling experimental jazz groups working, the Peter Evans Quintet contorts traditional jazz idioms with European avant-garde structures. Their music comes alive with complex rhythms, pinpoint virtuosity, and surprising techniques of prolongation. Evans and his ensemble performed at EMPAC while they were in residence recording material for their next album. Evans is a trumpet player and composer based in New York City who works across a wide spectrum of contemporary music practices. In addition to touring internationally with the quintet since 2009, he has formed collaborative groups with other composers and improvisers (Pulverize the Sound, Rocket Science) and performed music

by both new and established composers. As a trumpet player, Evans has been steadily working to broaden the expressive vocabulary of the instrument for both solo and group contexts. In 2011 he established his More is More label and has released several recordings of his music.

PROGRAM

ALL COMPOSITIONS BY PETER EVANS
12 (for Evan Parker)
For Gary Rydstrom and Ben Burt
Make It So
Tresillo

MARCH 25–APRIL 8, 2013

DISCIPLINE Dance; Contemporary Performance

CURATOR Ash Bulayev

Next to Focus was an interactive performance/installation where a performer actively produces or relocates the sound, and at the same time, is driven and mobilized by it. It seeks to create a physical experience in which the Cartesian dichotomy between significance and signifier is challenged. The collaborators—choreographer Maria Kefirova, visual artist Miguel A. Melgares, and composer and sound designer Martin Messier—worked at EMPAC on choreographing movement of sound in relation to the performers' body and static objects. A large-scale ceiling truss allowed rigging of multiple hanging speakers and objects—rocks—that could be swung and choreographed. The artists worked on the design

and programming of surround lighting to cast shadows from the swinging motion of the rocks.

Miguel Angel Melgares is a visual-performance artist based in Amsterdam, whose work incorporates performance, installation, films, photography and site-specific interventions. Bulgarian born, Maria Kefirova settled in Montréal in 1992. Working as a performer, she has developed a distinct choreographic practice that merges dance, theater, performance, and video. Martin Messier is a composer, performance artist, and videographer who explores the relationship between electroacoustic music and other art forms.



MARCH 22, 2013

DISCIPLINE Theater

CURATOR Ash Bulayev

Inspired by horror films, the work of Antonin Artaud, and Arduino open-source electronics, Radiohole's *Inflatable Frankenstein* is a visually and sonically driven performance based on Mary Shelley's early life and her novel *Frankenstein*. Arising from a world of gods and monsters (and thousands of Walmart and Price Chopper grocery bags) is a desecration too terrible to behold and too beautiful to turn away from, leading to an improbable question: what is it like to be a metaphor for everything?

Radiohole is a Brooklyn-based performance collective founded in 1998 by Erin Douglass, Eric Dyer, Maggie Hoffman, and Scott Halvorsen

Gillette. At the heart of the company's ethic is collaboration and play. Their cut-up techniques, rich object-oriented visual sense, amplified, sampled sound, and raw, energetic performance style owe as much to the punk and new wave movements of the 1970s and '80s as they do to any formal theatrical tradition.

SEE RELATED RESIDENCY ON PAGE 270.

MARCH 6, 2013

DISCIPLINE Humanities; Science; Tools and Technology

CURATOR Emily Zimmerman

Greg Moynahan addressed the rise of scientific experimentation and its relation to experimentation in the arts. He considered the early history of both through their common location in collections and museums, suggesting that the appearance of the problem of infinity in natural philosophy was important for the modern relationship between scientific and artistic experimentation. The talk focused on thinkers such as Nicholas of Cusa and Gottfried Leibniz.

Moynahan has taught in the history and science, technology, and society (STS) programs at Bard College since 2001. He specializes in modern European intellectual and cultural history and

the history of technology, and his research interests include the history of theoretical biology, systems theory, and "scientific" racism and political history of computing and cybernetics in the two Germanys. His book, *Force and Form: Ernst Cassirer and the Critical Science of Germany, 1902-1919*, was published by Anthem Press (London) in 2013.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea psychology, and politics.



FEBRUARY 15–16, 2013

DISCIPLINE Contemporary Performance**CURATOR** Ash Bulayev

Hot Box draws inspiration from a cinematic vocabulary—pans, zooms, cuts, etc.—while attempting to find a sustained stillness in an uncomfortable environment. Inspired by films like *Apocalypse Now* and *Fitzcarraldo*, it is a live performance that is violent and chaotic; and from that chaos arises a sequence of video images that are quiet, sustained, focused, and organized. Conceived, directed, and performed by Brian Rogers, *Hot Box* is a companion piece to his Bessie-nominated 2010 performance *Selective Memory*. Where *Selective Memory* was extremely clean and minimalist in its approach, *Hot Box* is noisy and messy.

Rogers is a director, video artist, co-founder, and artistic director of the Chocolate Factory Theater in Queens, which supports the creation of theater, dance, music, and multimedia performances. Since 1997, Rogers has conceived and/or directed numerous large-scale performances at the Chocolate Factory and elsewhere.

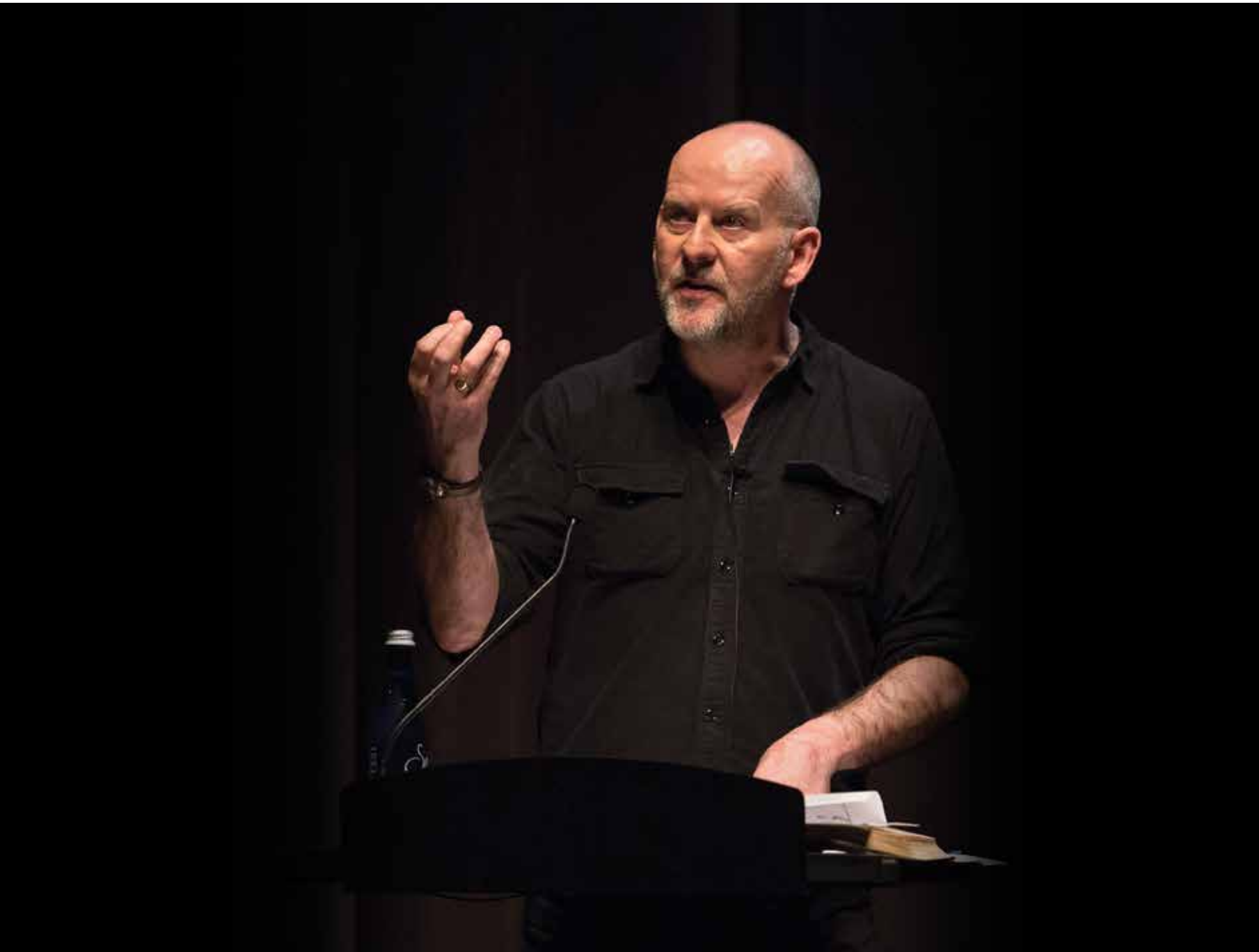
FEBRUARY 14, 2013

DISCIPLINE Music/Sound; Contemporary Performance; Tools and Technology**CURATOR** Johannes Goebel

Laurie Anderson discussed the ever-evolving development of new instruments and interfaces for her productions and performances, and her “new rig,” which finally allows her to travel with her custom configuration of instruments in a suitcase. She was joined by her software and hardware collaborators: Konrad Kaczmarek, Liubo Borissov, and Shane Koss. She also discussed her new work with the Kronos Quartet, *Landfall*, one of the projects she was working on in residence at EMPAC. Throughout her genre-crossing career, Anderson has invented several technological devices for use in her recordings and performance art shows, including voice filters, a tape-bow violin, and a talking stick. In 2002,

she was appointed NASA's first artist-in-residence, and she was also part of the team that created the opening ceremony for the 2004 Olympic Games in Athens. She has published six books, produced numerous videos, films, radio pieces, and original scores for dance and film. In 2007, she received the prestigious Dorothy and Lillian Gish Prize for her outstanding contribution to the arts.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.



FEBRUARY 12, 2013

DISCIPLINE Humanities

CURATOR Emily Zimmerman

Simon Critchley, author of *The Book of Dead Philosophers*, recounted anecdotes of philosophers' deaths since antiquity that range from the noble to the ridiculous. Through the lens of their last moments, Critchley reflected on the relationship between a philosopher's work and his death, in the process questioning the adage "to philosophize is to die well" and meditating on the role that philosophy plays in living a good life in a society like ours—one that spends so much time and space denying the reality of death.

Critchley is the Hans Jonas Professor of Philosophy at the New School for Social Research, where he has taught since 2004. He is the author

of more than a dozen books; *The Book of Dead Philosophers* (Vintage, 2009) was on the *New York Times* extended bestseller list and has been translated into 15 languages. Critchley is a series moderator of and regular contributor to "The Stone," an online philosophy column for the *New York Times*. He also writes for *The Guardian*.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

**PERFORMANCE
FEBRUARY 7, 2013**

**RESIDENCY
FEBRUARY 1–8, 2013**

DISCIPLINE Music/Sound

PUBLICATION *A U R O R A* by Ben Frost, Audio recorded in Eastern DR Congo, Reykjavík, and at EMPAC, mastered at Greenhouse Studios, and released by Bedroom Community.

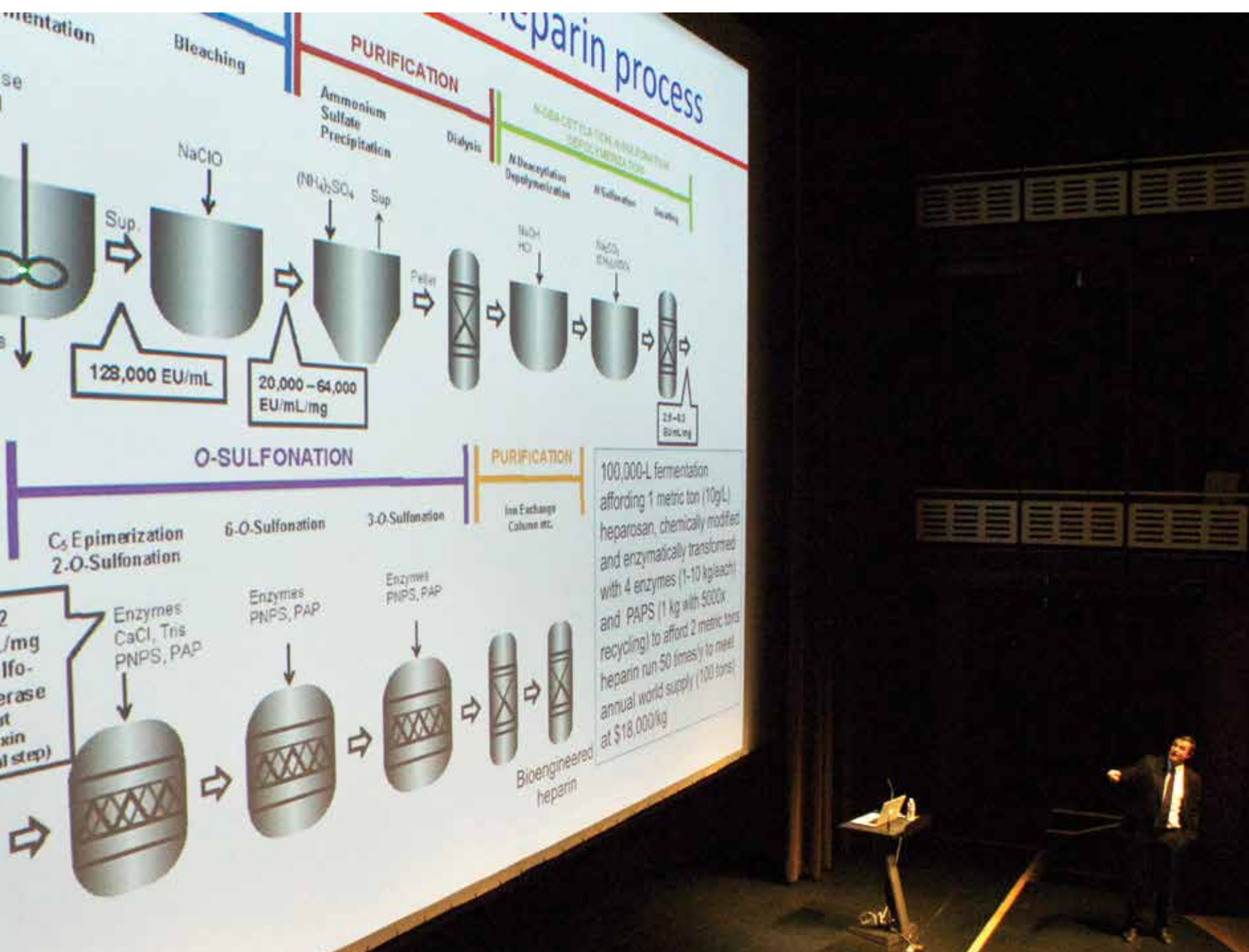
CURATOR Argeo Ascani

Ben Frost's music is not just heard; it's felt. Influenced by classical minimalism, punk rock, and metal, he creates intense, monolithic sounds that command attention. Keenly aware of listeners' thresholds, Frost exploits every extreme of pitch and volume as he pushes the sound of electric guitars, drums, and laptops out from a wall of speakers and amps. As the music unfolds, overlapping layers and elongated structural forms emerge from within the encompassing sonic space. Frost and his group were in residence to record and perform his composition *A U R O R A*. While using EMPAC's Studio 1 for tracking, he routed sound back through the Concert Hall, transforming it into a real-time reverb chamber.

Frost has given building-shaking performances at international festivals such as Montréal's MUTEK, combining amplified electronics with the furious thrashing of live guitars. His music's intense physicality has also driven contemporary dance productions by Chunky Move, the Icelandic Dance Company, and the choreographers Erna Ómarsdóttir and Wayne McGregor.

Robert J. Linhardt

Kris Verdonck & Alix Eynaudi



JANUARY 29, 2013

DISCIPLINE Science

CURATOR Emily Zimmerman

Heparin is a prominent and widely used clinical anticoagulant prepared from animal tissue; a contamination crisis in 2008 led to an examination of the opportunities to use biotechnology to engineer improved heparin products. It also highlighted challenges in maintaining food and drug safety in a global marketplace. Linhardt discussed projects to better understand heparin biosynthesis using molecular biology to engineer organisms and nanotechnology to prepare devices on which biosynthesis can take place.

Linhardt is the Ann and John H. Broadbent, Jr. '59 Senior Constellation Professor of Biocatalysis and Metabolic Engineering at Rensselaer,

holding appointments in the chemistry and chemical biology, biology, chemical and biological engineering, and biomedical engineering departments. His honors include the American Chemical Society Horace S. Isbell Award. He is a fellow of the AAAS and one of the *Scientific American* Top 10, has published over 600 peer-reviewed manuscripts, and holds over 50 patents.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.



JANUARY 25, 2013

DISCIPLINE Contemporary Performance; Dance

CURATOR Ash Bulayev

What value does our society attach to relaxation, rest, silence, sleep, and laziness? Are we caught up more than ever in the relentlessness of production and consumption? These were the central themes behind this performance created by Belgian artist Kris Verdonck and choreographer Alix Eynaudi that played with basic theatrical elements such as light, sound, movement, language, and scenography to steer the audience's perception. According to Verdonck, "...sleep is anarchistic, not in the destructive sense, but rather dangerously constructive. Without sleep, our ideas and our knowledge become superficial mass products and therefore easy to set aside...by doing nothing at all, man becomes more productive and his

knowledge more in-depth, thereby making him less vulnerable in a world that is flooded with information and choices."

Kris Verdonck's visual arts, architecture, and theater training is reflected in the work he produces: his creations are situated between visual arts and theater, installation and performance, and dance and architecture. Alix Eynaudi trained as a ballet dancer in the Opéra de Paris; in 1996, she joined Anne-Teresa De Keersmaeker's company Rosas. She works in Brussels creating her own pieces, and in collaboration with Anne Juren, Marianne Baillot, and Agata Maszkiewicz.

NEW FILM (A PERSONAL ESSAY)

Laurie Anderson

RESIDENCY

RESIDENCY

THE NEGOTIATION OF CONTEXT

Davíð Brynjar Franzson & Yarn/Wire



**JANUARY 16–
SEPTEMBER 20, 2013**
(2 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance

CURATOR Johannes Goebel

Begun as a 40-minute personal essay for French-German Arte TV, this untitled film by EMPAC distinguished artist-in-residence Laurie Anderson captures a series of interconnected confessional stories set against a soundtrack of original music. Partially filmed at EMPAC, the film has been expanded to feature length, driven by Anderson's spirit of transformation, embracing uncertainty in her process while allowing the work to take on new properties as it was being made. In crossing the nebulous border between television and feature film, Anderson's film reveals new insights into each, while also opening a cinematic window into her own life.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

SEE RELATED EVENT ON PAGE 48

JANUARY 14–18, 2013

DISCIPLINE Music/Sound

PUBLICATION *the Negotiation of Context* by Davíð Brynjar Franzson and Yarn/Wire, Audio recorded and produced at EMPAC, released by WERGO

CURATOR Argeo Ascani

Icelandic composer Davíð Brynjar Franzson was in residence with ensemble Yarn/Wire to record, edit, and master both audio and video for an upcoming release. Franzson is known for his experimentation with music at the edge of perception, bringing sounds from between the cracks of consciousness to the forefront of perception. Yarn/Wire is a New York City-based ensemble featuring two pianists and two percussionists who interpreted Franzson's work for the recording. Yarn/Wire frequently presents US premieres by leading international composers, in addition to premieres of music written specifically for the ensemble. Davíð Brynjar Franzson has collaborated with ensembles such as Ensemble

Adapter and the Mivos Quartet in addition to Yarn/Wire. His scores are published by Schott Music and his music can be heard on WERGO, Innova, Spektral, Smekkleysa and Carrier Records, a NYC-based record label that he co-runs with Sam Pluta and Jeff Snyder.

WORKS RECORDED (ALL BY COMPOSER DAVÍÐ BRYNJAR FRANZSON):
the Negotiation of Context (A)
for piano and pump organ
the Negotiation of Context (B)
for two pianos and two bass drums
the Negotiation of Context (C)
for piano and assistant

PERFORMANCE
JANUARY 26, 2013

RESIDENCY
JANUARY 11–28, 2013

DISCIPLINE Contemporary Performance; Theater

CURATOR Ash Bulayev

The goal for *HeadSwap* was to allow participants to choose an individual point of view within footage shot in Japan and New York City, while “swapping their heads”: simultaneously seeing what another person chooses to see. During a three-week research residency, Joris and a multi-disciplinary team of designers, programmers, and dramaturges worked to composite different video and graphic sources and find a way to view the end result in an “omnidirectional” way. They tested spherical layers upon which different media could be textured, and developed hardware to render and composite live images from a 360-degree camera without visible loss in quality or delay. This research enabled CREW to explore the conflict between live and prerecorded images and to see where both can enhance each other. At the end of the residency the work-in-progress was presented to the public followed by a discussion with the artists.

CREW, a Belgium-based multidisciplinary team of artists and researchers founded by Eric Joris integrate technology into theatrical events to create new forms of experience. They create immersive environments for audiences, using video goggles and interactive technology, that put each spectator at the heart of the experience and that challenge notions of presence, spectatorship, and narration.

**JANUARY 1–
DECEMBER 31, 2013**

Innovations in acoustic design are sometimes hidden, misunderstood, or lost entirely once construction ends and design teams move on. Zackery Belanger worked for acoustician Kirkegaard Associates from 2002 to 2010, witnessing the EMPAC project through small design roles and large analysis processes. During this time he identified a few key innovations in the design of the Concert Hall and became convinced of their potential to advance the field. For this research residency, Belanger utilized the Concert Hall and numerical simulations, and established architectural design software to explore one possible future for architectural acoustics. In this future, our understanding of the relationships between enclosure geometry and sound will be an integral component of the design process. Surfaces of absorption, diffusion, transmission, and reflection will no longer occupy discrete categories, but instead lie on a continuous spectrum of geometric possibility, and the traditional use of the term “acoustic treatment” will become archaic.

SEE RELATED EVENT ON PAGE 112.

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research.

In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



BOTH PAGES / HEADSWAP

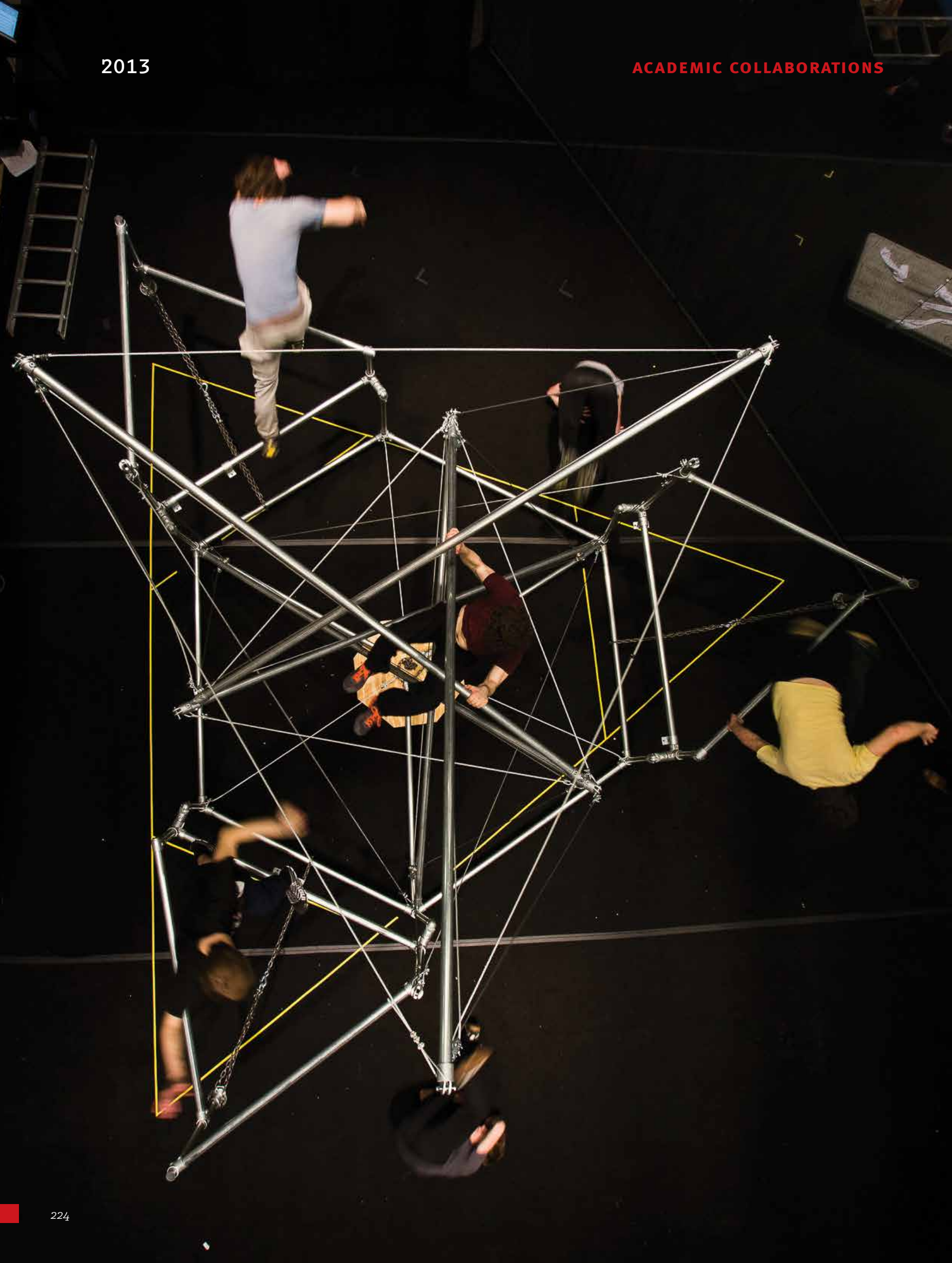
EMPAC provided curatorial and technical support for *The Machine Starts*, a performance developed by the Production, Installation, and Performance (PIP) design studio. PIP brings together School of Architecture and Arts Department students to develop a performance with a visiting artist. *The Machine Starts*, directed by visiting artists Mary Ellen Strom and Joanna Haigood, was based on E.M. Forster's 1909 prescient dystopian novella that predicts the Internet, global environmental ruin, and the influence of technology on human experience. The performance included non-traditional student performers such as a cappella singing group The Rusty Pipes, The Parkour Club athletes who practice "freerunning," and Center Stage, a spoken word group. Six performances were presented at EMPAC.

Academic interactions with visiting EMPAC artists included the Belgian multidisciplinary team CREW—which includes theater artists, programmers, and researchers—which was in residence at EMPAC to develop their new work, *HeadSwap* (see page 217). While on campus, CREW did a presentation of their research to a new media theory class, including a demonstration of their immersive rigs. CREW's managing director Hilde Teuchies delivered a lecture to cognitive science PhD students on CREW's use of immersive technology as described in *Performing Phenomenology: Negotiating Presence In Intermedial Theatre*, a paper by professors Kurt Van Houtte and Nele Wynants of the University of Antwerp.

Other interactions included composer and musician Ben Frost, who met students through the Clustered Learning, Advocacy, and Support for Students (CLASS) program and the People Using Live Software and Electronics (PULSE) users group. Kris Verdonck, a theater maker and visual artist, delivered talks to Arts Department classes on his innovative stereographic techniques. Scholars Flip Phillips (Skidmore College professor of psychology and neuroscience) and N. Katherine Hayles (professor of literature and director of graduate studies at Duke University) met with students and faculty in post-lecture receptions.

Other academic and extracurricular opportunities for students included MashUP!, the annual mentored workshop (in collaboration with the Office of First-Year Experience) for incoming freshmen, where they learn the basics of producing a multimedia event culminating in a campus dance party. EMPAC also hosted the PULSE users group and offered courses as part of Rensselaer's information technology and Web science degree program. In addition, more than 100 students worked at EMPAC in technical, production, and administrative capacities, learning and advancing skills through an apprenticeship model.





Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2013.

CAMPUS CONNECTIONS



CONGRESSMAN JOHN R. LEWIS AT THE 2013 PRESIDENT'S COMMENCEMENT COLLOQUY.

ALUMNI RELATIONS

NANO RECEPTION 2013 The 11th annual conference exploring global opportunities in nano-biotechnology and related science and engineering fields, providing networking opportunities to researchers, engineers, physicians, environmental scientists, technology transfer specialists, policy makers, venture capitalists, and others.

REUNION AND HOMECOMING ALUMNI COMEDY NIGHT Rensselaer alumni Eric McMahon '83 and Trent Gillaspie '08 performed stand-up for Reunion & Homecoming attendees.

CAMPUS AND PRESIDENTIAL EVENTS

2013 PRESIDENT'S COMMENCEMENT COLLOQUY: LEADING CULTURAL SHIFTS: COURAGE, CREATIVITY, COMMITMENT President Shirley Ann Jackson was joined by civil rights activist Congressman John R. Lewis, US House of Representatives (Georgia); Admiral Michael G. Mullen, USN (Ret.), former chairman of the Joint Chiefs of Staff; Ursula M. Burns, chairman and CEO, Xerox; and Patricia Q. Stonesifer, founding CEO of the Bill & Melinda Gates Foundation, as part of the annual commencement ceremony at Rensselaer.

2013 STATE OF THE INSTITUTE ADDRESS/ALUMNI HALL OF FAME INDUCTION: A UNIVERSITY TRANSFORMED AND TRANSFORMATIVE President Jackson discussed the grand global challenges we face and the way Rensselaer is positioning itself to meet them, including leadership roles in significant areas of research, focusing on "signature thrusts" in computational science, engineering, nanotechnology, biotechnology, and cross-discipline intersections of science and art. President Jackson also paid tribute to the alumni who have "reshaped our world" in such diverse, important ways and acknowledged the contributions of several distinguished alumni in attendance.

2013 TOWN MEETINGS At the spring meeting, President Jackson's talk, *Rensselaer and the New Polytechnic*, focused on how *The Rensselaer Plan 2024* is establishing Rensselaer as a truly transformative force, while the fall meeting addressed *Shared Joy in Individual Accomplishments* and Rensselaer as a community of faculty, staff, and students changing the world.



NICHOLAS DEMAISON LEADS THE RENSSELAER ORCHESTRA AND CONCERT CHOIR



ALLISON BERKOY, UNTITLED APOCALYPSE

CCNI RENAMING CEREMONY The Computational Center for Nanotechnology Innovation (CCNI) was renamed the Center for Computational Innovations with the addition of AMOS: the Advanced Multiprocessing Optimized System, a super-computing system comprised of five racks of IBM's Blue Gene/Q supercomputer.

HOLIDAY CONCERT: A BLENDING OF VOICES The Rensselaer Orchestra and Rensselaer Concert Choir performed selections by Handel, Monteverdi, Haydn, Bruckner, Sibelius, Brahms, and J. Strauss II. celebrating becoming accredited programs of HASS.

HONORS CONVOCATION: CELEBRATING THE BEST OF RENSSELAER Students and faculty received awards and were recognized by President Jackson as the *Best of Rensselaer* and celebrated for their academic achievements.

IDEA LAB: THE RENSSELAER INSTITUTE FOR DATA EXPLORATION AND APPLICATIONS President Jackson announced the IDEA lab, designed to find new ways to use a global storehouse of cultural, financial, scientific, and engineering information enabling anyone to contribute to emergent hypotheses.

2013 FIRST-YEAR CONVOCATION: YOUR JOURNEY OF TRANSFORMATION President Shirley Ann Jackson welcomed the Class of 2017 to Rensselaer, emphasizing Rensselaer's commitment to "the four Ps—people, programs, platforms, and partnership," all supported by The Rensselaer Plan, and encouraging students to "do great things—not evolutionary, but revolutionary."

OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2017 learned about the Rensselaer campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer's many clubs and activities, and met soon-to-be classmates.

FIRST YEAR EXPERIENCE SUMMER ORIENTATION The Office of the First-Year Experience conducts Student Orientation in July and August, introducing new students to life at Rensselaer, for them to become familiar with the campus—including EMPAC—and to meet faculty, staff, and upperclass students.

NAVIGATING RENSSELAER AND BEYOND Navigating Rensselaer & Beyond is a five-day program for all first-year students, including freshmen, transfers, and graduate students, to help with the transition to Rensselaer as well as to provide opportunities to meet new students. NRB programs at EMPAC include MashUP! (described under Academic Collaborations) and Fanfare, an annual concert presented by the Rensselaer Music Association.

STAR PROGRAM The Science, Technology, Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current students.



PERFORMANCE OF CIRCADIAN RHYTHMS AS PART OF THE SENSING ENVIRONMENTS: AN EARTH WEEK FESTIVAL

SCHOOLS AND CENTERS

CENTER FOR COGNITION, COMMUNICATION, AND CULTURE

INTERNATIONAL SYMPOSIUM ON ASSISTIVE TECHNOLOGY AND ARTS Sponsored by the Christopher and Dana Reeve Foundation, this day-long conference centered on technologies that aid mobility-disabled people in making art and music.

YURI GORBY, THE EMERGING FIELD OF ELECTROMICROBIOLOGY A talk on this new research discipline which studies electron transfer, energy storage, and conversion in living cells: molecular conductors built by bacteria and unique population architectures in which thousands of microbes act in concert as a multi-cellular unit.

LALLY SCHOOL OF MANAGEMENT

ENTREPRENEURSHIP IN THE FILM INDUSTRY A panel discussion with three film producers (Marcus Dean Fuller of Compass Entertainment, entertainment attorney Steven C. Beer, and Jason Ward of Candy Factory Productions) discussed filmmakers as entrepreneurs in this event sponsored by The Severino Center for Technological Entrepreneurship.

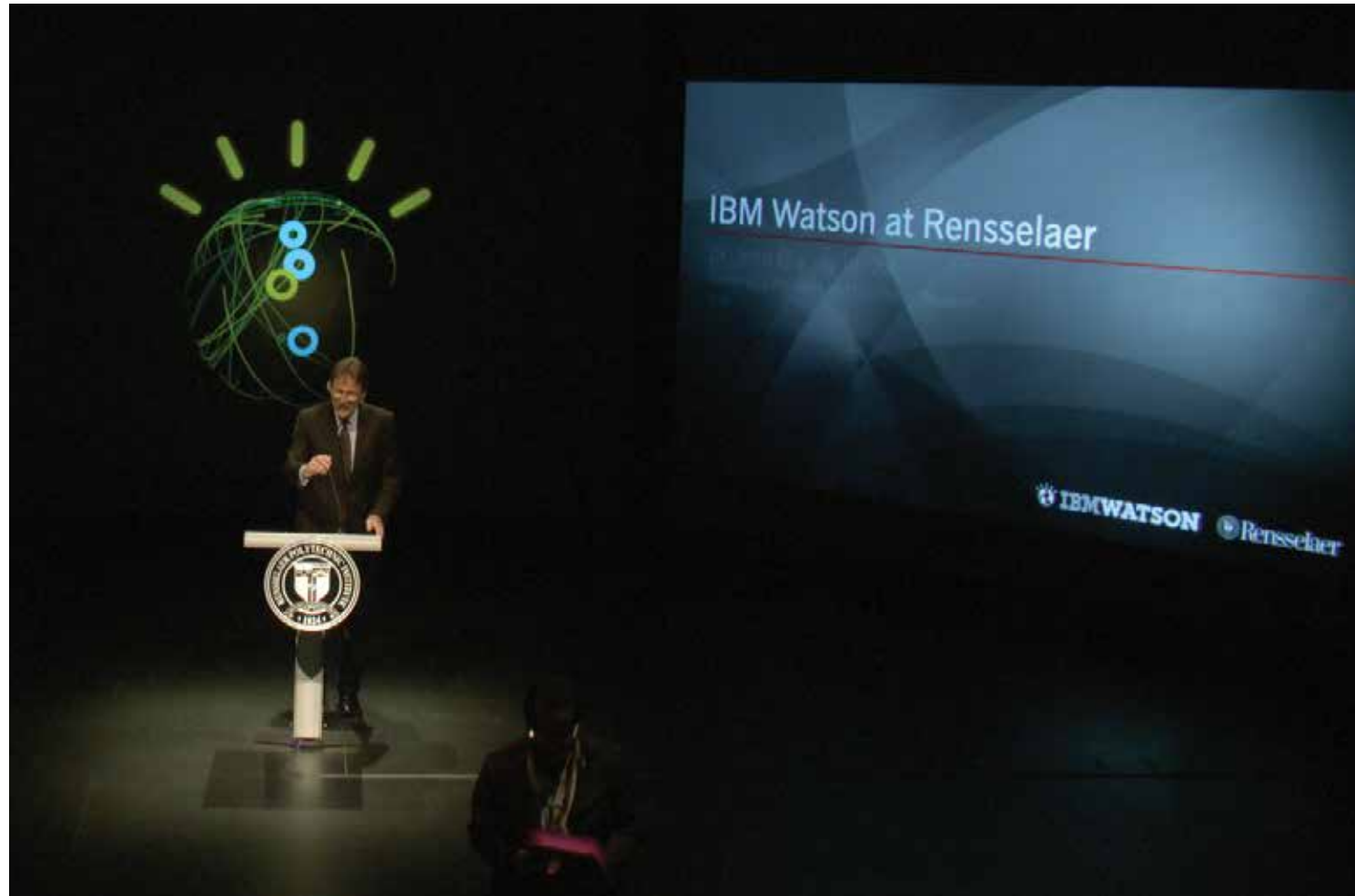
SCHOOL OF ARCHITECTURE

PREFAB ARCHITECTURE SYMPOSIUM Sponsored by David Jepson '63, the symposium showcased the work of prefabricated architecture and its presence in the built world today and featured lectures by Jennifer Siegal of Office of Mobile Design; Joseph Tanney of Resolution: 4 Architecture; Johannes Thordarson of Glama Kim; and Geoffrey Warner of Alchemy Architects.

SCHOOL OF ARCHITECTURE LECTURE SERIES The annual SOA Lecture Series included Neri Oxman of the Media Lab at Massachusetts Institute of Technology discussing her work; Alisa Andrasek, *Open Synthesis: Increased Resolution Fabric of Architecture*; Jorge Silveti, a partner and a founder of Machado and Silveti Associates; and Peter Eisenman, *A Defense of Architecture*.

SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS) / DEPARTMENT OF THE ARTS

ALLISON BERKOY, UNTITLED APOCALYPSE (MFA THESIS) Audiences navigated an immersive, interactive multimedia environment of sculptural installations in Berkoy's work.



CCNI RENAMING CEREMONY

DEPARTMENT OF THE ARTS CHAMBER MUSIC CONCERT Students of the Arts Department Chamber Music program performed in various ensembles, including The Dominant Five String Quintet, Circle of Fifths Wind Quintet, Rensselaer Chamber Brass, MSC Trio, Nason String Duo, and other duos and trios performing music from Handel to Ravel.

FIRST INTERNATIONAL CONFERENCE ON DEEP LISTENING Organized by the Deep Listening Institute and presented by HASS, the Arts Department, and the Center for Cognition, Communication and Culture, this conference provided artists, educators, and researchers an opportunity to engage with Deep Listening, an embodied meditative practice developed by composer and Rensselaer Arts Department faculty member Pauline Oliveros.

GAMEFEST 2013: FUTURE PLAY Rensselaer's annual celebration of student work in computer games is a collaboration between the Games and Simulations Arts and Sciences program and local game development companies; student game developers competed for prizes based on technical production, artistry, creativity, and the groundbreaking quality of their work. *Twas the Night Before GameFest*, an orchestral concert with performances of game music favorites (the Angry Birds Theme, Super Mario Brothers, Zelda's Lullaby, and more) plus performances by Dean Mary Simoni and the talented students of Rensselaer.

HASS INQUIRY LECTURES Wadsworth Center neuroscientist Jonathan R. Wolpaw addressed *Adaptive Neurotechnologies: Principles And Promise*; filmmaker Patrick Sammon's *CODEBREAKER* told the remarkable and tragic story of Alan Turing, who set in motion the computer age and helped turn the tide of the Second World War. Members of the Cognitive Science department participated in a post-screening panel discussion.

HEIDI BOISVERT, [RADICAL] SIGNS OF LIFE In this dance piece by Boisvert and collaborators, music is generated by the dancers via biophysical sensors; data triggers complex neural patterns projected on multiple screens as 3D imagery; and the audience interacts with the images produced.

JOSHUA THORSON, TELL ME EVERYTHING (MFA THESIS) Two fictional theorists deliver divergent lectures on the human psyche and its social effects in this video by a PhD candidate in Electronic Arts.

NEIL ROLNICK'S FAREWELL CONCERT MUSIC FOR VIOLIN, PIANO AND COMPUTER After serving as a faculty member for 32 years, Rolnick bid farewell to Rensselaer with a concert at EMPAC featuring violinist Todd Reynolds and pianist Vicky Chow.

PERFORMING ANIMATOR FOR LIVE MEDIA Aleksandra Dulic and Kenneth Newby of the Center for Culture and Technology in British Columbia spoke on the development of this system, which facilitates live animation performance.



HEIDI BOISVERT, [RADICAL] SIGNS OF LIFE

RENSELAER ORCHESTRA CONCERT Under the direction of Nicholas DeMaison, the Orchestra presented its premiere program including Beethoven's *Coriolan Overture*, pieces by Pauline Oliveros and James Tenney, and Tchaikovsky's *Symphony No. 2 (The Little Russian)*; Arts Department graduate students Brian Cook and Kelly Michael Fox also created live surround sound components.

RYAN ROSS SMITH, STUDY no. 30 This PhD Thesis project explored the concept of the musical score as installation: a ring of tuned bells appear to float in space, providing the potential for performance and an invitation for audience interaction.

SENSING ENVIRONMENTS: AN EARTH WEEK FESTIVAL An array of performances, lectures, films, exhibits, and workshops that showcased environmental sustainability. Events at EMPAC included workshops; an *ECOViz Hackathon*; talks by Pauline Oliveros, Gavin Schmidt, Andrea Polli, David Dunn, and Marina Zurkow; film screenings of *Chemical Valley*; *Reach of Resonance*; *Eco-Film Medley for Kids*; and *Hoot*; performances included a world drum performance comprised of Ensemble Congeros, Union College Taiko Drum Ensemble, Williams College Percussion Ensemble, Troy High School Drum Core, Troy Samba Group, and many others, plus the premiere of a newly commissioned work, *Circadian Rhythms* by composer Susie Ibarra. The festival was organized by the Rensselaer Sustainability Network and Arts Department Professors Michael Century and Kathy High.

STUDENT PROGRAMS

MAX BROOKS The author of *World War Z* spoke on the perils of the zombie apocalypse and precautions to be taken in protecting self and family.

RENSELAER MUSIC ASSOCIATION CONCERTS The spring concert featured performances by the Symphonic Band, Orchestra, Concert Choir, and Percussion Ensemble; a winter concert included festive pieces. At the Sweet Soul Music POPS Concert, The Rensselaer Repertory Jazz Orchestra, Contemporary Jazz Ensemble, and the Symphony Orchestra performed the music of Motown, Memphis, Philly, and Funk with special guest artist Janice Pendarvis.

SHEER IDIOCY COMEDY SHOW Rensselaer's best (and only) improvisational comedy group performed as part of the fall Family Weekend festivities.

2012

Days 3,417-3,086



**DECEMBER 1, 2012–
SEPTEMBER 23, 2013**
(2 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Contemporary Performance

ABOUT THE PRODUCTION Commissioned by Stanford Live; co-produced with Beth Morrison Projects and the Stanford Department of Music in collaboration with EMPAC; ZKM Center for Art and Media; and the Creative Media Centre at City University of Hong Kong

CURATOR Johannes Goebel

This residency supported a collaborative project featuring music by composer Jaroslaw Kapuściński and projections by The OpenEnded Group. The resulting work, *Linked Verse*, premiered at Stanford Live and was an evening-length concerto for cello (Maya Beiser), Japanese shō (Ko Ishikawa), voice and surround sound from 24 speakers, and live 3D stereoscopic visual projection. A multimedia evocation of otherness and union that builds on tensions and accords between Japanese and Western cultures, *Linked Verse* explores ancient and contemporary eras and sensory modalities, both visual and aural. The work's structure is derived from the ancient Japanese poetic practice of *renga* ("linked verse")

in which two or more poets take turns adding interlocking links to form a chain of unexpected associations. In *Linked Verse*, 3D scenes (captured on location in Tokyo, Kyoto, New York City, and the Bay Area) are linked and presented in counterpoint to the music.

NOVEMBER 30, 2012

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Jennifer Koh presented a concert from her *Bach and Beyond* series, an historical journey of solo violin works exploring connections between Johann Sebastian Bach's Six Sonatas and Partitas and contemporary composers. The program featured Bach's Sonata No. 1 in G minor, BWV 1001 (c. 1720); Phil Kline's *Partita for Solo Violin* (2011); Kaija Saariaho's... *de la terre* (1991); John Zorn's *Passagen* (2011); and Béla Bartók's Sonata for Solo Violin, Sz. 117 (1944).

Koh is known for intense, commanding performances delivered with virtuosity and technical assurance. She has performed with leading orchestras and conductors worldwide and appears frequently at major music centers and festivals.

PROGRAM

J.S. BACH *Sonata No. 1 in G Minor*
PHIL KLINE *Partita for Solo Violin*
KAIJA SAARIAHO ... *de la terre*
JOHN ZORN *Passagen*
BÉLA BARTÓK *Sonata for Solo Violin, Sz. 117*

SOMETHING'S GOT AHOLD OF MY HEART
HAND2MOUTH

RESIDENCY

PERFORMANCE
 RESIDENCY / COMMISSION

PRIMAL MATTER
Dimitris Papaioannou



NOVEMBER 25–
 DECEMBER 7, 2012

DISCIPLINE Theater

CURATOR Emily Zimmerman

The Portland-based ensemble Hand2Mouth was in residence for two weeks in EMPAC's Theater for final rehearsals of *Something's Got Ahold of My Heart*. Exploring the tension between how love is portrayed in popular culture versus how it is experienced in our personal lives, the performance drew on diverse source material including interviews, pop music concert footage, and advice books. The resulting work, performed in three movements, wrestles with people's desire to craft the perfect declaration of love, and the gap between the ideal and the reality of long-term commitment.

Founded in 2000, Hand2Mouth creates performances that draw from dance, music, theater, and design.



RESIDENCY:
 NOVEMBER 19–
 DECEMBER 18, 2012

PERFORMANCE:
 DECEMBER 8, 2012

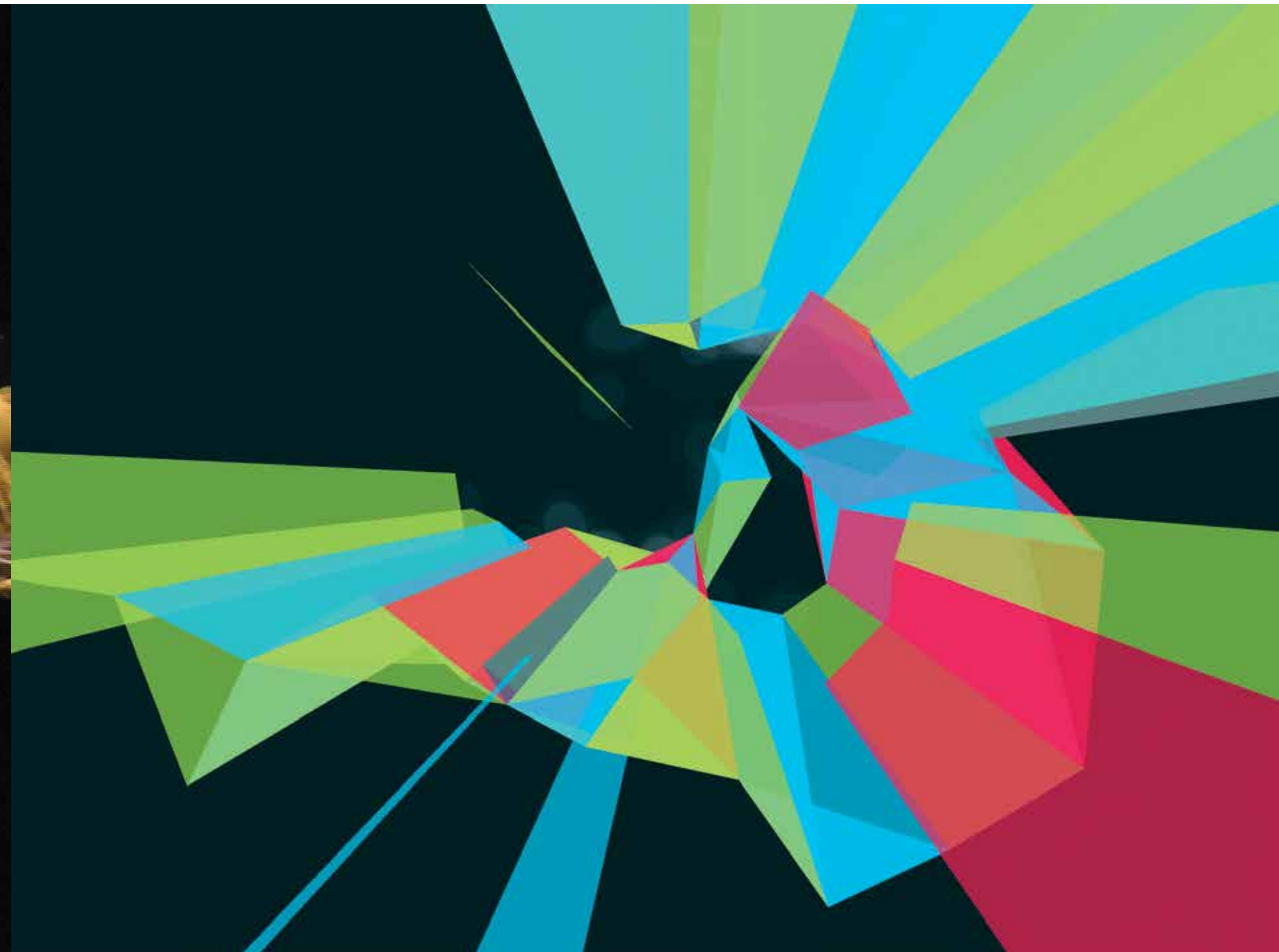
DISCIPLINE Dance

ABOUT THE PRODUCTION Commissioned
 by EMPAC

CURATOR Ash Bulayev

Against the backdrop of economic and social crisis stretching from Greece to the US, Dimitris Papaioannou embarked on an artistic challenge: investigating personal and national identity using the least possible means. The result is *Primal Matter*, where two bodies on the stage are the starting point for a journey that weighs body and soul to determine what is truly indispensable—what constitutes the essence. To create *Primal Matter* at EMPAC, Papaioannou and his artistic team erected a custom-made wall with built-in fluorescent light, and created an intricate live audio design using input from contact mics positioned around the set and processed in real-time and sourced to different outputs.

Papaioannou is an avant-garde stage director, choreographer, and visual artist who has worked across the boundaries of theater, dance, and the visual arts; he drew international acclaim for his direction of the opening ceremony of the Athens 2004 Olympic Games.

**NOVEMBER 16–17, 2012****DISCIPLINE** Contemporary Performance; Dance

ABOUT THE PRODUCTION *4Walls* was co-produced by Cross Performance, Inc. and MAPP International Productions, commissioned by EMPAC, and developed during residencies at EMPAC and at Maggie Allesee National Center for Choreography (MANCC) in Tallahassee, Florida.

CURATORS Hélène Lesterlin, Ash Bulayev, Argeo Ascani

After several years and multiple residency visits, Ralph Lemon premiered *4Walls*, a live multimedia dance installation that provides four points of view on one dance, giving a new shape to a “dance with no form.” *4Walls* began in 2003 with pieces originally titled *Ecstasy* and *Wall*. Lemon’s intention for *Wall* was to create a “dance that disappears”—an attempt, in the words of dramaturge Katherine Profeta, to “fling the body headlong into an instant of pure presence.” Lemon seeks to create work that provides viewers with a different kind of engagement in the creative process: one that is relentless in questioning the nature of what passes between performers and audiences. For this performance, EMPAC’s Studio

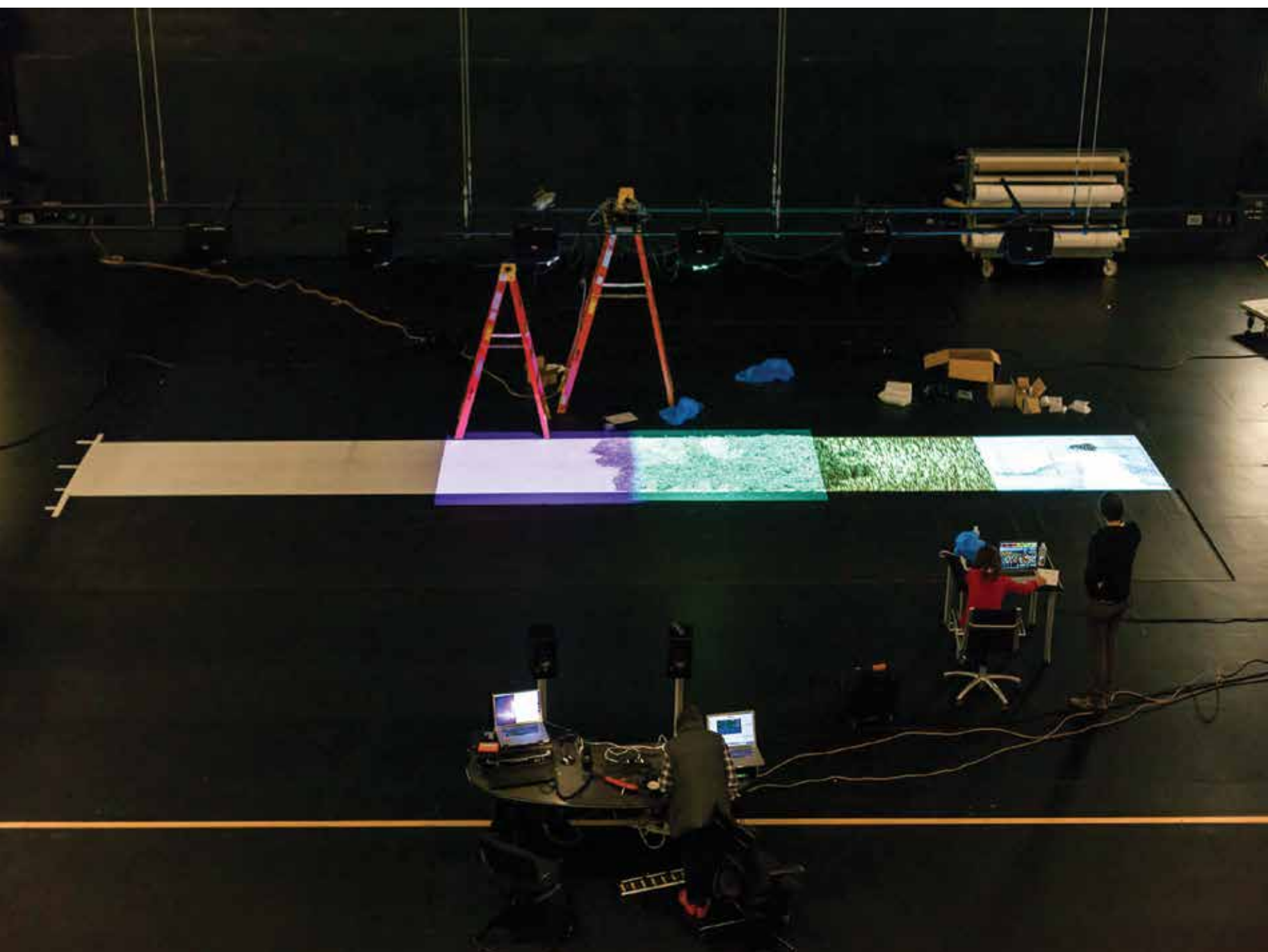
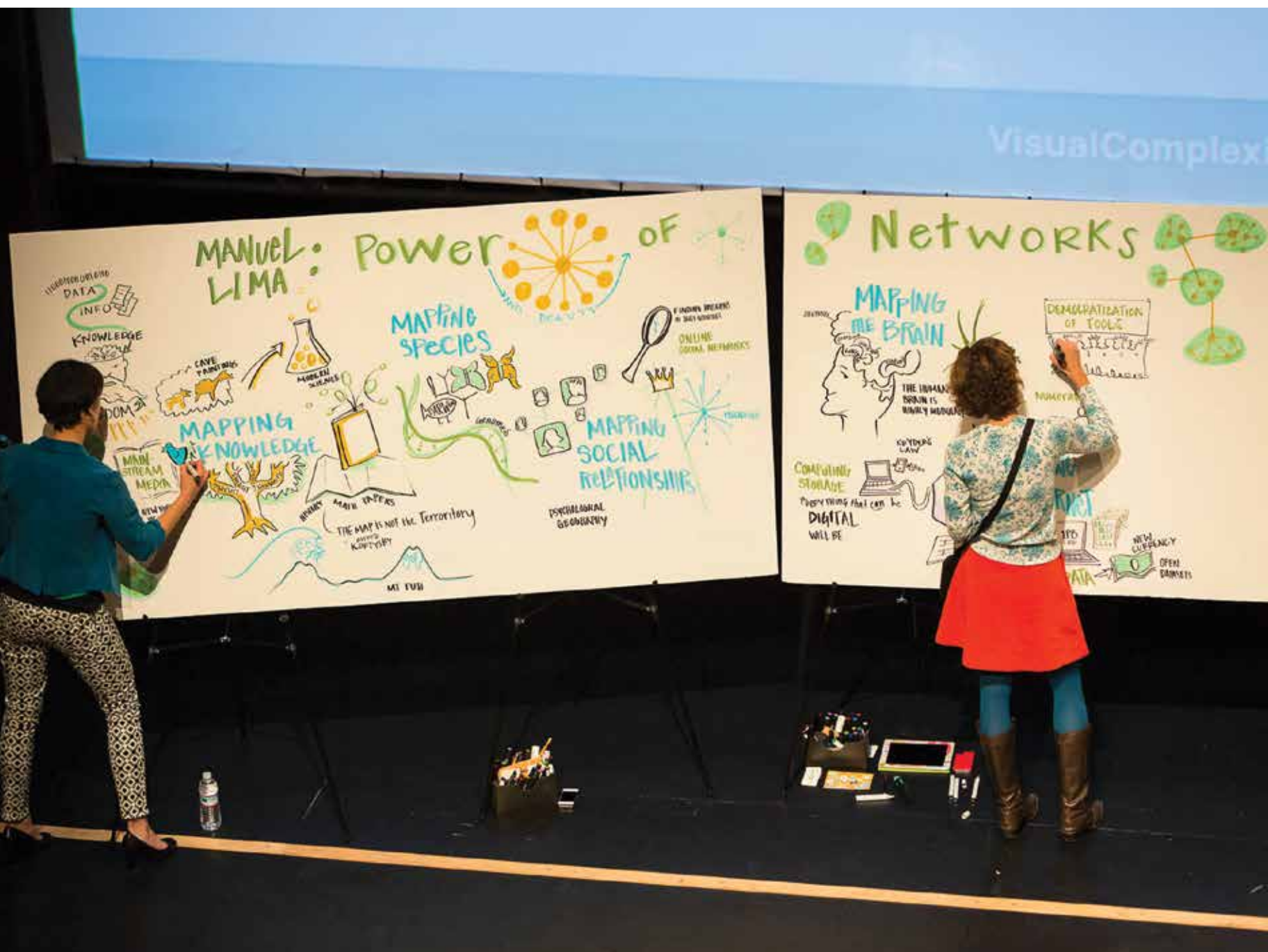
1 was divided into two discrete areas, forcing the audience to choose between viewing either a giant projection of pre-recorded video of a dancer in motion on one side, or a live performance on the other side.

SEE RELATED RESIDENCY ON PAGE 349.

NOVEMBER 15, 2012**DISCIPLINE** Film/Video**CURATOR** Emily Zimmerman

Compiled by onedotzero—an international moving image and digital arts organization that commissions, showcases, and promotes innovation across all aspects of moving image, digital, and interactive arts—this double feature looked both to the future, with exuberant renderings of the next generation of urban landscapes, and to the past, with a retrospective of works using Processing programming language. *Future Cities* was an eclectic selection of short films, animations, and motion graphics presenting visions of the metropolis of tomorrow, juxtaposing utopian fantasies and nightmarish dystopias with sci-fi architectural visions, near future worlds, and the warped frontier of space. *Code Warriors: A Decade*

of Processing celebrated 10 years of the open-source programming language Processing, which is both a development environment and an online community that promotes software literacy within visual arts. Today, tens of thousands of students, artists, designers, researchers, and hobbyists use Processing for learning, prototyping, and production.



NOVEMBER 7, 2012

DISCIPLINE Humanities;
Tools and Technology; Visual Art

CURATOR Emily Zimmerman

Manuel Lima, author of *Visual Complexity: Mapping Patterns of Information*, led a discussion on network visualization, which has experienced a meteoric rise in the last decade, bringing together people from various fields and capturing the interest of individuals across the globe. This talk explored the critical paradigm shift of using networks to map the complexities of our modern world rather than hierarchical tree structures.

The talk was drawn live by ImageThink (Nora Herting and Heather Willems), who use the art of graphic facilitation to transform complex ideas into powerful visual stories. Lima is an interaction designer and founder of VisualComplexity.com, a

comprehensive repository of complex network visualizations. Prior to joining Microsoft, Lima worked as a senior user experience designer at Nokia and senior interaction designer at the leading digital agency R/GA.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

NOVEMBER 6–8, 2012

DISCIPLINE Film/Video; Visual Art

CURATOR Johannes Goebel

EMPAC's distinguished artist-in-residence Laurie Anderson returned to EMPAC to revise her multi-channel video installation, *The Gray Rabbit*, renamed as *The Swimmer*. In this new iteration, the piece was being prepared for *The Language of the Future*, an exhibition featuring works made by the artist between 1971 and 2013 to be presented at the Samstag Museum of Art at the University of South Australia as part of the Adelaide Festival. The exhibition was Anderson's first solo exhibition in Australia. Like its earlier incarnation, in *The Swimmer* Anderson re-examines her memories of a summer spent in the hospital when she was 12, realizing that what she recounts from that time is what is palatable for her to remember.

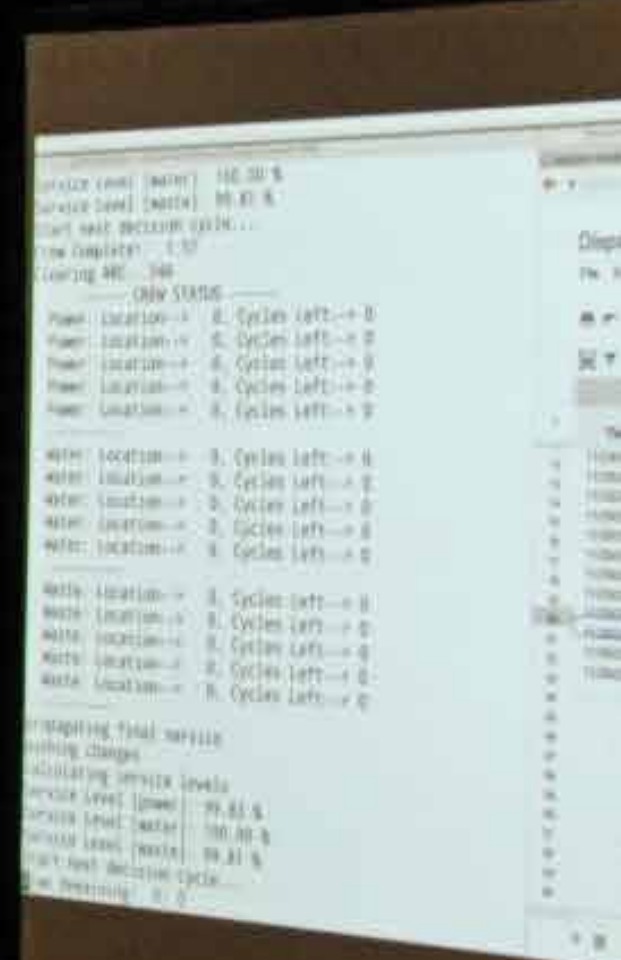
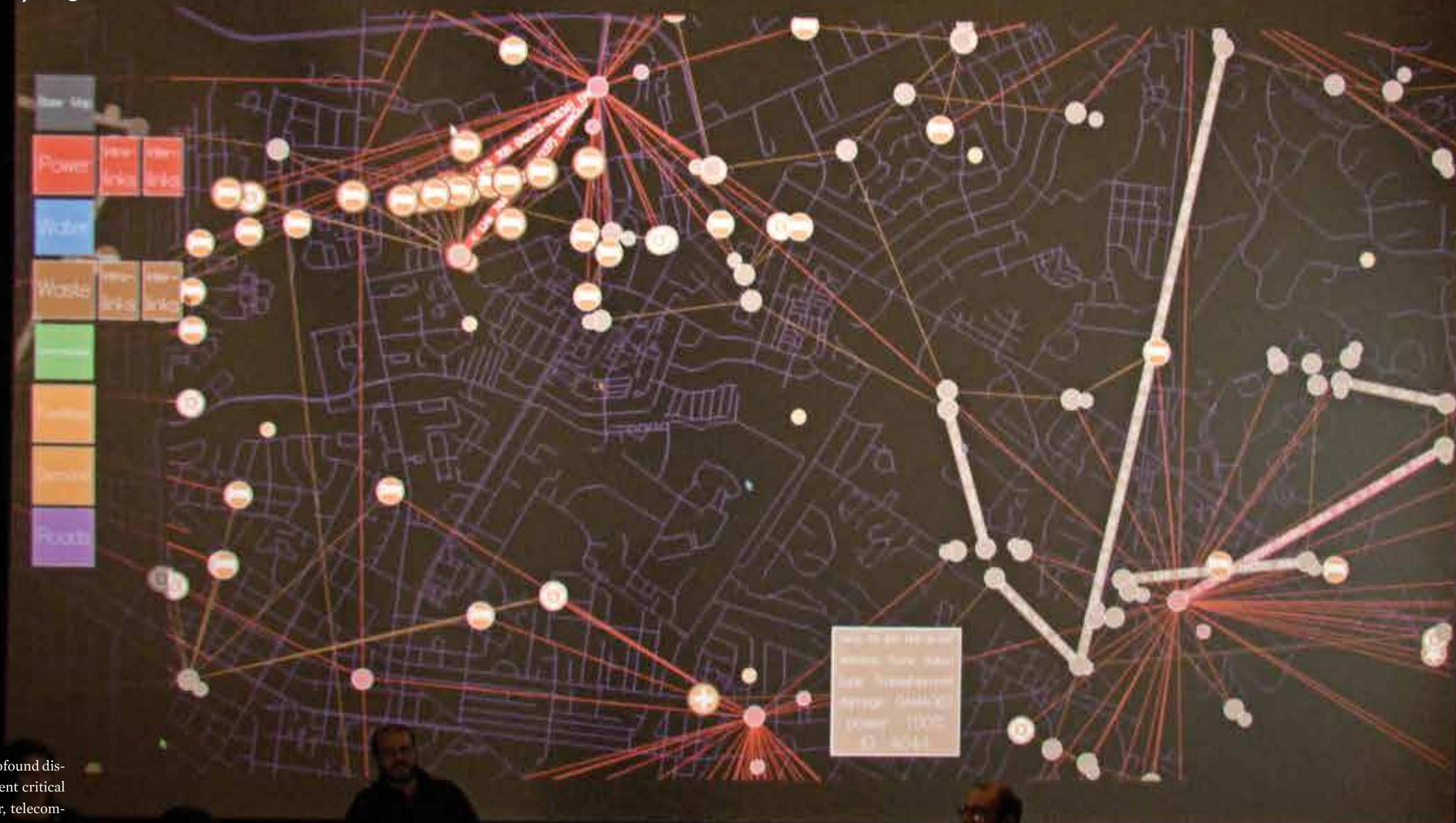
The installation projects a six-minute loop of dreamlike and heavily processed images that evoke scenes from the story—children swimming, nurses' faces, and nostalgic farming country vistas—onto an alley made of shredded books on the floor to achieve the effect of “a story you could walk through.”

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

COLLABORATIVE TRAINING TOOLS FOR EMERGENCY RESTORATION OF CRITICAL INFRASTRUCTURE SYSTEMS

RESEARCH

David Mendonça, Barbara Cutler, William A. Wallace, & James D. Brooks



NOVEMBER 1–
NOVEMBER 30, 2012

Large-scale disasters can produce profound disruptions in the fabric of interdependent critical infrastructure systems such as water, telecommunications and electric power. The work of post-disaster infrastructure restoration typically requires information sharing and close collaboration across these sectors; yet, due to a number of factors, the means to investigate decision-making phenomena associated with these activities are limited. A comprehensive prototype system—including realistic data, computer-based simulations, and large-scale interactive displays—has been embedded within EMPAC's studio spaces. The system has been evaluated with professional infrastructure managers, demonstrating the benefits of collaboration and yielding results that suggest how information synthesis and use in groups can evolve in response to dynamic conditions in the field.

OCTOBER 19, 2012

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

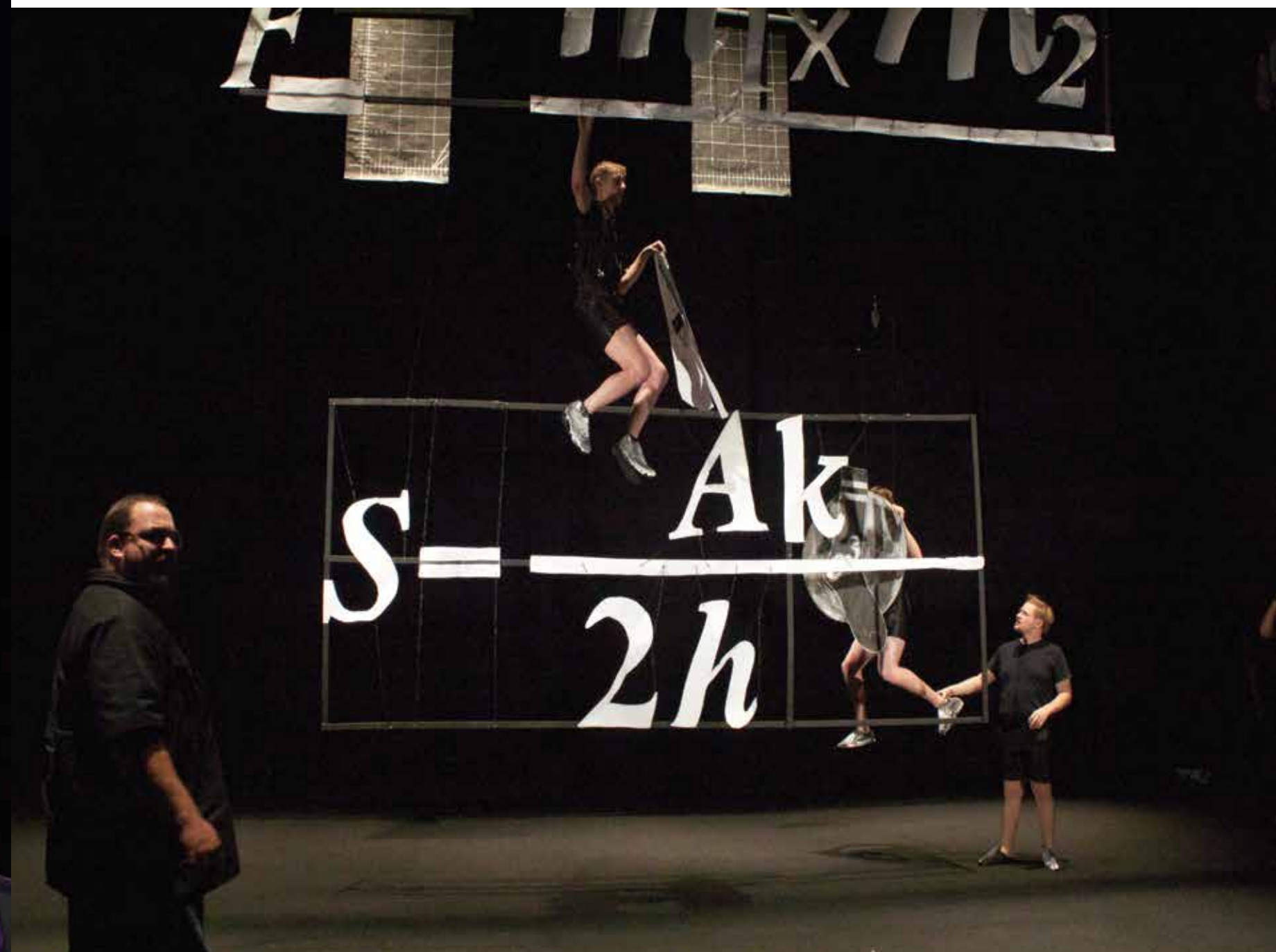
This selection of performer/composers from the ninth annual AKOUSMA—the annual Montréal-based festival dedicated to electroacoustic music—includes Nicolas Bernier, Richard Chartier, Jean François Laporte, Martin Tétreault, and Louis Dufort. The performers used dozens of loudspeakers hung in a ring surrounding the listeners, manipulating the pieces in real-time.

Nicolas Bernier's music ranges from musique concrète to live electronics, to post-rock to noise improv, and features electronic music made from objects of the past, such as typewriters and tuning forks. Richard Chartier's work has been called both "microsound" and neo-modernist, with a minimalist approach to sound, silence, focus, and perception. Jean-François Laporte works closely with the raw materials of sound, from the everyday environment to traditional and invented instruments that produce unconventional sounds. Martin Tétreault is an internationally known Montréal DJ and improviser who explores the intrinsic sounds of the turntable and needles, as well as prepared surfaces (with thanks to John Cage), and small electronic instruments. Montréal composer Louis Dufort developed his style through electroacoustic music, and then turned his attention to mixed music and multimedia art, and has worked with a wide range of organizations.

PROGRAM

LOUIS DUFORT *Grain de Lumière I*MARTIN TÉTREAULT *Empreinte à Reculons*
(For record imprints, 2 turntables & small electronics)NICOLAS BERNIER *Antithèse Électronique & Danse le ventre de le machine*RICHARD CHARTIER *from Recurrence*JEAN FRANCOIS Laporte - *Rust*LOUIS DUFORT *Grain de Lumière II*

Deville Cohen



OCTOBER 15–26, 2012

DISCIPLINE Film/Video; Visual Art

CURATOR Emily Zimmerman

Deville Cohen spent two weeks at EMPAC shooting for his video work *Zero*, inspired in part by the television sci-fi drama *The X-Files*. Cohen takes closed narrative forms, like the television show structure of a crime scene—investigation and resolution—only to twist them apart. In doing so, the recognizable structure breaks down, becomes abstracted, and is exhausted, revealing the fragile qualities of the materials, devices, and logics he uses. Influenced by theater, sculpture, cinematography, and collage, Cohen creates abstract psychic dramas that are clearly hand-made, but nonetheless visually and structurally complex. His performance-based photographs and video installations are made up of black-and

white Xerox images as integral elements in their *mise-en-scène*. Sets, characters, and props are entangled in psychic dramas saturated with humor, desire, and anxiety.

Cohen was born in Israel, and lives and works in New York City. His work has been shown at SFMOMA and MoMA PS1.

CLUSTER

Kurt Hentschläger

PERFORMANCE
RESIDENCY / COMMISSION

RESIDENCY
OCTOBER 15–
AUGUST 1, 2012
(2 VISITS)

PERFORMANCE
NOVEMBER 3, 2012

DISCIPLINE Film/Video; Music/Sound;
Visual Art

ABOUT THE PRODUCTION Co-produced by
Arcadi, France, and commissioned by EMPAC

CURATOR Argeo Ascani

Austrian artist Kurt Hentschläger was in residence developing his audiovisual work *CLUSTER*, an evolutionary step in his artistic practice. A work in progress that began in 2004 combining seven complete, independent works, a full-length stereoscopic version of *CLUSTER* premiered in 2012. Focused on group behavior and the various stages of swarm motion, the 3D characters engage in a weightless slow-motion choreography, with human figures appearing as clouds of blurred matter intermingling with light.

Chicago-based Austrian artist Kurt Hentschläger creates audiovisual performances and installations. Between 1992 and 2003 he worked collaboratively as one half of Granular Synthesis, whose performances and installations confronted viewers on both a physical and emotional level, overwhelming them with sensory stimulation.

SHADOW PLAY: BETWEEN REALITY AND ILLUSION

SCREENING

OCTOBER 11, 2012—
MAY 9, 2013

DISCIPLINE Film/Video

CURATOR Emily Zimmerman

Shadow Play presented films that acknowledged the artificial nature of cinema—referencing shadow puppetry, phantasmagoria, and Plato's Allegory of the Cave (with its often noted resemblance to a movie theater)—drawing on the metaphors of light as reality, and shadow as artifice.

October 11, 2012: **Solaris** (1972) Based on Stanislaw Lem's novel about a scientist sent to a space station to investigate strange events, director Andrei Tarkovsky's film charts a psychological territory haunted by phantoms, in which the real and the imagined are inextricably mixed.

October 25, 2012: **Rebecca** (1940) Alfred Hitchcock's only Oscar-winning film, this gothic thriller about a love triangle stars Laurence Olivier and Joan Fontaine in an adaptation of Daphne du Maurier's novel of the same name.

November 8, 2012: **The Fall** (2006) Set in a 1915 Los Angeles hospital, Tarsem Singh's visually stunning fantasy features a bedridden stunt man who entertains a curious little girl with a fantastical story, with reality and the imaginary epic becoming increasingly interdependent.

February 21, 2013: **Holy Mountain** (1973) Alejandro Jodorowsky's controversial exploration of the rituals and power of religion and Western desires for Eastern spirituality through beautiful, fantastic, and visceral images; this film, like his previous works, *Fando Y Lis* and the cult classic *El Topo*, engendered outrage.

March 28, 2013: **World on a Wire** (Welt am Draht) (1973). R. W. Fassbinder's rarely screened science fiction thriller—about a cybernetics engineer who uncovers a conspiracy related to a device able to predict the future—ceaselessly questions the boundary between reality and the simulated.

April 18, 2013: **Selections from Phantom Museums** featured selections from the Quay Brothers' 30-year career of unparalleled animated short puppet films, including their best-known film, *Street of Crocodiles* (1986), based on a short novel by Bruno Schulz.

May 9, 2013: **The Third Man** (1949) Shrouded in darkness, Carol Reed's classic film noir follows pulp novelist Holly Martin as he unravels the facts—increasingly resembling a plot from one of his own novels—behind his friend's death in Vienna. Starring Joseph Cotten and Orson Welles, the film won an Oscar for cinematographer Robert Krasker's dramatic use of light and shadow.

SELECTIONS FROM PHANTOM MUSEUMS

DETAIL VIEW

TALK

TO INFINITY AND BEYOND!

*Selmer Bringsjord and
Naveen Sundar G.*



OCTOBER 11, 2012

DISCIPLINE Humanities; Science;
Tools and Technology

CURATOR Emily Zimmerman

Computing machines are getting smarter, attempting to reach levels of human-like intelligence. But even artificial intelligence systems like Watson on *Jeopardy!* can't compare to the complexities of the human mind. Rensselaer Professor Selmer Bringsjord and PhD student Naveen Sundar G. used EMPAC's unique environment to visualize the infinite and question three claims: that all of mathematical cognition is reducible to simple problem-solving carried out by dogs and monkeys (Darwin); that mathematics is just a humdrum human construction rooted in bodily motion and metaphor (Lakoff); and that artificial intelligence will soon explode beyond human intelligence in an event known

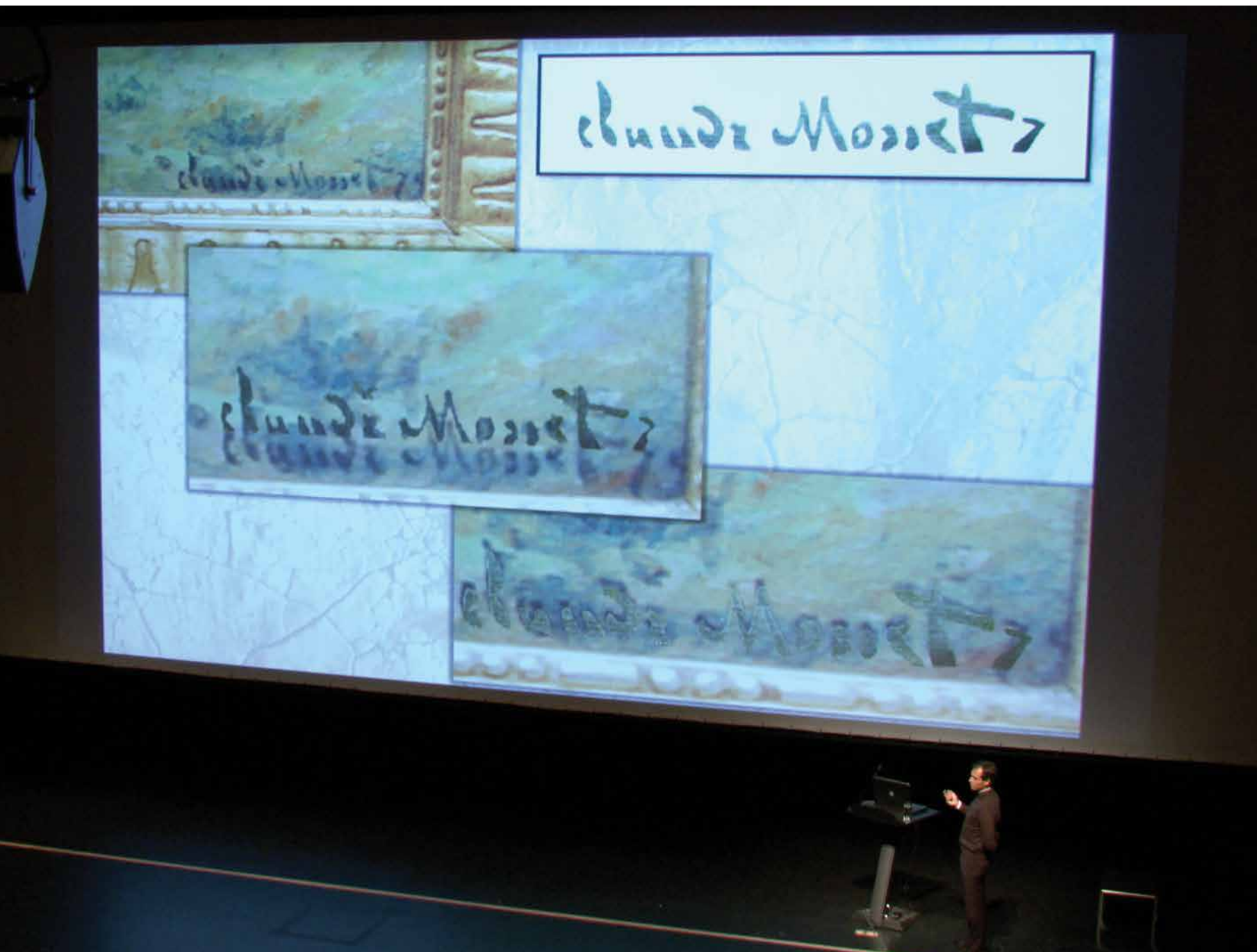
as "the singularity" (Kurzweil). Bringsjord specializes in the logico-mathematical and philosophical foundations of artificial intelligence (AI) and cognitive science. Naveen Sundar Govindarajulu is an International Fulbright Science and Technology scholar. Since receiving his PhD in computer science at the Rensselaer Artificial Intelligence and Reasoning Laboratory (RAIR Lab), he has been a research scientist at Yahoo.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.

ART FRAUD:
RECOGNIZING AUTHENTICITY IN ART

Peter Matthaes

OBSERVER EFFECTS
TALK



OCTOBER 10, 2012

DISCIPLINE Science; Visual Art

CURATOR Emily Zimmerman

Peter Matthaes, director of the Museo D'Arte e Scienza, presented a discussion on art fraud and the use of science and the senses to recognize authenticity in art. Recognizing the authenticity of an art object is as fascinating as it is complex. The classic approach, which studies style, is supported by numerous new methods of scientific investigation and by the ability to use our senses: sight, touch, smell, hearing, and to a much lesser extent, taste, substituted by our "sixth sense." Matthaes offered an overview of methods used by the Museo d'Arte e Scienza of Milan in its day-to-day activities to ascertain authenticity. Since becoming head of that laboratory, Matthaes has conducted hundreds of scientific appraisals

each year. He receives commissions from various parts of the world, and provides technical opinions to Italian and foreign courts.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

PERFORMANCE

MIRIAM
Nora Chipaumire

OCTOBER 5 + 6, 2012

DISCIPLINE Dance

ABOUT THE PRODUCTION *MIRIAM* was a production of MAPP International Productions, co-commissioned by the Flynn Center for the Performing Arts in partnership with EMPAC and National Performance Network. *MIRIAM* was also co-commissioned by Brooklyn Academy of Music, Brooklyn, NY; Les Subsistances, Lyon, France; and Clarice Smith Performing Art Center, College Park, MD.

PUBLICATION *Senses* by Omar Sosa, Audio recorded at EMPAC and published by Otá Records

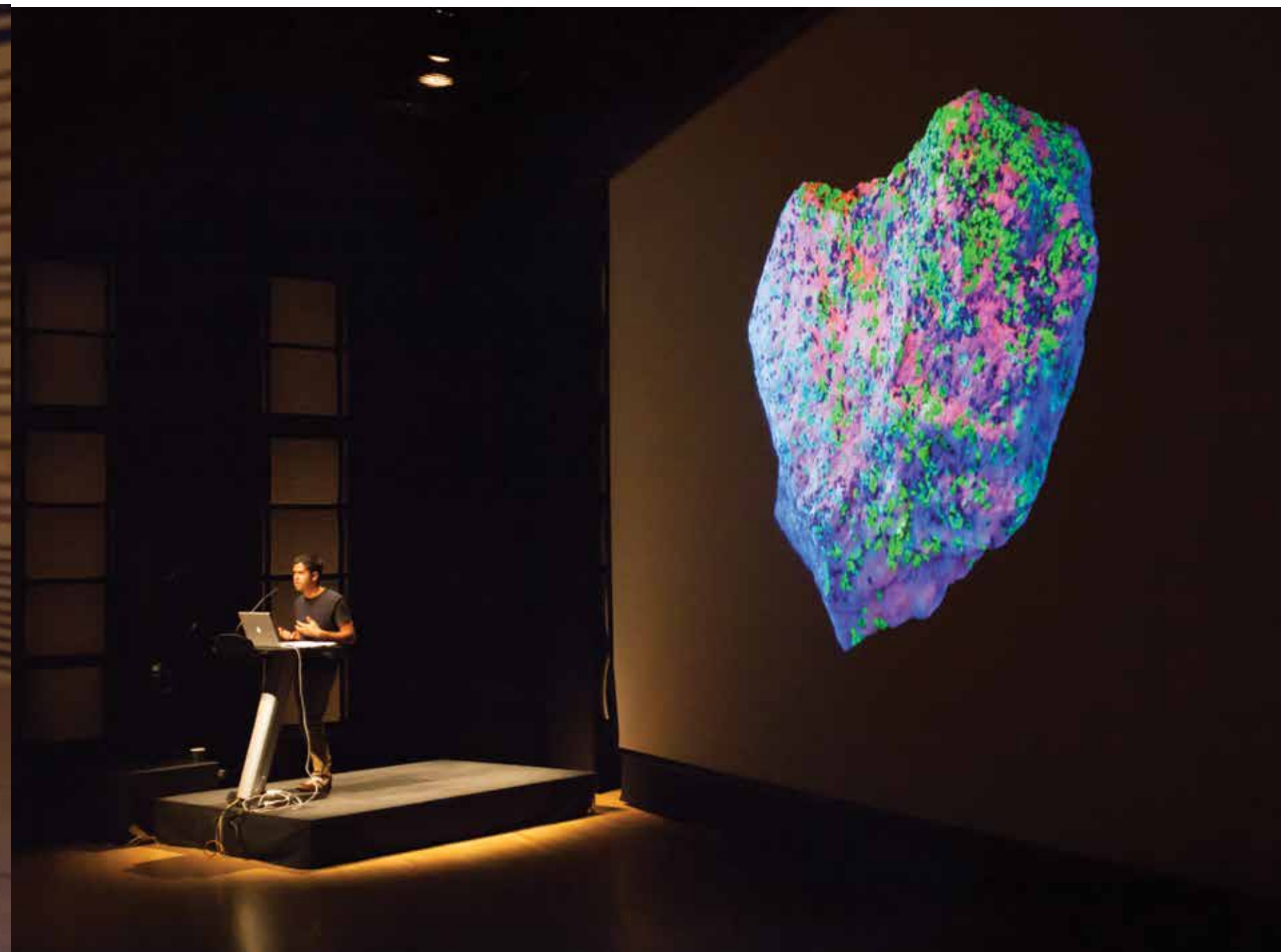
CURATOR Héléne Lesterlin, Ash Bulayev

Choreographer and dancer Nora Chipaumire returned to EMPAC after working in residence in 2011 to present *MIRIAM*, a deeply personal dance-theater performance that looks closely at the tensions women face between public expectations and private desires; between selflessness and ambition; and between the perfection and sacrifice of the feminine ideal. The inspiration for the work springs from the cultural and political milieu of Chipaumire's southern African girlhood, her self-exile to the US, and her self-discovery as an artist. Performed by Chipaumire and Okwui Okpokwasili, *MIRIAM* renders the intensity of women who fight to create themselves despite the dual legacies of strict cultural traditions and imperialist racial views that define female beauty and power.

Born in Zimbabwe and based in New York City, Chipaumire has studied dance in many parts of the world including Africa (Senegal, Burkina Faso, Kenya, and South Africa), Cuba, Jamaica, and the US. She was a 2012 Alpert Award in the Arts recipient, a 2011 United States Artist Ford Fellow, and a two-time New York Dance and Performance (Bessie) award winner.

SEE RELATED RESIDENCY ON PAGE 350.





RESIDENCY
SEPTEMBER 23–29, 2012

PERFORMANCE
SEPTEMBER 28, 2012

DISCIPLINE Music/Sound

PUBLICATION *Virgins* by Tim Hecker. Audio recorded at EMPAC, Greenhouse Studios Iceland, and Avast! Recording Co., mastered at Black Saloon Studios, and released by Paper Bag Records

CURATOR Argeo Ascani

Canadian musician and sound artist Tim Hecker was in residence developing a site-specific performance in the Concert Hall at EMPAC and recording new material for an upcoming album. Hecker used a multi-channel surround-sound setup, including speakers located above the Concert Hall's suspended fabric ceiling, to create an immersive sound experience in near darkness.

Hecker is a Canadian-based musician and sound artist; since 1996, he has produced a range of audio works for Kranky, Alien8, Mille Plateaux, Room40, Force Inc, Staalplaat, and Fat Cat. His works have been described as “structured ambient,” “tectonic color plates,” and “cathedral

electronic music.” He has focused on exploring the intersection of noise, dissonance, and melody, fostering an approach to songcraft that is both physical and emotive. His work has also included commissions for contemporary dance, sound-art installations, and various writings.

SEPTEMBER 19, 2012

DISCIPLINE Film/Video; Science; Visual Art

CURATOR Emily Zimmerman

In this talk, Dutch artist Melvin Moti considered the nuances of visual perception and the paradoxical status of the eye, which acts as both a camera and a lens.

As an artist, Moti primarily works with film, but also uses a range of media including photography, drawing, text, and installation. His pieces are often the outcome of extensive research into overlooked historical events that have a prophetic quality when reconsidered from a contemporary perspective. In response to our oversaturated visual culture, Moti explores conditions characterized by a reduction in sensory perception. Positioning the viewer as a witness,

his non-narrative films open up a political space for imagination and creativity through the disjunctive clash between the moving image and its corresponding voiceover. In addition to producing films, Moti has exhibited artist books, objects, and drawings.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

RESIDENCY
SEPTEMBER 10–15, 2012

PERFORMANCE
SEPTEMBER 15, 2012

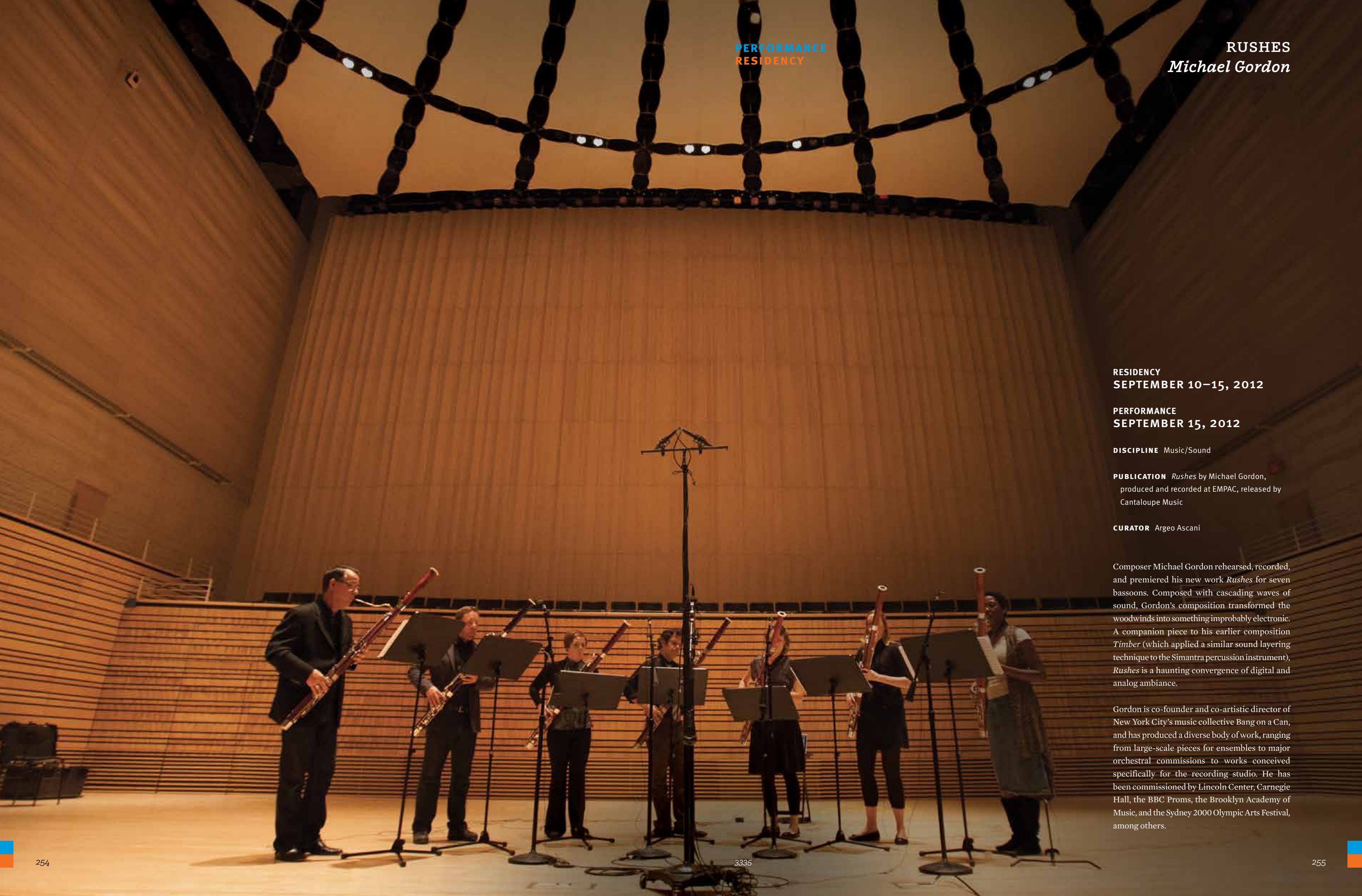
DISCIPLINE Music/Sound

PUBLICATION *Rushes* by Michael Gordon,
produced and recorded at EMPAC, released by
Cantaloupe Music

CURATOR Argeo Ascani

Composer Michael Gordon rehearsed, recorded, and premiered his new work *Rushes* for seven bassoons. Composed with cascading waves of sound, Gordon's composition transformed the woodwinds into something improbably electronic. A companion piece to his earlier composition *Timber* (which applied a similar sound layering technique to the Simantra percussion instrument), *Rushes* is a haunting convergence of digital and analog ambiance.

Gordon is co-founder and co-artistic director of New York City's music collective Bang on a Can, and has produced a diverse body of work, ranging from large-scale pieces for ensembles to major orchestral commissions to works conceived specifically for the recording studio. He has been commissioned by Lincoln Center, Carnegie Hall, the BBC Proms, the Brooklyn Academy of Music, and the Sydney 2000 Olympic Arts Festival, among others.





RESIDENCY
SEPTEMBER 4–18, 2012

PERFORMANCE
SEPTEMBER 18, 2012

DISCIPLINE Dance

CURATOR Hélène Lesterlin

During a two-week production residency, Norwegian choreographer Ella Fiskum and her team of dancers and designers workshoped *Triptych 0811* prior to its North American premiere at EMPAC. Like a painted triptych in which three separate images are placed side-by-side, *Triptych 0811* explores the relationship between dreams, reality, and ambition with the inner life of fantastic aspirations flanked by the obstacles of real life. Fiskum uses classical ballet vocabulary to create a theatrical dreamscape: a woman in a burqa, a ballerina turned nightclub dancer, a Hollywood starlet played by a man, and a prima ballerina. The performance featured live music by Norwegian rock guitar legend Ronni Le Tekrø

and stage design by Serge von Arx. Fiskum has worked as a dancer since 1992 for major choreographers and companies in Norway and Canada, and later was a producer for *DRE*, an international project with performances in India, Spain, and at the Norwegian National Opera and Ballet. She founded Ella Fiskum Danz in Oslo in 2000.



RESIDENCY (2 VISITS)
AUGUST 28–
NOVEMBER 16, 2012

PERFORMANCE
NOVEMBER 13, 2012

DISCIPLINE Music/Sound

PUBLICATION *...avec un frisson: Late Piano Works of Debussy & Boulez* by Yegor Shevtsov, Audio recorded and produced at EMPAC, released by New Focus Recordings

CURATOR Argeo Ascani

As part of an artist-in-residence recording project, pianist Yegor Shevtsov presented a work-in-progress performance of solo pieces by two giants of 20th century music. Separated by almost a century, Debussy's *Etudes* (1915) and Boulez's *Incises* (1994/2001) intersect in both their French heritage and their substantial demands on a pianist's control and technique. Rounding out the recital was Boulez's more recent work for solo piano, *une page d'éphéméride* (2005). During the residency, Shevtsov first made high-quality test recordings, evaluated the recording and performance over several months, and then returned to make a final version. The music was mixed and mastered at EMPAC.

Shevtsov is a Ukrainian-born pianist based in New York City. As a soloist and a collaborative pianist, he has performed widely, including at Lincoln Center, Carnegie Hall, the Whitney Museum, and Tanglewood.

PROGRAM

CLAUDE DEBUSSY *Etudes*
PIERRE BOULEZ *Incises*
PIERRE BOULEZ *Une page d'éphéméride*



AUGUST 23, 2012

DISCIPLINE Dance; Music/Sound;
Tools and Technology

This annual event—featuring student performances as part of an electronic dance music mini-festival for the entire incoming class—is the culmination of a two-day workshop. Incoming freshmen participating in the workshop have the opportunity to work with fellow students and EMPAC staff to learn firsthand about the technology and work that goes on behind the scenes at EMPAC. The hands-on workshop included experience with lighting, audio, video, and stage technologies with students paired with EMPAC mentors who guided them through the creative process.

This event was curated by Eric Ameres.



**AUGUST 20–
SEPTEMBER 1, 2012**

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Kathleen Forde

Using an installation that mimics a multi-plane camera (used in classic animation to produce a 3D effect), this piece featured a short film that tells the story of the woman who sewed the spacesuit for Laika, the dog launched into space in 1957 by the Soviets to test whether a living creature could survive space flight. The installation consisted of a metal frame holding wooden phonograph horns, multiple planes of polarized glass, and brightly glowing LCD screens. The animation incorporates Green's signature elements—hand-drawn, “rickety” animation; wry, off-kilter story-telling; and original music played by his band—but also a poetic narration that ultimately becomes a lament for the disenfranchisement of working people.

Green lives and works in the Appalachian hills of Pennsylvania. His films, live performances, and object-based art have been shown around the world. Green often performs his films with live musicians, improvised soundtracks, and live narration in venues ranging from rooftops to art institutions such as the Getty Center, the Walker Art Center, the Hammer Museum, the Wexner Center for the Arts, The Kitchen, and MoMA. His films are often screened at film festivals, as well, including Sundance, Film Festival Rotterdam, and Rooftop Films, among many others.

SEE RELATED RESIDENCY ON PAGE 380.



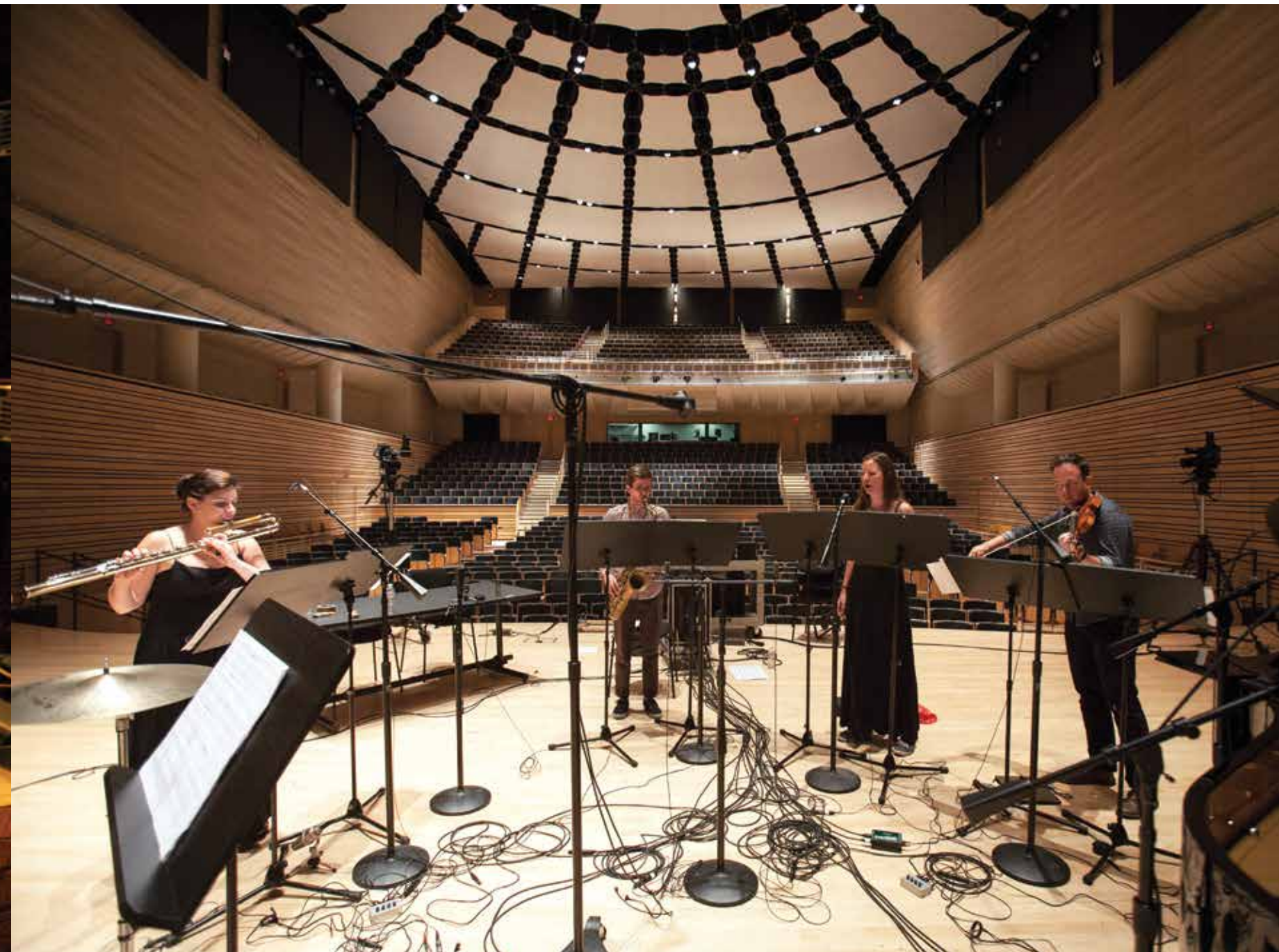
**AUGUST 10, 2012–
MAY 18, 2013**
(2 VISITS)

DISCIPLINE Film/Video

CURATOR Ash Bulayev

Sam Green, a San Francisco-based documentary filmmaker, worked at EMPAC on post-production of a 30-minute experimental documentary about fog in San Francisco. Seemingly an unlikely topic for a movie, fog can be a profoundly interesting visual phenomenon, and it is often breathtakingly beautiful. Green sought to create a portrait that is as varied and rich as the feelings stirred by the fog itself: from the sublime to the quirky to the deeply existential. At the same time, the goal was to make people more aware of the complex systems of wind, air, and water that surround us. His residency at EMPAC allowed the filmmaker to edit his film while viewing it on a large cinema screen with a 30,000-

lumens projector rather than on a computer monitor—a rarity for independent filmmakers—enabling him to make informed choices about the tempo and sequencing of the film, as it would be experienced by audiences. Produced in conjunction with San Francisco's Exploratorium Museum, *Fog City* premiered there with live narration by the filmmaker and music composed for the film played live by the New York City-based band The Quavers.



AUGUST 6–11, 2012

DISCIPLINE Music/Sound

PUBLICATION *RELAY* by Wet Ink Ensemble, Audio recorded and produced at EMPAC, released by Carrier Records

CURATOR Argeo Ascani

The New York City-based Wet Ink Ensemble was in residence in the Concert Hall to record their album *RELAY*. The Ensemble used their signature mix of collaborative performance, mixing voice, strings, winds, percussion, and electronics. The album features the music of Alex Mincek, Rick Burkhardt, Eric Wubbels, Kate Soper, Sam Pluta, and George Lewis—works that were performed and toured for two years prior to being recorded.

The members of the Ensemble collaborate in a band-like fashion, writing, improvising, and preparing pieces together over long stretches of time. In addition to yearly performances in New

York City, the ensemble has taken part in numerous tours and residencies, including a residency at Duke University for the 2011-12 and 2012-13 academic years, and residencies at UC San Diego and Northern Illinois University.

BLACK HOLE HORIZON

Thom Kubli

EXHIBITION
RESIDENCY / COMMISSION



RESIDENCY
JULY 16–SEPTEMBER 7, 2012

EXHIBITION
AUGUST 20–
SEPTEMBER 1, 2012

DISCIPLINE Music/Sound; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC, production support from the
School of Architecture at Rensselaer

CURATOR Argeo Ascani

A sound installation by German artist Thom Kubli, *Black Hole Horizon* was designed and constructed at Rensselaer in collaboration with the School of Architecture and consultants Zackery Belanger (acoustic design) and David Jaschik (mechatronics). Using the university's laser-cutting and 3D-milling equipment for the material creation, the production team designed a complex system of air compressors, fluid pumps, and Arduino-controlled mechanisms to create horns that produce tone-generated bubbles. Each bubble is deformed by the energy of the sound produced through the horn, and then bursts onto the room's white floor. The shapes of the horns, some stretching eight feet long, were based

on a model of a black hole geometrodynamics physics. In the installation, spectators could explore the space by walking through the room and witnessing the transformation of sound into ephemeral sculptures.

JULY 9–15, 2012

DISCIPLINE Film/Video; Music/Sound

CURATOR Emily Zimmerman

Ed Osborn spent an intensive period at EMPAC editing video footage for his installation and performance, *Albedo Prospect*. Based in part on Arthur Koestler's reports from a 1931 airship flight to the high Arctic, *Albedo Prospect* explores polar imagery using video, sound, still images, and text. Koestler's newspaper dispatches from this journey are part of the public record; the radio transmissions were lost, but these broadcasts were noted for their vivid and entrancing accounts of the terrain. This piece reimagines these lost reports using audio and video, updated with an awareness of how personal, journalistic, and scientific narratives shape our knowledge and readings of polar geographies.

Osborn's sound art pieces take many forms including installation, sculpture, radio, video, performance, and public projects. His works combine a visceral sense of space, sound, and motion with an economy of materials, and are by turns playful and oblique, engaging and enigmatic.

HOLOSCENES

Lars Jan and Early Morning Opera

RESIDENCY



**JUNE 25, 2012–
AUGUST 2, 2013**
(2 VISITS)

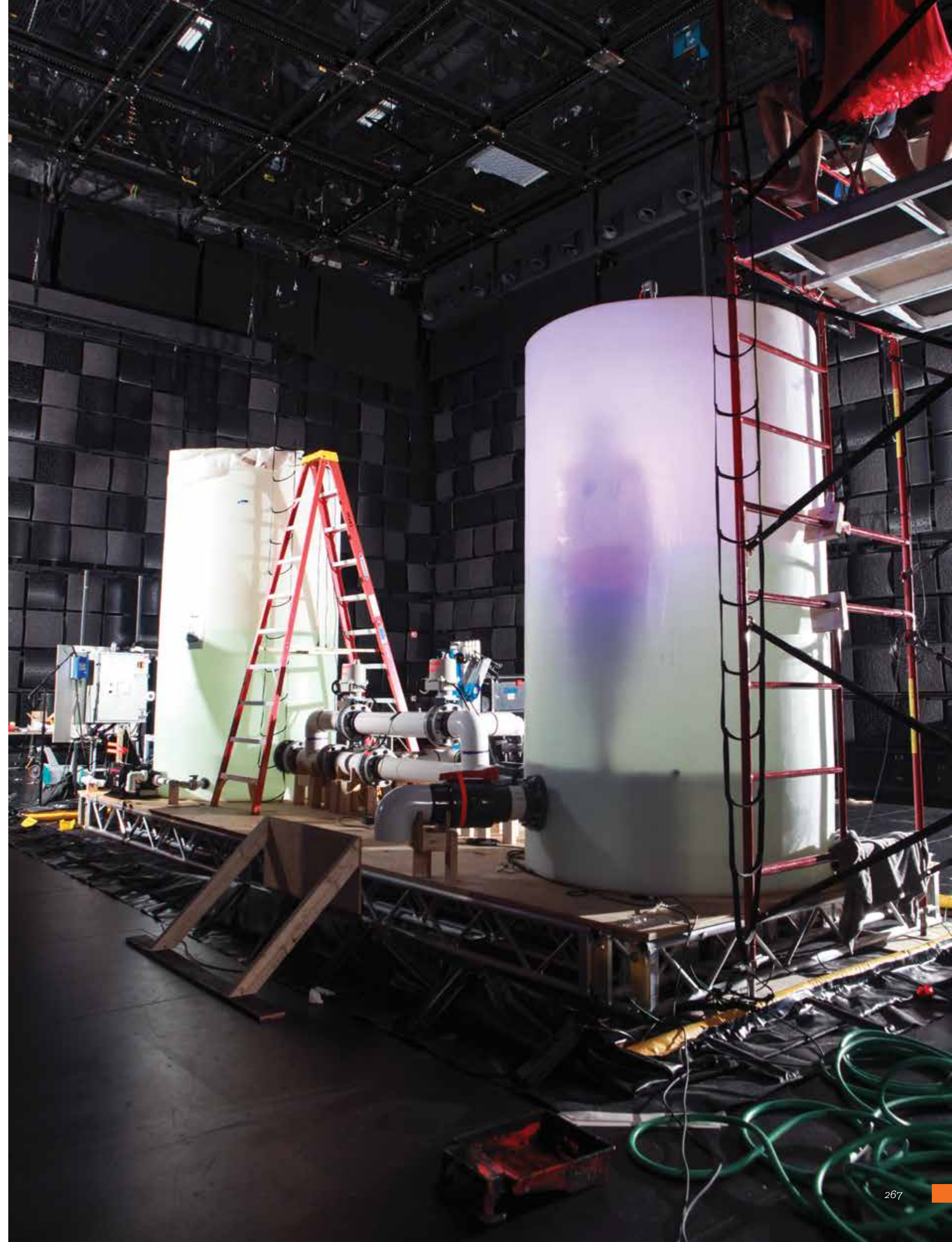
DISCIPLINE Contemporary Performance; Visual Art

ABOUT THE PRODUCTION *HOLOSCENES* was a production of MAPP International Productions, co-commissioned by the John and Mable Ringling Museum of Art and Yerba Buena Center for the Arts. Additional research and residency support provided by Scotiabank Nuit Blanche (Toronto), and the Center for the Art of Performance (CAP) UCLA (Los Angeles, CA).

CURATOR Ash Bulayev

HOLOSCENES is a large-scale spectacle—a performance and installation—designed for public spaces that explores states of drowning, both literal and metaphorical. It is concerned with everyday behavior and long-term thinking, empathy, and our evolutionary future. The piece includes three large, transparent “aquariums,” each inhabited by a performer repeating a personal ritual: secular or sacred behaviors. The aquariums periodically fill with water and then empty; performers attempt to conduct their rituals submerged, and when the water drains, continue, soaked by these mini-floods. Through repetition, these behaviors conjure past and coming environmental tragedies, studies in adapted behavior and persistence rather than catastrophe.

HOLOSCENES is part of a suite of multi-format artworks inspired by flooding; the name refers to our current geological epoch, the Holocene. During a month-long production and research residency, Jan and his designers, performers, and programmers worked with EMPAC’s production team to create a gigantic laboratory for the large-scale commercial water tanks and program the high-speed transfer of five tons of water between the two tanks by regulating hydraulic pumps.





**JUNE 13—
DECEMBER 13, 2012**
(4 VISITS)

DISCIPLINE Music/Sound; Contemporary
Performance

CURATOR Johannes Goebel

Laurie Anderson worked on electronics and a custom-built software program for her composition *Landfall*. Inspired by Anderson's experience of Hurricane Sandy, *Landfall* is an evocative meditation on transience. The piece combines texts—descriptions of loss, from water-logged pianos to disappearing animal species—and music that juxtaposes electronics and traditional strings. Dense projected texts were triggered musically via software developed for the work. According to Anderson, *Landfall* comprises “stories with tempos.” The work was Anderson's first-ever collaboration with the groundbreaking ensemble Kronos Quartet, a celebrated and influential ensemble that has performed thousands of con-

certs worldwide, released more than 45 recordings of extraordinary breadth, and commissioned more than 750 new works and arrangements for string quartet.

Laurie Anderson, EMPAC's inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

JUNE 11–29, 2012

DISCIPLINE Film/Video; Contemporary
Performance; Dance; Visual Art

CURATOR Emily Zimmerman

The word hyper is derived from the Greek for “above, beyond, or outside.” In mathematics, it is a prefix that denotes four or more dimensions. For her piece *HYPER-*, Freya Björg Olafson worked in residence to explore the Internet's potential for enabling a physical passage to a fourth dimension: a place where past, present, and future become fluid, and the laws of time and space change. Olafson worked on initial tests of materials, lighting, and filming techniques—including UV lights, phosphorescent body paint, and 3D glasses—to shift the relationship of body to the screen, and between 2D and 3D representations of corporeality. *HYPER-* explored a choreography where virtual bodies, cyber dancers,

and a contemporary reinterpretation of everyday gestures converged.

Olafson is an intermedia artist who works with video, audio, painting, and performance. Her creations have been presented and exhibited internationally.

INFLATABLE FRANKENSTEIN

Radiohole

RESIDENCY

RESIDENCY

VOIX VOILÉES: SPECTRAL PIANO MUSIC

Marilyn Nonken and Joshua Fineberg



JUNE 4–18, 2012

DISCIPLINE Theater

CURATOR Ash Bulayev

A visually and sonically driven performance, based on Mary Shelley's early life and her famous novel, as well as horror movies, the work of Antonin Artaud, and Arduino open-source electronics. The central design element in this multidisciplinary piece was the heart of Frankenstein—a giant, 20-foot tall, inflatable heart made from thousands of plastic Walmart and Price Chopper shopping bags—constructed by the company during their two-week residency. Software and hardware designers also created infinite interactive Arduino open-source electronics that would eventually influence sound, video, and lighting during the performance—all controlled by performers themselves.

Radiohole is a Brooklyn-based performance collective founded in 1998 by Erin Douglass, Eric Dyer, Maggie Hoffman, and Scott Halvorsen Gillette. At the heart of the company's ethic is collaboration and play. Their cut-up techniques, rich object-oriented visual sense, amplified, sampled sound, and raw, energetic performance style owe as much to the punk and new wave movements of the 1970s and '80s as they do to any formal theatrical tradition.

SEE RELATED EVENT ON PAGE 206.

MAY 29–JUNE 1, 2012

DISCIPLINE Music/Sound

PUBLICATION *Voix Voilées (Veiled Voices): Spectral Piano Music* by Joshua Fineberg and Hugues Dufourt, Audio recorded and produced at EMPAC, released by Metier Records

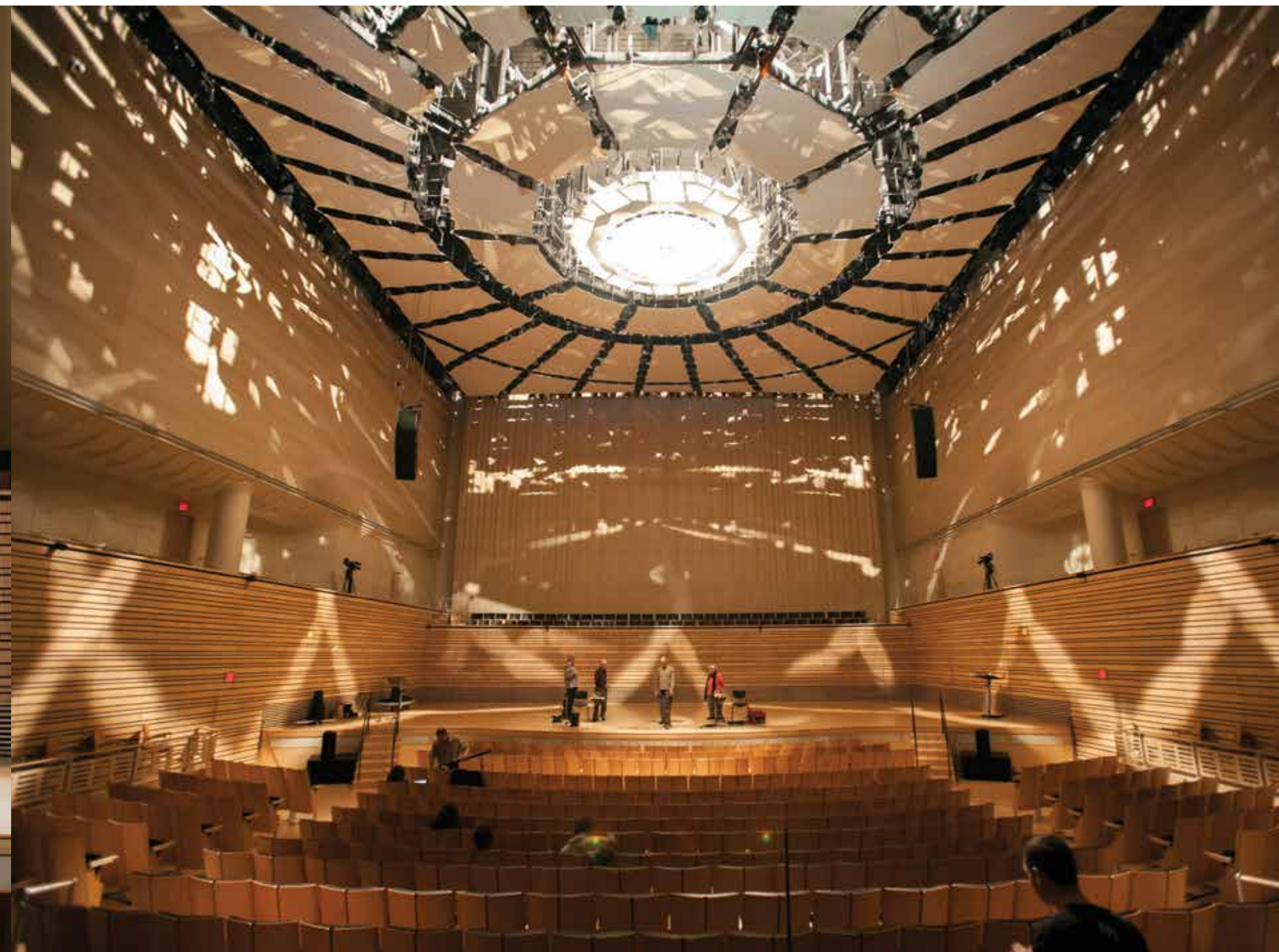
CURATOR Argeo Ascani

A collaboration between pianist Marilyn Nonken and composer Joshua Fineberg; while Nonken recorded works for solo piano, Fineberg mixed and mastered them in EMPAC's audio production room. Combining Fineberg's work in psycho-acoustics and Nonken's virtuosic command of the modern repertoire, the performance produced *Voix Voilées: Spectral Piano Music*, featuring the music of Fineberg and an additional composition from Hugues Dufourt. Nonken is a celebrated champion of the modern repertoire who has performed at such venues as Carnegie Hall, Lincoln Center, Miller Theatre, the Guggenheim Museum, and (Le) Poisson Rouge. After teaching at Harvard University, where he is the John L. Loeb Associate

Professor for the Humanities, Fineberg assumed a professorship in composition and the directorship of the electronic music studios at Boston University. In 2012, he became the founding director of the Boston University Center for New Music.

WORKS RECORDED

JOSHUA FINEBERG *Tremors*
JOSHUA FINEBERG *Lightning*
JOSHUA FINEBERG *Fantastic Zoology*
JOSHUA FINEBERG *Grisaille*
JOSHUA FINEBERG *Veils*
JOSHUA FINEBERG *Till Human Voices Wake Us*
HUGUES DUFOURT *Erkönig*



MAY 13, 2012

DISCIPLINE Music/Sound

CURATOR Johannes Goebel

One of Europe's foremost new music ensembles presented premieres juxtaposed with 20th-century masterpieces in a performance that pushed the boundaries of technical and artistic innovation. Arriving at EMPAC after a residency at Harvard University, where they worked with Harvard PhD composition students, Musikfabrik premiered two pieces by the Harvard composers. These new works were paired with John Cage's *Concert for Piano and Orchestra*; *Interference* by British composer Richard Barrett, a piece for contrabass clarinet and kick-drum; and a colorful chamber music piece, *Paramirabo*, by Canadian composer Claude Vivier. Ensemble Musikfabrik has been commissioning new works and per-

forming unknown music since 1991. The Cologne-based contemporary music ensemble is dedicated to artistic innovation, including new, unknown, unusual, and commissioned works. They also present discussion concerts and experiment with alternative concert forms involving audience participation.

PROGRAM

- RICHARD BARRETT *Interference*
- JUSTIN HOKE *Pantomime Aria*
- CLADUE VIVIER *Paramirabo*
- JOHN CAGE *Concert for Piano and Orchestra*
- SABRINA SCHROEDER *Spule*
- TIMOTHY MCCORMAC *Nous-Apparatus*

MAY 10, 2012

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Pauline Oliveros' 80th birthday was celebrated with Tibetan dungchen, didgerdoo, accordion, meditative percussion, and a recreation by Professor Jonas Braasch of the acoustics of the Fort Worden Cistern—a two-million-gallon underground water tank made famous by Oliveros' 1988 *Deep Listening* album. Oliveros is recognized as one of America's most important composers of the 20th and 21st centuries. She continues to be a vital force through continuing performances, and through Deep Listening, a lifetime practice fundamental to her work. The event benefited the Deep Listening Institute, which promotes the practice as well as creative innovation across boundaries and abilities extending

to people of all ages. Oliveros is Distinguished Research Professor of Music at Rensselaer, and the Darius Milhaud Artist in Residence at Mills College in Oakland, California.

PROGRAM

- BRIAN PERTI *Land of Snows*
- DEEP LISTENING BAND *From Now On*
- STUART DEMPSTER AND PAULINE OLIVEROS *Returning*
- PAULINE OLIVEROS *The Single Stroke Roll Meditation*
- STUART DEMPSTER *Exit Sliding*

**EMPATHOGRAPHY:
THE ART OF CLINICAL INTIMACY**

Lisa Cartwright & Christina Lammer

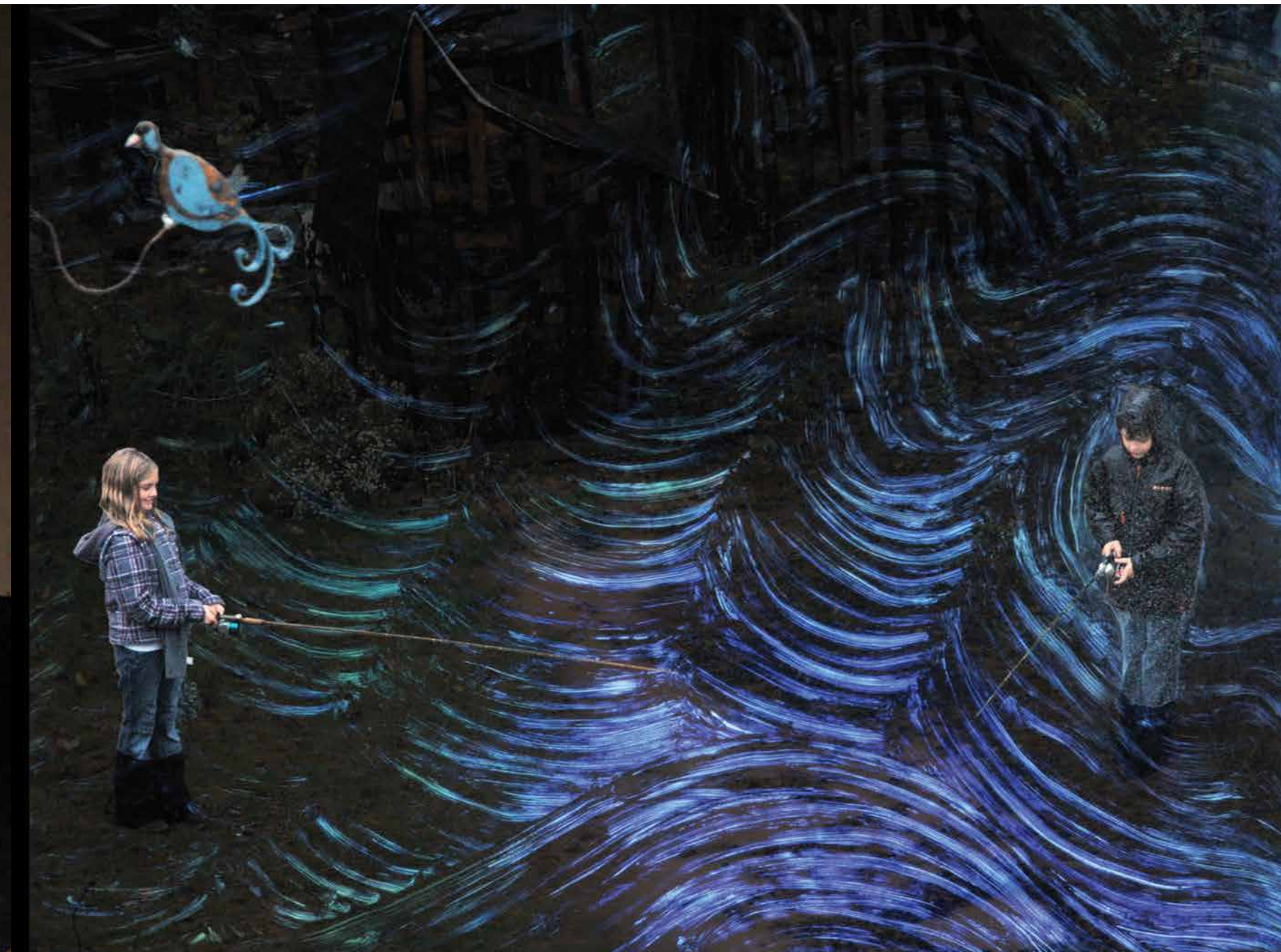
OBSERVER EFFECTS

TALK

RESIDENCY

GRAVITY WAS EVERYWHERE BACK THEN

Brent Green



MAY 2, 2012

DISCIPLINE Humanities; Science; Visual Art

CURATOR Emily Zimmerman

A multimedia screening, performance, and talk that asked: What do we sense during surgery? Touch, sounds, and smells in the surgical theater, as well as engagement with others and the inter-subjective experience of the senses during medical procedures were the focus of this intimate conversation. The discussion was accompanied by a screening of video and audio works.

Lisa Cartwright is a visual studies scholar who works at the intersections of contemporary art and science, technology, information, and medicine. She is professor of communication and science studies at the University of California at San Diego, where she also teaches in the Critical

Gender Studies program. Christina Lammer is a collaborative multimedia artist, research sociologist, and lecturer based in Vienna. Her work combines sensory ethnography with video, performance, and body art in hospitals and clinics to focus on embodied emotion and sensory interaction between patients and physicians during the course of medical treatment.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

**MAY 1–AUGUST 17, 2012
(3 VISITS)**

DISCIPLINE Film/Video; Music/Sound

PUBLICATION *Gravity Was Everywhere Back Then* by Argeo Ascani and Brent Green, book, DVD, and Blu-ray, produced, recorded, and published by EMPAC

CURATOR Argeo Ascani

American filmmaker Brent Green was in residence to record a live performance version of his stop-motion animation film *Gravity Was Everywhere Back Then*. Originally presented as a touring film with live narration and musical accompaniment, Green wanted to create a DVD document of the project. All the video, audio, and design work took place onsite at EMPAC, with every department at EMPAC collaborating to realize the project. Based on the true tale of Kentucky hardware clerk Leonard Wood, *Gravity Was Everywhere Back Then* uses live action and hand-drawn stop-motion animation to tell an inspiring, poignant, and darkly humorous love story of a man who built a bizarre and sprawling

home for his wife by hand in the hope that it would cure her of terminal cancer.

Brent Green is a storyteller, singer, songwriter, and self-taught filmmaker. Green often performs his films with live musicians, improvised soundtracks, and live narration in venues ranging from rooftops to art institutions such as the Getty Center, the Walker Art Center, the Hammer Museum, the Wexner Center for the Arts, The Kitchen, and MoMA. He lives and works in the Appalachian hills of Pennsylvania.

SEE RELATED EVENTS ON PAGES 167 AND 425.

BITTEN: WHY DO MOSQUITOES BITE SOME PEOPLE AND NOT OTHERS

Leslie Vosshall

OBSERVER EFFECTS
TALK

QUOTE UNQUOTE
PERFORMANCE
RESIDENCY / COMMISSION

WE HAVE AN ANCHOR
Jem Cohen



APRIL 25, 2012

DISCIPLINE Science

CURATOR Emily Zimmerman

How are mosquitoes able to detect our presence? Leslie Vosshall, neuroscientist and head of laboratory at Rockefeller University's Howard Hughes Medical Institute, gave an in-depth presentation on the origins and complexities of smell and its impact on behavior. Her talk covered a range of topics from the physiology of our sense of smell to the history of perfume making, and answered the age-old question "Why do mosquitos bite some people and not others?"

Vosshall is the Robin Chemers Neustein Professor and head of Rockefeller University's Laboratory of Neurogenetics and Behavior. The long-term goal of her laboratory is to understand how

behaviors emerge from the integration of sensory input with internal physiological states.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

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RESIDENCY
APRIL 22–28, 2012

PERFORMANCE
APRIL 27, 2012

DISCIPLINE Film/Video; Music/Sound

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Kathleen Forde

3194

Commissioned by EMPAC, this interdisciplinary hybrid combined footage Cohen filmed in Nova Scotia over a decade with live music and texts ranging from poems and folklore to local newspaper fragments to scientific research. An artist who has explored and deplored the disappearance of regional character brought on by corporate-driven homogeneity, Cohen described his discovery of Cape Breton as a revelation for its beauty, but one that remains elusive and deeply itself. Known primarily as an urban filmmaker, this work was a rare foray into engagement with the natural landscape. The EMPAC premiere featured musicians from Fugazi, Godspeed You! Black Emperor, Dirty Three, and Silver

Mt. Zion. EMPAC also screened an earlier work, *Gravity Hill Newsreels: Occupy Wall Street (Series One and Two)*. Cohen has made more than 40 films including personal/political city portraits made on travels around the globe, and portraits of friends, artists, and musicians. His works are in the collections of MoMA and the Whitney Museum of American Art and have been broadcast by PBS, Arte, and the Sundance Channel.

Quote Unquote was an interdisciplinary series presenting work by artists that use an existing text as a departure point for time-based works including installation, film, and performance.

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APRIL 20 + 21, 2012

DISCIPLINE Dance; Contemporary Performance

ABOUT THE PRODUCTION A production of WCV, Inc., co-commissioned by The Kitchen and EMPAC, with a commission from the Meet The Composer's Commissioning Music/USA program

CURATOR Hélène Lesterlin

Choreographers/dancers Wally Cardona and Jennifer Lacey returned to EMPAC following their 2011 residency to perform *TOOL IS LOOT*, a duet that asked the question: What comes after you don't know anymore? Cardona and Lacey created the work in two phases. First, they worked separately for a year, in the US and France, respectively. Each solicited weeklong encounters with experts in various fields, allowing the opinions and desires of a dance "outsider" to influence their approach to creating short dance solos. These experts included a sommelier, an architect, a film editor, a medical supply salesman, a kinetic sculptor, a baroque opera singer, an art critic, an acoustician, and a social activist.

Cardona and Lacey then worked together while in residence at EMPAC to build their disparate experiences into a duet.

Lacey is an American choreographer based in Paris whose solo works often emphasize ambiguous borders. Cardona is an award-winning Brooklyn-based choreographer and dancer. *TOOL IS LOOT*'s sound score was created by composer, musician, and singer Jonathan Bepler.

SEE RELATED RESIDENCY ON PAGE 354.

APRIL 12, 2012

DISCIPLINE Film/Video; Music/Sound; Contemporary Performance

CURATOR Kathleen Forde

Inspired by author David Foster Wallace's novel of the same name, *Infinite Jest* was a live handmade film visualizing what one character in the book, a filmmaker, considered as his life's work. *Infinite Jest* began with the audience walking through miniature sets as recordings of the book's text played as a soundtrack. SUE-C (Sue Costabile) then brought the film to life, manipulating photographs, drawings, scale models, and various 3D objects captured by cameras and projected onto a screen, accompanied by a live electronic soundtrack with vocals by AGF and narration from Francis Deehan. The day prior to the performance, SUE-C also gave a reading of excerpts from *Infinite Jest* and a discussion of

her work. SUE-C has created handmade videos for both the stage and screen, challenging the norms of photography, video, and technology by blending them into an organic and improvisational live performance. AGF (Antye Greie) is a singer and digital songwriter, producer, performer, e-poet, calligrapher, and digital media artist known for her artistic exploration of digital technology through the deconstruction of language and communication.

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APRIL 5, 2012

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

Saxophonist Colin Stetson and percussionist Tyshawn Sorey, each performing a set of their own works, used extraordinary techniques to take their instruments into uncharted territory, creating music that exists in a cross-genre realm, drawing from jazz, classical, and pop with equal measure. Special guest Sarah Neufeld opened with a solo violin set. Colin Stetson has worked with dozens of artists including Tom Waits, Arcade Fire, TV on the Radio, Feist, Laurie Anderson, Lou Reed, David Byrne, LCD Soundsystem, The National, Angélique Kidjo, and Anthony Braxton, and is member of the band Bon Iver.

Tyshawn Sorey is a composer, performer, educator, and scholar who works across an extensive range of musical idioms. As a percussionist, trombonist, and pianist, Sorey has performed with his own ensembles and with those led by Muhal Richard Abrams, Steve Coleman, Butch Morris, Michele Rosewoman, Steve Lehman, Vijay Iyer, Peter Evans, and Ellery Eskelin, among many others. Sarah Neufeld began playing the violin at the age of three; she is best known as a member of the indie rock phenomenon Arcade Fire, as well as the instrumental post-rock ensemble Bell Orchestre.

APRIL 3, 2012

DISCIPLINE Music/Sound

CURATOR Argeo Ascani

The influential avant-garde composer and performer gave a rare solo saxophone performance in Studio 2.

An experimental jazz icon for almost 40 years, Zorn's playing pushes extended techniques to their limits in a whirlwind of virtuosity. Drawing upon his experience in classical, jazz, rock, hardcore punk, klezmer, film, cartoon, popular, world, and improvised music, he has created an influential body of work that defies academic categories. He is a central figure in the downtown scene, incorporating a wide variety of creative musicians into various compositional formats. His work is remarkably diverse and

eclectic, drawing inspiration from art, literature, film, theater, philosophy, alchemy, and mysticism, as well as music. Zorn founded the Tzadik label in 1995, runs the East Village performance space The Stone, and has edited and published five volumes of musician's writings under the title *Arcana*. He was awarded a MacArthur Fellowship in 2006.

**SUSAN SGORBATI:
CREATIVE RESEARCH**

**RESIDENCY
TALK
WORKSHOP**

**RESIDENCY
APRIL 1–MAY 13, 2012**

**TALK
APRIL 11 + MAY 9, 2012**

**WORKSHOP
APRIL 14, 2012**

DISCIPLINE Dance; Humanities; Science

CURATOR Hélène Lesterlin

Susan Sgorbati's original work in emergent improvisation in dance led to her concept of "emergent structuring" for collaborative, applied problem solving for political, social, and environmental issues. A key feature of this work has been dialogue with scientists on how complex systems dynamics in brain research and biological systems are reflected in improvisational ensembles in dance and music. For this six-week creative research residency, she brought together multiple perspectives on how groups can create collective meaning to enable structures that will solve complex problems. Sgorbati is a professional mediator and the Barbara and Lewis Jones Chair of Social Activism at Bennington College, where she develops and supervises the curriculum in conflict resolution; she also mediates for the Vermont Human Rights Commission.

TALK: May 9, 2012: *Mirror Neurons and Our Capacity for Empathy*, Marco Iacoboni and Susan Sgorbati. Iacoboni is a neurologist and neuroscientist who pioneered research on mirror neurons, the "smart cells" in our brain that are thought to illuminate our ability to interpret the feelings and intentions of others. Sgorbati joined Iacoboni after the talk to explore the role of empathy in any emergent collaborative process of creation, whether in dance or conflict resolution.

WORKSHOP: April 14, 2012: *Emergent Improvisation*, Susan Sgorbati. Visitors observed Sgorbati's work with emergent improvisation; an ensemble of six dancers demonstrated Sgorbati's concept of the emergent process and how patterns naturally emerge through improvisation in dance and music.

TALK: April 11, 2012: *Biomimicry*, Tim McGee and Susan Sgorbati. Through examples and stories, biologist Tim McGee shared where biological wisdom is changing the way we work, think, and create, and where increasingly our technologies have more in common with 3.8 billion years of evolution. McGee is a biologist who spends his time integrating the fields of biology, design, engineering, and business to create regenerative systems, products, and services that revitalize our relationship to the living world.



**PERFORMANCE
RESIDENCY**

**MUSIC OF FAUSTO ROMITELLI
*Talea Ensemble***

**RESIDENCY
MARCH 27–31, 2012**

**PERFORMANCE
MARCH 31, 2012**

DISCIPLINE Music/Sound

PUBLICATION *Fausto Romitelli: Anamorphosis* by Talea Ensemble, Audio recording produced at EMPAC, and released by Tzadik

CURATOR Argeo Ascani

The New York City-based contemporary music group Talea Ensemble was in residence to perform and record the music of Fausto Romitelli, the Italian composer who died in 2004 just as his music was beginning to gain notoriety. This album marks the world premiere recordings of several chamber ensemble works from the composer, described as one of the most promising of his generation. Romitelli took the power of psychedelic rock and the sonic-analysis techniques of the French Spectral school and twisted them together to create a deformed, artificial sound world.

The Talea Ensemble has given many important world premieres of new works by composers such

as Pierre Boulez, Tristan Murail, Jason Eckardt, Pierluigi Billone, Stefano Gervasoni, and Marco Stroppa, in addition to Fausto Romitelli.

PROGRAM

ALL COMPOSITIONS BY FAUSTO ROMITELLI
Domeniche alla periferia dell'impero
La sabbia del tempo
Amok Koma
Nell'alto dei giorni immobi
Blood on the floor
Painting
Trash TV Trance

QUOTE UNQUOTE

PERFORMANCE
RESIDENCY / COMMISSION

(GLOWING)

Kota Yamazaki and Fluid hug-hug

RESIDENCY
MARCH 26–APRIL 11, 2012

PERFORMANCE
APRIL 6, 2012

DISCIPLINE Dance

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Hélène Lesterlin

This work for six dancers combined *butoh* (a Japanese dance form that embraces shadows and darkness) with traditional African dance and contemporary movement, exploring similarities between these forms. Dancers from Senegal and Ethiopia joined Japanese *butoh* dancers and US contemporary performers to create a scenario in which lightless vision ignites the imagination, conjuring illusion and upturning the ordinary between the shadows. Within a set designed following principles found in the traditional Japanese house, bodies emerge, float, and then disappear into the shadows of a dimly lit architecture. In *(glowing)*, Kota Yamazaki draws inspiration from the great modern writer Jun'ichir Tanizaki's essay *In'ei Raisan (In Praise of Shadows)*, which plumbs the unique Japanese aesthetics of shadows and darkness.

Quote Unquote was an interdisciplinary series presenting work by artists that use an existing text as a departure point for time-based works including installation, film, and performance.

THE HANT VARIANCE

Peter Edwards & Sabisha Friedberg

PERFORMANCE
RESIDENCY



RESIDENCY
MARCH 26–
AUGUST 16, 2012
(2 VISITS)

PERFORMANCE
APRIL 4, 2012

DISCIPLINE Music/Sound

PUBLICATION *The Hant Variance* by Peter Edwards and Sabisha Friedberg. Audio recorded and produced at EMPAC, released by Issue Project Room

CURATOR Argeo Ascani

A collaboration between American Peter Edwards and South African Sabisha Friedberg, *The Hant Variance* was an exploration of audio composition driven by an audience's movement through space. The score was inspired by the writings of Vic Tandy and other scientific and metaphysical sources that suggest certain sonic equations yield supernatural experiences. Performing from the center of the room, and using analog and digital sound interfaces, Edwards and Friedberg distributed the sound in real-time through a site-specific arrangement of loudspeakers and subwoofers. After the performance, *The Hant Variance* was recorded, edited, and mastered for release on vinyl record.

Friedberg's composition, performance, and installation work draws on the phenomenological and phantasmagorical, exploring perceptual delineation of space through sound, and low-end experiential thresholds; she has performed and presented installations widely in western and eastern Europe, Russia, Japan, and the US. Edwards is an American artist and musician living in Holland, best known for his DIY experimental electronics website *casperelectronics*. His work has been presented internationally at venues including the MIT Media Lab, *Transmediale*, Dutch Electronic Arts Festival, and New York Electronic Arts Festival, among others.

QUOTE UNQUOTE

EXHIBITION
RESIDENCY / COMMISSION

INDEX

Jennifer & Kevin McCoy



RESIDENCY
MARCH 26–31, 2012

TALK
MARCH 27–
OCTOBER 13, 2012

DISCIPLINE Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Kathleen Forde

Index was an EMPAC-commissioned public art installation by Rensselaer arts alumni Jennifer and Kevin McCoy, consisting of multiple sculptures filmed via small cameras. The resulting live video projections, as well as the models, were presented throughout EMPAC's public spaces during an extended residency with the artists. Inspired by a J.G. Ballard short story that consists primarily of an alphabetized index of people and places suggesting a global conspiracy, the McCoy's list spans the 1960s to today, referencing globalization, technology, mass migrations, and war. Corporate campuses, film sets, Spanish Colonial Revival architecture, and factories all collide in a globalized, mediated framework that exists to support utopian goals, even as it rests upon

resource depletion, financial instabilities, and entropic decay. Jennifer and Kevin McCoy's multimedia artworks examine the genres and conventions of filmmaking, memory, and language. They are known for constructing subjective databases of existing material and making fragmentary miniature film sets with lights, video cameras, and moving sculptural elements to create live cinematic events.

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MANTA

Zackery Belanger, Guillermo Bernal,
Eric Ameres, and Seth Edwards with
SmartGeometry & Grimshaw Architects

RESEARCH

MARCH 19–24, 2012

Manta was the result of a collaborative workshop that took place as part of the SmartGeometry 2012 Conference, hosted at Rensselaer and EMPAC. The conference was entitled *Material Intensities* and its theme was the dissolution of notions of the built environment as inert constructions enclosing physically sealed spaces. The workshop component of the conference is a unique creative cauldron that attracts attendees from across the world of academia, professional practice, as well as students, who come together for four intensive days of design and collaboration. The Rensselaer team created *Manta*, with a surface that changes form—and therefore acoustic character—in response to multimodal input via Open Sound Control (OSC), including stereoscopic vision (a hacked Kinect), multi-touch, sound, and brainwaves. *Manta* explores acoustic variability and responsiveness in the surface itself instead of resorting to traditional applied acoustic treatment. It is comprised of CNC machined panels and connectors of high-density polyethylene. Curved forms result from a combination of triangulation and bending stiffness: geometry and material in concert. It was designed to utilize the rigging infrastructure and acoustically inert environment of EMPAC. In addition to the workshop leaders, collaborators included Olia Fomina, Frederico Fialho, Daniel Hambleton, Christoffer Marsvik, Ana Garcia Puyol, Varvara Toulkeridou, Ben Schneiderman, Sarah Goldfarb, and James Wisniewski.

MP3: A HUNDRED-YEAR HISTORY OF A
19-YEAR-OLD FORMAT IN UNDER AN HOUR

Jonathan Sterne

OBSERVER EFFECTS
TALK

QUOTE UNQUOTE
PERFORMANCE

RE: WALDEN
Jean-Francois Peyret



MARCH 7, 2012

DISCIPLINE Music/Sound; Tools and Technology

CURATOR Emily Zimmerman

There are now more MP3s in circulation than all other forms of recorded audio combined. Jonathan Sterne offered a history of the MP3 format, and used it to point to a longer, general history of compression in the 20th century. Our most basic ideas of what it means to hear and listen, as well as our ideas of information, are tied to the problems and progress of 20th century media. In its everyday combination of sound, information, and infrastructure, the history of the MP3 offers a radically different story about the meaning of hearing and the origins of digital media.

Sterne teaches in the Department of Art History & Communication Studies and in the History and

Philosophy of Science program at McGill University. He is author of *MP3: The Meaning of a Format* (Duke, 2012), as well as numerous articles on media, technologies, and the politics of culture.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

MARCH 3, 2012

DISCIPLINE Contemporary Performance;
Theater

ABOUT THE PRODUCTION *RE: Walden* production residency at EMPAC was made possible with the support of Etant donnés: The French-American Fund for the Performing Arts, a program of FACE. *RE: Walden* is a co-production of Compagnie tfzt and La Colline-théâtre national (Paris).

CURATOR Héliène Lesterlin

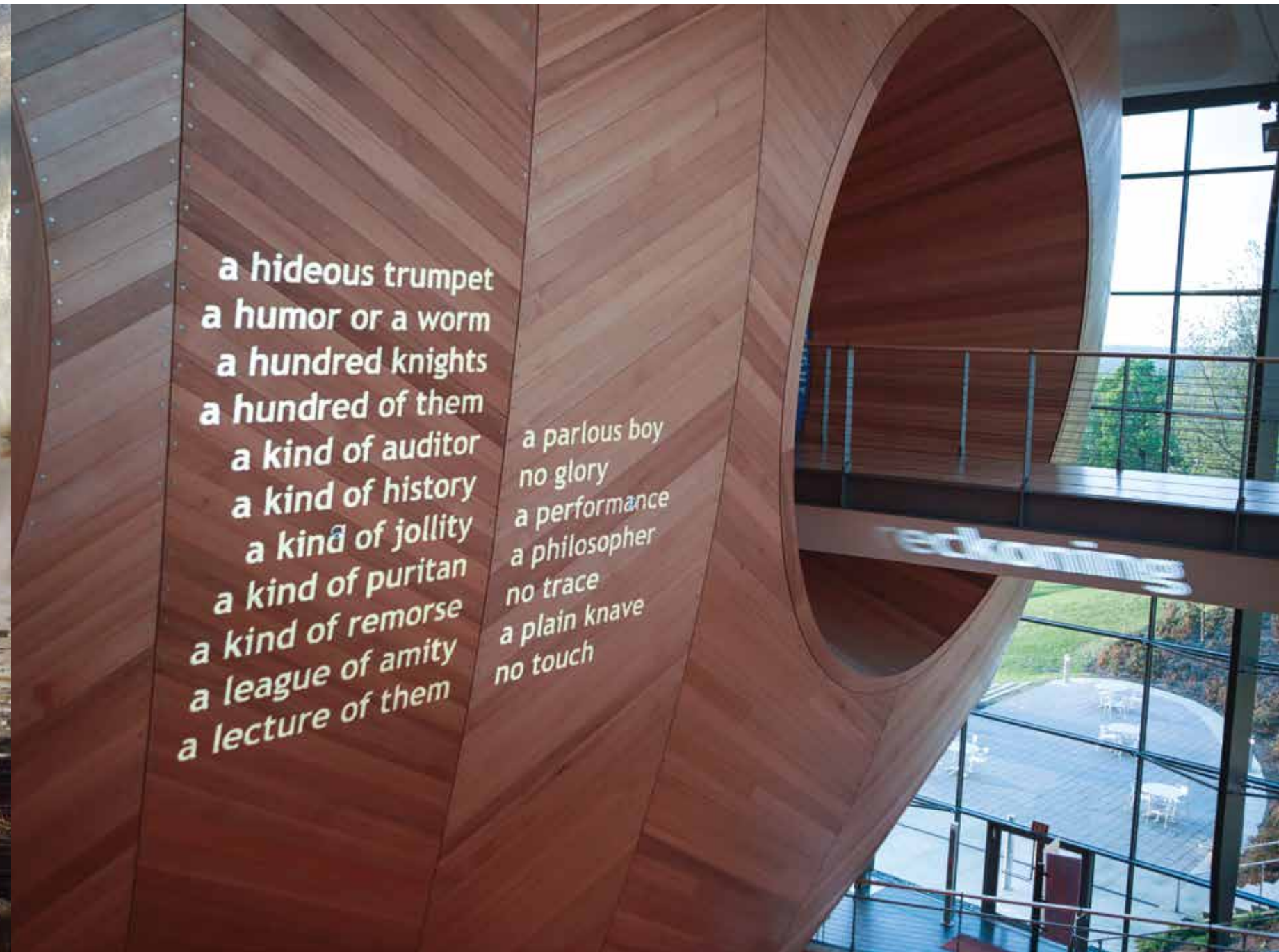
Using voice and movement, a single performer triggers and interacts with a complex web of sonic and visual elements to create a multi-layered interpretation of Henry David Thoreau's revolutionary musings on *Walden*. Inspired by the writings of the transcendental philosopher during the two years he spent living by Walden Pond, this piece creates an integrated experience with images from *Walden Pond*, text, and a live piano score.

Director Jean-François Peyret's work uses theater to imagine reveries around the living and artificial, bodies and machines, and variations on the theme of man's technical destiny. His works

often spring from the writings of philosophers and scientists.

Quote Unquote was an interdisciplinary series presenting work by artists that use an existing text as a departure point for time-based works including installation, film, and performance.

SEE RELATED RESIDENCY ON PAGE 504.



MARCH 1, 2012

DISCIPLINE Film/Video

CURATOR Kathleen Forde

onedotzero is an international moving-image and digital-arts organization that commissions, showcases, and promotes innovation across all aspects of moving image, digital, and interactive arts. An annual touring festival, onedotzero_adventures in motion travels the world, showcasing exciting ideas and up-and-coming filmmaking talent alongside new work by leading creative luminaries.

This double bill included two compilation programs: *wow + flutter 11* featured new work across motion graphics, character design, typography, and animation that blur traditional notions of what the moving image can be, while *wavelength 11* served up radical new takes in music video, a

genre that acts as a playground for new directors and musicians to make their mark.

RESIDENCY
FEBRUARY 28–
MARCH 6, 2012

EXHIBITION
MARCH 5–JULY 28, 2012

DISCIPLINE Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Kathleen Forde

In this residency and exhibition, artist Ben Rubin transformed EMPAC's interior into a laboratory of words and motion: projecting glowing white text from Shakespeare's complete dramatic works onto walls, walkways, and other surfaces. Designed as a permanent site-specific installation for the building's lobby, the artist sought to "create a kind of supercollider for Shakespeare's texts, where the particles to be accelerated and smashed together are scenes, lines, and phrases. Which words, when hurled toward each other, will cause a reaction? Which collisions will most likely provide traces of the incandescent energy, wit, and emotion that existed at the moment of these plays' creation?"

Ben Rubin is a New York City-based media artist who has worked with composer Steve Reich, architects Diller Scofidio & Renfro and Renzo Piano, performers Laurie Anderson and Arto Lindsay, theorists Bruno Latour and Paul Virilio, and artists Ann Hamilton and Beryl Korot. He frequently collaborates with UCLA statistician Mark Hansen.

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NONEXTRANEOUS SOUNDS

Mariel Roberts

RESIDENCY

PERFORMANCE

HELLO HI THERE

Annie Dorsen



FEBRUARY 24–MARCH 2, 2012

DISCIPLINE Music/Sound

PUBLICATION *nonextraneous sounds* by Mariel Roberts. Audio recorded and produced at EMPAC, released by Innova Records

CURATOR Argeo Ascani

American cellist Mariel Roberts was in residence for the recording, mixing, and mastering of her first solo album, *nonextraneous sounds*. Roberts took over the Concert Hall with an assortment of microphones and a KVM station (keyboard, video, mouse) that allowed her the autonomy to operate on her own schedule. Afterward, the material was assembled and mixed in EMPAC's audio production room. *nonextraneous sounds* features music by Andy Akiho, Sean Friar, Daniel Wohl, Alex Mincek, and Tristan Perich.

Roberts has performed at the Kennedy Center, the Guggenheim Museum, Zankel Hall, MoMA,

The Stone, ISSUE Project Room, and Roulette, and has performed internationally as a member of the Mivos String Quartet, as well as with a variety of other ensembles in venues around the world.

WORKS RECORDED

ANDY AKIHO *Three Shades, Foreshadows*

SEAN FRIAR *Teaser*

DANIEL WHOL *Saint Arc*

ALEX MINCEK *Flutter*

TRISTAN PERICH *Formations*

FEBRUARY 18, 2012

DISCIPLINE Contemporary Performance; Theater

ABOUT THE PRODUCTION Co-producers: steirischer herbst (Graz), Hebbel am Ufer (Berlin), BIT Teatergarasjen (Bergen), Black Box Teater (Oslo), PS122 (NYC)

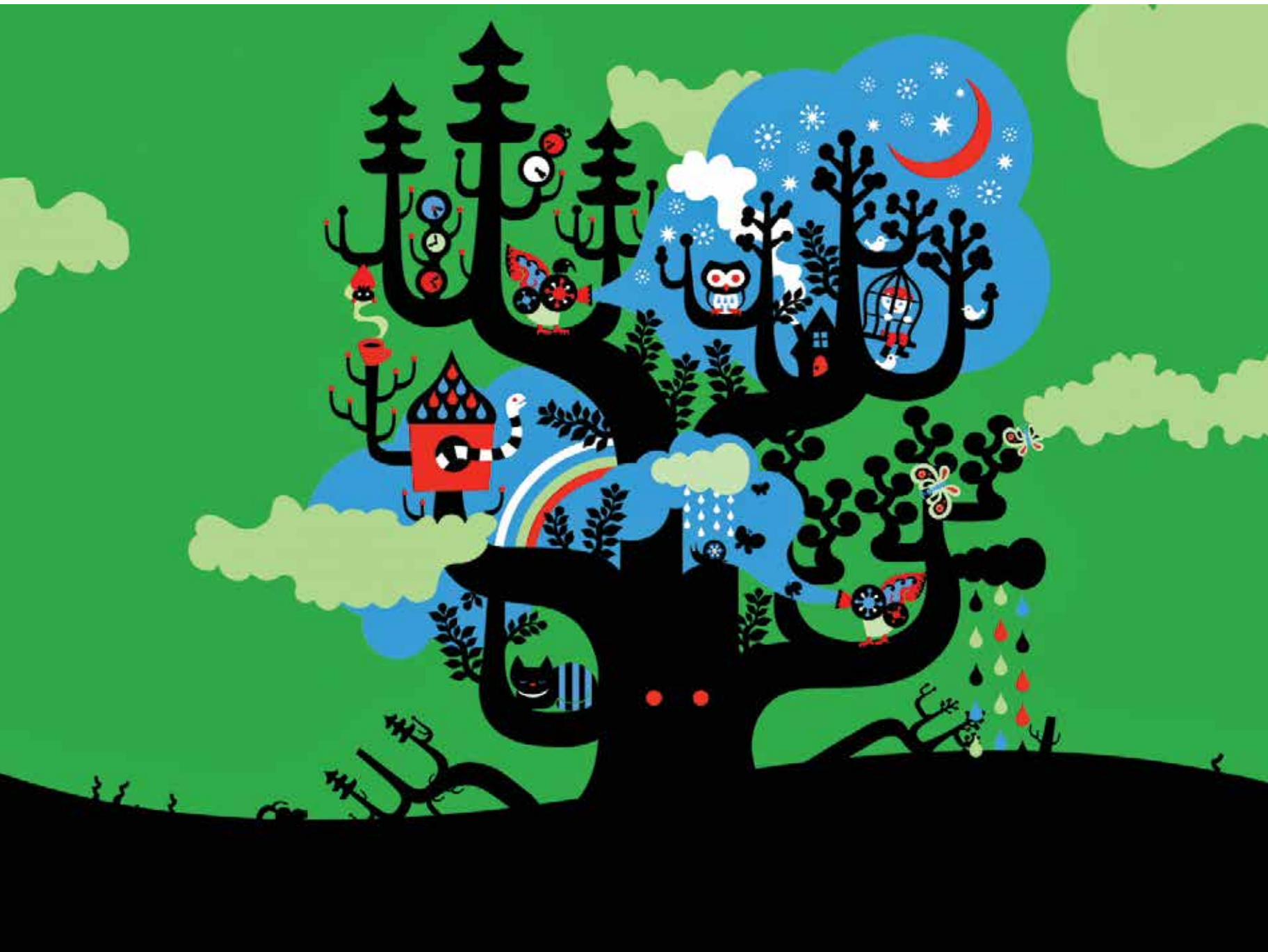
CURATOR Emily Zimmerman

Annie Dorsen returned to EMPAC to perform *Hello Hi There*, which she worked on in residence in 2010. *Hello Hi There* uses a famous 1970s television debate between the philosopher Michel Foucault and linguist/activist Noam Chomsky as the inspiration and raw material for a dialogue between two custom-designed "chatbots": computer programs designed to mimic human conversation. Every conversation between the chatbots follows a unique path due to their custom-made software, which has been programmed to mimic the nuances of human conversation. As Chomsky and Foucault debate language, creativity, the roots of scientific discovery, and the nature of political power, the chatbots talk on and on, endlessly

circling the questions of the debate, and frequently veering off into unexpected, at times nonsensical, digressions.

An Obie award-winning director and writer, Dorsen works in a variety of fields, including theater, film, dance, and digital performance. She is the co-creator of the 2008 Broadway musical *Passing Strange*, which she also directed.

SEE RELATED RESIDENCY ON PAGE 428.



FEBRUARY 16, 2012

DISCIPLINE Film/Video

CURATOR Kathleen Forde

Compiled by onedotzero—an international moving image and digital arts organization that commissions, showcases, and promotes innovation across all aspects of moving image, digital, and interactive arts—this was a series of shorts looking at expressive moving image work, from live action to animation via motion graphics, that are based on or inspired by poetry or poetic texts. The result is a visual investigation of words in poetic motion, enriching their meanings.

Artists featured in this program included David Alexander Anderson, Adam Long, Lesley Barnes, Andy Martin, Matt Lambert, Tony Comley, Alex Weil, Salomon, Crush, Michael Fragstein, Mark

Nute, Daniel Boyle, Mario Pietro Brioschi, Scott Wenner, Jaeho Hwang, Jonathan Chong, Jac Min, David Viau, Julian Grey, Diego Maclean and Seiichi Hishikawa.

Quote Unquote was an interdisciplinary series presenting work by artists that use an existing text as a departure point for time-based works including installation, film, and performance.

**FEBRUARY 14 +
APRIL 12, 2012**

DISCIPLINE Science

In his research, Rensselaer Architecture Professor Zbigniew Oksiuta develops living biological habitats by combining art, architecture, engineering, and the biological sciences. His work looks to reduce the notion of space to its absolute minimum: the physical and chemical parameters that enable physiological existence. In this two-part talk, Oksiuta discussed his research into the possibility for biological processes to occur on an architectural scale, asking whether life processes—which normally take place on the nanoscale of proteins, acids, and saccharides—can happen on a macroscale.

Oksiuta is an artist, architect, and scientist whose work has been shown at venues worldwide, including the *Venice Biennale*, ARS Electronica, Foundation for Arts and Creative Technology (FACT) in Liverpool, and Dublin's Science Gallery.

This event was curated by Paula Gaetano.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.



PERFORMANCE
RESIDENCY

ACTUAL REALITY

Lucky Dragons

RESIDENCY
FEBRUARY 8–16, 2012

PERFORMANCE
FEBRUARY 15, 2012

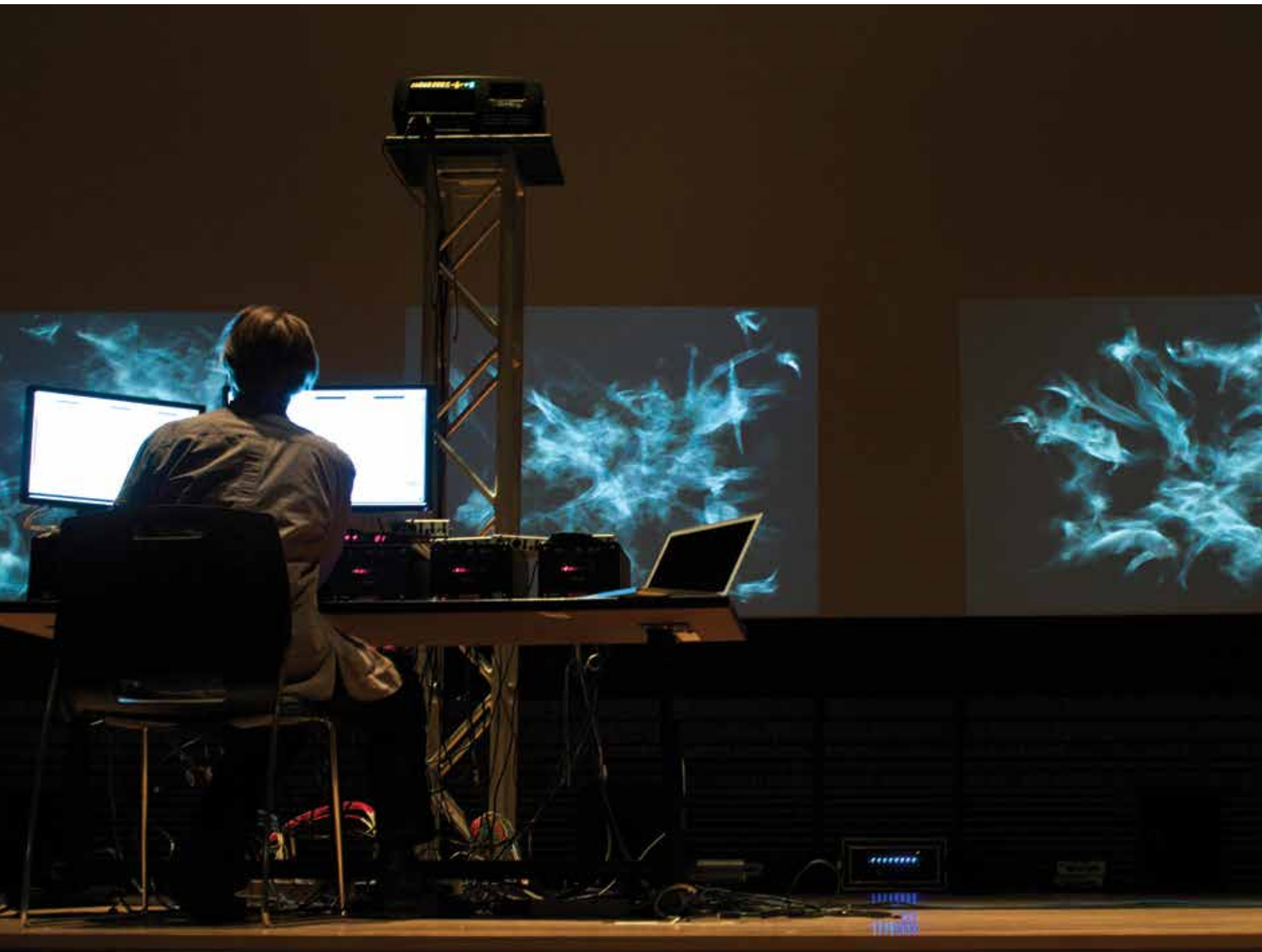
DISCIPLINE Film/Video; Music/Sound

CURATOR Argeo Ascani

An audiovisual performance developed in residency by Lucky Dragons, *Actual Reality* is an ongoing collaboration between Los Angeles-based artists Sarah Rara and Luke Fischbeck. Connecting a Google alert archive of the phrase “actual reality” to the acoustic sounds of musicians and audience, it created a type of call and response using re-synthesized sounds to answer each query. Along with the “real” performance, collected source material—video and audio from previous performances, rehearsals, and incidental audio—was processed and layered on top in real-time, creating an endless loop of what is, and has been. This version of *Actual Reality* was staged for bassoon, three flutes, percussion, moiré table, and electronics.

Fischbeck and Rara have presented interactive performances and installations at MOCA Los Angeles, Smithsonian’s Hirshhorn Museum and Sculpture Garden, the Whitney Museum of American Art (as part of the 2008 *Whitney Biennial*), the Kitchen, the Walker Art Center, REDCAT, ICA London, ICA Philadelphia, and the Centre Pompidou in Paris.





FEBRUARY 6–24, 2012

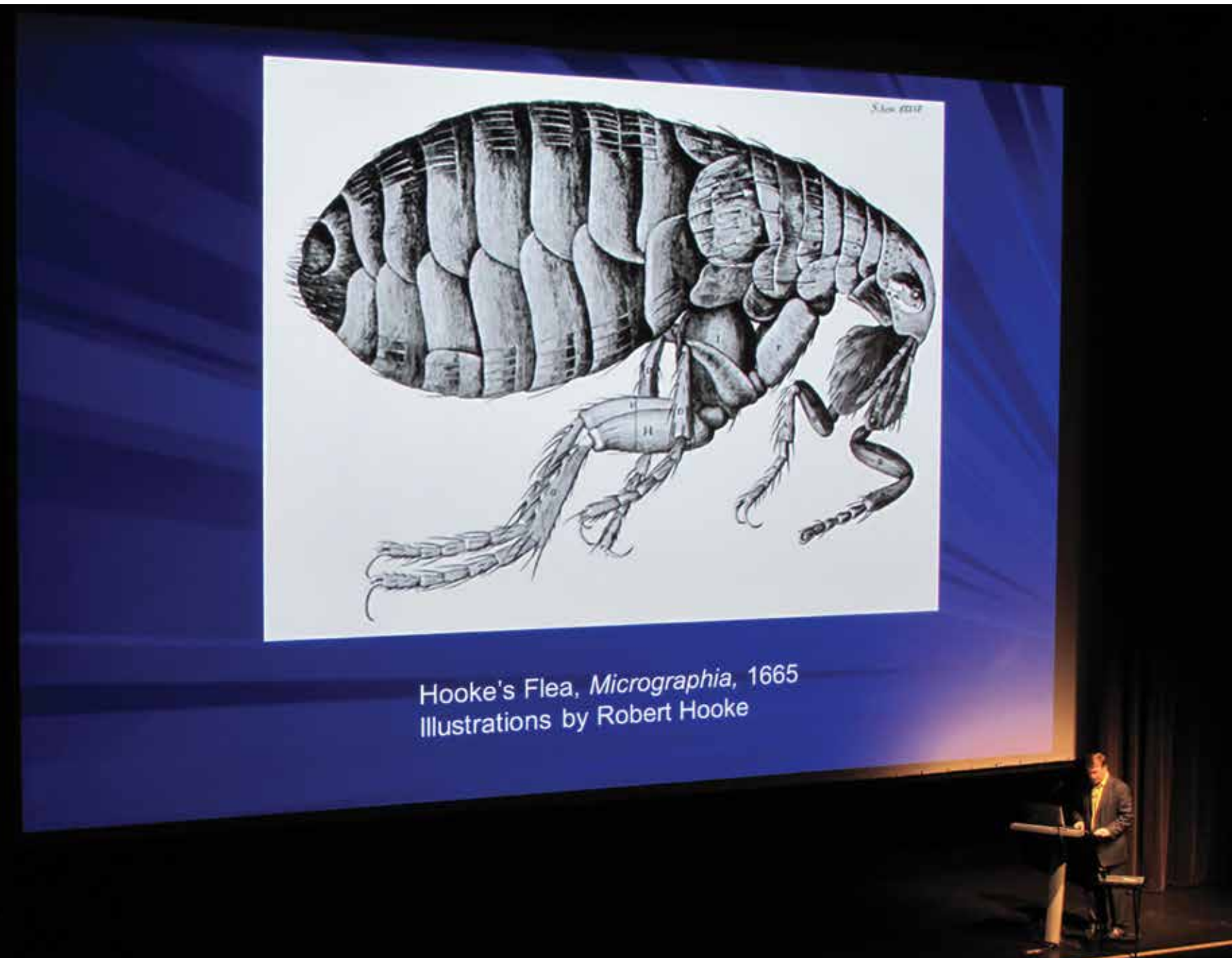
DISCIPLINE Film/Video; Visual Art

CURATOR Kathleen Forde

This installation has been described by the artist as an “orchestral aquarium” with images of floating, weightless bodies accompanied by ethereal sound. It is a reflection on the contemporary human body in an era of technological enhancement and desire for immortality. In this generative installation, figures or clones (they are all identical) interact sometimes instinctually, like a school of fish or a flock of birds, and other times like intricately choreographed modern ballet or synchronized swimmers. By their fluidity, speed, and endurance, they appear as super humans, exhibiting both the sensation and sensuality of dynamic bodies in extreme motion but locked inside a virtual holding tank something

like an aquarium. The movement of the bodies is infinitely variable and never repeats.

Chicago-based Austrian artist Kurt Hentschläger creates audiovisual performances and installations. Between 1992 and 2003 he worked collaboratively as one half of Granular Synthesis, whose performances and installations confronted viewers on both a physical and emotional level, overwhelming them with sensory stimulation.



FEBRUARY 8, 2012

DISCIPLINE Science; Visual Art

CURATOR Emily Zimmerman

Physicist John D. Barrow discussed the “observer effects” principle and the impact of images on the development of science throughout history. From the first graphs and illustrated books to MolScript; from the first pictures of spiral galaxies in Van Gogh’s *The Starry Night* to the Hubble Space Telescope; and from the atomic bomb’s mushroom cloud to the intricacy of fractals, he examined the past influence of pictures in science and the growing influence of visual expression today.

Barrow is a cosmologist who studies the early history of the universe, the mathematical structure of cosmological models, and ways in which

astronomy and cosmology can be used to test aspects of fundamental physics. He is a professor of mathematical sciences at Cambridge University. He is also the director of the Millennium Mathematics Project, an initiative to improve the understanding and appreciation of mathematics and its applications.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.



RESIDENCY
JANUARY 9–
FEBRUARY 5, 2012

PERFORMANCE
FEBRUARY 4, 2012

DISCIPLINE Dance

CURATOR Héléne Lesterlin

Tethered: This vertical performance program featured two residencies and work-in-progress performances that navigated vertical space through aerial performance.

Flat is a dance-theater work based on a Borges short story and designed to be performed outdoors on the side of an apartment building, four stories up. *Flat* combines storytelling, video projection, and aerial performance. The performance at EMPAC simulated this site-specific version, with the audience lying on the floor looking up at an apartment in an aerial view, like an architect's sketch, with some real objects, some drawn, and others projected. A man wakes

up in his apartment feeling strange, not knowing he is upside down. The audience hears his inner monologue via headphones as he discovers his new reality: he must either learn how to live anew or change the world back to a familiar state. *Flat* immerses both the performer and the audience in an intimate situation, shifting our perspective on what constitutes reality.

Pardo's work combines dance, video, and mixed media into site-specific projects in urban spaces. Originally from Argentina, Pardo is currently based in Brussels.



RESIDENCY
JANUARY 9–
FEBRUARY 5, 2012

PERFORMANCE
FEBRUARY 4, 2012

DISCIPLINE Dance

CURATOR Héléne Lesterlin

Tethered: This vertical performance program featured two residencies and work-in-progress performances that navigated vertical space through aerial performance.

Flota is a study in falling and floating: a dance performance that takes place on freestanding walls built to form a corner, with live video projections of the suspended dancer on other surfaces. The audience chooses where to position themselves and where to look. *Flota* existed as a solo performance; at EMPAC, Foulkes experimented with site-adaptive iterations of the set-up, as well as shooting footage for an installation version.

Foulkes is a choreographer and contemporary dance artist who performs and teaches vertical dance with harness. She is part of Colectivo AM and teaches composition and vertical dance with harness at Casa de Artes y Circo Contemporáneo. Foulkes is originally from Argentina and now lives in Mexico City.

EXHIBITION
RESIDENCY / COMMISSION

THE PERIPHERY OF PERCEPTION
Ryan & Trevor Oakes

RESIDENCY
JANUARY 5–FEBRUARY 5,
2012

EXHIBITION
FEBRUARY 21–MAY 31, 2012

DISCIPLINE Visual Art; Science

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Emily Zimmerman

Ryan and Trevor Oakes engage in probing studies of visual perception and light, discovering methods that advance the representation of visual reality. *The Periphery of Perception* was an exhibition looking at the development of the Oakes' work over the past 10 years, and featured a commissioned drawing of EMPAC's Concert Hall. Created in residence over the course of a month, the drawing used a method they invented: a binocular tracing technique that does not rely on optical devices. Their method has been described by Columbia University's perceptual historian Jonathan Crary as one of the most original breakthroughs in the rendering of visual space since the Renaissance. The EMPAC drawing also marked the first time that the Oakes brothers expanded the scale of their canvas to encompass the entirety of the human visual field. The exhibition was complemented by a panel discussion on optics, the nature of light, and the rendering of visual reality with writer Damien James, photographer Michael Benson, and the artists.

Work by Ryan and Trevor Oakes is held in the permanent collections of the Field Museum and the Spertus Museum in Chicago, and the New York Public Library. Their public art projects include a large-scale outdoor sculpture that debuted in Chicago's Millennium Park in the summer of 2009, and is now installed at O'Hare International Airport.



Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research. In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



STUDENTS AND FACULTY EXPLORING *BLACK HOLE HORIZON*

Berlin-based composer and artist Thom Kubli created the interactive installation *Black Hole Horizon* on campus, working with faculty and students from the School of Architecture and EMPAC's production team, including acousticians Zackery Belanger, David Jaschik, and Peter Zhang, with help from Jim Van Duyne, Eric Ameres, and Eric Lin. The team worked through a host of challenges involving acoustics, design, and fabrication to create an installation where three air horns generated a tone, followed by large bubbles that drifted across the space before bursting at the room's boundaries (see page 262).

Media artist Ben Rubin met with Leah Rico's typography students to plan an exhibition responding to his words-and-motion installation, *Shakespeare Machine*; Rubin also led round-robin readings of Shakespeare with students in EMPAC's Context Space. Rico's class also participated in a workshop on visual thinking and graphic representation with Manual Lima, author of *Visual Complexity: Mapping Patterns of Information*, and ImageThink, a graphic recording firm. Fifteen people participated in a unique dance workshop exploring the common threads between *butoh* performance and African dance, led by choreographer Kota Yamazaki and two African dancers, Shiferaw Tariku from Ethiopia and Marie Agnes Gomis from Senegal.

EMPAC and the School of Architecture hosted SmartGeometry 2012, a two-day symposium and four intensive workshop days on the theme of Material Intensities; around 100 international collaborators turned the entirety of EMPAC into a research and manufacturing site. Students came to several open studios: with Ryan and Trevor Oakes, who study visual perception and light; to peek into the process of Rensselaer faculty members Pauline Oliveros and Jonas Braasch as they created an acoustic simulation of a two-million-gallon underground water tank; and for tea and a reading from David Foster Wallace's novel *Infinite Jest* with resident artist SUE-C, who discussed her work of the same name. Arts Department alumni Jennifer and Kevin McCoy returned to campus for an EMPAC exhibition, lectured in Michael Century's new-media theory class, held a critique with Mary Anne Staniszewski's MFA electronic media course, and participated in a student life "fireside chat."

Other academic opportunities for students included MashUP!, the annual mentored workshop (in collaboration with the Office of First-Year Experience) where incoming freshmen learn the basics of producing a multi-media event culminating in a campus dance party. EMPAC also offered courses as part of Rensselaer's information technology and web science degree program. In addition, more than 100 students worked at EMPAC in technical, production, and administrative capacities, learning and advancing skills through an apprenticeship model.



ACADEMIC COLLABORATIONS

Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2012.



2012 PRESIDENT'S COMMENCEMENT COLLOQUY

ALUMNI RELATIONS

REUNION & HOMECOMING: MARS ROVER PROGRAM Attendees learned about the science behind the Mars rover and the study of its findings from alumni members of the team: Dr. Michael Meyer '74, lead scientist, NASA's Mars Exploration Program; Kobie Boykins '96, staff mechanical engineer, Jet Propulsion Laboratory; Frederick Serricchio '94, staff engineer, NASA; and Laurie Leshin, dean of the School of Science and member of the Curiosity Rover Science Team.

REUNION & HOMECOMING: ARTS DEPARTMENT 40TH ANNIVERSARY AND 30TH ANNIVERSARY OF DEPARTMENT OF SCIENCE AND TECHNOLOGY Events including an open house, panel discussions with alumni, a keynote presentation, and senior faculty retrospectives, celebrated the first integrated electronic arts program within a research university in the US, and the groundbreaking Department of Science and Technology Studies (STS).

CAMPUS AND PRESIDENTIAL EVENTS

2012 PRESIDENT'S COMMENCEMENT COLLOQUY: HONORING TRADITION, RESPONDING TO A CHANGING WORLD President Shirley Ann Jackson moderated the 10th annual President's Commencement Colloquy which included Associate Justice Antonin Scalia of the US Supreme Court; Steven Chu, US Secretary of Energy and co-recipient of the Nobel Prize for Physics (1997); former US House of Representatives Committee on Science and Technology Chairman Bart Gordon; artificial intelligence pioneer and renowned computer scientist Edward A. Feigenbaum; and digital camera inventor and pioneer in digital imaging, US National Medal of Technology and Innovation recipient, and Rensselaer alumnus Steven Sasson '72.

2012 STATE OF THE INSTITUTE: RENSSELAER AT 200: REFRESHING THE RENSSELAER PLAN At the halfway point between the approval of *The Rensselaer Plan* in 2000 and the bicentennial of the founding of Rensselaer in 2024, President Jackson spoke of the progress made, the changes the world has seen since the plan was created, and the opportunity to take stock and to decide what should be accomplished in the coming years. President Jackson initiated "a university-wide conversation about the best ways to improve the world's energy security, food security, and water security, so our systems can serve an estimated nine billion people in 2050—and serve them sustainably."



ARTS DEPARTMENT FACULTY EXHIBITION

2012 TOWN MEETINGS The Rensselaer community joined President Jackson for the fall Town Meeting where she spoke about the evolving *Rensselaer Plan*; in spring's address, *Dream Big: Taking on Grand Challenges*, she discussed the need for new pedagogies for a new generation of students: "We explicitly dedicate our talent, time, and effort to changing the world."

HONORS CONVOCATION Parents, family, and friends gathered and watched as the Rensselaer Medalists—along with students with a 4.0 GPA, graduate student fellowship awardees, and faculty—were honored at this convocation that celebrates their outstanding academic achievements.

WORLD ECONOMIC FORUM President Jackson hosted *Concept to Commerce with Rensselaer Polytechnic Institute*, a discussion on digitization, and led Rensselaer's first Ideas Lab at the annual meeting of the World Economic Forum in Davos; Rensselaer was one of only 11 universities in the world invited to present.

2012 FIRST-YEAR CONVOCATION President Shirley Ann Jackson welcomed the Class of 2016 to Rensselaer, introducing them to Rensselaer's motto "Why not change the world?" and elaborating upon the resources, research, opportunities, and support that will help them answer the question in meaningful, world-changing ways.

OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2016 learned about the Rensselaer campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer's many clubs and activities, and met soon-to-be classmates.

FIRST YEAR EXPERIENCE SUMMER ORIENTATION The Office of the First-Year Experience conducts Student Orientation in July and August, introducing new students to life at Rensselaer, for them to become familiar with the campus—including EMPAC—and to meet faculty, staff, and upperclass students.

NAVIGATING RENSSELAER AND BEYOND Navigating Rensselaer & Beyond is a five-day program for all first-year students, including freshmen, transfers, and graduate students, to help with the transition to Rensselaer as well as to provide opportunities to meet new students. NRB programs at EMPAC include MashUP! (described under Academic Collaborations) and Fanfare, an annual concert presented by the Rensselaer Music Association.

STAR PROGRAM The Science, Technology, and Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current students.



HASS FACULTY CONCERT

SCHOOLS AND CENTERS

CENTER FOR CAREER AND PROFESSIONAL DEVELOPMENT

BRUSHFIRE: SPREADING AMBITION WORKSHOPS College graduates have found that being armed only with an internship and a resume is not enough. Basam Tarazi, Tony Neves, and Jason Wisdom (all '02) shared their insights, failures, and thoughts about tools they wished they knew of 10 years ago.

CENTER FOR COGNITION, COMMUNICATION, AND CULTURE

CCC OPENING Rensselaer launched the Center for Cognition, Communication, and Culture (CCC) on Nov. 13, with an open house and multimedia presentations on the initial core research areas: cross-modal displays, mixed reality, and synthetic characters.

LIGHTING RESEARCH CENTER

LS13 CONFERENCE The 13th International Symposium on the Science and Technology of Lighting (LS13) was hosted by the Lighting Research Center, the world's leading university-based research and education organization devoted to lighting. Engineers, scientists, and designers from the lighting industry, research organizations, and academia presented and discussed their work on light-source research and development.

SCHOOL OF ARCHITECTURE

PANEL DISCUSSION, TRANSACTIONS: THE BUSINESS OF ARCHITECTURE IN AN ERA OF INSTABILITY A panel discussion featuring James Barrett, national director, Turner; Steve Coletta, VP, Sciame Construction; Elisa Orlanski Ours, VP, Corcoran; Mark Regulinski, managing director, SOM; Chris Sharples, principal, ShOP; and Scott Simpson, senior director, Klingstubbins.

SCHOOL OF ARCHITECTURE LECTURE SERIES This annual lecture series included Patrick Schumacher, *Parametric Order: 21st Century Architectural Order*; Alice Aycock, *Work*; Anton Garcia-Abril, *Stones + Beams*; Chuck Hoberman, *Transformable Design*; Matias Del Campo, *Sublime Bodies*; David Reed, *Vampire Painting*; Anna Dyson, *Built Ecologies*; Mark Burry, *Gaudi and The 4th Dimension*; and Alejandro Zaera-Polo, *Envelopes*.



STUDENTS AT CCC OPENING

SMARTGEOMETRY WORKSHOP AND CONFERENCE The premier gathering for the generative-design community, this annual event is hosted by the SmartGeometry Group and focuses on innovative design tools, technologies, and methodologies that allow and encourage new forms of architectural and structural expression that are radically changing the built environment. The sg2012 challenge, *Material Intensities*, sought to dissolve the notion of the built environment as inert constructions enclosing physically sealed spaces and to infuse digital prototypes with material behavior.

THE 6TH ANNUAL CNC EDUCATORS HTEC CONFERENCE The 2012 Haas Technical Education Center (HTEC) Manufacturing Conference was a four-day event (including one day at EMPAC) that provided an opportunity for educators to meet, exchange educational techniques, check out the latest CNC machining technology and methods, and discover ways to improve the student experience. This year's theme was *Growing Your Manufacturing Education Triangle*, which focused on recruiting students, building programs, and developing employment opportunities.

**SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/
DEPARTMENT OF THE ARTS**

ARTS DEPARTMENT FACULTY EXHIBITION OF ELECTRONIC ARTS INSTALLATIONS Presented as part of the reunion & homecoming celebration of the 40th anniversary of the Department of Arts, this exhibition included work by Nao Bustamante, Caren Canier, Larry Kagan, and Igor Vamos, and the interactive and real-time projections of Ben Chang and Silvia Ruzanka, Shawn Lawson, Kathleen Ruiz, and alumnus Ian Stead '04.

BACH AT NOON The public launch of a new app for iPad/iPhone, *Interactive Goldberg Variations*, based on the score of J.S. Bach and created by Professors Michael Century and Shawn Lawson. In addition to a demonstration of the interactive application, Century performed keyboard works by Bach on the piano.

BORYANA ROSSA, AFTER THE FALL A two-channel video installation that examines gender in film after the Cold War through re-enactments of scenes from cinematic works from the USSR, Russia, and Bulgaria from the 1920s to the 2000s. This work is part of Rossa's dissertation for the doctoral program in Electronic Arts.



REUNION & HOMECOMING, MARS ROVER PROGRAM

DAVID ARNER, INVOCATIONS OF HERMES TWICE REVEALED A concert of Arner's cryptic improvisational score based on his chorale for the *Earthling (implied but not revealed)*, performed first on piano and then harpsichord, featuring text adapted from the *Homeric Hymn* to Hermes translated by long-time collaborator Charles Stein.

DEEP LISTENING Pauline Oliveros, composer and faculty member in the Rensselaer Arts Department, taught her Deep Listening classes at EMPAC; Deep Listening is a practice created by Oliveros to enhance and expand listening abilities and to encourage creative work. The class explored different forms of listening including field recording, and also included involved experiential exercises, sound pieces, readings, and discussion.

ELIE DURING SEMINAR In this Vollmer W. Fries lecture, Dr. Elie During, chairman of the philosophy department at the University of Paris-Ouest, Nanterre, discussed his current research on *Space-time, the Problem of Coexisting Perspectives and the Shapes of Time*. The Vollmer W. Fries Lecture Series is co-sponsored by the Office of the Provost and HASS.

ENSEMBLE CONGEROS, CHASING THE RHYTHMS Featuring an exploration of folkloric music traditions from Africa and Cuba, and the integration of elements of Cuban comparsa and Brazilian samba, Ensemble Congeros was joined by special guest artists in performing the jazz classic "Summertime," and Mongo Santamaria's "Afro-Blue."

GAMEFEST 2012 This annual celebration of student work in computer games is a collaboration between the Games and Simulations Arts and Sciences program and local game development companies; student game developers compete for prizes based on technical production, artistry, creativity, and the groundbreaking quality of their work.

HASS FACULTY CONCERT Presented as part of the reunion & homecoming celebration of the 40th anniversary of the Department of Arts, this concert featured compositions and performances by faculty and alumni, including the Ensemble Congeros, directed by Curtis Bahn, Michael Bullock, Seth Cluett, Kimberley Dolanski, R. Luke DuBois, Eddie Ade Knowles, Neil Rolnick, and Jeanine Tesori.

JONATHAN CHEN, SOLO CONCERT Chen, a PhD candidate in the Electronic Arts program, performed three of his new compositions for electronics, amplified violin, and amplified viola.



MARY SIMONI PERFORMING AT THE CCC OPENING

KATHY HIGH, *DEATH DOWN UNDER* Rensselaer Arts Department Professor Kathy High introduced her science/arts practice, followed by a screening of a new feature-length documentary about eco-friendly or green burials. Shot in Western Australia, *Death Down Under* follows the collaboration of a young fashion designer/artist and a forensic scientist who look at the ecology of death and how we care for the dead.

MARY SIMONI IN CONCERT Electroacoustic music and multimedia works composed and performed by Mary Simoni, dean of HASS. Simoni was joined by Rensselaer students and musicians from the Capital Region to perform works including *questions that tempt the sleeper* (by Simoni and her daughter, Shannon Dowd); *Armé Arirang*, which used the iPad to wirelessly control a clarinet; *Connemara*, which used interactive technology to enhance the sound of the piano; and Schubert's Sonata in A-minor, Opus 42 for solo piano.

RENSELAER CONTEMPORARY MUSIC ENSEMBLE CONCERTS *Naturesongs* featured compositions inspired by nature including works by John Luther Adams, R. Murray Schafer, James Tenney, and Igor Stravinsky; *Cage/Gould* explored the convergences and divergences between two iconoclastic figures of 20th century music, John Cage and Glenn Gould, preceded by a talk by philosopher Elie Düring. Sponsored by the Classical Concert Committee, Rensselaer Union.

TINTINABULATE CONCERT *Sounding Across Borders* was a three-way telematic concert with solo performers (Pauline Oliveros at EMPAC in Troy, NY; Ricardo Arias in Manizales, Colombia; and Chris Chafe at CCRMA in Palo Alto, CA) presented in collaboration with Festival de la Imagen and CCRMA at Stanford University.

TYLER SAMMANN, *THE HUMAN PAINTBRUSH*, (BS EART THESIS) An interactive piece made for two users: one that gives instructions (the Painter), and one that receives and attempts to follow instructions (the Human Paintbrush). The blind-folded "paintbrush" receives instructions via eight surrounding speakers controlled by the "painter." The resulting movements are converted into brush-strokes on a digital painting.



ENSEMBLE CONGEROS, CHASING THE RHYTHMS

STUDENT PROGRAMS

ASME STUDENT SPEAKING COMPETITION As part of a District-A wide Student Professional Development Conference (SPDC) at Rensselaer, the American Society of Mechanical Engineers held a competition of both graduate and undergraduate students in technical oral presentations.

DANCE CLUB RECITAL The annual recital of the Dance Club featured performances in tap, jazz, ballet, modern, and hip-hop, with team and solo numbers.

GRANT IMAHARA LECTURE, *MYTHBUSTERS* Imaraha co-hosted an evening's talk about his years of experience debunking myths on the TV show *Mythbusters*.

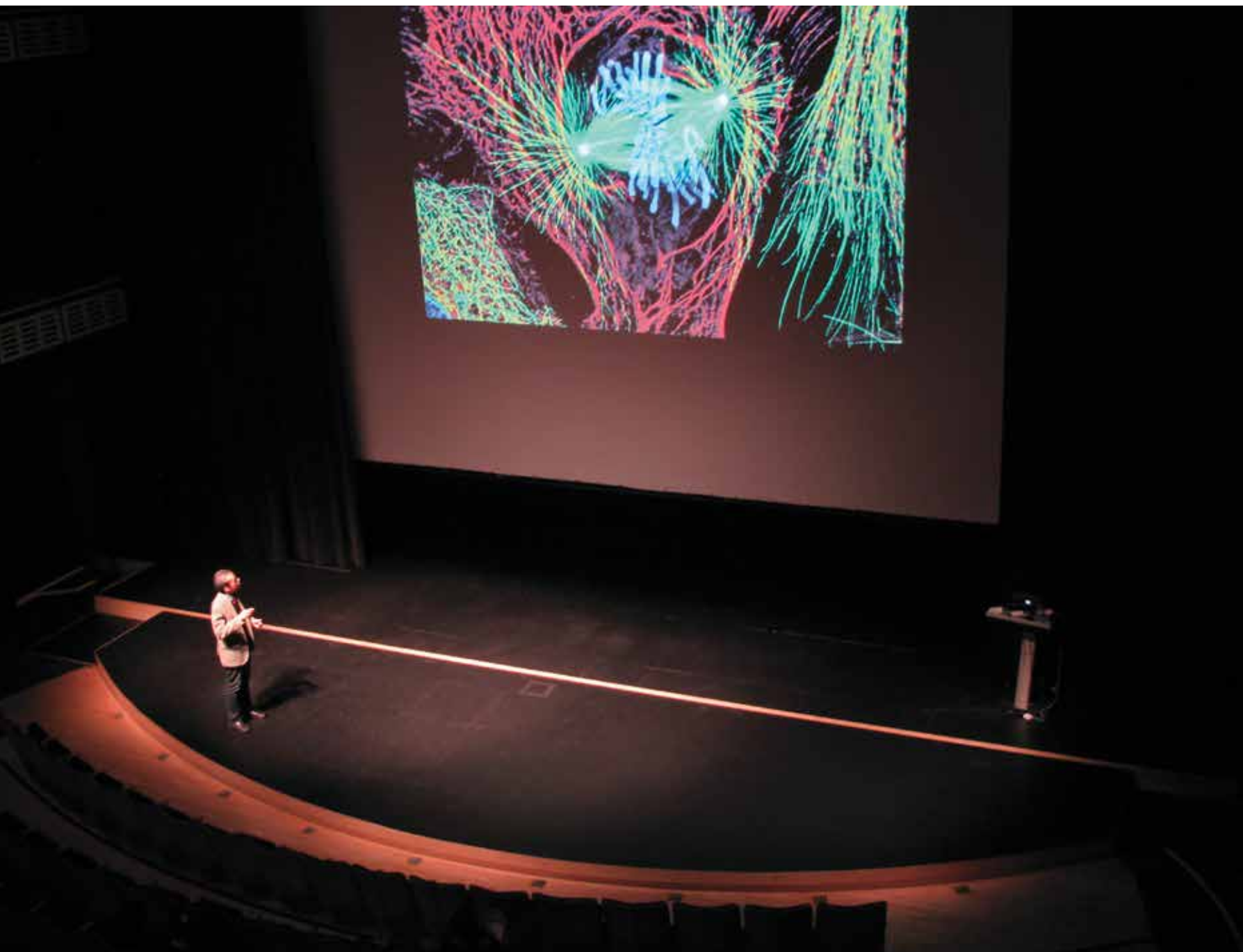
IMPROVACAPPELLA The Rensselaer a cappella groups, including The Rensselyrics, Duly Noted, Partial Credit, and The Rusty Pipes performed.

RENSELAER MUSIC ASSOCIATION CONCERTS *Pops Gone Wild!* showcased music related to the animal kingdom, while the winter concert featured performances by the Rensselaer Concert Choir, Symphonic Band, and Symphony Orchestra. There was a pre-concert performance by the Percussion Ensemble who performed a one-act opera based on Loren Eiseley's *The Star Thrower*, featuring narration, and music and a special guest performance from Jon Klibono. Other performers included a String Quartet, the Percussion Ensemble, the Symphonic Band, the Brass Ensemble, and Saxophone Quartet.

2011

Days 2,719–3,057

Robert Lue



DECEMBER 7, 2011

DISCIPLINE Film/Video; Science

CURATOR Emily Zimmerman

Robert Lue, director of life sciences education and professor of the practice of molecular and cellular biology at Harvard University, discussed the transformative role that visualizations play in both science research and education.

Lue is the founder of BioVisions, a collaborative initiative led by Harvard scientists to improve the beauty and precision of science visualization, including *The Inner Life of the Cell* (2006) and *Powering the Cell: Mitochondria* (2010), which feature 3D reconstructions of the world within the cell. Speaking of *The Inner Life of the Cell* and the collaboration between scientists

and artists, Lue has said “It’s about communicating ideas that have never been visualized, infusing the piece with the wonder and excitement of understanding those things. It’s about communicating why science is exciting . . . including the wonderment of exploration and discovery that is crucial to creating such a powerful reaction.”

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

**RESIDENCY
DECEMBER 6–9, 2011**

**PERFORMANCE
DECEMBER 9, 2011**

DISCIPLINE Music/Sound

PUBLICATION *Complete String Quartets* by Helmut Lachenmann, JACK Quartet, audio recorded and produced by EMPAC, released by Mode Records

CURATOR Micah Silver

JACK Quartet (violinists Christopher Otto and Ari Streisfeld, violist John Pickford Richards, and cellist Kevin McFarland) collaborated with EMPAC’s audio and video teams while in residence to finish their recording of Helmut Lachenmann’s complete string quartets. At the residency’s conclusion, the JACK Quartet presented a performance in two acts. The first featured three pieces (by Earle Brown, Peter Ablinger, and Alex Mincek) spanning the 1960s to the present that played with conventions of music notation and performance. The second act featured Horațiu Rădulescu’s haunting 30-minute String Quartet No. 5, *before the universe was born* from the 1990s. JACK Quartet com-

missions and performs new works, working closely with composers in the US and Europe, and touring extensively. JACK also offers fresh interpretations of early music, including works by Don Carlo Gesualdo, Guillaume de Machaut, and Josquin des Prez.

PROGRAM
EARLE BROWN String Quartet
PETER ABLINGER *Wachstum und Massenmord*
HORAȚIU RĂDULESCU
before the universe was born
ALEX MINCEK
String Quartet No. 3 *lift-tilt-filter-split*

**DECEMBER 1, 2011**

DISCIPLINE Dance; Contemporary Performance;

ABOUT THE PRODUCTION *4Walls* was co-produced by Cross Performance, Inc. and MAPP International Productions, commissioned by EMPAC, and developed during residencies at EMPAC and at Maggie Allesee National Center for Choreography (MANCC) in Tallahassee, Florida.

CURATORS H el ene Lesterlin, Ash Buleyev, Argeo Ascani

Ralph Lemon shared a work-in-progress presentation of a two-channel video installation of *4Walls*, a piece that would eventually encompass live performance, surround sound, and two large-scale projections in an open environment where the audience can roam. This video captures the ecstatic abandon of a 20-minute dance section from Lemon's *How Can You Stay in the House All Day and Not Go Anywhere?*, which also blended live performance, film, and visual art, and toured the US in 2010. In this excerpt, performers exhibit a turbulent physicality bordering on complete exhaustion, revealing what is left when we feel we cannot go any further.

Lemon is a dancer, choreographer, writer, and visual artist, and is also artistic director of Cross Performance, a company dedicated to the creation of cross-cultural and cross-disciplinary performance and presentation.

SEE RELATED RESIDENCY ON PAGE 349 AND RELATED EVENT ON PAGE 238.

NOVEMBER 13–16, 2011

DISCIPLINE Music/Sound; Contemporary Performance

CURATOR Kathleen Forde

While in residence, eteam (Franziska Lamprecht and Hajoe Moderegger) worked on *The Cruise*, recording a three-and-a-half hour monologue performed by Maja Sweeny. An audio film for radio, *The Cruise* was inspired by daily observations of a waitress on a cruise ship who habitually kept track of every task she performed: number of footsteps taken, number of words spoken, tea drinkers who appeared, non-tea drinkers who didn't, cuts to prepare the sandwiches, waves that passed, temperature, etc. Based on their observations and the waitress's log, eteam wrote a script that covered six days on board the ship. The resulting monologue premiered on WGXC, an upstate New

York community radio station that is a division of Wave Farm.

eteam works at the intersection of relational aesthetics, the Internet, and land art, and coordinates collective happenings and conceptual transactions.



QUOTE UNQUOTE
PERFORMANCE
RESIDENCY / COMMISSION

THE CAKE OF THE 3 TOWERS *Japanther*

RESIDENCY
NOVEMBER 9–DECEMBER 3, 2011

PERFORMANCE
DECEMBER 2 + 3, 2011

DISCIPLINE Contemporary Performance;
Music/Sound; Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

PUBLICATION *The Cake of the 3 Towers* by
Japanther, book and DVD, commissioned,
produced, and published by EMPAC

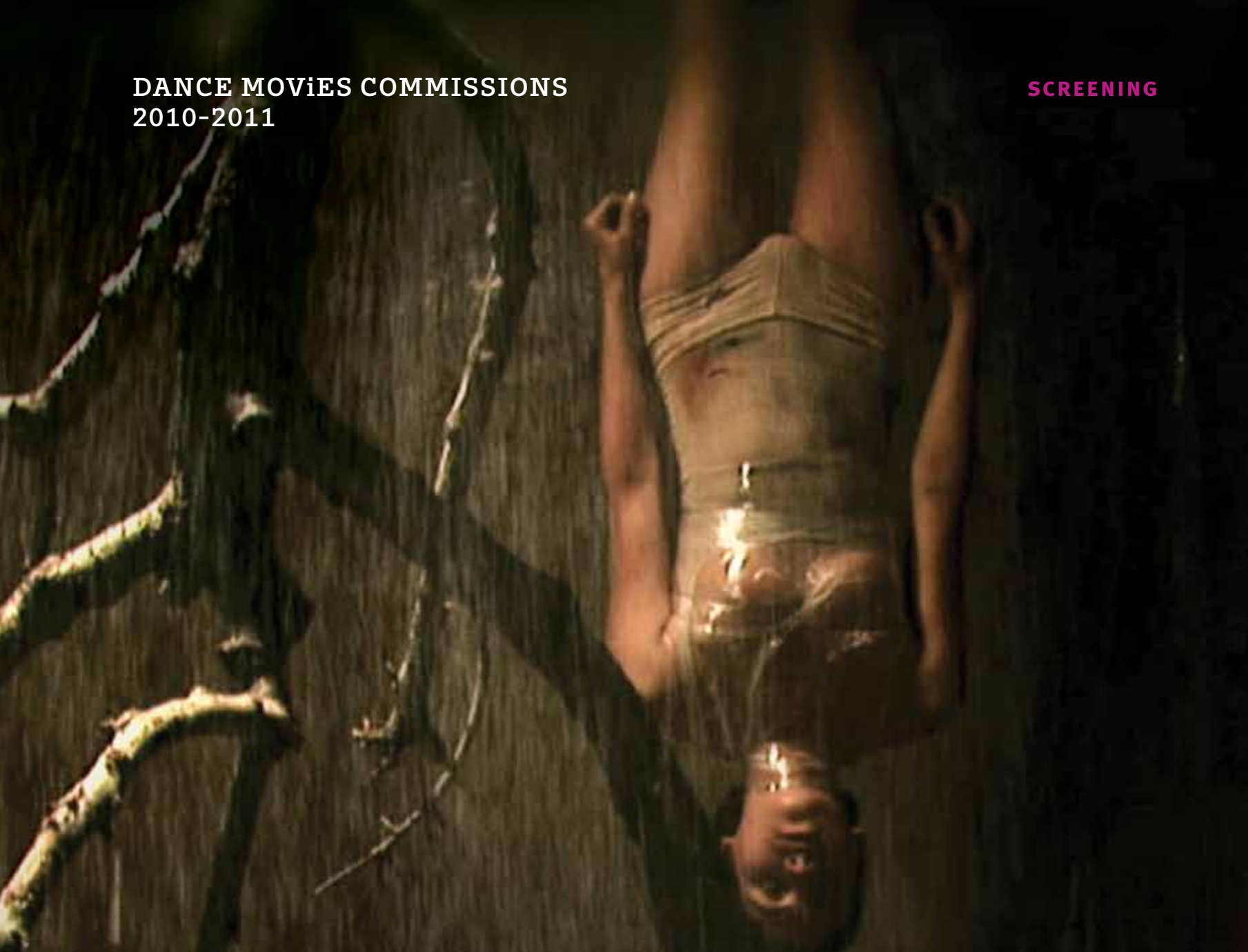
CURATOR Kathleen Forde

EMPAC commissioned Japanther to create and present *The Cake of The 3 Towers*. With performers perched on three “towers” made up of scaffolding and platforms—to represent a prison, museum, and housing project—the piece mixed music, video, and performance to draw parallels between the prison-industrial complex and the “art-industrial complex.” *The Cake of The 3 Towers* was a collaboration among Japanther, Schuyler Maehl, Florian Reither (as an Austrian super villain who attempts to destroy this dystopia), and Felice Faison.

Japanther is an art project established by Ian Vanek and Matt Reilly in Brooklyn, New York that creates interactive live shows in unconventional settings: out of the back of a moving truck, alongside giant dinosaurs, with synchronized swimmers, with oversized puppets, and with BMXers flying off the walls at the 2006 Whitney Biennial presentation of *Don't Trust Anyone Over Thirty*, *All Over Again* in collaboration with Dan Graham and Tony Oursler.

Quote Unquote: Experiments in Time-Based Text was an interdisciplinary series presenting works by artists that use an existing text as a departure point for time-based works including installation, film, and performance.





NOVEMBER 5, 2011

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTIONS Commissioned
by EMPAC

PUBLICATION DANCE MOVIES EMPAC 2010-2011

CURATOR Hélène Lesterlin

DANCE MOVIES Commissions support new works that fuse dance with the technologies of the moving image.

World premieres of three new dance films and an installation commissioned by EMPAC's DANCE MOVIES program, followed by a procession led by the punk marching band Mucca Pazza, featured in the film *Fanfare for Marching Band*.

A Circus of One (US, 15-minute looping video installation) Directed by Alison Crocetta with music by Jason Treuting, this black-and-white film records Crocetta as a clownish figure within a one-ring circus performing acts ranging from feats of daring to absurd gestures accompanied by circus music and *musique concrète*.

Fauna (Chile, 20 minutes) Paulo Fernández and choreographer Rodrigo Chaverini create a world of confined and fantastical spaces inhabited by bodies possessed by different states. The film evokes a poetic dialogue between nature and artifice, body, and landscape.

Fanfare for Marching Band (US, 15 minutes) Director Danièle Wilmonth and choreographer Peter Carpenter follow the antics of a ragtag musical militia (the circus-punk marching band Mucca Pazza) that embarks on an invasion from a parallel universe only to find their exuberant music is out of sync and unheard—until the two worlds are finally unified when the band masters the tempo of empathy.

Spring Cleaning (US, 10 minutes) Filmmaker Pooh Kaye's alter ego, Wild Girl (played by Alex Clack) has a busy day weeding the dandelions, raking up dead brush, and mowing the lawn. The ground swallows her up and spits her out, piles of brush attack her as she tries to rid her lawn of dead branches, and dandelions swirl in animated patterns around her, the flowers popping in and out of her ears and mouth as she tries to speak.



FANFARE FOR MARCHING BAND



A CIRCUS OF ONE



SPRING CLEANING

THE WHITE ROOM
Francis and the Lights

OCTOBER 28 + 29, 2011

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

Francis Farewell Starlite's pop music spectacle, commissioned by EMPAC and created in residence, was performed twice, first for a live audience and then streamed online from an empty performance space. The title references the small, white, environmentally controlled chamber used by NASA astronauts to make final preparations before entering the spacecraft.

Francis and the Lights is a symbolic band name used by Starlite; the term "and the Lights" does not refer to a backing band but rather the stage lights and screen pixels represented by the two performances. Starlite's live performances have drawn comparisons to David Byrne and James Brown, among others. He has toured the US with rap superstar Drake, and has opened for MGMT, Ke\$ha, La Roux, and Mark Ronson.

SEE RELATED RESIDENCY ON PAGE 352.

DIONYSIA

Poor Dog Group

RESIDENCY
OCTOBER 23–
NOVEMBER 14, 2011

PERFORMANCE
NOVEMBER 11 + 12, 2011

DISCIPLINE Theater

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Hélène Lesterlin

Half man and half horse, satyrs were the legendary companions of Dionysus, the Greek god of wine and theater. In *Dionysia*, Poor Dog Group uses ancient drama, lore, and imagery found on clay pots, to reinvent the “satyr play.” Based on fragments of these plays, many by Euripides, *Dionysia* relates the myth of Thyestes and Atreus and delves into the ritualistic, unstable, and sometimes hilarious behavior of satyrs. Commissioned by EMPAC and created during a three-week residency including the work’s premiere, *Dionysia* channels forgotten rites into a full-blown physical expression of the bestial qualities inherent in contemporary life, revealing a world both barbaric and beautiful.

Poor Dog Group is a Los Angeles-based collective of performance and media artists committed to nurturing a distinctive aesthetic through adventurous collaboration in the creation of new work and through the radical reexaminations of existing texts.

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QUOTE UNQUOTE
RESIDENCY / COMMISSION





RESIDENCY
OCTOBER 12–18, 2011

PERFORMANCE
OCTOBER 15, 2011

DISCIPLINE Dance

CURATOR Hélène Lesterlin

Shantala Shivalingappa offered a program of contemporary solos and traditional Indian dance, and made a video recording of her work while in residence. A renowned performer in Kuchipudi, a 2,000-year-old Indian style that fuses dance, music, and theater, Shivalingappa has been praised for her grace, finesse, and powerful presence on stage. The program began with two solos that paired her sensuous and precise dancing style with new forms. This was followed by an excerpt from *Gamaka*, a Kuchipudi-based performance choreographed by Shivalingappa, danced in shimmering silks and in rhythmically complex and playful dialogue with four master musicians.

Born in Madras, India, and brought up in Paris, Shivalingappa was inspired by Kuchipudi Master Vempati Chinna Satyam, and received an intense and rigorous training in Kuchipudi. She has also performed with some of the greatest contemporary theater and dance artists, including Maurice Béjart, Peter Brook, and Pina Bausch.



OCTOBER 7, 2011

DISCIPLINE Music/Sound

CURATOR Micah Silver

This concert covered a spectrum of electronic music, presenting performers from the eighth annual Montréal-based AKOUSMA festival, which is produced by Réseaux, a composer-run organization dedicated to presenting and commissioning electroacoustic music. Performers included Pierre-Yves Macé, France Jobin, Horacio Vaggione, and Louis Dufort, who played their works live over a 16-speaker system that surrounded the audience.

Pierre-Yves Macé is a French musician whose musical practice encompasses improvisation on machines, a background in piano and classical percussion, jazz-rock/prog-rock bands, dance accompaniments, and an interest in literature and musicology. France Jobin, aka i8u, is a Montréal-based sound/installation/web artist and curator whose audio art can be described as “sound-sculpture,” and whose installation/web art incorporates both musical and visual elements. Horacio Vaggione is an Argentinian-born electroacoustic and musique concrète composer who specializes in micromontage, granular synthesis, and microsound, and whose pieces often are for performer and computer-generated tape. Montréal composer Louis Dufort’s music ranges from a cathartic form of expressionism to a focus on the inner structure of sound matter.

PROGRAM

LOUIS DUFORT *Matério* **
LOUIS DUFORT *Matério* ***
PIERRE-YVES MACÉ *Qui-vive*
PIERRE-YVES MACÉ *Miniatures*
FRANCE JOBIN *Valence of One*
HORACIO VAGGIONE *Arenas*

OCTOBER 6, 2011–
MAY 3, 2012

DISCIPLINE Film/Video

CURATOR Emily Zimmerman

The Eternal Return presented films based on the idea that time is a lie: reveling in déjà vu and non-linear timelines, these films explore the incomensurability of the momentary and the eternal.

October 6, 2011: *Time and Time Again*, *La Jetée* & *The Eternal Recurrence* with *La Jetée* (1962) by Chris Marker, *Operation Double Trouble* (2003) by Keith Sanborn, and *300 Clouds* (2011) by Benjamin Badaeu. *La Jetée* is a cinema landmark that is an exacting meditation on time, chance, fate, and memory in the form of science fiction. It was paired with Sanborn's short film *Operation Double Trouble*—an antithetical version of the propaganda film *Enduring Freedom: The Opening Chapter*—and Ben Badaeu's *300 Clouds*, which re-contextualizes *La Jetée*, imagining an Earth shaped by myriad environmental catastrophes. Sanborn spoke after the screening.

November 17, 2011: *12 Monkeys* (1995) Inspired by *La Jetée*, Terry Gilliam's apocalyptic science fiction film imagines a future ravaged by disease, using a narrative structured by a parallel temporal loop.

December 8, 2011: *Wings of Desire* (1987) Wim Wenders' existential film features angels who silently watch over humanity and guide individuals through the trials of their daily lives. The film shows the different temporal states of the angels, who exist outside of time, and humanity, which exists within it, by shifts between color and black and white.

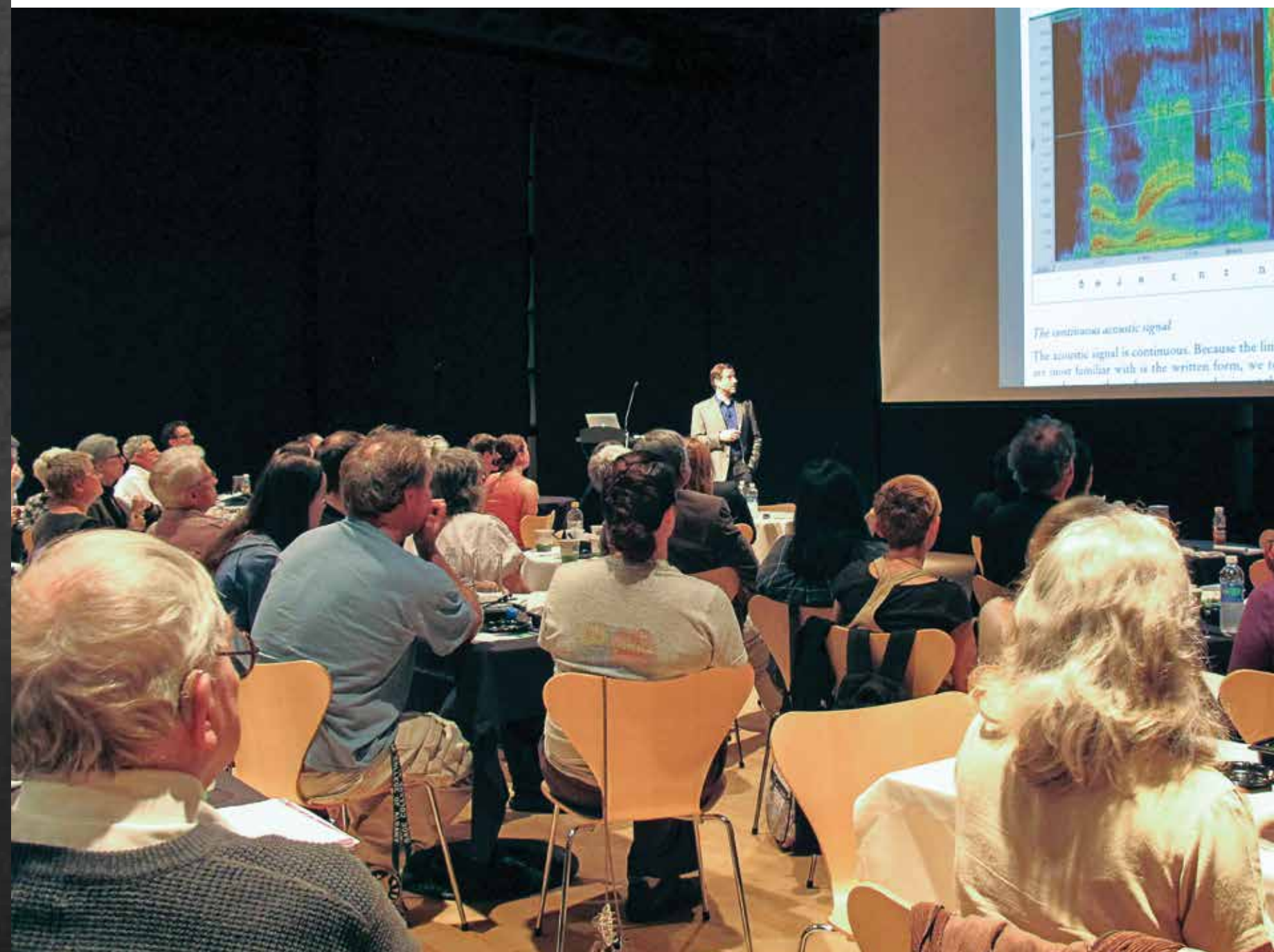
January 26, 2012: *Vertigo* (1958) Frequently cited as one of the most important films of all time, Alfred Hitchcock's psychological thriller tells the story of a retired San Francisco detective with a crippling fear of heights who tracks the activities of a woman possessed by a spirit from another time.

February 23, 2012: *Last Year at Marienbad* (1961) Alain Resnais' enigmatic film is a dream-like study of non-linear time and memory: a man pursues a woman through the endless corridors of a luxury hotel while another man, who may or may not be her husband, looks on; conversations and events are repeated in a finely woven dance of memory.

April 18, 2012: *Dead Man* (1995) Jim Jarmusch's take on classic Hollywood westerns tells the story of William Blake, an accountant from Cleveland who sets out to the town of Machine for work, a misadventure that soon turns him into an outlaw.

May 3, 2012: *Before Sunrise* (1995) Directed by Richard Linklater, *Before Sunrise* is a near real-time conversation between Jesse (Ethan Hawke) and Celine (Julie Delpy) who meet on a train and then disembark in Vienna to spend the evening on a peripatetic exploration of the city and each other's perspectives on time, death, and reincarnation.

LA JETÉE



SEPTEMBER 28, 2011

DISCIPLINE Humanities; Science; Visual Art

CURATOR Emily Zimmerman

In this interdisciplinary talk, art historian James Elkins discussed the wide range of practices related to image interpretation that take place across a university: lawyers, doctors, scientists, engineers, humanists, and social scientists all produce images and present arguments about them in different ways. This talk assessed the state of scholarship on links between art and science, arguing that it is possible to consider images in various fields without using tropes from the humanities or social sciences as explanatory tools—in other words, by letting the different disciplines speak in their own languages.

Elkins is the E.C. Chadbourne Professor in the Department of Art History, Theory, and Criticism at the School of the Art Institute of Chicago; in addition to *Visual Practices Across the University*, his books include *On Pictures and the Words that Fail Them*.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

Michael Century



**SEPTEMBER 27–
NOVEMBER 29, 2011**

DISCIPLINE Humanities; Dance; Visual Art;
Music/Sound; Film/Video

This three-part series presented a fresh reading—illustrated with images, video, sound recordings, and live musical demonstrations—of today’s experimental media-art scene, surveying the past century and forecasting its future. *Après le Deluge, 1913-1947* (September 27) surveyed key moments within the avant-garde; *The Panacea That Failed, 1948-1974* (October 11) contrasted the celebratory heyday of art and technology against a rising tide of disillusionment, and *Virtuality to Virtuosity, 1974-2011* (November 29) sketched out the potential of experimental artworks as “extraordinary freedom machines.”

Michael Century is a professor of new media and music in the Arts Department at Rensselaer, and a practitioner and educator for over 30 years in the intersections between classical and experimental arts. He authored the seminal report *Pathways to Innovation in Digital Culture* for The Rockefeller Foundation, and headed the inter-arts program at the Banff Centre for the Arts. These events were curated by Paula Gaetano.

Detail View: Rensselaer professors and researchers shared in-depth perspectives on their fields of inquiry, inviting an exchange of ideas between experts and non-experts alike.

SEPTEMBER 15, 2011

DISCIPLINE Music/Sound

CURATOR Kathleen Forde

A double bill featuring two leading British creators of electronic-music performing their trademark energetic, knob-twisting beats intertwined with live video and an instrumental piano set.

With several Four Tet studio albums, remixes, and live shows to his credit, Kieran Hebden is rooted in many musical camps. He has worked with jazz drummer Steve Reid on critically acclaimed albums for Domino records; produced remixes for artists such as Explosions in the Sky, Thom Yorke, and Steve Reich; worked with directors and artists such as Woof Wan Bau and Jason Evans; and extensively toured

the UK, Europe, the US, and Japan. Jon Hopkins is a London-based electronic composer, producer, and remixer who makes emotive, instrumental music that crosses genres, ranging from solo acoustic piano to explosive, bass-heavy electro. In addition to a long-term collaboration with Brian Eno, his career includes collaborations with Wayne McGregor, King Creosote, and David Holmes, remixes for such varied artists as Wild Beasts, Nosaj Thing, James Yorkston, and Four Tet, and film scores for directors such as Peter Jackson and Gareth Edwards.

69°S

Phantom Limb

PERFORMANCE
RESIDENCY / COMMISSION

RESIDENCY
SEPTEMBER 12–26, 2011

PERFORMANCE
SEPTEMBER 23 + 24, 2011

DISCIPLINE Theater

ABOUT THE PRODUCTION *69°S.* was an ArKtype project produced in association with Beth Morrison Projects in co-production with Grand Theatre Groningen/Noorderzon Performing Arts Festival en Noord Nederlands Toneem, and co-commissioned by Hopkins Center, Dartmouth College; Arts Centre of Melbourne, Australia and Victoria College of the Arts; and EMPAC.

CURATOR Hélène Lesterlin

“When I look back at those days, I have no doubt that divine providence guided us... it seemed to me often that we were not alone.”—Sir Ernest Henry Shackleton. Inspired by Shackleton’s harrowing expedition to Antarctica in 1914, *Phantom Limb* used puppetry, dance, film, photography, music, and sound (including live music by Skeleton Key, a score recorded by the Kronos Quartet, and field recordings) to create a vision of the great arctic continent—past, present, and future. Dim light plays across a vast lunar terrain dotted with icebergs, while Shackleton’s crew—played by half-life-size puppets—struggles to survive, putting into stark relief the power of endurance and camaraderie and the price of knowledge. The entire cast and crew participated in a two-week residency at EMPAC for technical rehearsals to prepare for final workshop showings at EMPAC prior to a premiere at Dartmouth College and performances at Brooklyn Academy of Music. *Phantom Limb*, founded by composer and marionette maker Erik Sanko and visual artist Jessica Grindstaff, incorporates puppetry, music, and large-scale installation to probe contemporary life. Sanko and Grindstaff have collaborated with such diverse artists as Ping Chong & Company, Ulrike Quade, Geoff Sobelle of Pig Iron and rainpan 43, and Mark Z. Danielewski.

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**EARBRAINS:
SONIC RESEARCH UNDERGROUND**

PERFORMANCE



SEPTEMBER 9, 2011

DISCIPLINE Music/Sound

CURATOR Micah Silver

This concert featured six performers (Keith Fullerton Whitman, Fat Worm of Error, David Shively, Caboladies, Graham Lambkin, and Jason Lescalleet) celebrating the experimental music micro-cultures—underground sonic research labs for aesthetics and technology—that exist in many cities. Performances in tiny clubs, non-profit galleries, people's houses, bookstores, and on college campuses provide fertile ground from which experimental musicians and audiences have evolved.

Keith Fullerton Whitman is a composer and performer obsessed with electronic music—from its midcentury origins in Europe to its contemporary worldwide incarnation as “digital music.” Fat Worm of Error is a “rock” band that collectively writes songs with nonmusical sounds, structural constraints, and open impro-

visational passages mixed with readymade props and costumes. David Shively performs as a soloist and chamber musician ranging from traditional percussion to Hungarian cimbalom to analog electronic systems and feedback. Caboladies is an experimental electronic duo formed by Chris Bush and Eric Lanham in Lexington, Kentucky, in response to a vibrant experimental music community. Graham Lambkin formed his first band, The Shadow Ring, in a small town in England, building a passionate fan base because of its *sui generis* blend of folk, noise, cracked electronics, and surrealist poetry. Jason Lescalleet—one of a growing list of producer/musicians who rework existing material—uses reel-to-reel tape decks to explore the textures of low fidelity analog sounds and the natural phenomena of old tape and obsolete technology.

PERFORMANCE
RESIDENCY

**TALES FROM THE GIMLI
HOSPITAL: REFRAMED**
Guy Maddin



RESIDENCY
AUGUST 25–SEPTEMBER 2, 2011

PERFORMANCE
SEPTEMBER 1, 2011

DISCIPLINE Music/Sound;
Contemporary Performance; Film/Video

ABOUT THE PRODUCTION A Performa
Commission with the National Arts Centre of
Canada

CURATOR Kathleen Forde

Tales from the Gimli Hospital: Reframed paired Guy Maddin's first feature film with a live performance of a newly-commissioned score by Matthew Patton, performed by a cast of Icelandic string musicians and vocalists including twin sisters Kristín Anna Valtýsdóttir and Gyða Valtýsdóttir (formerly of the band múm), Sigur Rós bandmates Amiina, Borgar Magnason, and more. A new narration, written by Maddin, was also performed live, accompanied by Foley sound effects (by Seattle's Aono Jikken Ensemble) and live visuals created by electronics engineer Paul Corley. A cult sensation when it was released in 1988, *Tales from the Gimli Hospital* tells a dream-like, elliptical story of jealousy and madness

instilled in two men sharing a hospital room in a remote Canadian village. In this new performance, the score takes the original film in an entirely new direction: layers of music mirror the film's story-within-a-story structure and provides an ethereal quality that underscores the dark and haunting elements of the film.

**AUGUST 24, 2011**

DISCIPLINE Dance; Music/Sound;
Tools and Technology

This annual event, featuring student performances as part of an electronic dance music mini-festival for the entire incoming class, is the culmination of a two-day workshop. Part of the Office of First-Year Experience's annual program for incoming freshmen called Navigating Rensselaer and Beyond, participants in the workshop have the opportunity to work with fellow students and EMPAC staff to learn firsthand about the technology and work that goes on behind the scenes at EMPAC. The hands-on workshop paired students with EMPAC mentors, who guided them through the creative process with lighting, audio, video, and stage technologies. This event was curated by Eric Ameres.

RESIDENCY
AUGUST 8–SEPTEMBER 2, 2011

PERFORMANCE
SEPTEMBER 1, 2011

DISCIPLINE Contemporary Performance; Dance

CURATOR Hélène Lesterlin

Before the Beep examines how technology mediates interpersonal communication through a performance that could be experienced in person or remotely. During their residency, Kònic thtr developed and tested software to allow the public to participate in the performance using cell phones and the Internet. The result was a performance where a dancer interacts with information generated by the onsite audience (through cell phones) as well as text and audiovisual input from audience members via the Internet. Kònic thtr offered a work-in-progress performance of *Before the Beep* with excerpts of past works in performance, installation, and interactive technology.

Kònic thtr is an artistic platform based in Barcelona that is dedicated to contemporary creation at the confluence between arts, new technologies, and science.

UNTITLED-EPILOG

Johanna Domke

RESIDENCY

RESIDENCY

FORTY-NINE DAYS IN THE BARDO

Laurie Anderson



JULY 27–AUGUST 18, 2011

DISCIPLINE Film/Video

CURATOR Kathleen Forde

Untitled-Epilog is a two-channel video installation that examines how media influences our view of other cultures, taking as a starting point an earlier piece by Domke where intercultural collaboration failed. The residency consisted of production and post-production on a series of video interviews (partly documentary and partly scripted) with the participants of the former project. Shifting between various layers of representation—the documentary and the staged—the protagonists move within a neutral, culturally undefined space: a film studio, and later on, a cinema. Reality and representation are interlocked as filmed interviews are later projected in the

cinema, playing with the idea of “cultural projection” and commenting on how media industry shapes the image we have of other cultures.

Johanna Domke was educated in fine arts in Denmark and Sweden; her work crosses between art and cinema with both a structural and socio-political approach. She is concerned with how images influence the course of history, the creation of meaning, and the shaping of identity.

JULY 27–29, 2011

DISCIPLINE Music/Sound; Visual Art

CURATOR Kathleen Forde

Laurie Anderson worked in residence on *Forty-Nine Days in the Bardo*, a multimedia installation that was presented at The Fabric Workshop and Museum in Philadelphia. Using the structure of a diary and inspired by *The Tibetan Book of the Dead*, the installation explored the themes of love and death, the many levels of dreaming, and illusion. The work included texts as well as drawings, sculptures, projections, and sound made from materials including mud, foil, iron, chalk, and ashes. According to Anderson, “In *The Tibetan Book of the Dead*, also known as *The Great Liberation Through Hearing in the Bardo*, the bardo is described as the 49 day period between death and rebirth. The book is a detailed

description of the way the mind dissolves and what the spirit experiences in this transition. In April 2011, Lolabelle, my small rat terrier died after a long illness. For 12 years she had been my constant and faithful companion. Counting the 49 days from Lolabelle’s death I realized according to *The Tibetan Book of the Dead* Lolabelle would be reborn on June 5, my birthday.”

Laurie Anderson, EMPAC’s inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.



JULY 5–13, 2011

DISCIPLINE Film/Video; Visual Art

CURATOR Kathleen Forde

Mary Reid Kelley used her residency at EMPAC to produce *The Syphilis of Sisyphus*, a black-and-white, 11-minute video in which she plays a young, pregnant, 19th-century French grisette (or bohemian) named Sisyphus. She wanders through an elaborately designed set, waxing-philosophically in metered, rhyming verse about beauty, artifice, and the natural world. Jesus, Karl Marx, and Diderot are among figures of intellectual history that appear in this satire. Performing scripted narratives in rhyming verse, the artist—with her husband Patrick Kelley and various family members—explores historical periods through fictitious characters such as nurses, soldiers, and prostitutes. The

piece was later included in season six of the PBS series *Art in the Twenty-First Century (Art21)* and released on DVD.

Kelley's videos and drawings present her take on the clash between utopian ideologies and the realities of women's lives in the struggle for liberation and through political strife, wars, and other historical events.



JUNE 20, 2011–
NOVEMBER 18, 2012
(3 VISITS)

DISCIPLINE Dance; Contemporary Performance; Film/Video

ABOUT THE PRODUCTION *4Walls* was co-produced by Cross Performance, Inc. and MAPP International Productions, commissioned by EMPAC, and developed during residencies at EMPAC and at Maggie Allesee National Center for Choreography (MANCC) in Tallahassee, Florida. *4Walls* was also made possible with support from the National Endowment for the Arts.

CURATORS Hélène Lesterlin, Ash Buleyev, Argeo Ascani

Over the course of three visits to EMPAC, Ralph Lemon worked on post-production on the video component of *4Walls*, a multimedia installation with live performance that provides four points of view on one dance—entitled *Wall*—that was the central section of Lemon's 2010 stage work *How Can You Stay in the House All Day and Not Go Anywhere?* Lemon's intention for *Wall* was to create a “dance that disappears,” and which dramaturge Katherine Profeta characterized as an effort to “fling the body headlong into an instant of pure presence.” *4Walls* was a collaboration between Lemon and videographer/editor Shoko Letton and video editor Mike Taylor, using months of footage from the development of *Wall* to create a film that would provide viewers with a different kind of engagement in a creative process, one that is relentless in its questioning of the nature of what passes between performers and audiences.

SEE RELATED EVENTS ON PAGES 238 AND 324.

MIRIAM

Nora Chipaumire

RESIDENCY / COMMISSION

JUNE 20, 2011–
FEBRUARY 17, 2012

DISCIPLINE Dance

ABOUT THE PRODUCTION: *MIRIAM* was a production of MAPP International Productions, co-commissioned by the Flynn Center for the Performing Arts in partnership with EMPAC and National Performance Network. *MIRIAM* was also co-commissioned by Brooklyn Academy of Music, Brooklyn, NY; Les Substances, Lyon, France; and Clarice Smith Performing Art Center, College Park, MD.

CURATOR Hélène Lesterlin

Choreographer and dancer Nora Chipaumire used her research and writing residency at EMPAC to develop her first character-driven work (in collaboration with Okwui Okpokwasili). *MIRIAM* is a deeply personal dance-theater performance that looks closely at the tensions women face between public expectations and private desires; between selflessness and ambition; and between the perfection and sacrifice of the feminine ideal. The inspiration for the work springs from the cultural and political milieu of Chipaumire's southern African girlhood, her self-exile to the US, and her self-discovery as an artist.

Born in Zimbabwe and based in New York City, Chipaumire has studied dance in many parts of the world including Africa (Senegal, Burkina Faso, Kenya, and South Africa), Cuba, Jamaica, and the US. She was a 2012 Alpert Award in the Arts recipient and 2011 United States Artist Ford Fellow; and a two-time New York Dance and Performance ("Bessie") awardee.

SEE RELATED EVENT ON PAGE 251.



THE WHITE ROOM
Francis Farewell Starlite

RESIDENCY / COMMISSION

WORKSHOP

COMPOSING FOR LARGE SCALE MULTI-CHANNEL
LOUDSPEAKER ENVIRONMENTS

Hans Tutschku



JUNE 13–OCTOBER 31, 2011
(2 VISITS)

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

Singer, songwriter, and paradoxical pop icon, Francis Farewell Starlite was in residence to create a new pop music spectacle commissioned by EMPAC—*The White Room*. The title references the small, white, environmentally controlled chamber used by NASA astronauts to make final preparations before entering the spacecraft. Starlite began developing and composing a piece that would involve extensive stage and lighting design, a steadycam operator, and a highly choreographed experience for two nights: the first for a live audience, and the second streamed online from an empty performance space.

Starlite's background as a virtuoso jazz pianist and commitment to a disciplined, and sometimes spectacular, performance aesthetic offers an expansive view of popular culture. For several years Starlite only performed at a space in downtown Brooklyn that he had built for his band; *The White Room* was an opportunity to document this area of his practice.

SEE RELATED EVENT ON PAGE 330.

JUNE 5–10, 2011

DISCIPLINE Music/Sound; Tools and Technology

CURATOR Micah Silver

Composing multi-channel electroacoustic music requires more than a technical infrastructure: it also requires new ways of thinking about composition and the use of sound material. Hans Tutschku has composed for multi-channel environments extensively and has taught the compositional and technical aspects of this work internationally. This six-day workshop provided participants, coming from the US, Europe, and Asia, with access to various multi-channel setups for use in their own work. In lectures and demonstrations, working methods were discussed and existing compositions played and analyzed. Throughout, participants presented their music and compositional ideas

to the group, and at the conclusion of the workshop the eight participating composers publicly presented their explorations in sound, music, and space as *Compositions for a Sound Dome*, using 24 loudspeakers suspended over the audience.

Tutschku is the Fanny P. Mason Professor of Music and director of the Harvard University Studio for Electroacoustic Composition.

TOOL IS LOOT

Wally Cardona & Jennifer Lacey

RESIDENCY / COMMISSION

OBSERVER EFFECTS
TALK

MOVEMENT AND MIRROR NEURONS:
A CHALLENGING AND CHOICE CONVERSATION

Maxine Sheets-Johnstone



MAY 31–JUNE 13, 2011

DISCIPLINE Dance

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Hélène Lesterlin

TOOL IS LOOT was a collaboration made from the aesthetic disorientation arising from an elaborate, performance-based game between two dance experts willingly disenfranchised from their creative habits. Choreographers and dancers Wally Cardona and Jennifer Lacey created the work in two phases. In the first phase, Cardona and Lacey worked separately for a year, in the US and France, respectively. Each solicited weeklong encounters with experts in various fields, allowing the opinions and desires of a dance “outsider” to influence their approach to creating short dance solos. These experts included a sommelier, an architect, a film editor, a medical supply salesman, a kinetic sculptor, a

baroque opera singer, an art critic, an acoustician, and a social activist. Cardona and Lacey then worked together while in residence at EMPAC to build their disparate experiences into a duet.

Lacey is an American choreographer based in Paris whose solo works often emphasize ambiguous borders. Cardona is an award-winning Brooklyn-based choreographer and dancer. TOOL IS LOOT’s sound score was created by composer, musician, and singer Jonathan Bepler.

SEE RELATED EVENT ON PAGE 278.

MAY 4, 2011

DISCIPLINE Dance; Humanities; Science

CURATOR Emily Zimmerman

Dancer, choreographer, and philosopher Maxine Sheets-Johnstone led a discussion over dinner on a topic rarely acknowledged in the history of Western philosophy and science: how our understanding of space and time is fundamentally conditioned by our experience of movement.

Sheets-Johnstone is an independent scholar affiliated with the University of Oregon’s Department of Philosophy. Her work includes *The Primacy of Movement* (1999; expanded in 2011); *The Corporeal Turn: An Interdisciplinary Reader* (2009); and *Putting Movement Into Your Life: A Beyond Fitness Primer* (2014).

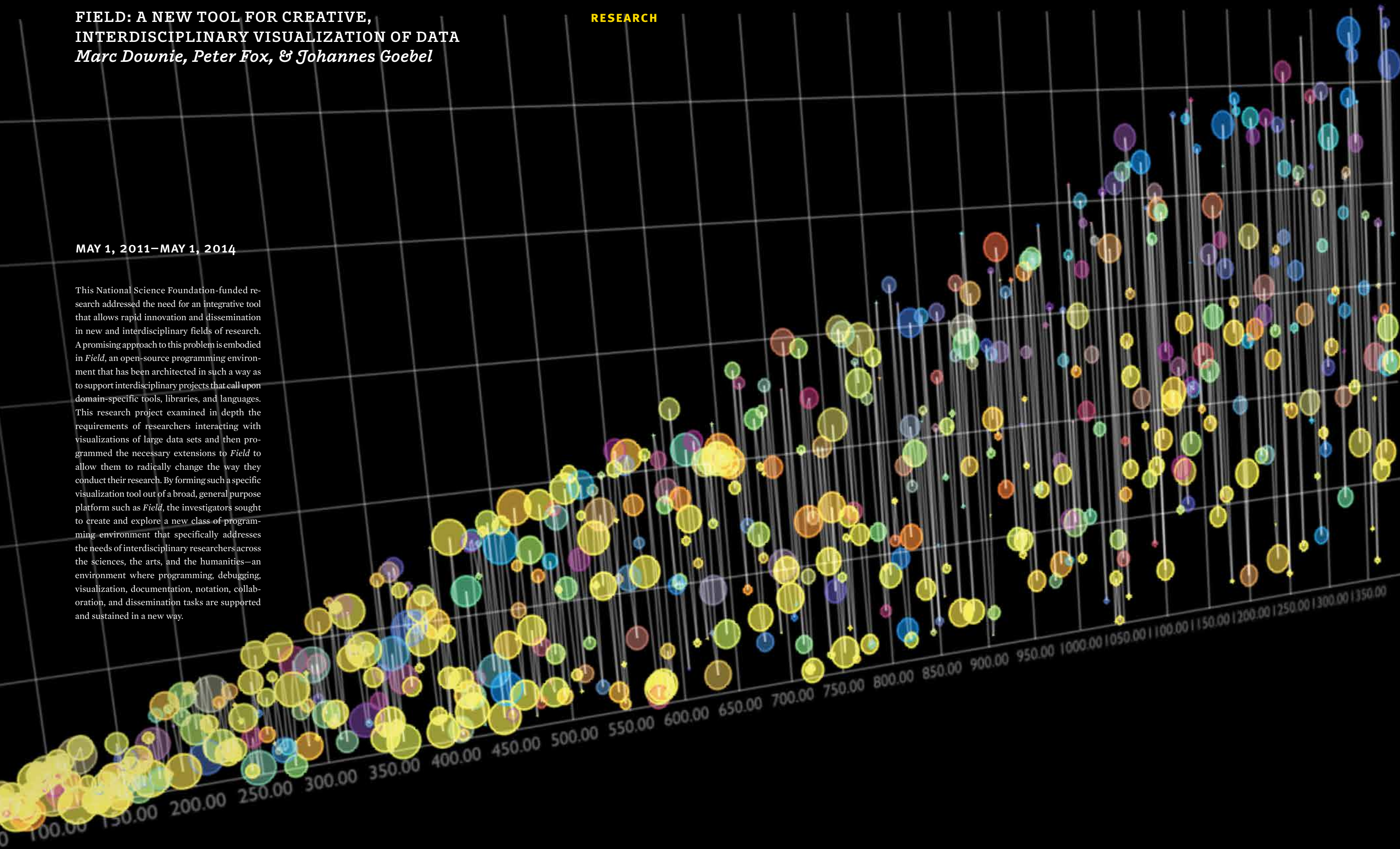
Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

**FIELD: A NEW TOOL FOR CREATIVE,
INTERDISCIPLINARY VISUALIZATION OF DATA**
Marc Downie, Peter Fox, & Johannes Goebel

RESEARCH

MAY 1, 2011–MAY 1, 2014

This National Science Foundation-funded research addressed the need for an integrative tool that allows rapid innovation and dissemination in new and interdisciplinary fields of research. A promising approach to this problem is embodied in *Field*, an open-source programming environment that has been architected in such a way as to support interdisciplinary projects that call upon domain-specific tools, libraries, and languages. This research project examined in depth the requirements of researchers interacting with visualizations of large data sets and then programmed the necessary extensions to *Field* to allow them to radically change the way they conduct their research. By forming such a specific visualization tool out of a broad, general purpose platform such as *Field*, the investigators sought to create and explore a new class of programming environment that specifically addresses the needs of interdisciplinary researchers across the sciences, the arts, and the humanities—an environment where programming, debugging, visualization, documentation, notation, collaboration, and dissemination tasks are supported and sustained in a new way.



index (v.4) + untitled (series #3)
Céleste Boursier-Mougenot

EXHIBITION
RESIDENCY

CÉLESTE BOURSIER-MOUGENOT
index (v.4)

RESIDENCY
APRIL 26–MAY 13, 2011

EXHIBITION
MAY 12–NOVEMBER 5, 2011

DISCIPLINE Music/Sound; Visual Art

CURATOR Micah Silver

French artist Céleste Boursier-Mougenot developed two sound installations while in residence—*untitled (Series #3)* and *index (v.4)*—which were then presented as a single exhibition over three floors in EMPAC's public spaces. Together, the pieces reflect on music composition's relation to nature and technology as well as our perception of complexity, control, and authorship in time-based art. *untitled (Series #3)* was comprised of three wading pools filled with bowls and wine glasses; by calibrating the temperature of the water to increase the resonance of the floating objects, and by controlling the direction of the water flow with a small pump, ongoing, resonant collisions are created. The result is a chaotic,

atmospheric music with a variety of small sounds surrounding the listener. For *index (v.4)* software designed by the artist was installed on computers throughout EMPAC, capturing typed letters, words, and punctuation into dynamics, pitch, and chords played by two mechanically actuated grand pianos. The real-time data stream became the chaotic generator of an ongoing score, in constant performance. Like *untitled*, this work conflated empirical, technological gestures with chaotic "natural" elements.

A native of France, Boursier-Mougenot's works have been exhibited worldwide.



CATCH THE TIGER!
Jaroslav Kapuściński

PERFORMANCE
RESIDENCY

RESIDENCY

TWICE THROUGH THE HEART
The OpenEnded Group



RESIDENCY
APRIL 14–19, 2011

PERFORMANCE
APRIL 16, 2011

DISCIPLINE Music/Sound

PUBLICATION *Juicy: Works for Piano and Image*
by Jaroslav Kapuściński, DVD, recorded at
EMPAC and released by Everglade Records

CURATOR Micah Silver

Intermedia composer and pianist Jaroslav Kapuściński creates lighthearted and fanciful pieces in which musical instruments are used to control multimedia content. In these media compositions, he controls projections of videos and computer-generated graphics as he plays piano. The images, words, and music combine to entertain, but also provide insight into the artistic relationship between words and music. The witty integration of his virtuosic piano playing—he was first trained as a classical pianist and composer at the Chopin Academy of Music in Warsaw—with a precisely timed flow of images informed his latest work *Where is Chopin*, in which he plays excerpts from Chopin's

24 Preludes in conjunction with videos of people in various countries listening.

Kapuściński work has been presented at MoMA; ZKM in Karlsruhe; the Museum of Modern Art, Palais de Tokyo; and Centre Pompidou in Paris. Kapuściński is actively involved in intermedia education, leading the Intermedia Performance Lab at Stanford University where he is assistant professor of composition.

APRIL 11–JULY 27, 2011

DISCIPLINE Music/Sound; Contemporary
Performance

CURATOR Hélène Lesterlin

The OpenEnded Group created a 3D stage environment for a live chamber opera, *Twice Through the Heart*. Originally composed in 1997 by English composer Mark-Anthony Turnage and sung by mezzo-soprano Sarah Connolly, the staging was newly directed by Wayne MacGregor. The English-language libretto by poet Jackie Kay depicts the misery of a working-class English housewife imprisoned for killing her abusive husband. The OpenEnded Group worked in residence to create floating imagery (viewed through 3D glasses) suggestive of the protagonist's mental state: the suffocating fear and violence she endured for years in a cramped council flat, along with brief mirages of the happy life she

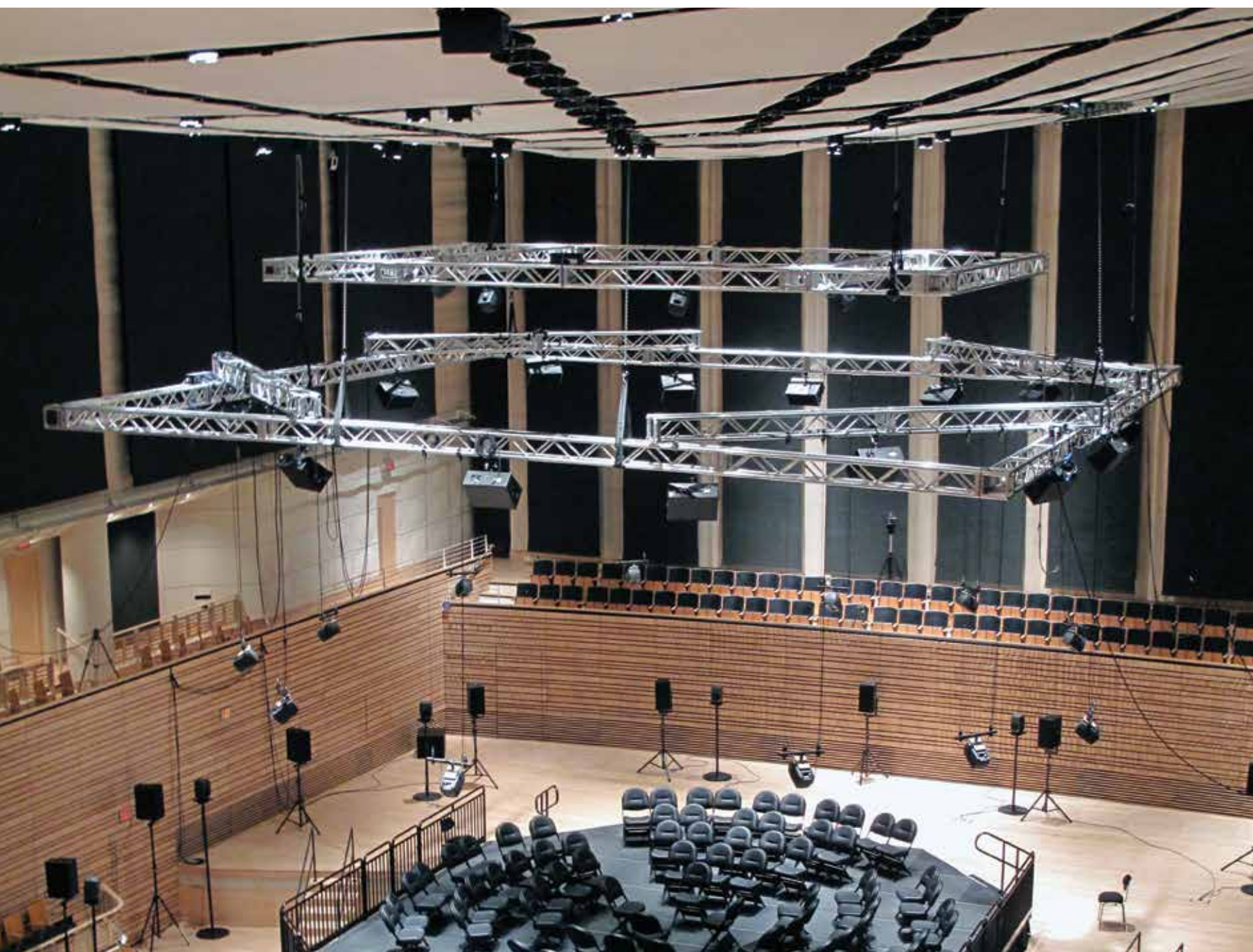
had once hoped for. To create the imagery, The OpenEnded Group traveled to Dartington in the UK to photographically capture a council housing flat from the 1970s.

HYPER-RAINFOREST
Francisco Lopez

PERFORMANCE
RESIDENCY / COMMISSION

OBSERVER EFFECTS
TALK

SPLASHING AROUND IN ART AND SCIENCE
FROM THE RENAISSANCE TO NOW
Martin Kemp



RESIDENCY
APRIL 6–MAY 1, 2011

PERFORMANCE
APRIL 28–30, 2011

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

While at EMPAC, Francisco Lopez developed *Hyper-Rainforest*, an EMPAC commission that uses a unique set of field recordings that Lopez, a biologist by training, made over many years in the Amazon and other rainforests around the world. Captured with an extreme level of detail, the sounds in these recordings are often difficult to differentiate as industrial, natural, or synthesized. As a result, the music does not simulate the natural reality of the original locations, but instead creates a sonic hyper-reality, a virtual world of sound and music that goes beyond a trip to a rainforest. The original materials are observed, analyzed, and composed to create a piece that used dozens of speakers in a large

dome within EMPAC's Concert Hall, where the audience was seated on a platform in the middle to experience the work.

López has 30 years of experience in sound creation and environmental recordings, and has developed a personal and iconoclastic sound universe based on profound listening to the world. He has been involved in hundreds of sound installations, field recordings, and concerts in over 60 countries.

APRIL 6, 2011

DISCIPLINE Humanities; Science; Visual Arts

CURATOR Emily Zimmerman

Certain kinds of art and science originate in the intuiting of deep structures that lie behind appearance—what Martin Kemp, emeritus research professor in the history of art, Oxford University, has called “structural intuitions.” Some of the structures are static, relying upon fundamental forms of geometry; some disclose the process itself, like splashing; and others are the result of complex processes, like folding. In this dinner discussion, Martin Kemp spoke on themes that run across art, architecture, design, and various sciences from the Renaissance to today.

in natural sciences and art history at Cambridge University and at the Courtauld Institute, London. He has written, broadcast, and curated exhibitions on Leonardo da Vinci and on imagery in art and science from the Renaissance to the present day.

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

Kemp is an emeritus professor of art history at Trinity College, Oxford University, and was trained

1: SONGS *and*
2: DIALOGUE WITH LUCINDA
Nicole Beutler

PERFORMANCE

MARCH 31 + APRIL 1, 2011

DISCIPLINE Dance; Music/Sound;
Contemporary Performance

CURATOR Hélène Lesterlin

Nicole Beutler works with the tension between intense emotion and cool calculation while also reflecting on the history of theater. *1: Songs* (in collaboration with performer Sanja Mitrovic and DJ/composer Gary Shepherd) was a dramatic solo performance in the style of a rock song-cycle. Mitrovic channels the final words of tragic female protagonists from the history of theater, including Antigone, Medea, and Gretchen. As she shouts, speaks, and sings, she violently shifts between characters, at times fragile, raw, calculating, or emotional. *1: Songs* asks us to reconsider the words of these classic literary heroines (and anti-heroines) in the here and now. Fascinated by the radical minimalism of choreographer Lucinda Childs, Beutler remade two of Childs' silent dance pieces for *2: Dialogue with Lucinda*, setting one of them to specially composed music. The choreographic scores used by the dancers are fiendishly complex; Childs has said, "my dances are an intense experience, of intense looking and listening." Beutler's reinterpretations focus on the individual dancer's actions within the group patterns, revealing parallel realities and ritualistic qualities.



ESTABLISHING A NETWORK OF EXCELLENCE FOR ART + SCIENCE + TECHNOLOGY RESEARCH

RESEARCH

Johannes Goebel & Jonas Braasch

MARCH 16–18, 2011

Establishing A Network Of Excellence For Art + Science + Technology Research was one of a series of workshops and symposia funded by the National Science Foundation's CreativeIT program, including *Bridging STEM (Science, Technology, Engineering, and Mathematics) to STEAM (Science, Technology, Engineering, Arts and Mathematics)* at the Rhode Island School of Design, and *Media Systems* at the University of California, Santa Cruz. These gatherings were inspired by a joint NSF and National Endowment for the Arts workshop, attended by 30 academic leaders in STEAM-related fields, in 2010 to initiate a dialogue on forging a national agenda for funding and collaboration integrating the arts and computing/information science. Objectives of this workshop included: 1) identifying key issues in infrastructure needs to support creativity-based technology research; 2) developing concrete plans toward the development, management, and constituent involvement in a distributed network infrastructure for the sustained support of the field; and 3) identify leading institutions that will move forward on proposals for the development of a research network.

The workshop was based on the premise that basic as well as applied research into the understanding of “creativity” is needed to transform the status quo of separation between science and technology on one side and the arts and humanities on the other. Only through unconventional disciplinary collaborations is it possible to bridge this gap, and support sustained, innovative research approaches. Prior initiatives—spanning natural sciences, computer science and informatics, engineering, and humanities, including fine, performing, and applied arts, educational science, psychology and philosophy—have yielded new insights and promise. But these research projects, by design and necessity, must cross existing academic and research boundaries and so need sustained support and coordination to share outcomes both within and outside their respective fields. This workshop sought to address varied understandings of creativity, demonstrate the necessity for a broad approach, and define a robust platform for coordination and communication that could have broad impact across a number of fields and institutions.



EXHIBITION
RESIDENCY

THE CONFIDENCE MAN

Graham Parker



RESIDENCY
MARCH 15–APRIL 15, 2011

EXHIBITION
MARCH 21–APRIL 30, 2011

DISCIPLINE Film/Video; Visual Art

CURATOR Kathleen Forde

New York City-based artist Graham Parker created new film and audio work in residence at EMPAC to be shown alongside a series of alterations made to the building's environment—ranging from the theatrical to the virtually invisible. Parker has long been interested in “spectrality”—the concealing of one set of operations behind the appearance of another. His 2009 book *Fair Use (Notes from Spam)* explored spam emails as the latest manifestation of a longstanding mode of deception reaching back to 19th-century railroad cons and medieval beggar gangs. *The Confidence Man* featured work growing out of that research—including hacked ATMs, rogue WIFI networks, monologues drawn

from spam emails, and a tribute to the 1973 film *The Sting*. For the first three weeks of the exhibition, the artist worked on site and was available for conversation with the public while he made ongoing alterations to the installation.

STEVE REICH: MUSIC FOR 18 MUSICIANS & DOUBLE SEXTET

Ensemble Signal

PERFORMANCE
RESIDENCY

RESIDENCY
MARCH 10–12, 2011

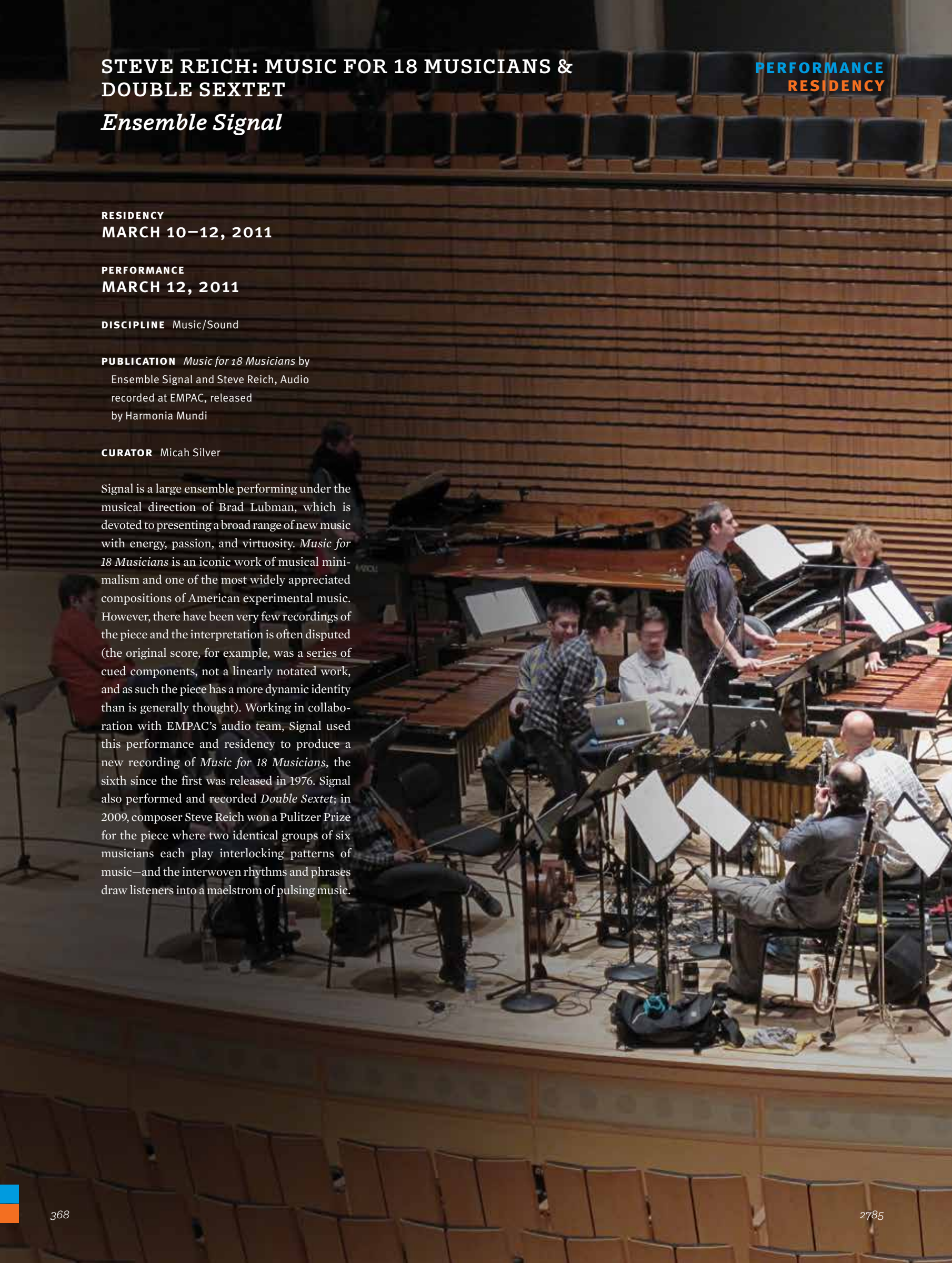
PERFORMANCE
MARCH 12, 2011

DISCIPLINE Music/Sound

PUBLICATION *Music for 18 Musicians* by Ensemble Signal and Steve Reich, Audio recorded at EMPAC, released by Harmonia Mundi

CURATOR Micah Silver

Signal is a large ensemble performing under the musical direction of Brad Lubman, which is devoted to presenting a broad range of new music with energy, passion, and virtuosity. *Music for 18 Musicians* is an iconic work of musical minimalism and one of the most widely appreciated compositions of American experimental music. However, there have been very few recordings of the piece and the interpretation is often disputed (the original score, for example, was a series of cued components, not a linearly notated work, and as such the piece has a more dynamic identity than is generally thought). Working in collaboration with EMPAC's audio team, Signal used this performance and residency to produce a new recording of *Music for 18 Musicians*, the sixth since the first was released in 1976. Signal also performed and recorded *Double Sextet*; in 2009, composer Steve Reich won a Pulitzer Prize for the piece where two identical groups of six musicians each play interlocking patterns of music—and the interwoven rhythms and phrases draw listeners into a maelstrom of pulsing music.



DOWN THE RABBIT HOLE

Phyllis Chen & Rob Dietz

PERFORMANCE
RESIDENCY

EXHIBITION

MINDBOX

Christian Graupner & Roberto Zappalà



RESIDENCY
MARCH 4–7, 2011

PERFORMANCE
MARCH 7, 2011

DISCIPLINE Music/Sound;
Contemporary Performance; Film/Video

CURATOR H el ene Lesterlin

Down The Rabbit Hole was a workshop performance of a new piece created in residence by Phyllis Chen (toy pianist/composer) and Rob Dietz (video artist/electronic musician). A multimedia work for toy pianos, music boxes, live electronics, live and edited video, and amplified objects, *Down the Rabbit Hole* was inspired by Lewis Carroll's Alice stories; rather than a re-telling of a beloved tale, it drew upon objects and themes from the novels: the ticking of a pocket watch, the shuffling of a deck of cards, and the clattering of a tea set were reinvented in visual and sonic terms. With the use of microphones, a magnifying glass, and live video feeds, commonplace objects

were brought to life, and a miniature stage was set in motion inside a toy piano.

Chen creates original multimedia compositions using toy pianos, music boxes, electronics, and video, presented in concert alongside works by prominent 20th century composers such as John Cage and Julia Wolfe. Dietz is a multimedia artist, VJ, and electroacoustic musician with an interest in generative audiovisual systems.

MARCH 3–APRIL 2, 2011

DISCIPLINE Dance; Film/Video

CURATOR H el ene Lesterlin

Using a modified one-armed bandit slot machine, *MindBox* is a viewer-driven dance video: insert a coin, work the machine's lever and buttons, and directly remix the moves of the beatboxing man on three screens. Media artist Christian Graupner and choreographer Roberto Zappal  teamed up to make a vocabulary of sounds and movements that take beatboxing—a vocal percussion style that comes out of hip-hop—into the realm of interactive media. The soundtrack takes advantage of both the randomized real-time processes of slot machines and Zappal 's rhythmic, beat-based performance. As lights flash, the viewer plays this media sculpture like an instrument, creating an idiosyncratic movement portrait.

Graupner is a Berlin-based artist, film composer, and the creator and developer of real-time media playback systems. Zappal  founded the Compagnia Zappal  Danza to widen and deepen his own research in choreography while extending the possibilities for the training of young contemporary dancers. The technology was developed by Nils Peters (Humatic) and Norbert Schnell (IRCAM).



MARCH 2, 2011

DISCIPLINE Humanities; Music/Sound; Science

CURATOR Emily Zimmerman

Jean-Pierre Luminet, an expert on black holes, cosmology, and cosmic topology, explored the relationship between aesthetics and the study of the cosmos through the work of artists, philosophers, and scientists from Plato to Kepler and Dürer to Escher.

Luminet is the research director for the Centre National de la Recherche Scientifique, and a member of the Laboratoire Univers et Théories of the observatory of Paris-Meudon. He was awarded the 2006 Great Prize of the French Academy of Sciences for science communication, and the 1999 International Georges Lemaitre Prize for his original contributions to

cosmology and astrophysics. He has published in journals such as *Nature*, *Astrophysical Journal*, and *Astronomy and Astrophysics*, among others. He has also published three acclaimed novels and several poetry books. Luminet also provided recordings of radio signals from two pulsars to composer Gérard Grisey for the composition *Le Noir de l'Étoile* (see opposite page).

Observer Effects offered a dialogue between the fields of art and science. The title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

FEBRUARY 26, 2011

DISCIPLINE Music/Sound

CURATOR Micah Silver

Les Percussions de Strasbourg performed this evening-length percussion piece—derived in part from radio signals from two pulsars in distant parts of the universe, and using more than 40 instruments—on six percussion stations that surrounded the audience. The ensemble commissioned the piece from composer Gérard Grisey, who has been called one of the founders of spectral music. Grisey spent much of his career exploring the spectrum of tone color (timbre) between harmonic overtones and noise. With the performers, instruments, and loudspeakers surrounding the audience, the piece takes the audience on a journey inside the music and the complexity of what ears can hear.

Founded in 1962, the ensemble Les Percussions de Strasbourg explores the wide range of percussion instruments available in Western, Asian, and African traditions. After 50 years, while personnel has changed, the group remains committed to performances of contemporary masterworks and long-term, interactive partnerships with young composers. The concert was preceded by French astrophysicist Jean-Pierre Luminet, a collaborator with Gérard Grisey on *Le Noir de l'Étoile*, who gave a talk on the link between music and the celestial bodies entitled *The Harmony of the Spheres, from Antiquity to Contemporary Music*.

AND ALL THE QUESTIONMARKS
STARTED TO SING

Verdensteatret

PERFORMANCE

FEBRUARY 17 + 18, 2011

DISCIPLINE Theater

CURATOR Hélène Lesterlin

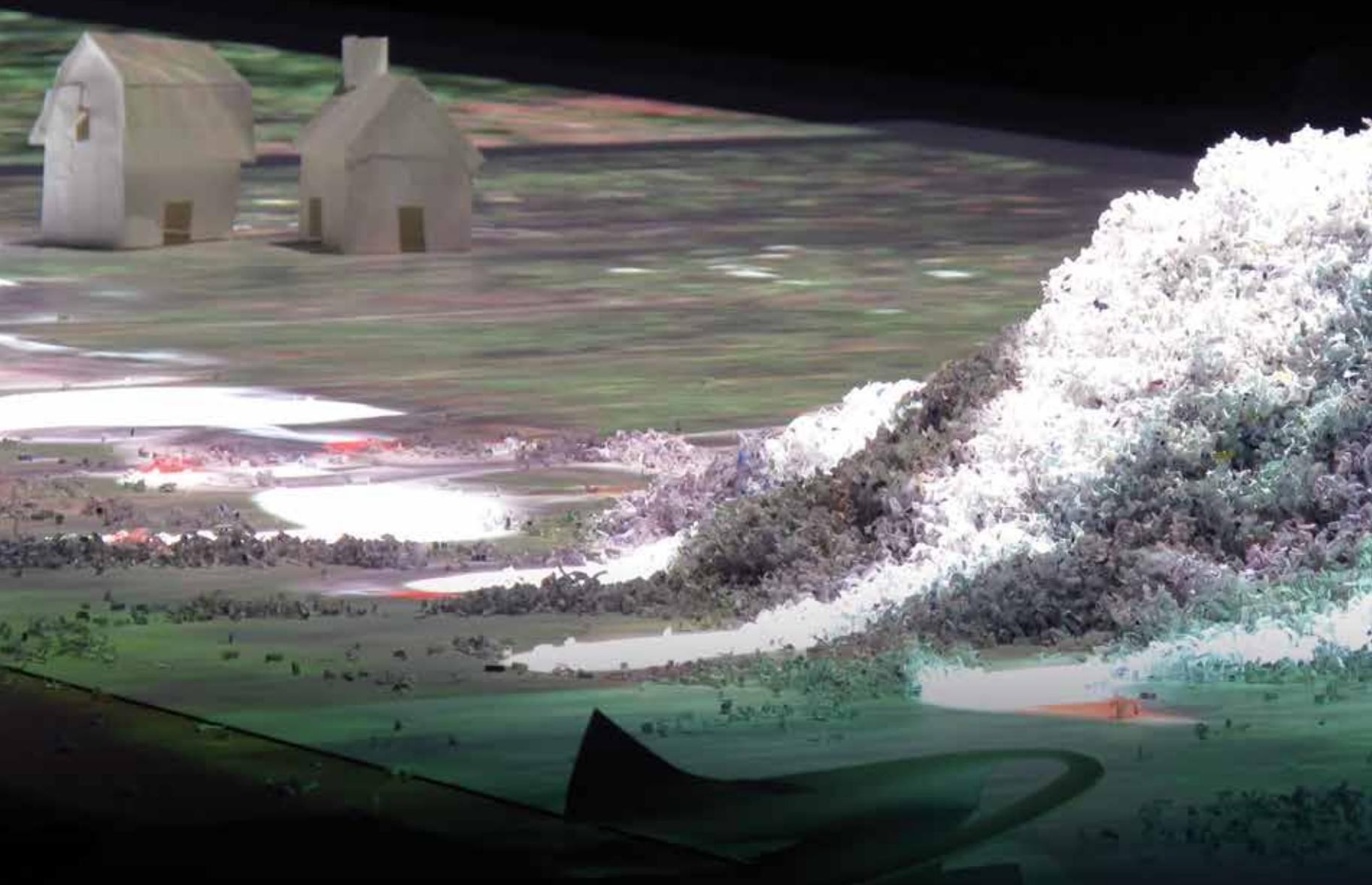
In a complex landscape of moving images, layered sound, and kinetic sculpture, this hybrid performance employed animation techniques—from micro puppetry to shadow play—to create an ever-changing composition. Bringing artists of different backgrounds together, the work demonstrated Verdensteatret's fascination with all kinds of animation—the strange and miraculous activity of breathing life into dead objects, stiff figures, and frozen images. A delicate, room-sized machine of intricate kinetic sculptures is assembled from flotsam, bicycle wheels, and old glass objects held in tiny robot arms. Actors, who double as instrumentalists, set in motion a chain reaction of dreamlike shifts between macro and micro perspectives.

Based in Oslo, Norway, Verdensteatret's artists use a collaborative process to combine different artistic disciplines into projects that bridge the gap between artistic borders. They are known for building innovative links between seemingly incompatible technologies and materials. Their experimental use of audiovisual technology in close dialogue with more traditional and historic tools of artistic expression results in complex art works and musical compositions.



RESIDENCY

THE GRAY RABBIT
Laurie Anderson



**FEBRUARY 7–
DECEMBER 13, 2011**
(4 VISITS)

DISCIPLINE Visual Art

CURATOR Kathleen Forde

Anderson used this research and development residency for *The Gray Rabbit*, an autobiographical video installation where the artist explores her memories of a pivotal childhood event—a summer she spent in the hospital—realizing that what she remembers and what she recounts to people is a palatable, “cleansed” version of the tale. For Anderson, creating the work was a way to examine the mechanism of telling a story, and in particular how to transfer a story that was in her head into a museum gallery: how to put the story into places. Dreamlike and heavily processed images that evoke scenes from Anderson’s childhood story are projected onto an iconic landscape of a town made of shredded paper. The

result is a shimmering sidewalk of imagery that has the motion of narrative without its literalness. Anderson has said that she wants her art to “. . . evoke a reaction more than explain anything clearly.”

Laurie Anderson, EMPAC’s inaugural distinguished artist-in-residence, presented a series of events focusing on topics unique to her practice as an artist.

JANUARY 27–
OCTOBER 29, 2011

DISCIPLINE Film/Video

CURATOR Kathleen Forde

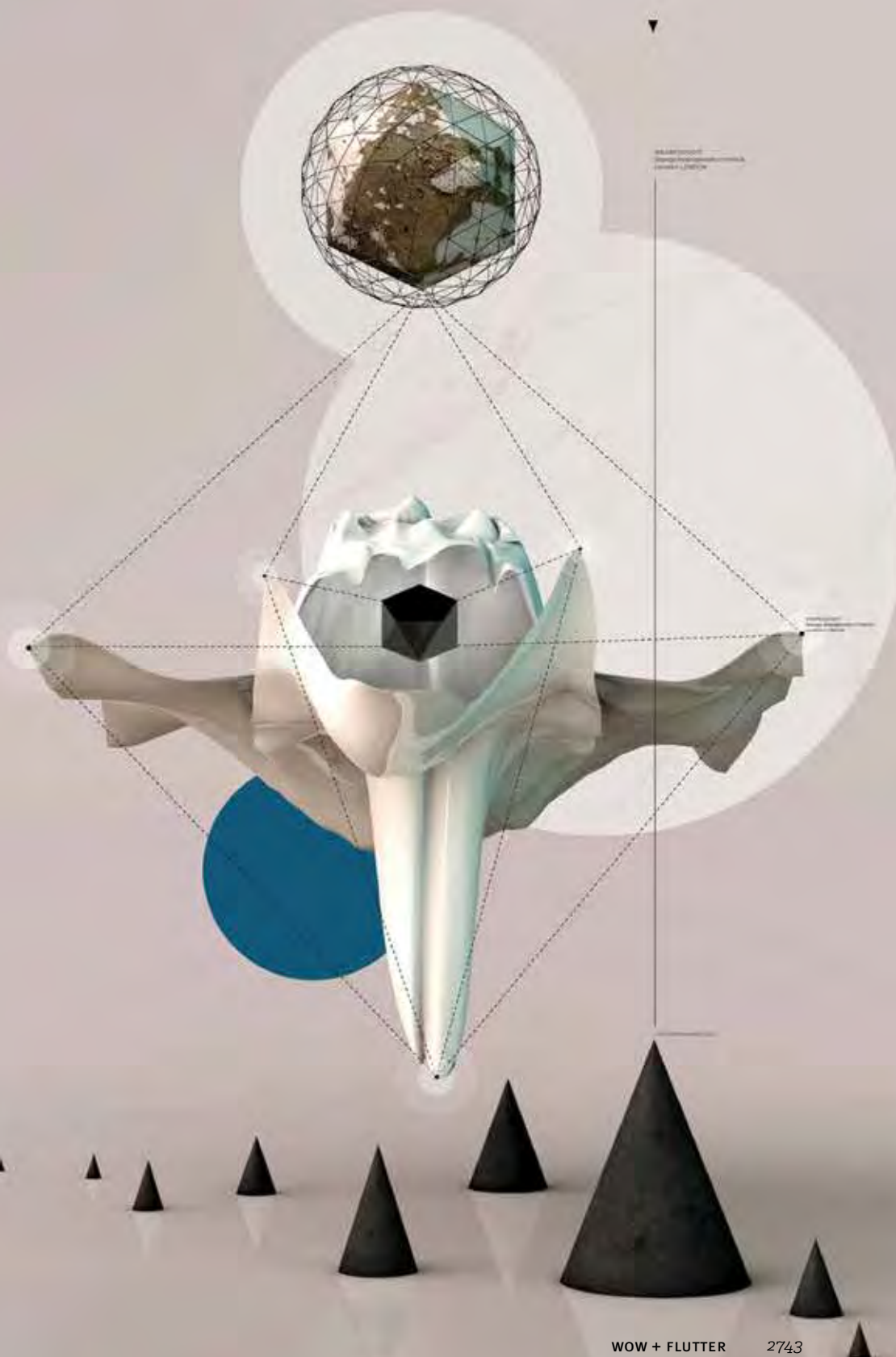
onedotzero is an international moving-image and digital-arts organization that commissions, showcases, and promotes innovation across all aspects of moving image, digital, and interactive arts. An annual touring festival, onedotzero_adventures in motion, travels the world, showcasing exciting ideas and up-and-coming filmmaking talent alongside new work by leading creative luminaries.

January 27: **wow + flutter 10** featured new work across motion graphics, character design, typography, and animation that blur traditional notions of what the moving image can be, while **wavelength 10** served up radical new takes in music video, a genre that acts as a playground for new directors and musicians to make their mark.

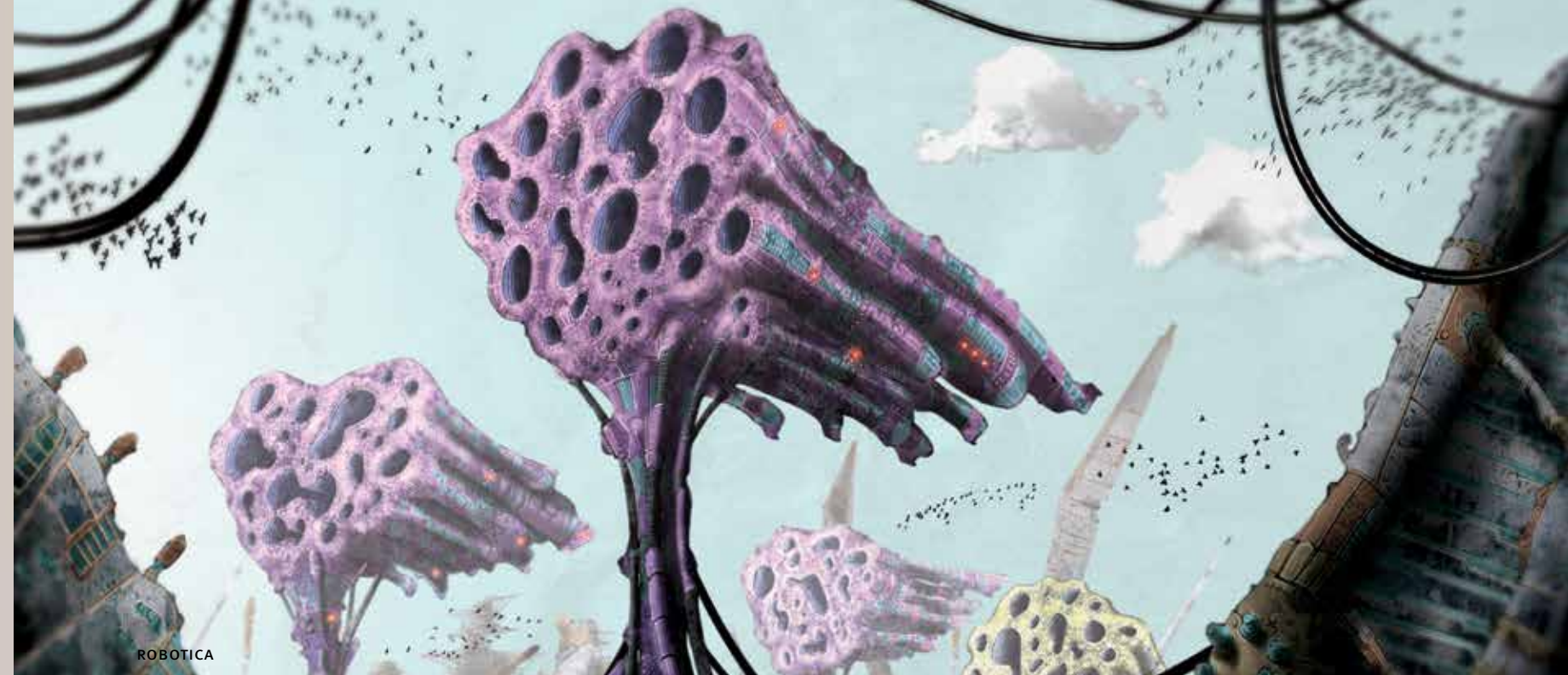
March 10: **extended play** featured an eclectic range of short work pushing the boundaries of traditional storytelling with adventurous narrative structures and distinct visual styles; **Nightfall** included some of the more extreme and often bewitching examples of entries into the festival—from gaming-edged horror and sci-fi weirdness to trippy psychedelia.

September 29: **citystates 10** was a continued exploration of onedotzero's fascination with the city via an eclectic series of filmic responses to urban environments and fast-paced city living, while **robotica** touched on the ethics, social effects, and pure fun of a world shared with robots or androids.

October 29: **Sprites** was a dynamic program of specially curated shorts to be enjoyed by youngsters and parents alike.



WOW + FLUTTER 2743



ROBOTICA



SPRITES



SPRITES



RESIDENCY / COMMISSION

TO MANY MEN
STRANGE FATES
ARE GIVEN
Brent Green

JANUARY 25–
OCTOBER 21, 2011
(5 VISITS)

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned and executive produced by EMPAC; produced by EMPAC, Kathleen Forde, and Donna K.

CURATOR Kathleen Forde

To Many Men Strange Fates Are Given is a trip through a storyland where a woman sews a space-suit for a Russian dog astronaut and working-class people search for the meaning of their lives as they ride the tidal waves of technological invention. Green's animation is characterized by familiar elements from this self-taught artist's previous work—hand-drawn images and wry, off-kilter storytelling—while Green's poetic narration ultimately becomes a lament for the disenfranchisement of working people then and now. This theme connects to his past protagonists: commonplace people who face toil and hardship, and sometimes, redemption and wonder. Working in residence, Green and collaborators developed an installation consisting of a welded metal frame that holds wooden phonograph horns, multiple planes of polarized glass, and brightly glowing LCD screens that emulate a multiplane camera used in classic animation films. Green often performs his films with live musicians, improvised soundtracks, and live narration in venues ranging from rooftops to art institutions such as the Getty Center, the Walker Art Center, the Hammer Museum, the Wexner Center for the Arts, The Kitchen, and MoMA. He lives and works in the Appalachian hills of Pennsylvania.

SEE RELATED EVENT ON PAGE 259.

MOMENTS IN MOTION 2

Marlene Millar & Phillip Szporer

RESIDENCY

PERFORMANCE
RESIDENCY

CARSON MCCULLERS SINGS ABOUT LOVE

*Suzanne Vega, Duncan Sheik,
& Kay Matschullat*



JANUARY 25–28, 2011

DISCIPLINE Dance; Film/Video

CURATOR Hélène Lesterlin

In 2004, Marlene Millar and Phillip Szporer made a documentary, *Moments in Motion*, that followed the creative lives of seven Canadian choreographers from diverse cultures and backgrounds: Natasha Bakht from Ottawa, Byron Chief-Moon from Lethbridge, Day Helesic from Vancouver, Hinda Essadiqi and Audrey Lehouillier, both from Montréal, Malgorzata Nowacka from Toronto, Sarah Stoker from St. John's. The film used cinéma-vérité depictions of their communities, studios, and homes to capture the essence of their day-to-day worlds, as well as dance sequences to reveal their creative process. Working in residence, Millar and Szporer considered a new phase of this project that

would use both video and the web in a multi-platform documentary series.

Millar and Szporer founded Mouvement Perpétuel, a Montréal-based media production company specializing in arts programming, in 2001.

RESIDENCY
JANUARY 3–20, 2011

PERFORMANCE
JANUARY 18, 2011

DISCIPLINE Music/Sound; Theater

CURATOR Hélène Lesterlin

Singer/songwriter Suzanne Vega, composer Duncan Sheik, and director Kay Matschullat were in residence at EMPAC to work on a music theater piece that combined songs with conversation. Designers Louisa Thompson and Lenore Doxsee also worked with the director on set and light elements, creating a piece that floats in time and moves between forms. An informal work-in-progress showing included songs and text from the piece followed by a discussion with the artists. Moving from spoken word to song and back again, Vega took on the role of Carson McCullers, who often quoted the ancient Roman playwright Terence: "Nothing human is alien to me." Accompanied by a guitarist

and pianist who also portrayed characters from the author's work, Vega revealed various facets of the Southern writer: comic, pained, and provocative.

Vega is a renowned singer-songwriter; Duncan Sheik's theater credits include *Spring Awakening*; and Kay Matschullat directed the world premiere of Prize-winning Derek Walcott's *To Die For Grenada*, the world premiere of Ariel Dorfman's *Widows*, and the English language premiere of Vaclav Havel's *The Conspirators*, among other works.

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research. In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



POOR DOG GROUP LEADING A PERFORMANCE WORKSHOP

The Rensselaer campus community was invited to explore the collaborative process of contemporary performance at a workshop with the artists of the Poor Dog Group (PDG), a Los Angeles-based collective. The four-hour session examined PDG's unique artistic practices, offered participants insights into how to build a new theatrical experience in a collaborative environment, and gave instruction on the fundamentals of using original story structure, character development, movement, and text to construct an experimental performance piece (see page 332).

Students joined in a campus-wide challenge to design a poster for Japanther's *The Cake of The Three Towers* performance, and received critiques from the artists and EMPAC's design team. Graham Parker visited Professor Kathleen Ruiz's experimental game design and advanced digital imaging class; Jaroslav Kapuściński's was a guest lecturer in Professor Michael Century's new media theory class; and students and faculty attended Shantala Shivalingappa's dance performance and met for an artist's talk and dinner afterward.

Other academic and extracurricular opportunities for students included MashUP!, the annual mentored workshop (in collaboration with the Office of First-Year Experience) for incoming freshmen, where they learn the basics of producing a multimedia event culminating in a campus dance party. EMPAC also hosted the People Using Live Software and Electronics (PULSE) users group and offered courses as part of Rensselaer's information technology and web science degree program. In addition, more than 100 students worked at EMPAC in technical, production, and administrative capacities, learning and advancing skills through an apprenticeship model.



Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2011.



REUNION & HOMECOMING, TAIKO DRUMMERS

ALUMNI RELATIONS

HALL OF FAME INDUCTION CEREMONY 2011 The Rensselaer Alumni Association inducted five new members into the Alumni Hall of Fame: the 11th president of Rensselaer, Livingston W. Houston, Class of '13; architect Peter Q. Bohlin, Class of '58; digital camera inventor Steven J. Sasson, Class of '72; pioneering genome explorer Claire M. Fraser-Liggett and molecular geneticist Jeffrey M. Friedman, both Class of '77.

REUNION & HOMECOMING WEEKEND 2011, TAIKO DRUMMERS/ENSEMBLE CONGEROS A performance by the Afro-Cuban percussion group Ensemble Congeros, led by Dr. Eddie Ade Knowles, professor of practice of Arts at Rensselaer, and the Portland Taiko Drummers, an award-winning Asian-American drumming ensemble.

CAMPUS AND PRESIDENTIAL EVENTS

2011 PRESIDENT'S COMMENCEMENT COLLOQUY THE ARCHITECTURE OF CHANGE: ACTION TO IMPACT Regina M. Benjamin, the 18th surgeon general of the US Public Health Service, G. Wayne Clough, the 12th secretary of the Smithsonian Institution, and Samuel F. Heffner, Class of '56 the founder and president of Dickinson-Heffner, Inc. of Baltimore, joined President Shirley Ann Jackson at the annual commencement ceremony at Rensselaer.

2011 STATE OF THE INSTITUTE ADDRESS: FRONTIERS President Jackson discussed how frontiers allow the imagination to grow and to escape limited points of view, and enable the development of truly new solutions to the biggest challenges we face. In her speech, Jackson shared samples of recent achievements at Rensselaer and outlined the development of *The Rensselaer Plan*.

2011 TOWN MEETINGS In her spring address, *Enabling Talent*, President Jackson addressed Rensselaer's goal of facilitating success by creating opportunities, removing unnecessary barriers, providing preparation, and finding the resources that enable those who work and study here to thrive.

HOLIDAY CONCERT The Rensselaer community gathered for a holiday tradition: the Rensselaer Orchestra and the Rensselaer Concert Choir performing selections by Handel, including *Messiah*, and other classical compositions, and celebrated the elevation of the Orchestra and the Concert Choir to accredited programs under the aegis of the School of Humanities, Arts, and Social Sciences.



STUDENTS AT SCREENING OF RIO

2011 FIRST-YEAR CONVOCATION: THE POWER OF EMPATHY President Shirley Ann Jackson greeted the Class of 2015 with a speech that celebrated both the resources available to them at Rensselaer and the responsibility to “learn to propagate new ideas... and to learn to create new enterprises, and to manage large complex organizations.”

HONORS CONVOCATION Parents, family, and friends gathered and watched as the Rensselaer Medalists—along with students with a 4.0 GPA, graduate student fellowship awardees, and faculty—were honored at this convocation that celebrates their outstanding academic achievements.

IBM WATSON CHALLENGE An enthusiastic audience watched as Watson faced off against the two all-time *Jeopardy!* champions on the large high-definition screen in the EMPAC Concert Hall; panel discussions featured IBM experts and Rensselaer professors discussing Watson technology; President Jackson introduced the events with a speech, *It's Not Elementary, My Dear Watson: What are the Fundamentals of Watson?*

RIO SCREENING AND DISCUSSION President Shirley Ann Jackson was joined by Fox Animation Studios President Vanessa Morrison, Carl Ludwig '66, Founder of Blue Sky Studios, Rio director Carlos Saldanha, and producers Bruce Anderson and John Donkin for a discussion following the screening.

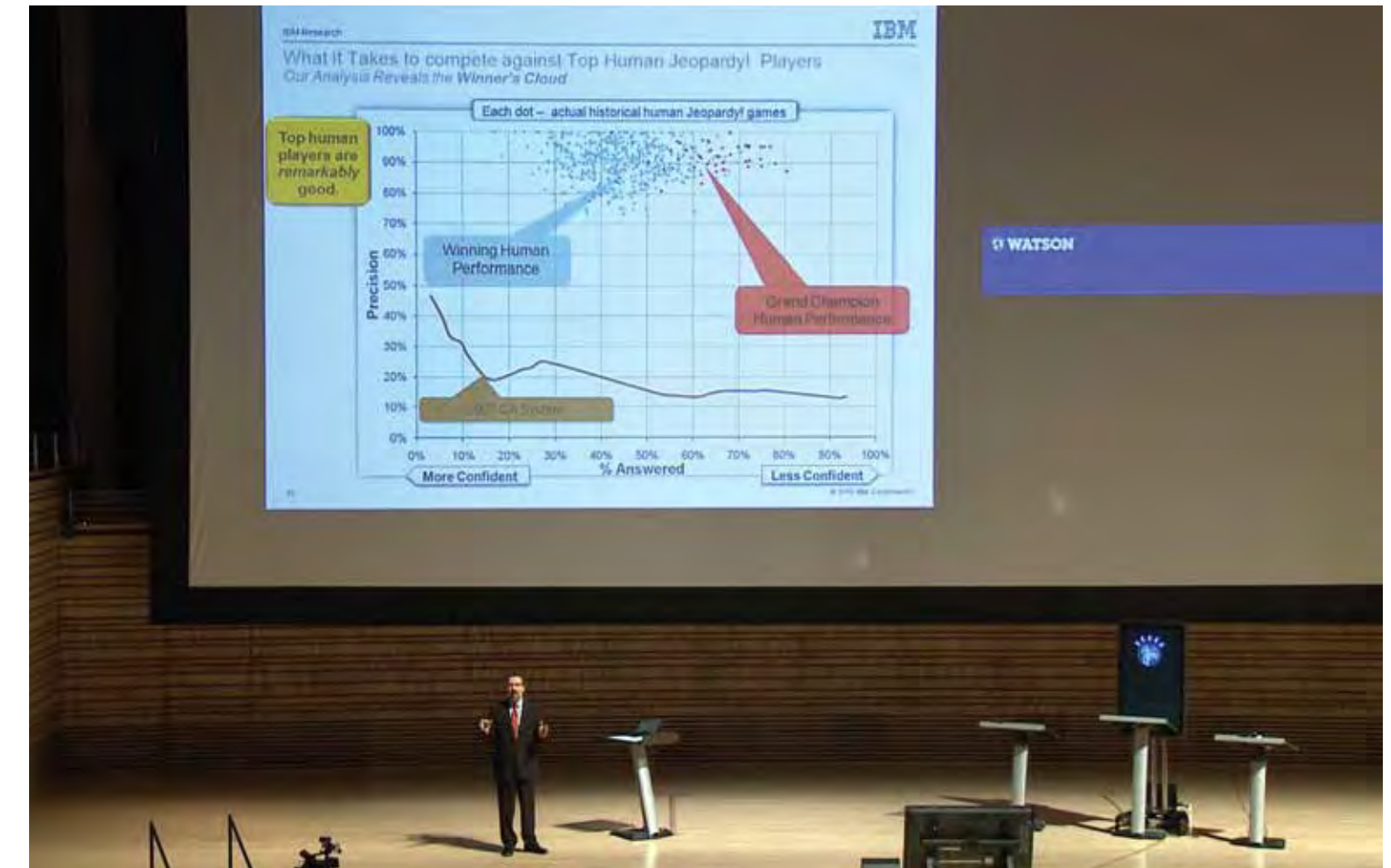
OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2015 learned about the Rensselaer campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer's many clubs and activities, and met soon-to-be classmates.

FIRST YEAR EXPERIENCE SUMMER ORIENTATION The Office of the First-Year Experience conducts Student Orientation in July and August, introducing new students to life at Rensselaer, for them to become familiar with the campus—including EMPAC—and to meet faculty, staff, and upperclass students.

NAVIGATING RENSSELAER AND BEYOND Navigating Rensselaer & Beyond is a five-day program for all first-year students, including freshmen, transfers, and graduate students, to help with the transition to Rensselaer as well as to provide opportunities to meet new students. NRB programs at EMPAC include MashUP! (described under Academic Collaborations) and Fanfare, an annual concert presented by the Rensselaer Music Association.

SEED GRANT DEMONSTRATION The Office of Research presented its spring research salon featuring demonstrations of four seed projects that contributed to the foundation of a new Cognition, Communication, and Culture (CCC) Center.



IBM WATSON CHALLENGE

SCHOOLS AND CENTERS

THE SCHOOL OF ARCHITECTURE

SCHOOL OF ARCHITECTURE LECTURE SERIES This annual lecture series included Peter Bohlin, *Soft Modernism + the Nature of Circumstance*; Preston Scott Cohen, *The Inner Dome*; Vitto Acconi, *From Words Through Action to Architecture*; Henry N. Cobb, Pei Cobb Freed and Partners; Paola Antonelli, *Talk to Me: The Communication Between People and Objects*; Joel Sanders, *Groundwork: Between Landscape And Architecture*; Heather Roberge, *Sheet Logics*; Neil Denari, *Facticity*; Karl Chu, *Planet X*; Tod Williams / Billie Tsien Architects, *In Work, At Work*; and Stephen Kieran, Kieran/Timberlake: *Inquiry*.

SCHOOL OF ENGINEERING

NORTHEAST BIOENGINEERING CONFERENCE The 37th IEEE Northeast Bioengineering Conference was held at EMPAC. With oral presentations and posters, the conference served an exchange of ideas for current bioengineering-related research. This year marked the beginning of a senior design competition.

NUCLEAR DATA SYMPOSIUM This symposium, focusing on gathering nuclear data for criticality safety and reactor applications, kicks off a new research program at Rensselaer that aims to provide high-accuracy nuclear data for the international nuclear community.

THE SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/DEPARTMENT OF THE ARTS

ANNA LINDERMANN, THEORY OF FLIGHT (MFA THESIS) A scientist explained her investigations of hominid aerial locomotion in a piece where dreams of flight, bird songs, molecular music, and animations of molecular processes made from yarn, buttons, and lace intersect in the pursuit of human flight. Performed by Lindemann and soprano Lucy Fitz Gibbon; directed by Emma Lunbeck.

CLARA TOMAZ, LINEAR AND AERIAL PERSPECTIVES (MFA THESIS) Videos and a performance by Tomaz, featuring the Tintinnabulate Music Ensemble (Julia Alsarraf, Jonas Braasch, Sam Clapp, Pauline Oliveros, and Doug Van Nort); the videos explore diversity, disability, human relationships, and self-identity.

DMITRI TYMOCZKO, A GEOMETRY OF MUSIC A composer and music theorist who teaches at Princeton University, Tymoczko is interested in a wide range of musical styles; this event was co-sponsored by the Arts and Math Departments. Part of the Vollmer W. Fries Lecture Series and co-sponsored by the Office of the Provost and HASS.

GAMEFEST 2011 This annual celebration of student work in computer games is a collaboration between the Games and Simulations Arts and Sciences program and local game-development companies; student game developers compete for prizes based on technical production, artistry, creativity, and the groundbreaking quality of their work.



PETER BOHLIN, CLASS OF '58, SCHOOL OF ARCHITECTURE LECTURE SERIES

GAME-ON WORKSHOP/CONFERENCE The sixth annual North American Game-On Conference brought together academics, researchers, and games people from North America to exchange ideas on higher-level concepts that contribute to the field of computer-gaming research.

JIM DESEVE AND KIAN TJONG, *MANDOVE* The filmmakers' new work *ManDove* explores an ancient and mysterious brotherhood of singing dove competitors in Java, Indonesia.

MICHAEL CENTURY, SOLO CONCERT A concert of classical and contemporary piano works including Beethoven's Sonata for Piano No. 31, Opus 110 (1821), Michael Century's *Twenty-One* (2010) and Ann Southam's *Simple Lines of Enquiry* (2007).

NEIL ROLNICK, SCENES FROM MONO Sections of Rolnick's full-length work-in-progress, *Mono*, were showcased with an ensemble under the direction of Todd Reynolds. *Mono* is an extended musical meditation on the fragility of perception and how it shapes us.

POLYCHORAL PROJECT Performing Kathy Kennedy's polychoral project entitled *Tory Paradio*, singers and observers walked through Troy and up the Approach to EMPAC, where a choral music concert took place featuring four choirs from the University at Albany, The College of Saint Rose, Sage College, and Rensselaer. Entering EMPAC's Concert Hall, singers performed multichoral works by Antonio Caldara, Pauline Oliveros, Mary Jane Leach, and Kennedy.

RENSELAER AND SAINT ROSE CONCERT, *PIANO WAVES* Students and faculty of Rensselaer and the College of Saint Rose were co-directed by Michael Century and Young Kim. The concert featured works for piano and chamber ensemble by Debussy, Ravel, Vivier, Feldman, Strauss/Schoenberg, and Rosells. Sponsored by the Classical Concert Committee, Rensselaer Union.

RENSELAER SYMPHONY ORCHESTRA SPRING CONCERT The Rensselaer Orchestra and Concert Choir presented a program that included Liszt's *Totentanz*, Saint-Saens' *Danse Macabre*, and Stravinsky's 'Berceuse' and 'Finale' from the *Firebird Suite*.

YEHUDA DENYUAS, *THE ASCENT* (MFA THESIS) Theater artist and experience designer Duenyas presented his thesis project, *The Ascent*, and *The Infinity System*, an intuitive interface that uses 3D rigging to move bodies through space and wearable sensors to manipulate audio and visual content.



ANNA LINDERMANN, *THEORY OF FLIGHT*

STUDENT PROGRAMS

INTERNATIONAL CHAMPIONSHIP OF COLLEGIATE A CAPPELLA QUARTERFINAL The Varsity Vocals International Championship of A Cappella, the only international tournament that showcases the art of student a cappella singing, came to Rensselaer and EMPAC.

DANCE CLUB RECITAL For their annual recital, Rensselaer's Dance Club presented *Evacuate the Dance Floor* in the EMPAC Theater with performances in tap, jazz, ballet, modern, and hip-hop.

RENSELAER MUSIC ASSOCIATION CONCERTS An Evening of Jazz featured The Repertory Jazz Orchestra, The Contemporary Jazz Ensemble, The 8th Street Swing Band, and The Jazz Leaders performing music that spanned 80 years of jazz including works by Charles Mingus, Jimmy Heath, Cannonball Adderly, Jeff Jarvis, Tommy Dorsey, and Bob Button, director of Jazz@Rensselaer. The winter concert featured the RMA Orchestra with Percussion Ensemble and Symphonic Band.

UPRIGHT CITIZEN'S BRIGADE WITH SHEER IDIOCY The improvisational comedy group, The Upright Citizen's Brigade, was presented by UPAC Comedy and Rensselaer's Sheer Idiocy (a Student Life Signature event).

2010

Days 2,688–2,356

DECEMBER 3–4, 2010

DISCIPLINE Contemporary Performance; Music/
Sound; Theater**ABOUT THE PRODUCTION** Commissioned
by EMPAC**CURATOR** Micah Silver

Commissioned by EMPAC and created in residence, *Cold Spring* was a high-energy collision of charged musical and theatrical particles. *Cold Spring* took its name from the Eugenics Archive in Cold Spring Harbor, New York, a repository of research at the center of the American eugenics movement that sought to purge society of “bad” genes, influencing Nazi Germany’s master race policies. In *Cold Spring*, materials from the Archive intersect unexpectedly with the early 20th century spiritualism-meets-pop-supernaturalism of the 1970s, and an operatic rendition of the alien-abduction hypnosis tapes of Betty and Barney Hill, an embattled, mixed-race couple trying to navigate the hyper-vigilant sanctimony of a pre-civil rights era. *Cold Spring* featured actors, musicians, and dancers from the local area and beyond, with a set created from industrial relics borrowed from the Schenectady Museum.

Sean Griffin’s unique compositional works rely on interdisciplinary incongruities positioned at the intersection of sound, image, performance, and the archive. His works manifest as music, large and small-scale operas, collaborative installations, historically weighted musical performance works, and numeric choreographies. His pieces have been commissioned and presented internationally by venues including LA’s REDCAT, Hammer Museum, and Contemporary Museum of Art, London’s Royal Academy and Tate Modern, among others. He lives and works in Los Angeles.

SEE RELATED RESIDENCY ON PAGE 439.



UNCERTAIN SPECTATOR

EXHIBITION

NOVEMBER 18, 2010–
JANUARY 29, 2011

DISCIPLINE Multidisciplinary

ABOUT THE PRODUCTION *Fear* by Marie Sester was commissioned by EMPAC.

PUBLICATION *Uncertain Spectator* by Emily Zimmerman with Max Hernández-Calvo, Exhibition Catalog, published by EMPAC

CURATOR Emily Zimmerman

A response to prevailing uneasiness over recent political and economic events, *Uncertain Spectator* was a group exhibition of contemporary art that responded to unsettling situations and asked viewers to step outside of a place of comfort—both physically and emotionally. The exhibition featured 10 artists working in video, installation, sculpture, and interactive media. An exhibition catalog considered the role that anxiety has played in philosophy, psychoanalysis, and ethics, and a blog, *Uncertain Spectator(s)*, invited philosophers, cultural theorists, and artists to focus on the prevalence of anxiety in current events, as well as its expression in philosophy and contemporary art.

Gracelia Carnevale, *Action for the Experimental Art Cycle, Rosario, Argentina* (1968) These photographs document a 1968 opening at an empty storefront gallery; once the audience was gathered inside, the artist trapped them for an hour until a bystander outside broke the window, allowing them to escape.

Anthony Disenza created a series of street signs that do not communicate a set of rules for public space, but instead convey doomsday predictions and poetic reflections on doubt.

Claire Fontaine's *Change* (2006) Twelve quarters modified to contain concealed razor blades, a metaphor for the hidden dangers within financial markets which also taps into deep post-9/11 anxieties about homeland security.

Kate Gilmore, *Main Squeeze* (2006) This single-channel video shows the artist as she slowly pulls herself through a narrow, girdle-like wooden structure too small for her body.

Tue Greenfort, *Die Dynamik der Autoren* (2000) A video response to an exhibition where Greenfort locked the curator and one of the exhibition organizers in a cube and recorded their escape.

Susanna Hertrich, *Reality Checking Device* (2008) An animated graphic weighs the perception of risk versus the actual likelihood that something poses a threat to one's safety.

Jesper Just, *A Vicious Undertow* (2007) This black and white film presented an enigmatic and open-ended narrative, which never allows the viewer to achieve closure.

Marie Sester, *Fear* (2010) Occupying EMPAC's lobby, this commissioned installation consisted of a seating area with a table that pulses with a warm inviting light—until the viewer attempts to approach it.

SUPERFLEX, *The Financial Crisis* (2009) and *Lost Money* (2009) In *The Financial Crisis*, a film features a hypnotist who invites the viewer to engage in a number of visualizations related to the global economic crisis; *Lost Money* consists of 2,000 US coins strewn on the floor and is considered by the artists to be "a carpet of non-value . . . [pointing to] the utopia of a society not influenced by commodity fetishism."

Jordan Wolfson, *Con Leche* (2009) A video image and spoken audio are continuously out of sync, presenting shifting juxtapositions that defy a stable symbolic reading.



A VICIOUS UNDERTOW



EXHIBITION ON THE MEZZANINE



SIGN BY ANTHONY DISCENZA

SUPERFLEX

2673

IRRGÄRTEN
Hans Tutschku

RESIDENCY

PERFORMANCE
RESIDENCY

GEORG FRIEDRICH HAAS: *in vain*
Argento Chamber Ensemble



NOVEMBER 11–21, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

Returning to EMPAC for a second residency, Hans Tutschku workshopped and recorded material for *Irrgarten*, a piece for two pianos and live electronics. The electronics were realized with two iPhones or two iPods running custom software, one for each pianist. The built-in microphone was used to detect piano notes and to synchronize the electronic sounds to the live part. The composer described the work as being about memory and comparable to a walk through different mazes (*irrgärten*). As the composition progresses, material is repeated, though the electronics alter the piano parts. As when walking through a maze and trying to get a picture of the path—certain places look similar but in reality are

different—one gets trapped. *Irrgarten* premiered in 2011 at the Klub Katarakt Festival in Hamburg, Germany. Hans Tutschku is a German composer who has also taught at Harvard since 2004.

RESIDENCY:
NOVEMBER 9–12, 2010

PERFORMANCE:
NOVEMBER 12, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

A contrast of light and dark, harmony and dissonance, composer Georg Friedrich Haas' *in vain* startles and captivates the senses. Haas is an internationally known composer of spectral music whose style focuses on micropolyphony, micro-intervals, and exploitation of the overtone series. Performed by a 24-member chamber orchestra, much of this intense 75-minute composition takes place in total darkness. In this state, the musicians must perform from memory, communicating with each other and the audience only through sound. Accompanied by dramatic microtonal deviations, the cycles between light and darkness express both the desire for perfect harmony and the futility of achieving such a harmonic co-existence,

musically or in the world. During their residency, the Argento Chamber Ensemble recorded their performance of *in vain* over several days, in both audio and video.

Founded in 2000, Argento consists of nine core members and regularly expands to up to 30 musicians. Argento has toured widely in the US and abroad, and has worked closely with leading contemporary composers including Pierre Boulez, Beat Furrer, Georg Friedrich Haas, Bernhard Lang, Fred Lerdahl, Fabien Lévy, Tristan Murail, and others.

NOVEMBER 5–6, 2010

DISCIPLINE Theater

CURATOR Hélène Lesterlin

Red Fly/Blue Bottle conjures an associative visual landscape in which objects open up in unexpected ways, revealing worlds within worlds. Staged as a concert that unfolds within a layered video installation, the tightly crafted songs emerge from an evocative terrain of found sounds, ticking clocks, and analog tone generators. Miniature noir films are projected onto floating surfaces; live and pre-made video animates still objects.

Red Fly/Blue Bottle explores the mediating effects of memory and how we use the power of our imagination to surmount that which we have lost. *Latitude 14* makes work that reveals the memory of objects and blurs the boundaries of installation, concert, theater, and cinema. The company is founded by original artists Christina Campanella, Mallory Catlett, Stephanie Fleischmann, and Peter Norrman.

MUSIC—LANGUAGE—SOUND + NATURE

Mark Changizi, Johannes Goebel,
and David Rothenberg

OBSERVER EFFECTS
TALK



NOVEMBER 3, 2010

DISCIPLINE Humanities;
Music/Sound; Science

CURATOR Johannes Goebel

Experts in the diverse fields of music, acoustics, evolutionary neurobiology, and naturalist philosophy engaged in an exchange on how music, speech, language, birds, and whale songs interrelate, preceded by an hour-long performance by David Rothenberg in EMPAC's lobby.

Formerly an assistant professor in the Cognitive Science Department at Rensselaer, Mark Changizi is the author of *The Vision Revolution: How the Latest Research Overturms Everything We Thought We Knew About Human Vision*, and *Harnessed: How Language and Music Mimicked Nature and Transformed Ape to Man*. New Jersey Institute of Technology Professor of Philosophy and Music

David Rothenberg is the author of *Why Birds Sing*, which was turned into a TV documentary by the BBC in 2006. Johannes Goebel joined Rensselaer as director of the Experimental Media and Performing Arts Center (EMPAC) in 2002.

Observer Effects offered a dialogue between the fields of art and science; the title was derived from the principle in physics that the act of observation transforms the observed, an idea that has been influential in philosophy, aesthetics, psychology, and politics.

SCREENING

CINEMATIC CHIMERA

OCTOBER 28, 2010—
APRIL 7, 2011

DISCIPLINE Film/Video

CURATOR Emily Zimmerman

Cinematic Chimera presented works striving for a radical synthesis of artistic genres, reviving the notion of the *Gesamtkunstwerk*, or total artwork. United by their integration of theater, dance, music, architecture, literature, and visual art, these films also realize the *Gesamtkunstwerk's* technological imperative by making use of advanced cinematic techniques.

February 10, 2011: *Prospero's Books* (1991) starring John Gielgud as Prospero, is Peter Greenaway's celebrated cinematic adaptation of Shakespeare's *The Tempest*, interweaving dance, opera, and mime into its narrative.

April 7, 2011: *The Red Shoes* (1948) The celebrated film by Powell and Pressburger, follows a ballerina struggling with dueling allegiances to love and career, set in a ballet production.

October 28, 2010: *Russian Ark* (2002) In this film directed by Alexander Sokurov, a single camera drifts through the 33 rooms of the Hermitage Museum in St. Petersburg, and in one continuous 90-minute shot traces Russia's history from the 18th century to the present day.

November 18, 2010: *Dancer in the Dark* (2000) Lars von Trier's only work in musical theater, *Dancer in the Dark* is an agonizing and unrelenting narrative of cruelty, hardship, and human nature. The film stars Björk as a single immigrant mother working in a factory in rural America who begins to lose her eyesight due to degenerative disease.



RUSSIAN ARK

DELUSION

Laurie Anderson

PERFORMANCE



OCTOBER 15 + 16, 2010

DISCIPLINE Contemporary Performance

CURATOR Kathleen Forde

Delusion is a meditation on life and language by way of music, video, and storytelling produced in part during Laurie Anderson's multiple residencies at EMPAC. Conceived as a series of short mystery plays, *Delusion* jump-cuts between the everyday and the mythic. Anderson weaves a complex story about longing, memory, and identity using violin, electronic puppetry, music, visuals, altered voices, and imaginary guests. At its heart is the pleasure of language and a fear that the world is made entirely of words. *Delusion* tells its story in the colorful and poetic language that has become the creator's trademark.

One of America's most renowned performance artists, Laurie Anderson's genre-crossing work encompasses performance, music, installation, writing, film, photography, and sculpture. She has invented several technological devices for use in her recordings and performance art shows, and published books, produced numerous videos, films, radio pieces, and original scores for dance and film.

SEE RELATED RESIDENCY ON PAGE 522.

MONOLAKE

Robert Henke with Tarik Barri

PERFORMANCE
TALK
RESIDENCY

RESIDENCY
OCTOBER 4–8, 2010

TALK
OCTOBER 6, 2010

PERFORMANCE
OCTOBER 7, 2010

DISCIPLINE Music/Sound; Tools and Technology

Berlin-based composer and sound artist Robert Henke, who is also one of the principal authors of Ableton Live software, provided insights into his artistic approach in two talks, and performed a multi-channel audiovisual concert together with visual artist Tarik Barri. As a child of Berlin's 1990s club culture, Robert Henke started composing music influenced both by academic computer music and electronic dance music. He releases music and performs under the alias Monolake; teaches sound design at the Berlin University of Arts; and writes about computer-generated sound. He lives and works in Berlin.

OCTOBER 6: *Live. Max. Max For Live. What is it Good for?* The Ableton Live software gave birth to a new way of creating and performing electronic music and became a huge success among dance music producers; but the academic music world remained skeptical, with Max/MSP considered the standard tool in academic computer music. *Live* and *Max* seem to cater to a very different audience. In this talk, Henke asked: what happens when those two worlds become more integrated?

OCTOBER 6: *Live Performance in the Age of Supercomputers* Henke considered the question: How can we convincingly perform computer-based auditive or audiovisual art in today's world? The possibilities for sound generation and manipulation are almost limitless; however, the interfaces, as well as our experience and practice with them, are not nearly as advanced. Robert Henke offered his theoretical ideas of performing live and contrasted them with a critical review of his own concerts.

OCTOBER 7: *Monolake Live Surround* offered walls of pulsating sound made danceable by heavy percussion and massive bass pulses, exploring the possibilities of spatial sound design in a club environment by using minimal, dub-influenced techno music. This concert experience reflected Henke's ongoing research in expanding the usual club soundscape by using four or more discrete audio channels.

This event was curated by Eric Ameres.

FILAMENT



OCTOBER 1–3, 2010

DISCIPLINE Multidisciplinary

ABOUT THE PRODUCTION *Live Shorts* were commissioned by EMPAC.

CURATORS Kathleen Forde, H  l  ne Lesterlin, Micah Silver, Emily Zimmerman

Filament was a three-day festival highlighting EMPAC's work fostering new artistic creation through commissions and artist residencies. The festival featured more than 15 premieres spanning theater, music, multi-channel sound, contemporary dance, video—and a barn raising—as well as exchanges with artists, curators, and engineers. The performances and installations were complemented by *Process Boxes*, a dynamic archive of experiences, fragments, and artifacts of artistic production created by 23 alumni from EMPAC's Artist-in-Residence Program. *Filament* was also celebrated with *Revel*, an evening of music, food, conversation, with a soundtrack by local DJs.

PROCESS BOXES



REVEL



EVELYN'S CAFE



ACT CURTAIN



ALREADY SEEN



SHEEP SPACE



INTERVENTION #2

FILAMENT FESTIVAL

Live Shorts was a series of performances commissioned for *Filament* and created in residence. In contrast to EMPAC's typical embrace of open-ended possibilities, invited artists (contemporary theater and dance artists, experimental and electronic musicians, and visual artists) were asked to create performances under 20 minutes, using a 20' x 30' stage, and with at most a single screen, projector, or sound system. The results were a varied and vigorous set of short works. Wingspace Theatrical Design was commissioned to create an *Act Curtain*, a light installation viewed during interstitial moments between performances.

PROGRAM A:

Miro Dance Theater: **Already Seen.** Inspired by the infinite circle of the film loop and the process of sound looping, *Already Seen* looks at the circles of repetition and the feelings of déjà vu that permeate our lives and relationships. The performers experience the same repeating moment and we, the viewer, are left to determine what has changed and what remains the same.

The National Theater Of The United States Of America: **The Golden Veil: A Cautionary Entertainment.** An experiment in episodic structure and picaresque narrative, *The Golden Veil* is the tale of two improbable figures, ghosts trapped in the sympathetic reverberations of a collective psyche.

Paul Abacus: The Saint Teresa of today's screen age, perforated by pixels. Since getting booted from Oxford, where he nearly doctored in national borders and synesthesia, Paul has spent meaningful time as an organ grinder, aquarium-monger, and national park ranger. Nowadays, he speaks at global institutions, elementary schools, or wherever else he is invited.

PROGRAM B:

SUE-C & Laetitia Sonami, **Sheepspace:** Inspired by the writings of Haruki Murakami, this is a "live film" brought to life through the manipulation and projection of photographs, drawings, scale models, and various three-dimensional objects, along with the processing and amplification of electronic music, nostalgic songs, and field recordings.

FILAMENT FESTIVAL

Wally Cardona, **Intervention #2:** Each Intervention is the meeting of Cardona and a local specialized expert, and through their intimate encounter, they generate a new version of Cardona's solo under the influence of an outside eye or opinion. Intervention is a game leading to other games of meaning, intent, and form that can create multiple interpretations of a "dance."

MTAA (M.River & T.Whid Art Associates), **You Don't Know What You're Talking About:** Like many people listening to a lecture, speech, or newscast, Internet artists M.River and TW hid have often wanted to stand up and tell the speaker "You don't know what you're talking about." Sitting behind a desk with two laptops and two microphones, MTAA invited the audience to start tweeting and, for the duration of the performance, River and Whid read any and all texts sent to Twitter with the hash tag "#mtaa."

PROGRAM C:

Trouble, **A Narrow Vehicle:** Performers acting like ushers and doubling as shaman enact a cleansing ritual on the audience, which becomes a screen for projections of familiar spiritual imagery and the five elemental lights.

Jen DeNike + Rose Kallal, **Another Circle:** Using video, performance, and sound as live ritual magic, a series of circles transforms the space into a vessel for scrying: the act of obtaining spiritual visions by peering into a reflective or translucent surface. In a video, a prima ballerina in classical tutu and toe shoes performs what appears to be an infinite pirouette, while a live dancer performs in reaction to the video accompanied by live, improvised sound featuring vintage analog synth, guitar, and tape delay.

Steve Cuiffo, Trey Lyford, and Geoff Sobelle, **AMAZINGLAND IN TROY EMagicPAC:** The second in a trilogy of theater pieces that embrace and subvert American popular entertainment. Cuiffo, Lyford, and Sobelle enter magic contests as their illusionist personas—Louie Magic, Dennis Diamond, and Daryl Hannah—and succeed or fail while creating faux-documentary video to be integrated into performance.



THE GOLDEN VEIL



A NARROW VEHICLE



ANOTHER CIRCLE



AMAZINGLAND IN TROY EMAGICPAC

ABACUS

Lars Jan & Early Morning Opera

FILAMENT FESTIVAL
PERFORMANCE
EXHIBITION

OCTOBER 1 + 2, 2010

DISCIPLINE Theater

ABOUT THE PRODUCTION *ABACUS* was an EMPAC commission, with support from the Tiffen Company, makers of the Steadicam camera stabilizing systems.

CURATOR Kathleen Forde

ABACUS is a large-scale presentation by Early Morning Opera under the direction of Lars Jan featuring Paul Abacus and his re-imagining of Buckminster Fuller's Geoscope, a data visualization device that could comprehensively model Earth's "vital statistics," historic patterns, and future projections. Aided by this device and a chorus of Steadicam operators, *ABACUS* argues the obsolescence of national borders and proposes their dissolution while simultaneously acting as a study in two dominant forms of contemporary persuasive discourse: the TED-style, slide-based presentation and megachurch media design. *ABACUS* weighs the art of persuasion as a catalyst for cultural evolution, examining the moment that data—distilled, visualized, spun—yields a visceral, rather than merely conceptual, impact. Fueled by our content-saturated, data-driven, personality-obsessed moment, *ABACUS* explores the fundamental intention of "beautiful evidence" and the reliability of the presentation format that drives our culture. *ABACUS* also functioned as an installation: in the EMPAC Concert Hall, visitors could interact with Dr. Hieronymus Yang (the world's first accredited giant panda) and be guided through Paul Abacus's Fuller-inspired Geoscope.

SEE RELATED RESIDENCY ON PAGE 540.



MULTI-CHANNEL DOUBLE FEATURE

Volkmar Klien and Hans Tutschku

FILAMENT FESTIVAL
PERFORMANCE

OCTOBER 1-3, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

The two musical compositions on this program were commissioned by EMPAC and created for, and in, the specific space of EMPAC's Studio 1. The works each shared a 44-speaker array placed in three rings from ear level to 30 feet in the air, and both immersed the listener in waves of sound coming from all directions. Hans Tutschku's *agitated slowness* is a 24-channel electroacoustic composition that takes listeners on a perceptual journey: the sound ebbs and flows, consuming and releasing the listener's sonic experience. Klien's entrancing composition, *Kristallgatsch Strahlung*, uses a mathematical model of a virtual object to synthesize a vast terrain of sound materials. Both compositions were created during an EMPAC residency in 2009.

Volkmar Klien's artistic projects span interactive installations and interventions to orchestral composition and generative electronics. He holds a lectureship at the University of Music and Performing Arts in Vienna. Hans Tutschku is a German composer who has also taught at Harvard since 2004.



MIRACLE
BalletLab

FILAMENT FESTIVAL
PERFORMANCE

OCTOBER 1 + 2, 2010

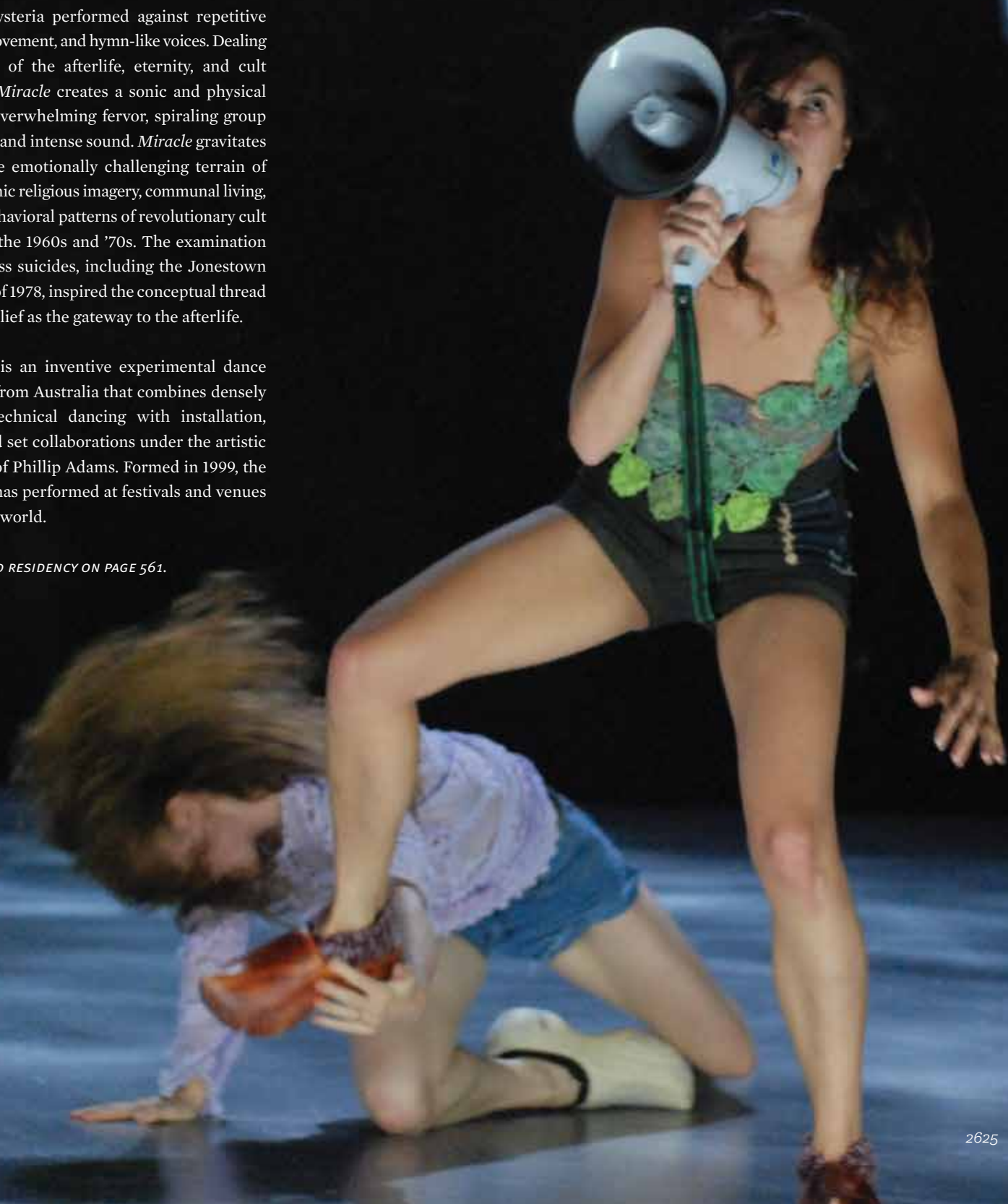
DISCIPLINE Dance

CURATOR H el ene Lesterlin

BalletLab's *Miracle* is an onslaught of choreographic hysteria performed against repetitive mantra, movement, and hymn-like voices. Dealing in themes of the afterlife, eternity, and cult behavior, *Miracle* creates a sonic and physical world of overwhelming fervor, spiraling group dynamics, and intense sound. *Miracle* gravitates toward the emotionally challenging terrain of iconographic religious imagery, communal living, and the behavioral patterns of revolutionary cult groups in the 1960s and '70s. The examination of cult mass suicides, including the Jonestown massacre of 1978, inspired the conceptual thread of blind belief as the gateway to the afterlife.

BalletLab is an inventive experimental dance company from Australia that combines densely layered, technical dancing with installation, sound, and set collaborations under the artistic direction of Phillip Adams. Formed in 1999, the company has performed at festivals and venues across the world.

SEE RELATED RESIDENCY ON PAGE 561.



FILAMENT FESTIVAL
PERFORMANCE

WILDERNESS
Yanira Castro & a canary torsi

OCTOBER 1 + 2, 2010

DISCIPLINE Dance

ABOUT THE PRODUCTION *Wilderness* was commissioned by Dance Theater Workshop's Commissioning and Creative Residency Program and by the American Music Center Live Music for Dance Program. *Wilderness* was also made possible by EMPAC through an artist residency and production support; Lower Manhattan Cultural Council's Swing Space program; and residencies at the National Theater Institute at the Eugene O'Neill Theater Center, and the Theater & Dance Department of Amherst College.

CURATOR H el ene Lesterlin

Wilderness unfolded on a dark field in the entrance lobby of EMPAC, inviting all who inhabited the space—dancers, crew, musicians, and audience—to share the same ecosystem. In this site-adaptive work, choreographer Yanira Castro contemplated wilderness as a minimalist environment, a barren desert or the smooth surface of a lake, where action is brought into high relief. The performance begins with a stark, emotional solo by an older man, followed by a quartet of dancers that perform a virtuosic dance, transforming the terrain. Viewers become a part of the performance system, as their behavior influences the sound and movement. No two performances are the same. The set was also designed to function as an installation accessible to audiences during non-performance hours. At scheduled times, visitors were able to enter the installation and activate the space with composer Stephan Moore's sound.

Puerto Rican born and Brooklyn-based director/choreographer Yanira Castro collaborates with a core group of performers and designers to create hybrid performance works that integrate music, movement, installation, text, and visual elements such as film and video. She is the director of *a canary torsi*, an organism engaged in the creation of multi-disciplinary art collaborations.

SEE RELATED RESIDENCY ON PAGE 431.





OCTOBER 2, 2010

DISCIPLINE Film/Video, Dance

ABOUT THE PRODUCTIONS Commissioned by EMPAC

PUBLICATION DANCE MOVIES EMPAC 2009-2010 DVD, commissioned and published by EMPAC

CURATOR H el ene Lesterlin

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

World premieres of five new commissioned dance films chosen by an international panel; the screenings were followed by a panel discussion including the filmmakers and curator.

Hoop (Canada, 4.5 minutes) Directed by Marites Carino and performed by Rebecca Halls; floating in a black void, swinging through shafts of light, a woman keeps an incandescent and familiar circular childhood toy in perpetual motion.

Anatomy of Melancholy (US, 6.5 minutes) Directed by Nuria Fragoso; visual metaphors about space portray the melancholy that underlies contemporary society. Recursive imagery and gesture accumulate to reveal the catharsis of individuals who are faced with profound isolation in today's communicative processes.

Quince Missing (US, 16.5 minutes) Directed and choreographed by Rajendra Serber. In this exploration of urban isolation, three strangers tracing their solitary paths through empty streets at night become locked in anonymous antagonism when trying to pass each other.

The Closer One Gets, the Less One Sees (Brazil, 10.5 minutes) Videomaker Valeria Valenzuela and choreographer Lilyen Vass collaborated on this intervention in the everyday lives of three street jugglers/beggars in Rio, which transforms the objective action of their juggling into the abstract vocabulary of contemporary dance.

MO-SO (US, 12 minute looping video installation) Directed by Kasumi; performed by Chan U Hong. Multiple video screens installed side-by-side layer film samples and a dancer's gestures to create counterpoints of movement and image.



HOOP



ANATOMY OF MELANCHOLY



MO-SO

THE STAR ROOM

*Maryanne Amacher,
with Sergei Tcherepnin & Micah Silver*

FILAMENT FESTIVAL
PERFORMANCE

OCTOBER 3, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

The Star Room was both a dedication and a performance of the late composer's unfinished final work (developed in residence using tens of speakers, most hidden in rooms distant to the performance space creating unseen sonic paths and a perpetual landscape). When composer Maryanne Amacher passed away, she had been working for two years on an EMPAC commission focused on creating an ethereal space for floating sounds with loudspeakers in rooms distant from the performance space. Sergei Tcherepnin and Micah Silver, who worked closely with her on the project, collaborated on an interpretation of this unfinished work for this event. Preceding the performance was a ceremony naming the air plenum beneath EMPAC's Theater—a space she called The Star Room—in her honor.

Amacher was a major innovator in the field of 20th century electronic music. A rigorously perceptive mind and uncannily sensitive listener, she broke new ground in areas of telematics with her *CityLinks* series in the 1960s, sound spatialization with her unique approach to structure-borne sound, and the creative use of otoacoustic emissions (sounds self-produced by the inner ear). Her work has been produced at festivals worldwide since the late 1960s, and until her death in 2009, she traveled extensively, continuing to research, compose, and inspire those around her. Sergei Tcherepnin is an artist and composer based in New York City; Micah Silver is an artist, composer, and curator.

FILAMENT FESTIVAL
EXHIBITION

RELATIVE REALITIES

Volkmar Klien

OCTOBER 1–3, 2010

DISCIPLINE Music/Sound; Visual Art

CURATOR Micah Silver

In this mixed-media installation, a pendulum swings through space. A video screen, constituting its pendulum bob, carves its path through the air. From its ever-changing position, the bob creates a view upon another scenery, a landscape only revealed through motion. A computer traces the pendulum's position and embeds it into a mathematical model of the exhibition space, where it collides and interacts with imaginary objects, invisible, but audible.

Volkmar Klien's artistic projects span the sonic arts from interactive installations to orchestral composition and generative electronics. He holds a lectureship at the University of Music and Performing Arts in Vienna.

ALL RAISE THIS BARN (EAST)
MTAA

FILAMENT FESTIVAL
EXHIBITION



OCTOBER 1–3, 2010

DISCIPLINE Visual Art

CURATOR Kathleen Forde

Using 21st century techniques, MTAA (M.River & T.Whid Art Associates) conducted a barnraising on the campus. Online voting by the determined architectural, aesthetic, and labor choices, and a commercially available barn making kit was the starting point. Part construction project, part participatory performance, *All Raise This Barn (East)* was a group-designed and assembled public structure that explored the persuasive power of the community vote and its prevalence in contemporary society. The barn was raised by a dedicated art barn crew, EMPAC curators, attendees of *Filament*, and curious students, and was used as a community gathering point and events space.

FILAMENT FESTIVAL
EXHIBITION



ROOM PIECES TROY 2010
Michael J. Schumacher

OCTOBER 1, 2010–
JANUARY 21, 2011

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

This building-wide, site-specific sound installation utilized EMPAC's immense size, acoustics, and a 100-plus speaker sound system to provide a rich sonic environment. Characterized by a varied palette, the result is an ever-changing soundscape that is both pleasurable and unpredictable. *Room Pieces Troy 2010* continued Michael Schumacher's site-specific, multi-channel, extended-duration installations. Characterized by a wide variety of acoustic phenomena, these installations include field and instrumental recordings, sound "objects," spoken words, and computer-generated tones, and employ various strategies for the articulation of these sounds, with particular use made of numerical sequences. Each manifestation of *Room*

Pieces takes on a unique identity based on the space in which it is installed.

Michael J. Schumacher is a composer, performer, and installation artist based in New York City. Working predominantly with electronic and digital media, he creates sound environments that evolve over time and use multiple speaker configurations that relate the sounds of the installation to the architecture of the exhibition space.

SEE RELATED RESIDENCY ON PAGE 518.

A LIGHT CONVERSATION

Wally Cardona & Rahel Vonmoos

PERFORMANCE



SEPTEMBER 17 + 18, 2010

DISCIPLINE Dance

CURATOR Hélène Lesterlin

A dialogue in movement between two artists, Wally Cardona (US) and Rahel Vonmoos (UK), *A Light Conversation* reflects on life being lived: choice, commitment, pleasure, sacrifice, boredom, aesthetics vs. ethics, the uncertainty of the future, and last but not least, love—first love, erotic love, marital love, mature love, and friendship. The sound score features philosophers discussing Kierkegaard on truth and love, but the words blur in the visceral presence of the duet unfolding. The audience, seated on three sides of the stage, often within only a few feet of the performers, shares the same intimate space.

Wally Cardona is an artistic director, choreographer, and performer residing in Brooklyn, NY and is the recipient of a 2006 John Simon Guggenheim Memorial Foundation Fellowship in choreography and a 2006 Bessie Award for the creation of *Everywhere*. Rahel Vonmoos is a Swiss choreographer and performer who has worked with choreographers Charles Linehan, Rosemary Butcher, Philippe Gehmacher, Philippe Saire, and Iztok Kovac (film on improvisation), among others, and has been part of Ricochet Dance Productions.

PERFORMANCE

GRAVITY WAS EVERYWHERE BACK THEN

Brent Green



SEPTEMBER 10, 2010

DISCIPLINE Film/Video; Music/Sound; Contemporary Performance

PUBLICATION *Gravity Was Everywhere Back Then* by Brent Green; Book, DVD, and Bluray recorded, and published by EMPAC; Produced by Argeo Ascani

CURATOR Kathleen Forde

Based on the true tale of Kentucky hardware clerk Leonard Wood, *Gravity Was Everywhere Back Then* uses live action and hand-drawn stop-motion animation to tell an inspiring, poignant, and darkly humorous love story of a man who built a bizarre and sprawling home for his wife by hand in the hope that it would cure her of terminal cancer. Accompanied by a stellar band of musicians that include Brendan Canty (Fugazi), Howe Gelb (Giant Sand), Catherine McRae, and others, Green uses intense narration ranging from quiet, vulnerable storytelling to cathartic fumes bordering on the evangelistic.

Brent Green is a storyteller, singer, songwriter, and self-taught filmmaker. Green often performs his films with live musicians, improvised soundtracks, and live narration in venues ranging from rooftops to art institutions such as the Getty Center, the Walker Art Center, the Hammer Museum, the Wexner Center for the Arts, The Kitchen, and MoMA. He lives and works in the Appalachian hills of Pennsylvania.

SEE RELATED RESIDENCY ON PAGE 275.

**AUGUST 25, 2010**

DISCIPLINE Dance; Music/Sound;
Tools and Technology

This annual event, featuring student performances as part of an electronic dance music mini-festival for the entire incoming class, is the culmination of a two-day workshop. Incoming freshmen participating in the workshop have the opportunity to work with fellow students and EMPAC staff to learn firsthand about the technology and work that goes on behind the scenes at EMPAC. The hands-on workshop paired students with EMPAC mentors, who guided them through the creative process with lighting, audio, video, and stage technologies.

This event was curated by Eric Ameres.

AUGUST 16–22, 2010

DISCIPLINE Dance; Music/Sound;
Film/Video; Contemporary Performance;
Tools and Technology

CURATOR H  l  ne Lesterlin

EMPAC's first summer lab for interactive media in performance offered intensive training and opportunities for experimentation with mixed reality and real-time architectures, programmable environments, interactive design, and the integration of time-based media into live performance and installation. The workshop was designed for emerging and professional art practitioners, scientists, researchers, and students from different backgrounds in performance and new media committed to sharing their interest in developing a deeper understanding of compositions focused on real-time, interactive or time-based experiences, and multidisciplinary collaborative processes (video, sound processing, projection

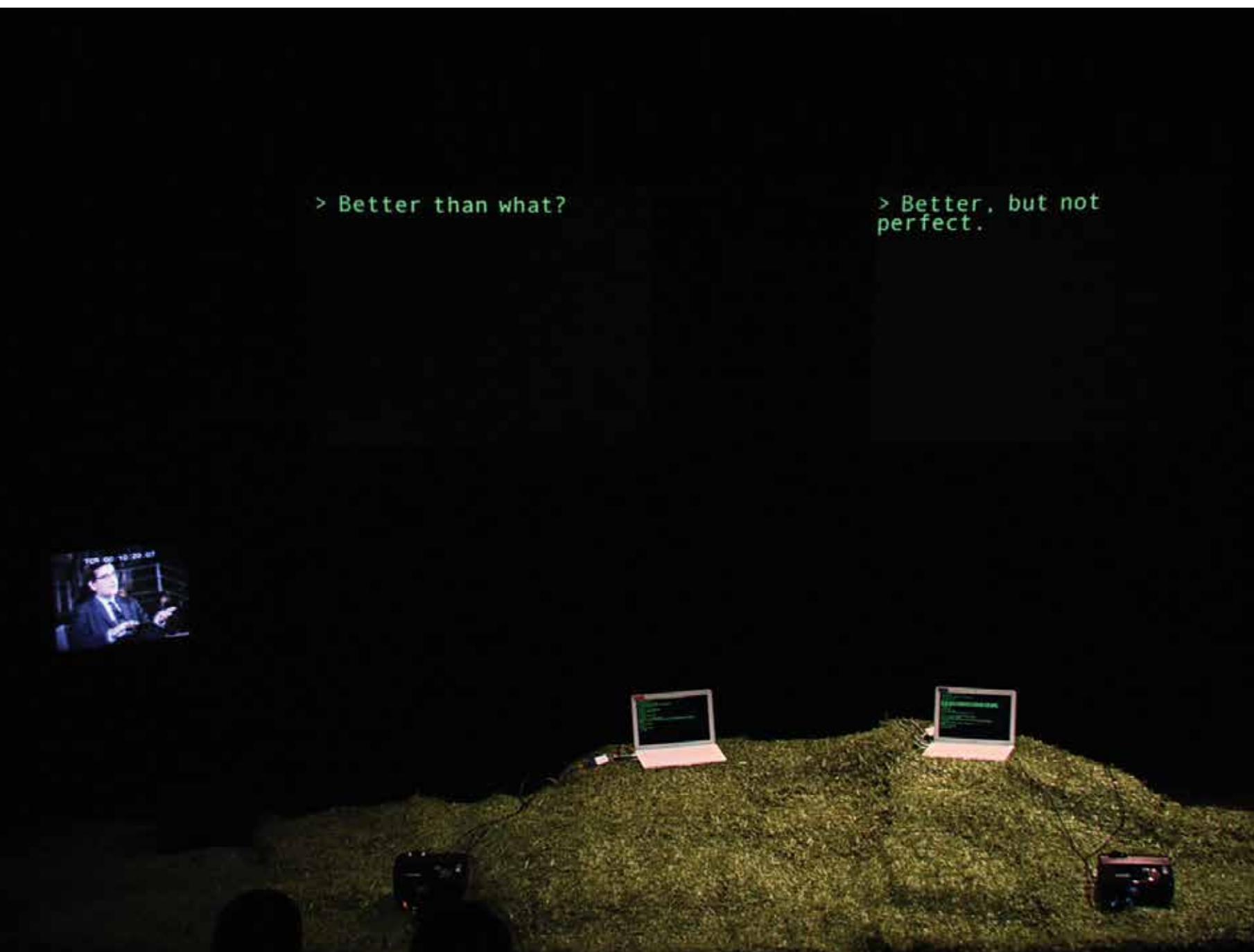
design, lighting, choreography and directing). Participants were in residence for the duration of the lab and took advantage of EMPAC's exceptional facilities for investigating performance and design techniques.

The lab was led by theater director and media artist Johannes Birringer, founder of the annual Interaktionslabor and professor of performance technologies at Brunel University (London), and Mark Coniglio, artistic co-director of Troika Ranch and creator of the Isadora software.

HELLO HI THERE

Annie Dorsen

RESIDENCY



AUGUST 1–9, 2010

DISCIPLINE Contemporary Performance;
Theater

CURATOR Emily Zimmerman

Hello Hi There uses a famous 1970s television debate between the philosopher Michel Foucault and linguist/activist Noam Chomsky as the inspiration and raw material for a dialogue between two custom-designed “chatbots”: computer programs designed to mimic human conversation. Annie Dorsen worked in residence at EMPAC on the programming for the two chatbots—the only performers in *Hello Hi There*—enabling them to perform a new, improvised, and as it were, live text every evening.

An Obie-award winning director and writer, Annie Dorsen works in a variety of fields, including theater, film, dance, and as of 2010,

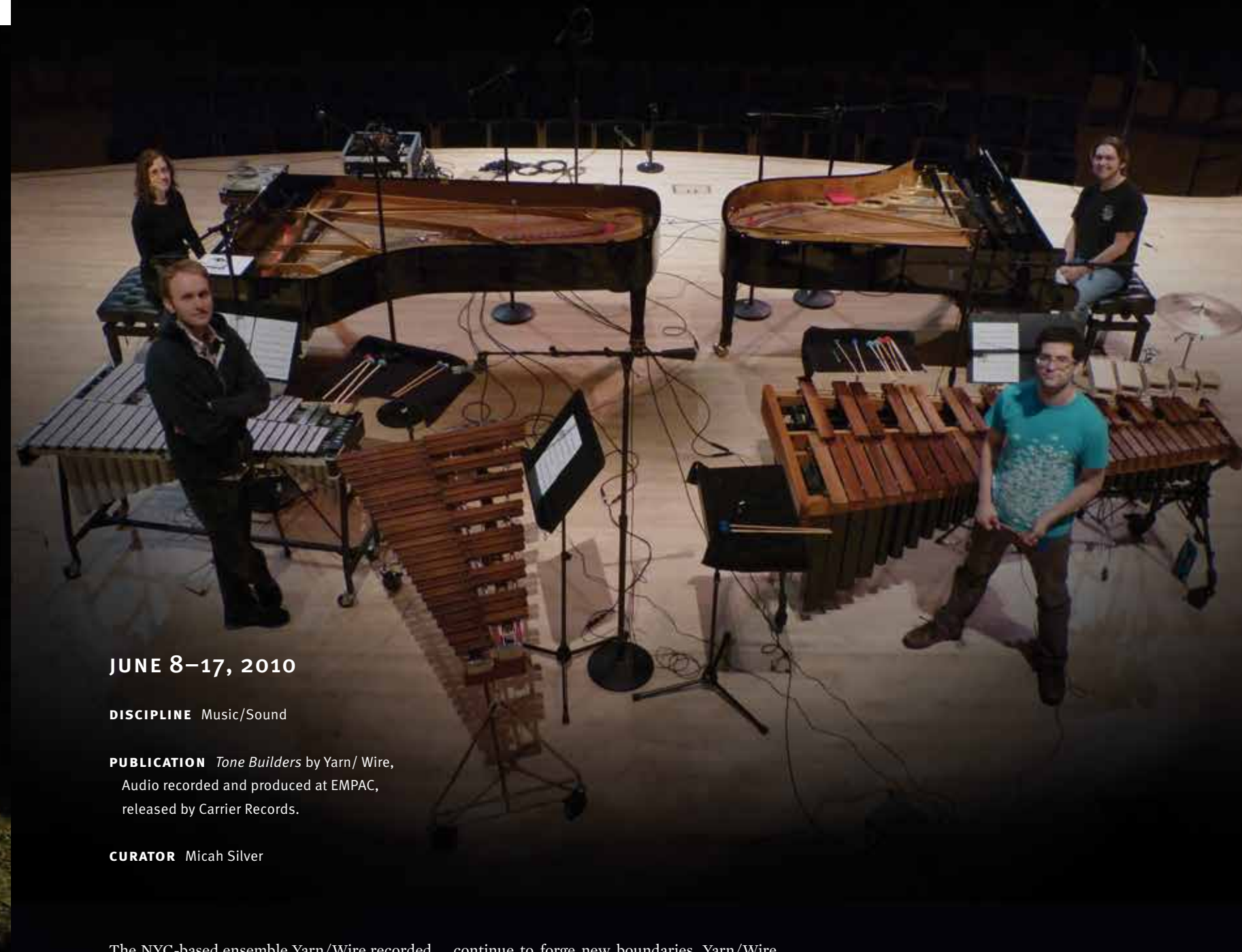
digital performance. She is the co-creator of the 2008 Broadway musical *Passing Strange*, which she also directed.

SEE RELATED EVENT ON PAGE 295.

RESIDENCY

TONE BUILDERS

Yarn/Wire



JUNE 8–17, 2010

DISCIPLINE Music/Sound

PUBLICATION *Tone Builders* by Yarn/Wire,
Audio recorded and produced at EMPAC,
released by Carrier Records.

CURATOR Micah Silver

The NYC-based ensemble Yarn/Wire recorded seven newly commissioned works by young composers (including Eric Wubbels, Alex Mincek, Kate Soper, Mei-Fang Lin, Davíð Franzson, Sam Pluta, and Aaron Einbond) for their debut recording, *Tone Builders*, released in 2010.

Founded in 2005, Yarn/Wire is a chamber quartet that specializes in the performance of 20th and 21st century music. In addition to the numerous world premieres of music written specifically for the ensemble, Yarn/Wire frequently presents US premieres by many leading international composers. The unique instrumental combination of two percussionists and two pianists allows the ensemble flexibility to slip effortlessly between classics of the repertoire and modern works that

continue to forge new boundaries. Yarn/Wire maintains an active performing and teaching schedule at festivals, chamber music series, universities and colleges across the country.

PROGRAM

ERIC WUBBELS *alphabet*

ALEX MINCEK *Pendulum VI: Trigger*

KATE SOPER *Wolf*

MEI-FANG LIN *Yarny/Wiry*

DAVÍÐ BRYNJAR FRANZSON *The Negotiation of Context (B) for two pianos and two bass drums*

SAM PLUTA *Tile Mosaic (after Chagall)*

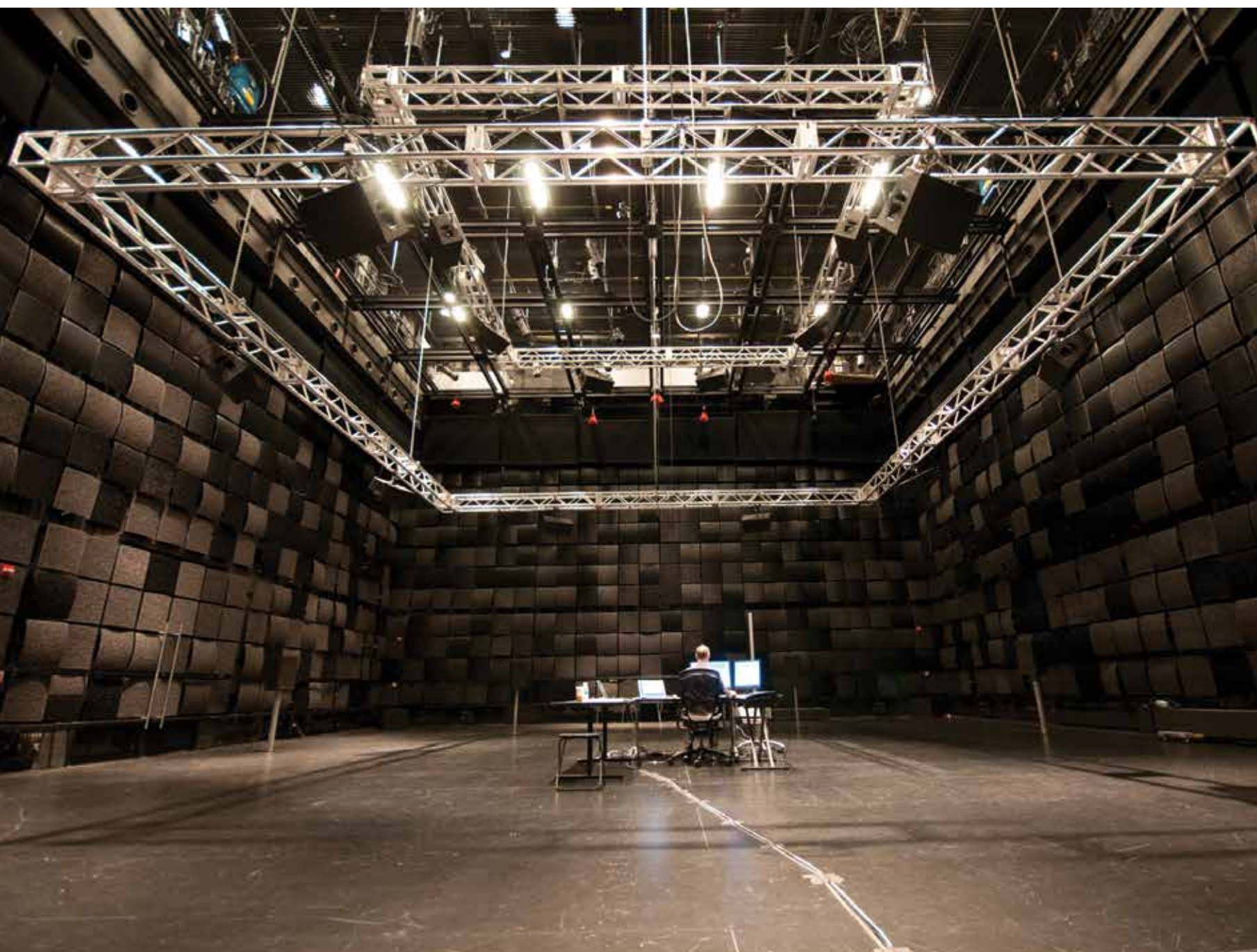
AARON EINBOND *Passagework*

agitated slowness
Hans Tutschku

RESIDENCY / COMMISSION

RESIDENCY

WILDERNESS
Yanira Castro & a canary torsi



JUNE 3–JUNE 24, 2010

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned by EMPAC

CURATOR Micah Silver

While in residence, Hans Tutschku developed a new composition, commissioned by EMPAC for the *Filament Festival*, using a 24-channel loudspeaker system suspended on a truss system. The work explored the human voice in the digital domain and took advantage of the potential for EMPAC's Studio 1 to be a nearly anechoic space, introducing many layers of virtual acoustics and dynamic spatialization within them. According to the composer, *agitated slowness* continued his explorations of larger forms: within a long time span, clearly marked sections develop contrasting density states, and the 24-channels surround the listener in the shape of a cupola, allowing the creation of aural spaces which go

beyond the physical dimensions of the concert hall. Hans Tutschku is a German composer who has also taught at Harvard since 2004.

JUNE 2–16, 2010

DISCIPLINE Dance

ABOUT THE PRODUCTION *Wilderness* was commissioned by Dance Theater Workshop's Commissioning and Creative Residency Program and by the American Music Center Live Music for Dance Program.

CURATOR H el ene Lesterlin

Yanira Castro worked with her team and EMPAC staff to create set elements for *Wilderness*, which premiered during EMPAC's *Filament Festival* in October 2010. *Wilderness* unfolds on a dark earthen field in the entrance lobby of EMPAC, designed to contain 40 audience members sitting, standing, and walking, with all who inhabit the space—dancers, crew, musicians, and audience—sharing the same ecosystem. The set was also designed to function as an installation accessible to audiences during non-performance hours. At scheduled times, visitors were able to enter the installation and activate the space with composer Stephan Moore's sound. Puerto Rico-born and Brooklyn-based director/choreographer Yanira

Castro collaborates with a core group of performers and designers to create hybrid performance works that integrate movement, installation, music, text, and visual elements such as film and video. She is the director of *a canary torsi*, an organism engaged in the creation of multi-disciplinary art collaborations.

SEE RELATED EVENT ON PAGE 417.

**MAY 28, 2010****DISCIPLINE** Music/Sound**CURATOR** Micah Silver

Named a “rising star” on the alto saxophone four years in a row by the *Downbeat Magazine* International Critics Poll, and acclaimed by publications from *The Wire* to *The New York Times*, Steve Lehman is a saxophonist and composer whose multilayered work stands at the frontiers of contemporary music. He marries the esoteric math- and computer-driven compositional principles of “spectral harmony” to the looseness and fluidity of jazz. Lehman played in the EMPAC Theater with his handpicked octet, whose luscious smears of horns and vibraphone float over a sizzling rhythm section.

Lehman’s pieces for large orchestra and chamber ensembles have been performed by the Janacek Philharmonic, the International Contemporary Ensemble (ICE), So Percussion, Kammerensemble Neue Musik Berlin, members of the Argento and Wet Ink ensembles, and by pianist Marilyn Nonken. An alto and soprano saxophonist, Lehman has performed and recorded nationally and internationally with his own ensembles and with those led by Anthony Braxton, Vijay Iyer, Oliver Lake, Meshell Ndegeocello, and others.

MAY 4–17, 2010**DISCIPLINE** Film/Video, Dance**ABOUT THE PRODUCTION** Commissioned by EMPAC**CURATOR** H  l  ne Lesterlin

A woman floats in a black void, swinging through shafts of light, keeping in perpetual motion an incandescent and familiar childhood toy: the hula hoop. Carino and Halls—AKA Becca Hoops—shot footage for their DANCE MOVIES Commission in residency at EMPAC. Trained in ballet and contemporary dance, Carino also has a post-graduate degree in broadcast journalism and has made several documentary films in addition to the dance films. *HOOP* was also commissioned by Canada’s Bravo!FACT program.

SEE RELATED EVENT ON PAGE 418.

REAL-TIME AIRPORT SECURITY CHECKPOINT SURVEILLANCE USING A CAMERA NETWORK

Rich Radke

RESEARCH

MAY 1–JUNE 30, 2010

For this research project, Professor Rich Radke and his team built a full-scale simulation of an airport security screening checkpoint in EMPAC's Studio 2, including a working conveyor belt and an artificial X-ray machine and metal detector. Several large groups of volunteers with real baggage were run through the simulation, and instructed to behave exactly as they would at an airport. Video of the "passengers" was recorded from a 19-camera array installed on the ceiling and walls of the environment. The resulting multi-camera video contains examples of both normal and abnormal activities characteristic of an airport. Researchers then designed a computer vision algorithm that worked in real-time and tracked the movements of each passenger and carry-on bag, continuously maintaining the association between bag and passenger, and verified that passengers left the checkpoint with the correct bags.



DIPLO

FESTIVAL

onedotzero_adventures in motion

APRIL 30–MAY 2, 2010

DISCIPLINE Multidisciplinary

CURATOR Kathleen Forde

The London-based onedotzero_adventures in motion festival returned to EMPAC with a showcase of the latest in digital and interactive design and the moving image, including screenings, music videos, live events, and workshops. Highlights included a late-night performance by DJ superstar Diplo with area VJs; a video installation by Brian Alfred; and an installation and performance by artist-in-residence AntiVJ with music by Sleeparchive. Before the festival, EMPAC organized a series of educational artist exchanges with the students and faculty of Rensselaer as part of onedotzero_cascade, an education project designed to plug students from all backgrounds and disciplines into the creative industries. onedotzero is a contemporary, digital arts organization dedicated to promoting innovation across all forms of moving image and motion arts. Activities encompass public events, artist and content development, publishing projects, education, production, creative direction, and related consultancy services.

April 30: **Diplo** Kicking off the first night of onedotzero, DJ superstar Diplo performed with a cadre of the area's best VJs. Diplo's 2009 documentary film *Favela on Blast* was also screened at the festival.

Curated screening programs included: *citystates 09*, personal stories and collective experiences investigating the relationship between ourselves and our cities; *craftwork*, an exploration of the revival of the handcrafted in the digital world, featuring the knitted, stitched, collaged, folded, etc.; *extended play 09*, narrative shorts with new approaches in alternative storytelling; *j-star 09*, videos, motion graphics and shorts from Japan; *new british talent 09*, the newest and most innovative in moving image work from the UK; *sprites 09*, just for kids; *terrain 09*, a collection created by filmmakers from diverse backgrounds with a common interest in the varied environments of our planet; *wavelength 09*, boundary-pushing

music videos from across the globe; and *wow + flutter 09*, the world's most innovative audiovisual work uncovering the future of moving image.

April 30–May 2: **EYJAFJALLAJÖKULL** AntiVJ + Sleeparchive, A performance and installation by AntiVJ, an international visual label of artists who share a common interest in using light projections on architectural structures, 3D mapping, and "live painting" with projections as powerful action for confounding human perception. Sleeparchive produces minimal techno music not easily pigeonholed into a particular genre of dance music.

April 30–May 2: **onedotzero identity** Created by London-based Wieden + Kennedy, this installation was projected on the lobby ceiling with visitors interacting with visuals via cellphone, text, and online. As words and opinions were aggregated and channeled via specially created software, colorful strands began to gravitate along invisible paths to form a living onedotzero logo.

April 30–May 1: **Music Video Lounge** Audiences could create their own tracks, record personalized cuts to send to friends, and appear in another realm through the magic of augmented reality.

May 1–2: **It's Already the End of the World** This video installation by Brian Alfred was inspired by his interest in globalization, civil unrest, political and social opposition, and influential figures and locations.



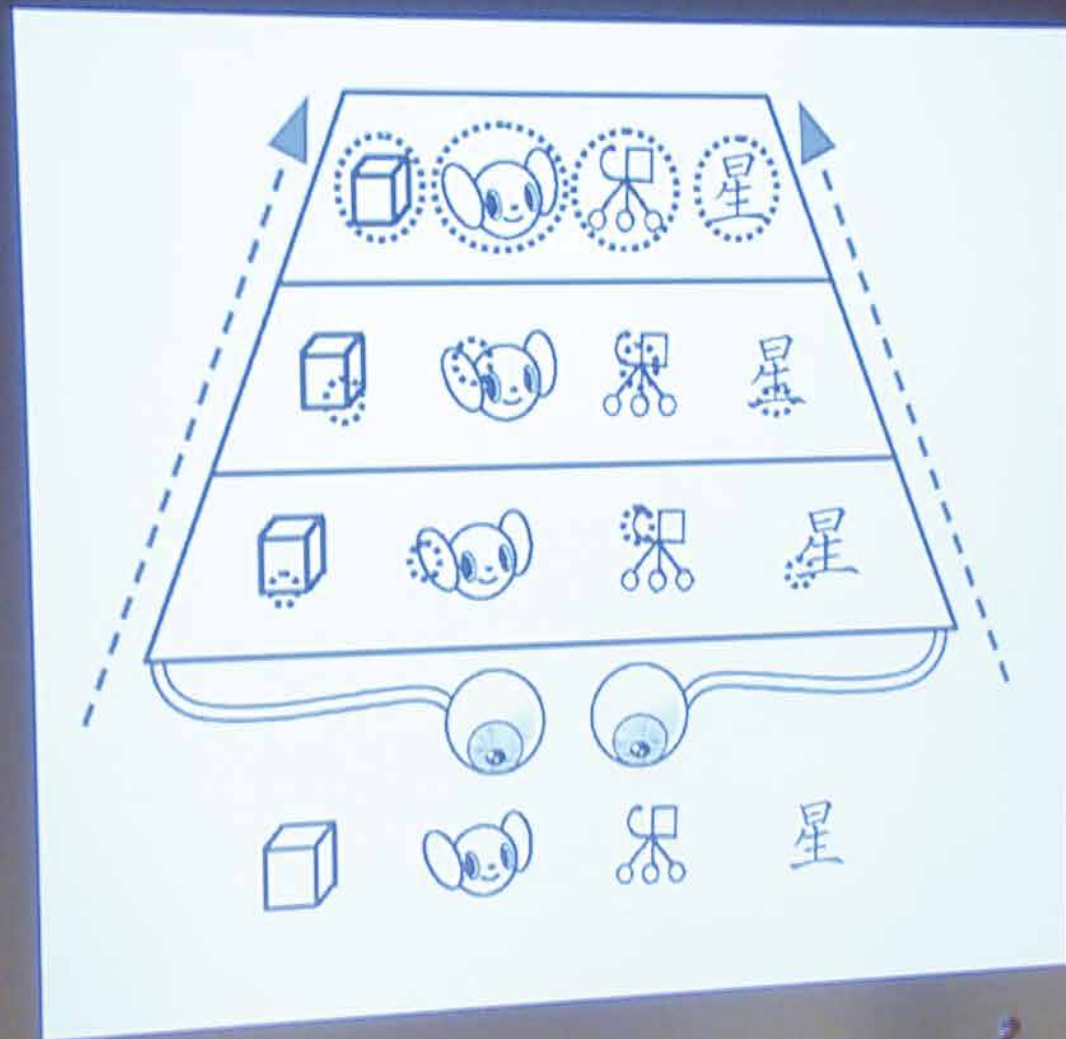
MUSIC VIDEO LOUNGE



MUSIC VIDEO LOUNGE



CASCADE



APRIL 21, 2010

DISCIPLINE Humanities, Science

CURATOR Johannes Goebel

Why do we have eyes on the front of our heads, like cats, rather than on the sides, like horses? And how is it that we find it so easy to read when written language did not exist until a few thousand years ago—a virtual millisecond in evolutionary time? These are just a few of the riddles theoretical neurobiologist Mark Changizi explored in his talk on *Alien Vision Revolution*. Searching for the design principles behind color vision, binocularity, motion, and object recognition, Changizi suggests what they say about human nature and the circumstances in which it was formed. He also uses those principles to extrapolate how extraterrestrial beings would be likely to see—probably the same sorts of writing

but not the same colors, and not with eyes that face forward.

Mark Changizi was assistant professor in the Department of Cognitive Science at Rensselaer and author of the *The Vision Revolution* and *Harnessed: How Language and Music Mimicked Nature and Transformed Ape to Man*. He is director of human cognition at the research institute 2ai Labs and managing director of O2Amp.

APRIL 14–
DECEMBER 7, 2010

(3 VISITS)

DISCIPLINE Music/Sound; Contemporary Performance; Theater

CURATOR Micah Silver

As part of the lengthy production process for this EMPAC-commissioned opera, composer Sean Griffin worked in residence with staff as well as auditioned regional actors. He also developed the *Cold Spring* set by researching, and acquiring on loan, artifacts drawn from the Museum of Innovation and Science in Schenectady, NY, the General Electric Company collection, and from several other historic collections of upstate New York industrial history. Griffin worked in collaboration with EMPAC engineers on integrating the computer-based lighting system and cue-based computer-controlled rigging with his compositional approach, blending these technologies with dancers, musicians, actors, and a roller derby team.

Sean Griffin's unique compositional works rely on interdisciplinary incongruities positioned at the intersection of sound, image, performance, and the archive. His works manifest as music, large and small-scale operas, collaborative installations, historically weighted musical performance works, and numeric choreographies. His pieces have been commissioned and presented internationally by venues including LA's REDCAT, Hammer Museum, and Contemporary Museum of Art, London's Royal Academy and Tate Modern, among others. He lives and works in Los Angeles.

SEE RELATED EVENT ON PAGE 396.



APRIL 9–30, 2010

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Commissioned by onedotzero and developed during the onedotzero residency at EMPAC

CURATOR Kathleen Forde

In the three weeks leading up to the onedotzero festival, AntiVJ worked in residence at EMPAC to create this performance and installation. En route to EMPAC, Joanie Lemerrier (co-founder of AntiVJ) discovered that a volcano in Iceland that caused the cancellation of all flights. The volcano—*Eyjafjallajökull*—became the subject of AntiVJ's new work, a painted wall mural augmented with projections to create the sensation of three-dimensional forms. Lemerrier had been fascinated by geometry and minimalism for years; with this work he incorporated more organic shapes and visual elements that would connect geometric patterns with mountainous terrain, ocean waves, wind, snow, and rain. By projecting

a “virtual layer” of light, color, and animation over the static painted scenery, he created an imagined landscape of futuristic mountains, where the audience’s perception of space is progressively challenged.

The AntiVJ visual label is a project initiated by a group of European visual artists whose work is focused on the use of projected light and its influence on our perception, presenting performances and installations that create wonderment and challenge the senses.

SEE RELATED EVENT ON PAGE 436.

APRIL 8, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

What makes a song a song? To what extent does it depend on the presence of a human voice? These questions lay behind this concert in which two charismatic performers offer their idiosyncratic take on the construction of the song and the role of the human voice.

With her otherworldly soprano, Josephine Foster transforms the poems of Emily Dickinson. Foster is a singer-songwriter from Colorado whose music evokes everything from opera to Tin Pan Alley to the folk music of what Greil Marcus calls “the old weird America.” Rachel Mason is a sculptor, songwriter, and performer who often explores the concept of ambition and what motivates the most

powerful people. Dubbed “marvelously strange” by the *Village Voice*, Mason’s lyrics revel in surreal narrative stories weaving history, science fiction, and fantasy with lovestruck, invented characters.

New Nothing features a series of performances of national and international musicians working in the hybridized terrain of experimental-leaning popular music. These groups exemplify a global reality where music hasn’t just crossed borders but made them irrelevant.

MUSIC OF HELMUT LACHENMANN

Helmut Lachenmann, Ensemble Signal, and JACK Quartet

PERFORMANCE
RESIDENCY

PERFORMANCE

UPENDING
The OpenEnded Group



PERFORMANCE
MARCH 27, 2010

RESIDENCY
MARCH 27 + 28, 2010

DISCIPLINE Music/Sound

PUBLICATION „... Zwei Gefühle ...“ and *Solo Works* by Helmut Lachenmann, Lauren Radnofsky, Ensemble SIGNAL, and Brad Lubman; audio recording and DVD, recorded and produced by EMPAC, released by Mode Records

CURATOR Micah Silver

A rare US performance of work by one of the most influential living European composers, as interpreted by two exciting new music ensembles. The German composer Helmut Lachenmann is known for his *musique concrète instrumentale*—music that uses an iconoclastic vocabulary of instrumental sounds, recombined to create imaginary timbres. The result can be uncanny: imagine a string quartet able to sound like a car crash.

Lachenmann’s demanding, imaginative music was performed in concert by SIGNAL, one of the most exciting chamber orchestras playing in the US today, and the JACK Quartet, praised for its “explosive virtuosity” by the *Boston Globe*. The

composer was in attendance, performing a work for piano and taking the speaking role in an ensemble piece with SIGNAL. SIGNAL is a large ensemble comprising some of the most gifted and innovative musicians in New York City. JACK Quartet commissions and performs new works, working closely with composers in the US and Europe and touring extensively.

PROGRAM

HELMUT LACHENMANN *Pression*
HELMUT LACHENMANN *String Quartet No. 2*
HELMUT LACHENMANN *Ein Kinderspiel*
HELMUT LACHENMANN „...Zwei Gefühle...“

MARCH 25–27, 2010

DISCIPLINE Film/Video; Music;
Contemporary Performance

CURATOR Micah Silver

Upending, commissioned by EMPAC and created in residence over two years, was an evening-length work that combined experimental 3D animation with music by Morton Feldman (recorded at EMPAC by the FLUX Quartet). *Upending* is a stereoscopic theater performance, an actor-less drama of disorientation and reorientation that compels us to rethink our relationship with the material world. Using ordinary flat photographs and processing them with non-photorealistic rendering and stereoscopic HD video, *Upending* transfigures familiar objects, spaces, and persons in ways that are both beautiful and uncanny. The play of images is accompanied by Morton Feldman’s First String Quartet, which

provides an aural lens that renders the video almost balletic, even as the visuals allow us to hear Feldman as never before. The OpenEnded Group is three digital artists—Marc Downie, Shelley Eshkar, and Paul Kaiser—who create works for stage, screen, gallery, page, and public space. These include the collaborations *BIPED*, with Merce Cunningham; *Ghostcatching*, with Bill T. Jones; and *Enlightenment*, a piece that autonomously reconstructs an extraordinarily complex fugal passage from late Mozart. In 2008, it released *Field*, an open-source authoring system that promises to revolutionize digital artmaking.

SEE RELATED RESIDENCY ON PAGE 528.

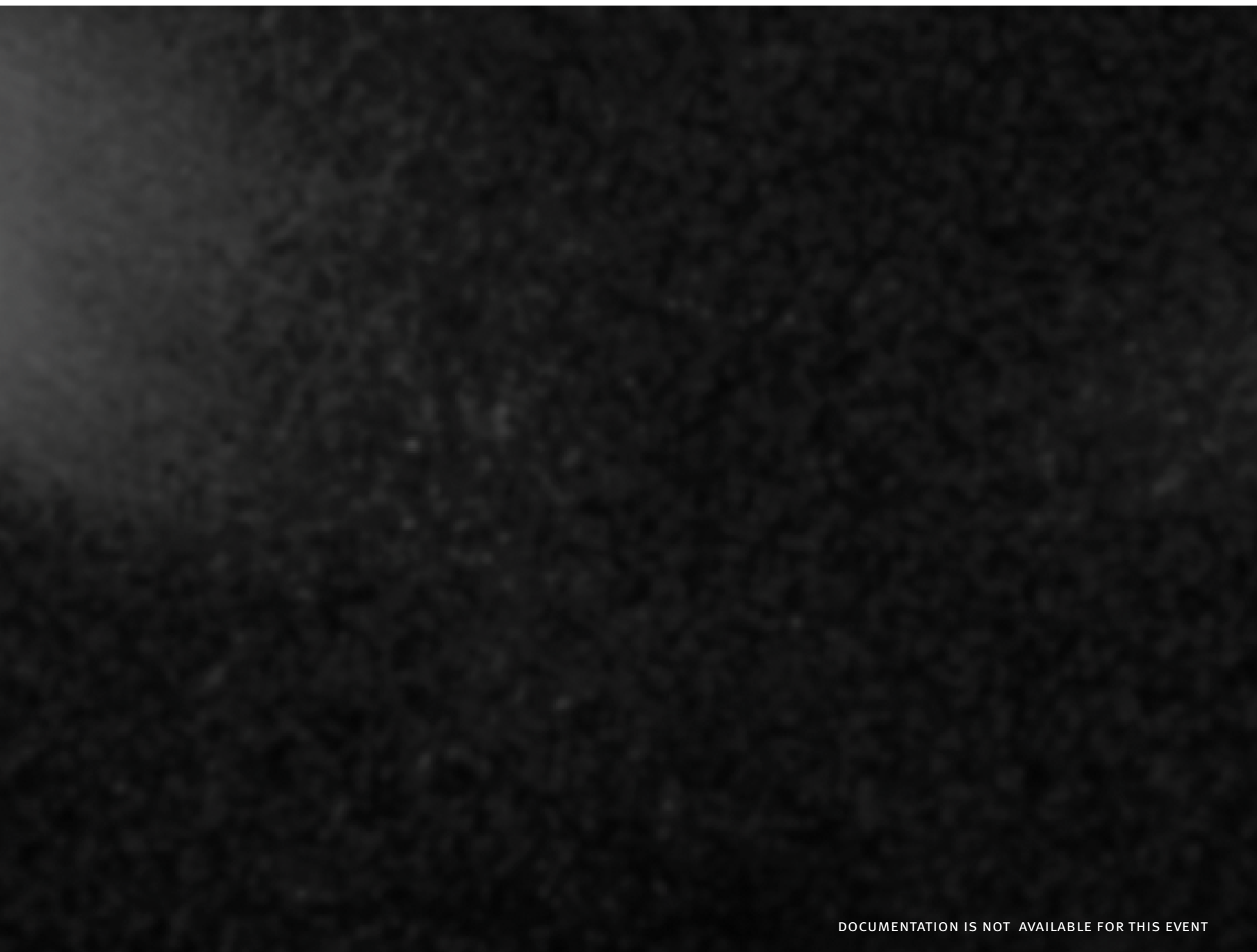
**MOVEMENT RESEARCH:
THE PROGRESS OF PROCESS**

Will Rawls & Kyle Wilamowski

RESIDENCY

PERFORMANCE

FREDERIC RZEWSKI



DOCUMENTATION IS NOT AVAILABLE FOR THIS EVENT



MARCH 23–29, 2010

DISCIPLINE Dance; Film/Video

CURATOR Hélène Lesterlin

Will Rawls (producer) and Kyle Wilamowski (director and editor) created this short documentary on the founding, history, and current relevance of Movement Research (MR), one of the world's leading laboratories for the investigation of dance and movement-based forms. Through interviews with key participants in the organization, the film explains MR's vital mission: valuing individual artists and their creative process and vital role within society; creating and implementing free and low-cost programs that nurture experimentation and instigate discourse; and reflecting the cultural, political, and economic diversity of the MR community, including artists and audiences alike.

MARCH 20, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

Frederic Rzewski is a major figure in new music who is both an instrumental virtuoso and a composer of revolutionary ambition in the tradition of Hanns Eisler and Kurt Weill. In the late 1960s, Rzewski left his native US to embark on a 40-year career composing and playing music that addresses not just artistic questions but socio-political ones—music meant not just for the conservatory but the street. “It seemed to me,” he explained, “(that) there was no reason why the most difficult and complex formal structures could not be expressed in a form which could be understood by a wide variety of listeners.”

Today, Rzewski's compositions display that same audacity, along with a range that encompasses the minimal and the epic. Baker's *Biographical Dictionary of Musicians* calls him “a granitically overpowering piano technician, capable of depositing huge boulders of sonoric material across the keyboard without actually wrecking the instrument.” The performance was followed by a talk by the artist.

DANCING ON THE CEILING: ART & ZERO GRAVITY

EXHIBITION

MARCH 18–APRIL 10, 2010

DISCIPLINE Multidisciplinary

ABOUT THE PRODUCTION *Method Air* by Chris Doyle and *FLOAT! Thinktank 21* by Thom Kubli were commissioned by EMPAC. Exhibition lenders included 303 Gallery, De Soto Gallery, Galerie Zink, James Cohan Gallery, Parker's Box Gallery, Randall Scott Gallery, Tanya Bonakdar Gallery, and the William Forsythe Company. Special thanks to Rensselaer School of Architecture Professor Ted Krueger.

PUBLICATION *Dancing on the Ceiling: Art & Zero Gravity* by Kathleen Forde; book published by EMPAC

CURATOR Kathleen Forde

Dancing on the Ceiling: Art & Zero Gravity was a building-wide group exhibition featuring work by contemporary artists that explored—and on occasion recreated—the condition of weightlessness on earth. The exhibition included the work of national and international artists, including three newly commissioned pieces. Exhibition artworks used the metaphor of floating or weightlessness as an expression of the relationship of the individual to social, political or personal contexts. In addition, several of the pieces related lightness as akin to an agility of mind, freed of entrenched perspectives.

Accompanying the exhibition was a catalog with essays by Italo Calvino and interviews with commissioned artists Chris Doyle and Thom Kubli. Related events included a talk with special effects legend Douglas Trumbull on *2001: A Space Odyssey; Inhabiting Other Worlds: Microgravity, Perception, Physiology, and Design*; a panel organized by the Rensselaer School of Architecture; *Extraterrestrial Medical Workstation*, an exhibit of design studies by students from the School of Architecture and Department of Biomedical Engineering that were commissioned by NASA's Habitability and Human Factors Branch; and a screening of *Man on Wire*, documenting Phillipe Petit's tightrope walk between the Twin Towers in New York City.



IN JUST THE BLINK OF THE EYE



EMPAC LOBBY WITH LA CHUTE 16



DOUGLAS TRUMBULL



ANTIPODES I/II



GROUND CONTROL

EXHIBITION

DANCING ON THE CEILING EXHIBITION

Arts Catalyst, **Gravitation Off?** (2004) A short film documenting parabolic zero gravity flights from Star City, Russia.

Benjamin Bergmann, **Black Moon** (2008) Each day, a black balloon was filled with helium and placed in EMPAC's elevator, where it remained lodged against the ceiling until the evening, when it was released outside, inverting the romantic motif of a brightly illuminated moon against a darkened night sky.

Denis Darzacq, **La Chute 16** (2006) Photographic portraits of young French hip-hop dancers capture them mid-leap, simultaneously appearing to hover above the ground and anticipating an imminent fall.

Edith Dekyndt, **Ground Control** (2008) A massive black helium balloon moves gently in response to air circulation and temperature; an accompanying soundtrack fills the exhibition space with sound that suggests howling wind or air gushing from a valve.

Chris Doyle, **Method Air** (2010) An animation of local skateboarders was projected onto the south façade of the EMPAC building; the skateboarders (whose boards were digitally removed), weave quickly and effortlessly in and out of the windows, transcending the laws of solid physics.

William Forsythe, **Antipodes I/II** (2006) Two videos shown on facing screens suspended at different heights—one elevated, the other grazing the floor—show Forsythe attempting to hold onto a table attached to the ceiling in one, while in the second, he moves buoyantly between two tables resting on the floor.

Julia Fullerton-Batten, **Staircase** (2007) and **Cupboards** (2007) This series portrays teenage girls literally suspended between childhood and adulthood: Fullerton-Batten's subjects appear to be floating as if an unknown force has taken hold of them, pointing to an emotional unsettledness.

EXHIBITION

Thom Kubli, **FLOAT! Thinktank 21** (2010) Viewers could sign up to float in an isolation tank and listen to audio recordings equating the experience of zero gravity to a shift in political thought (also audible outside the tank) that were made by the artist after floating in the tank in the days leading up to the exhibition; the installation included a table filled with books by philosophers and thinkers such as John C. Lilly.

Tomás Saraceno, **59 Steps To Be On Air by Sun Power/Do It Yourself** (2003) This is a set of instructions for making a geodesic solar balloon; Saraceno notes that hot-air balloons were first developed during the French Revolution, motivated not only by desire to evade conflicts on earth but to seek out a different set of ruling conditions by which to live.

Jane & Louise Wilson, **Stasi City** (1997) A video camera slowly moves through the hallways and interrogation rooms of the Stasi, former headquarters of the East German secret police, as a human figure floats gently upwards unpinned from the laws of gravity; the four-channel video installation was presented in an enclosed installation space, reinforcing a sense of confinement.

Xu Zhen, **In Just a Blink of the Eye** (2007) A live performer, as if caught in a momentary fall, is suspended in a stance that would normally last a fraction of a second.



IN JUST THE BLINK OF THE EYE



FLOAT! THINK TANK 21



METHOD AIR

SOLOS²

Haleh Abghari, Tony Arnold,
and Jacob Greenberg

PERFORMANCE



MARCH 5, 2010

DISCIPLINE Music/Sound

CURATOR Johannes Goebel, Micah Silver

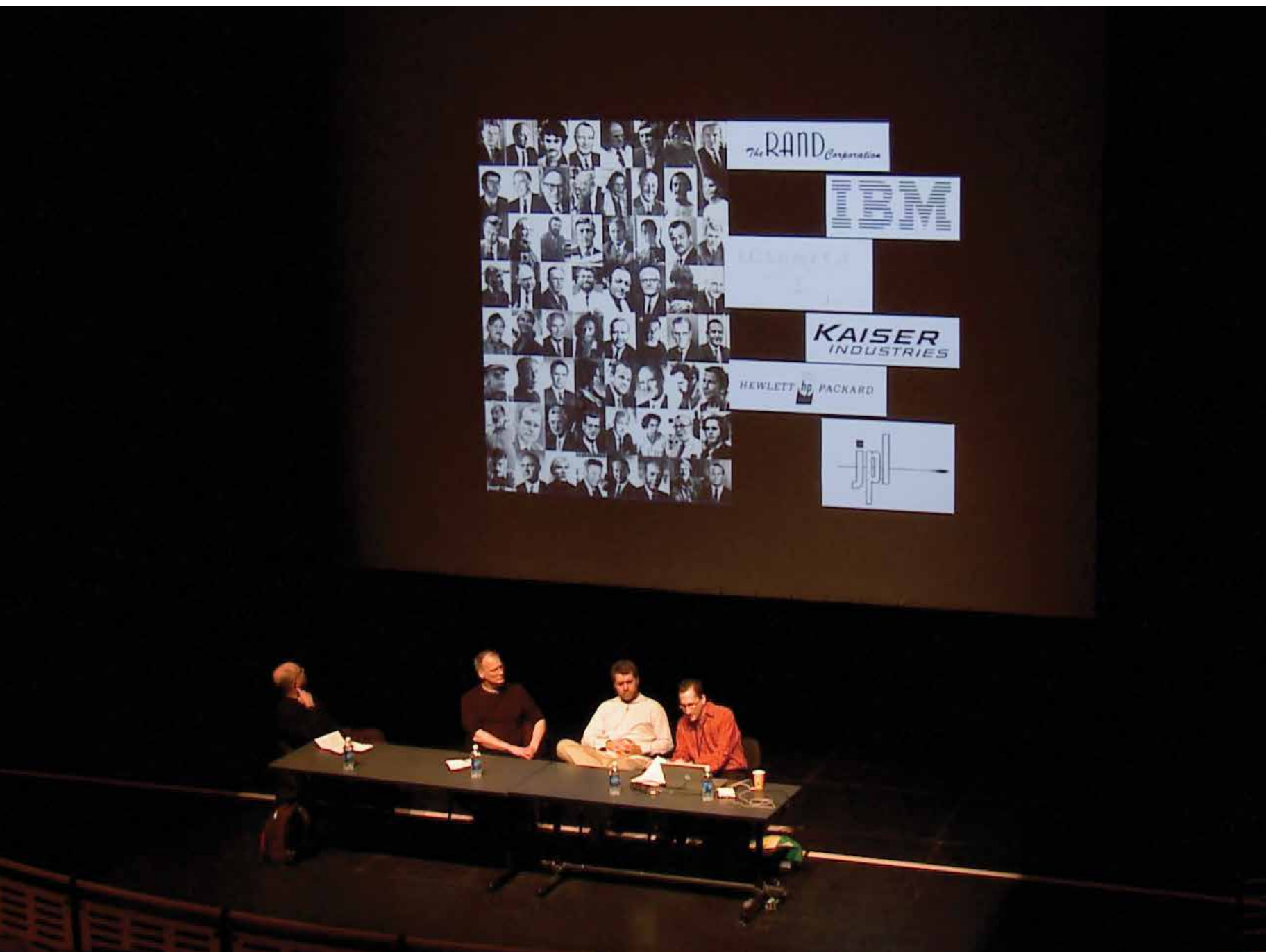
SOLOS² was a performance that demonstrated the acoustics of EMPAC's Concert Hall (designed by Grimshaw Architects with acoustical consultants Kirkegaard Associates). Subtitled *Sopranos + Piano*, the concert featured Gaudeamus Prize-winning soprano Tony Arnold, soprano Haleh Abghari, and pianist Jacob Greenberg performing short works from the medieval, romantic, and contemporary eras. Unlike typical recitals, the musicians performed from a variety of vantage points—above the fabric canopy suspended over the Hall, as well as the front and rear balconies. The audience was encouraged to move around the space while the performance was happening to better experience the acoustics, and to hear the

music from the performer's perspective by standing next to the pianist as he played. Greenberg played a Debussy etude twice, first with the Hall in its natural state, and second with motorized fabric panels—designed to variably “tune” the space—lowered to demonstrate the audible change in reverberation. The finale, a Schubert duet, was also performed twice, first with the sopranos on the far extremes of the stage and then together in the traditional spot in front of the piano.

EXHIBITION TALK

JUST NOTICEABLE DIFFERENCE

Chris Salter



MARCH 3–12, 2010

DISCIPLINE Science, Visual Art

CURATOR Emily Zimmerman

In this installation, Chris Salter ratcheted down the level of sensory information to the threshold of the perceptible. Inside the installation, the visitor is in near-total darkness, insulated against external sound and vibration. Through an array of sensors, the environment responds to the visitor's slightest motion with devices that emit micro-levels of tactile, auditory, and visual feedback, though so subtly as to test the limits of both perception and interpretation. The result is an experience in which sensation becomes sense, and the apparent randomness of sensory impressions at the threshold gives way to a new understanding of the relationship among body, self, and external world. In a related event,

Salter and Rensselaer faculty members Michael Century, Mark Changizi, and Ted Krueger took part in a panel discussion on multi-modal perception, and the use of research in art practice.

An artist based in Montréal and Berlin, Chris Salter's interests center on the development and production of computationally-augmented real-time responsive performance environments that fuse space, sound, image, architectural materials, and sensor-based technologies.



**FEBRUARY 22–
MARCH 20, 2010**

DISCIPLINE Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Kathleen Forde

During his residency, Thom Kubli worked on an EMPAC commission that invited the audience to experience a session in a unique flotation tank. The intent of the piece was to create what the artist calls an “anti-environment,” a physical experience that stands in radical contradiction to those we encounter in everyday life, where we feel the tug of gravity and spend most of our time on dry land. This installation was premiered at EMPAC’s *Dancing on the Ceiling* exhibition. *FLOAT! Thinktank 21* was comprised of a flotation tank, a sound composition, and an archive of audio performances by the artist and a context table filled with books by a variety of philosophers and inspiring thinkers. Drawing from experiments

in brain research conducted by John C. Lilly in the 1950s, the piece allowed the audience to listen to audio recordings on politics and zero gravity that Kubli made after floating in the tank in the days leading up to the exhibition opening. A select number of viewers could also float in the isolation tank, custom fit with an underwater sound system.

Berlin-based composer and artist Thom Kubli has exhibited and presented his work in the US and Europe, including ICA (London, UK), Akademie der Künste (Berlin, Germany), Ars Electronica (Linz, Austria), and The New Museum (NYC).

SEE RELATED EVENT ON PAGE 448.

FEBRUARY 13, 2010

DISCIPLINE Music/Sound

CURATOR Micah Silver

Now disbanded, Extra Life was a Brooklyn-based quintet that played songs in which zig-zagging guitar lines gave way to sudden, dramatic silences or a choirboy’s voice soaring above a rhythm section from hell. Extra Life was the brainchild of composer and guitarist Charlie Looker (formerly of Zs and Dirty Projectors), and was described by *Time Out New York* as “scarily focused and ruthlessly complex... with a dark, sumptuous art-pop vibe.”

Baltimore-based Dan Deacon evolved from a producer of hypnotic, wordless electronica to a galvanic showman whose live shows inspire audience interaction as he flails them into ecstatic

motion. A classically trained composer with a master’s degree in electro-acoustic composition, Deacon’s works have been performed by various ensembles at museums and galleries such as the Walters Museum of Art, Corcoran Gallery of Art, Anthology Film Archives, and White Box Gallery in New York City. His albums include *Spiderman of the Rings*, *Ultimate Reality*, *Bromst*, and *America*.

New Nothing features a series of performances of national and international musicians working in the hybridized terrain of experimental-leaning popular music. These groups exemplify a global reality where music hasn’t just crossed borders but made them irrelevant.

ENTITY

Wayne McGregor | *Random Dance*

PERFORMANCE
RESIDENCY
TALK

RESIDENCY:
FEBRUARY 12–MARCH 1, 2010

PERFORMANCES AND TALKS:
FEBRUARY 17–27, 2010

DISCIPLINE Dance; Humanities; Science

CURATOR Hélène Lesterlin

In a two-week residency, Wayne McGregor and Random Dance (WM|RD) investigated visual design concepts, tools, and ideas for a work-in-progress, a sequel to *Entity*, choreographed and directed by McGregor and premiered at Sadler's Wells, London in 2008. The company performed *Entity* at the conclusion of the residency. Set to a torrent of sound by Jon Hopkins (Massive Attack and Coldplay collaborator) and composer Joby Talbot, *Entity* is a work of exacting and sensual movement for nine dancers, framed by several moving screens.

Wayne McGregor | Random Dance was founded in 1992 and in 2002 became resident company at Sadler's Wells; in 2003, McGregor was appointed artist-in-residence at the University of Cambridge in the Department of Experimental Psychology. Collaborations with research scientists in neurology and psychology informed the creation of the *Entity*, which interrogates the relation of the working mind and the dancing body, and during the residency, EMPAC presented panel discussions and talks by WM|RD's collaborators, research partners, and artistic director Wayne McGregor:

Cognition, Emotion, and Action: Dr. Philip Barnard, program leader at the Medical Research Council's Cognition and Brain Sciences Unit in Cambridge and a collaborator and research advisor to WM|RD spoke on his research work.

Real-time Reactive Systems: rAndom International spoke on their award-winning design and art work. Best known for large-scale public installations combining design, technology, and media, they play with real-time reactive systems that offer viewers an intuitive body-based experience.

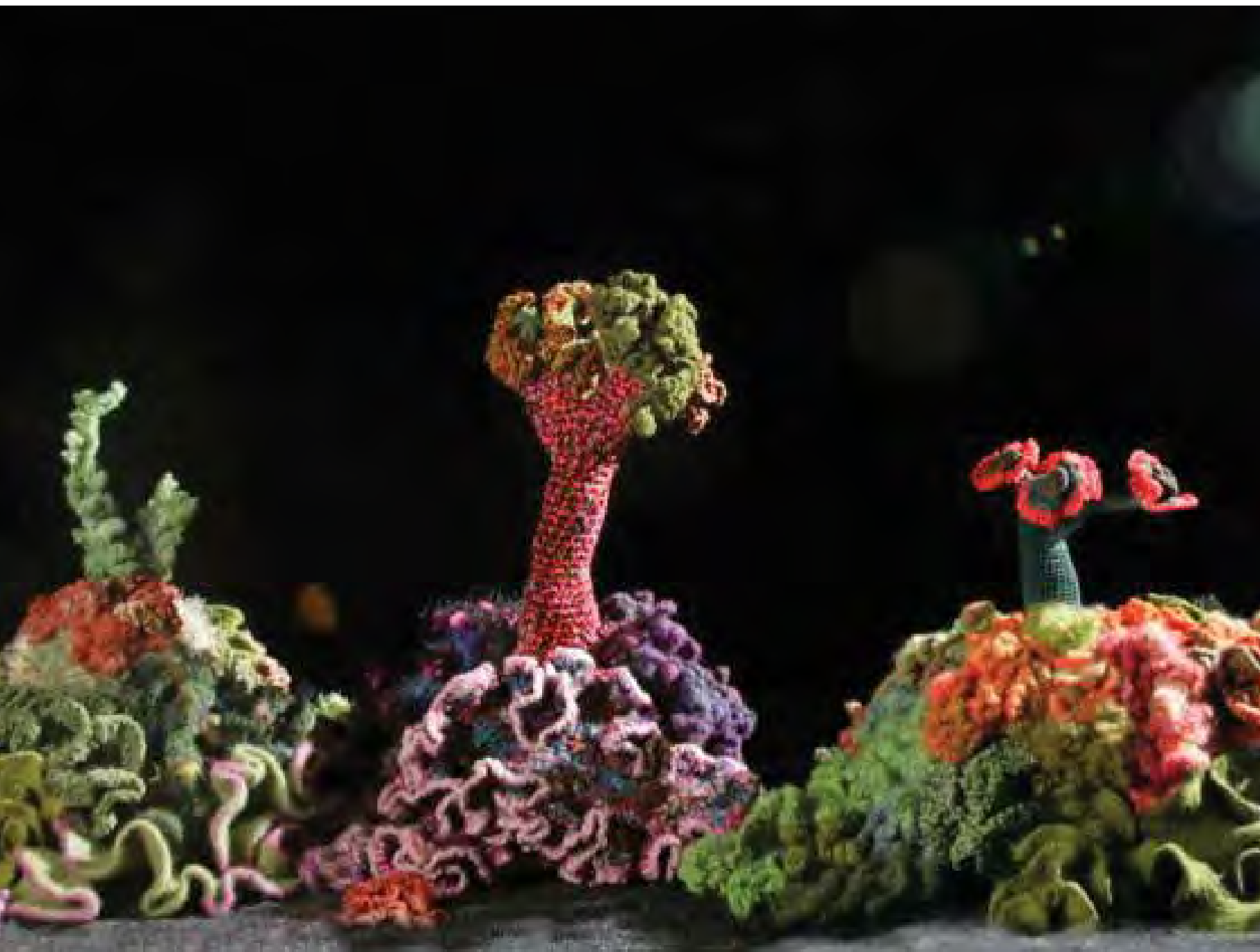
Panel Discussion on R-Research: A discussion on projects and directions of R-Research, the research branch of WM|RD, which initiates and implements new research collaborations across disciplines including dance, neuroscience, cognitive science, biology, philosophy, and technology. McGregor and Phillip Barnard were joined by Scott deLahunta, a researcher, writer, and consultant on international projects about bringing performing arts with a focus on choreography into conjunction with other disciplines and practices.



MATHEMATICS AS POETIC ENCHANTMENT

Margaret Wertheim

TALK



FEBRUARY 10, 2010

DISCIPLINE Humanities; Science

CURATOR Emily Zimmerman

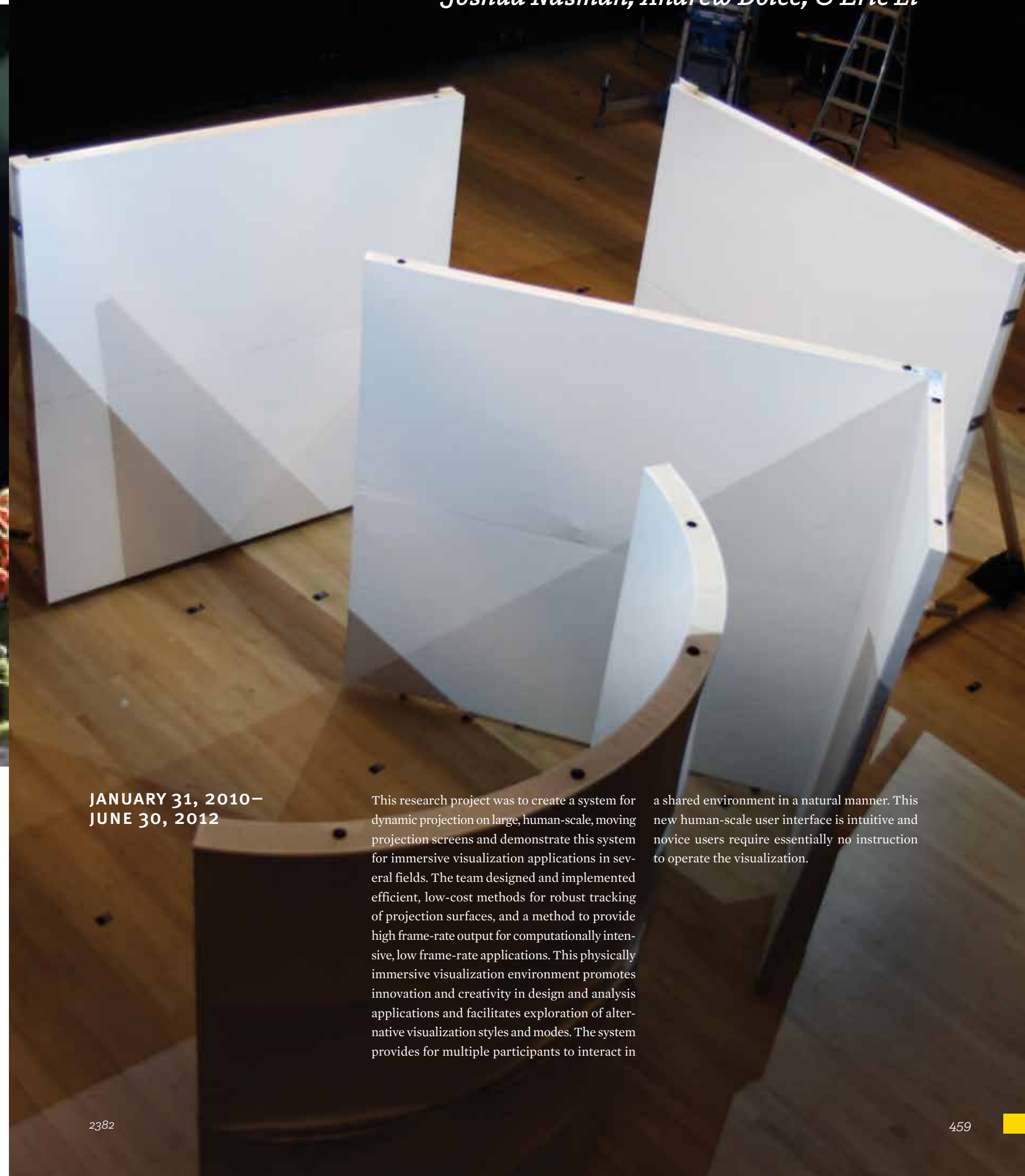
To most people mathematics is an arid discipline, disembodied, abstract, and remote from the human sphere. To mathematicians, their subject sings; it is the language in which they articulate exquisite formal poetics. In this talk and dinner, Margaret Wertheim, a science writer and exhibition curator, presented her work with the Institute For Figuring (IFF), a Los Angeles-based organization she founded devoted to the poetic and aesthetic dimensions of science and mathematics. The IFF hosts lectures, curates exhibitions, publishes books, and maintains an extensive website. The IFF's Hyperbolic Crochet Coral Reef participatory art/science project has inspired communities throughout the US, the UK,

Australia, Latvia, Ireland, South Africa, Croatia, Norway, and Germany. Wertheim is the author of books on the cultural history of physics including *Pythagoras' Trousers*, which won the Templeton Book Prize for Science and Religion.

RESEARCH

DYNAMIC PROJECTION SURFACES FOR IMMERSIVE VISUALIZATION

Barbara Cutler, Theodore C. Yapo, Yu Sheng, Joshua Nasman, Andrew Dolce, & Eric Li



**JANUARY 31, 2010—
JUNE 30, 2012**

This research project was to create a system for dynamic projection on large, human-scale, moving projection screens and demonstrate this system for immersive visualization applications in several fields. The team designed and implemented efficient, low-cost methods for robust tracking of projection surfaces, and a method to provide high frame-rate output for computationally intensive, low frame-rate applications. This physically immersive visualization environment promotes innovation and creativity in design and analysis applications and facilitates exploration of alternative visualization styles and modes. The system provides for multiple participants to interact in

a shared environment in a natural manner. This new human-scale user interface is intuitive and novice users require essentially no instruction to operate the visualization.

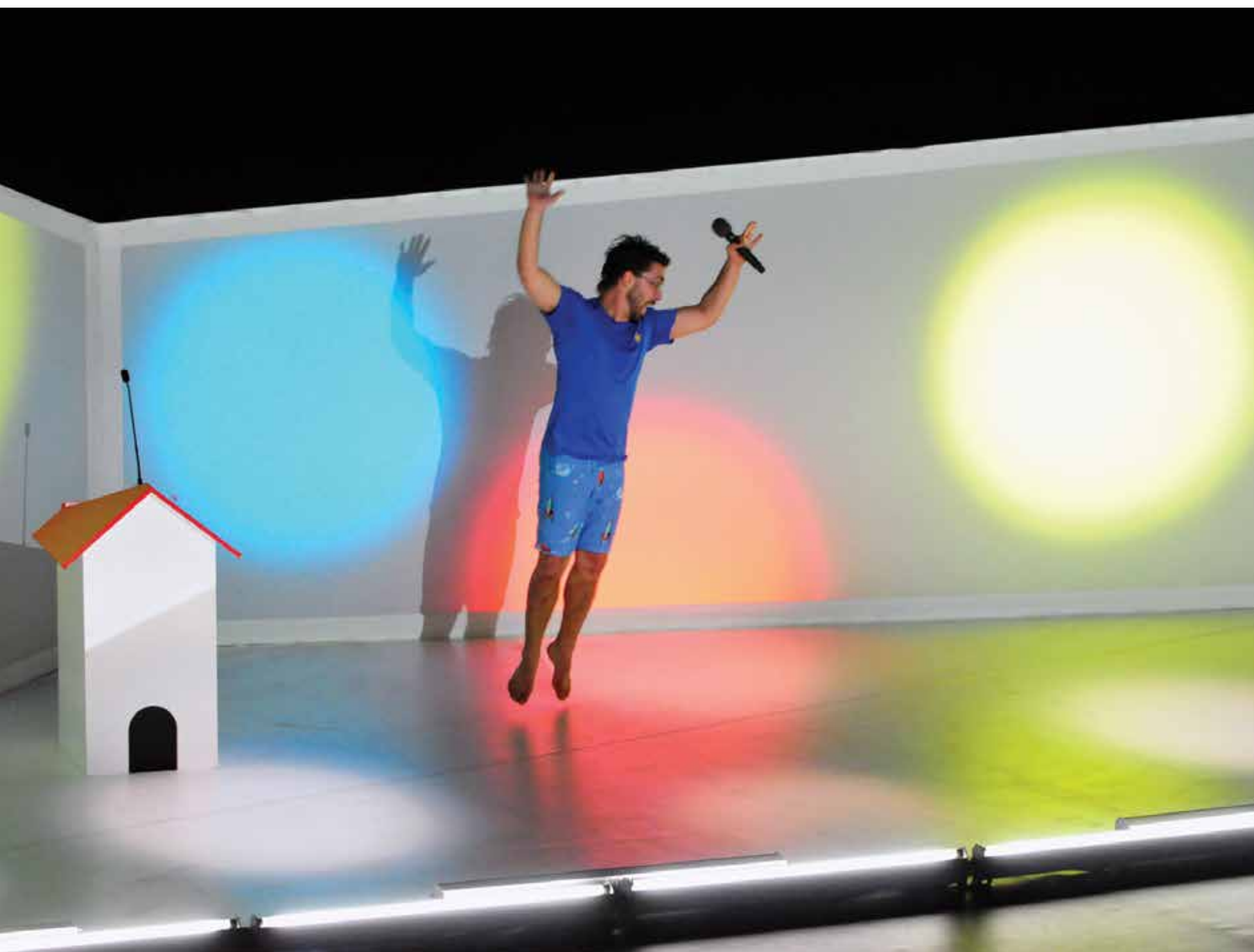
there is no end to more
Jeremy Wade

PERFORMANCE

RESIDENCY

HALO V-2

Keiko Courdy & Frederic Sofiyana



JANUARY 28 + 29, 2010

DISCIPLINE Dance

CURATOR H el ene Lesterlin

Jeremy Wade's *there is no end to more* delved into Japanese *kawaii* (cute) culture, from the infantile fluff of *Hello Kitty* to the doe-eyed teenage love stories of anime, and its ubiquitous global influence. Through dance and stories, performed by actor/dancer Jared Gradinger, and animation and video, Wade peeked under the slick, silly surface of *kawaii* to reveal its more insidious subtext, in which societal norm becomes aberration and consumption gives way to delusion. The result was a funny yet disembodied spectacle in the style of a children's television show that exposes our relationship to the "endless more" that exists just beyond our grasp. In conjunction with the performance,

EMPAC curated an exhibit exploring the culture of Japanese manga and anime, whose exuberant visual style was a source for *there is no end to more*. An American choreographer based in Berlin, Jeremy Wade often works with the Hebbel Theater and was an original member of Chez Bushwick. His first evening-length work, *Glory/Fiction*, received a Bessie Award.

**JANUARY 12–
FEBRUARY 1, 2010**

DISCIPLINE Film/Video; Visual Art

CURATOR H el ene Lesterlin

Keiko Courdy worked on initial design concepts for *HALO v-2*, an interactive video installation for public space in which viewers would physically generate the electricity needed to run the installation by riding human-powered generators such as a stationary bike, before entering. In the installation, viewers would lie in a dome and experience a kind of space travel, immersed in interactive visualizations of real-time earth data from a satellite. By insisting on making the production of energy visible, *HALO v-2* reflects on how humans have the capacity to adapt and invent new patterns of behavior in response to impacts on the environment due to climate change. Other versions of *Halo* were designed for deployment in the ocean.

Courdy is a French multimedia artist and director who creates installations, performances, and interactive and immersive works that push the limits of perception. Collaborators on this project included Jacques Parnell, a French illustrator and painter who works on representations of utopian architecture, and art director and photographer Frederic Sofiyana.



JANUARY 11–26, 2010

DISCIPLINE Contemporary Performance

CURATOR Hélène Lesterlin

Since 2009, Jill Sigman has worked on *The Hut Project*, a series of site-specific huts made from found and re-purposed materials. Each hut is simultaneously a structure, a sculpture, and an emergency preparedness kit in which themes of sustainability, shelter, real estate, and apocalypse intersect. Each hut acts as catalyst for activities, such as performance, video, collaboration, and community dialogue. At EMPAC, Sigman collaborated with the JOAN group on a performance installation in the Hut series, that incorporated movement, music, and video into the creation of a small hut from found material.

Jill Sigman/thinkdance creates conceptual performance that grows out of physical experience at the intersection of dance, theater, and visual installation. Sigman's work transforms simple actions into complex statements about self, society, and human experience.



JANUARY 5–10, 2010

DISCIPLINE Film/Video; Visual Art

CURATOR Kathleen Forde

Graham Parker shot 100 hours of footage (working with cinematographer Ben Tiven) while in residence at EMPAC during January 2010 for two projects, *The Flitter* and *The giST n*. Both works were included in Parker's solo show at EMPAC, *The Confidence Man*. *The giST n* is a partial recreation of a "making of" documentary entitled *The Art of The Sting* (which accompanied the DVD of the 1973 film *The Sting*). Initially in a familiar documentary form, the piece quickly becomes unreliable: performance styles vary; microphones intrude; takes extend for too long or are cut short; line rehearsals make it to the final cut. At times it is not clear what is being described (a film? a con?) and every witness, in

front of and behind the camera, becomes suspect. In *The Flitter*, writer and performer Carl Hancock Rux delivers a monologue based on text (including spam emails and a short essay on the phenomenon of spam fed through indexing software and alphabetized by the first letter of each line so that the essay and surrounding texts are "dis-solved" together) derived from Parker's 2009 book *Fair Use (notes from spam)*.

SEE RELATED EVENT ON PAGE 366.

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research. In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



BOTH PAGES / BLINDFIELD

Production, Installation, and Performance (PIP) students, under the instruction of professors Michael Oatman and Doug Van Nort, worked with Amsterdam-based sound artist Francisco Lopez to create *BLINDFIELD*, a 32-channel architectural audio environment at EMPAC. The students (Christianna Bennett, Ayana Coker, Katie Czub, Kristin Diotte, Tyler Doherty, Jim de Seve, Will Johnson, Anna Lindemann, Alicia Miksic, Elliot Mistur, Caitlin Morris, Paula Rand, Caitlin Walsh, Justin Ware, Jenni Wilga, James Wisniewski, and Rich Zarick) experimented with sound recording and composed audio works; made installations and performances out of a data-collection process; and worked on individual designs and small team projects. The resulting collaborative work (whose title played on López's practice of blindfolding his audience during his electroacoustic performances) made use of speaker-objects driven by inexpensive transducers and constructed from MDF wood and opaque fabrics to create a radically transformative environment with a dense forest of panels.

EMPAC's *Dancing on the Ceiling* exhibition on gravity and the arts included *Inhabiting Other Worlds: Microgravity, Perception, Physiology & Design*, a panel organized by the School of Architecture with professor Ted Krueger, Rachel Armstrong, MD, Heidi DeBlock, MD, and Deepak Vashishth, PhD; it coincided with the opening of a related student exhibition of a design for a medical station to be incorporated into a NASA lunar module.

With onedotzero's *Cascade* program for creative learning, EMPAC organized a series of artist, student, and faculty exchanges with visiting artists incorporated into classes; resulting class projects were presented during the onedotzero festival with a critique from the artists AntiVJ. EMPAC hosted the international Cybernetics: Art, Design, Mathematics conference, led by School of Architecture's Ted Krueger; subtitled *A Meta Disciplinary Conversation*, nearly 100 participants gathered for a wide-ranging discussion on themes of "actual and abstract" and "cross-over processes/trans-, inter-, meta." The London-based dance company Wayne McGregor | Random Dance had an expansive creative residency at EMPAC, investigating tools, ideas, and visual design concepts for work in progress. Talks and a panel discussion by collaborators, research partners, and McGregor, were offered to the campus during the residency to provide insight into their creative process, culminating in a performance of *ENTITY*.

Academic and extracurricular opportunities for students were expanded with the introduction of MashUP!, the annual mentored workshop (in collaboration with the Office of First-Year Experience) for incoming freshmen, where they learn the basics of producing a multimedia event culminating in a campus dance party. EMPAC also offered courses as part of Rensselaer's information technology and Web science degree program. In addition, more than 100 students worked at EMPAC in technical, production, and administrative capacities, learning and advancing skills through an apprenticeship model.



Medical Development Unit

The design of the Medical Development Unit (MDU) is a result of collaboration between the architecture and engineering teams. The MDU is designed to provide a safe and secure environment for medical procedures. It features a central workstation area with a table and chairs, and several storage units. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed.

Design Description

The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed.

Lighting Design

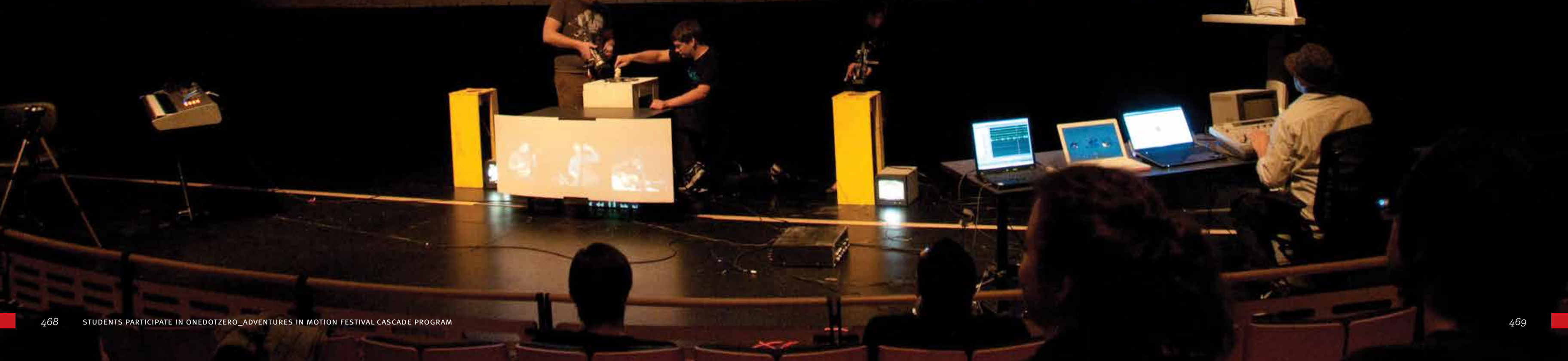
The lighting design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed.

Table Design

The design of the table is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed. The design is based on the concept of a 'medical workstation' which is a central area where medical procedures are performed.

Storage Design





Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2010.



THIS PAGE / NEIL DEGRASSE TYSON; 2010 PRESIDENT'S COMMENCEMENT COLLOQUY

CAMPUS AND PRESIDENTIAL EVENTS

2010 PRESIDENT'S COMMENCEMENT COLLOQUY: RE-IGNITING THE INNOVATION ECONOMY: SCIENCE AND TECHNOLOGY Four honorary degree recipients: Peter R. Orszag, White House cabinet member; M.I.T. Professor Robert S. Langer; Neil deGrasse Tyson, director of the Hayden Planetarium; and Nobel Prize winner Harold E. Varmus joined President Shirley Ann Jackson at the annual commencement ceremony at Rensselaer.

2010 PRESIDENT'S FIRST-YEAR CONVOCATION: GREAT QUESTIONS President Jackson greeted the Class of 2014 and invited them to take advantage of all that Rensselaer has to offer: world-class, convention-defying platforms for research, computation, artistic creation, and athletics. She challenged them to continue the tradition of going on to build bridges, both literally and metaphorically. And as they embarked on their experience, she outlined three questions for them to ask themselves: "What is your calling? What matters most in your times? And who are you?"

2010 STATE OF THE INSTITUTE: FUSION President Jackson's presentation included facts and statistics about Rensselaer and its student population and highlighted growth and changes in its programs. She cited the fusion that happens "when imagination, vision, determination, and a solid grounding in the fundamentals come together across disciplines" and shared reflections on discovering innovative concepts by bringing together people with different perspectives.

2010 TOWN MEETINGS In her spring theme, *Moving Forward in Challenging Times*, President Jackson addressed the changes over her 10 years at Rensselaer and outlined the ways in which Rensselaer has met challenges and highlighted enrollment, academic enterprise, student experience, new academic programs, and faculty researcher projects at EMPAC. President Jackson's fall speech, *Envisioning 2020*, looked toward the future and Rensselaer's essential role in providing leadership that takes on the issues of today and the emerging challenges our society will face for years to come. She highlighted the strong and leadership involved in the STEM (science, technology, engineering, and mathematics) educational initiative.

CRAIG MUNDIE LECTURE, MORE LIKE US: HUMAN-CENTRIC COMPUTING Chief Research and Strategy Officer at Microsoft Corporation Craig Mundie spoke to a packed house in the EMPAC Concert Hall about the development of the Xbox 360 Kinect. The talk included a 3D demonstration of Kinect. During his visit, Mundie participated in a student roundtable discussion and viewed demonstrations of current research projects by a number of Rensselaer faculty and students.

FROM STEM TO STEAM: KEEPING THE ARTS IN THE INSTRUCTION OF SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH A one-day conference organized by the North Atlantic Region of the Society for College and University Planning, featuring President Jackson delivering a speech on *The Quiet Crisis: America's Economic and National Security at Risk*.

KYLE DECAMP, *URBAN RENEWAL*

HOLIDAY CONCERT The Rensselaer community gathered for a holiday tradition: the Rensselaer Orchestra and Concert Choir performing selections of classical music and seasonal carols.

2010 HONORS CONVOCATION Parents, family, and friends gathered and watched as the Rensselaer Medalists—along with students with a 4.0 GPA, graduate student fellowship awardees, and faculty—were honored at this convocation that celebrates their outstanding academic achievements.

WOMEN, POWER, AND OPPORTUNITY Journalists and co-authors Nicholas D. Kristof and Sheryl WuDunn discussed their *New York Times* bestseller *Half the Sky: Turning Oppression into Opportunity for Women Worldwide*. The book, which documents the stories of women and girls who have suffered excruciatingly under their society's feudal attitudes toward women, also carries a message of hope, optimism, and opportunity. Sponsored by the Emma Willard School.



SCHOOL OF ENGINEERING CELEBRATION OF THE 175TH ANNIVERSARY OF CIVIL ENGINEERING

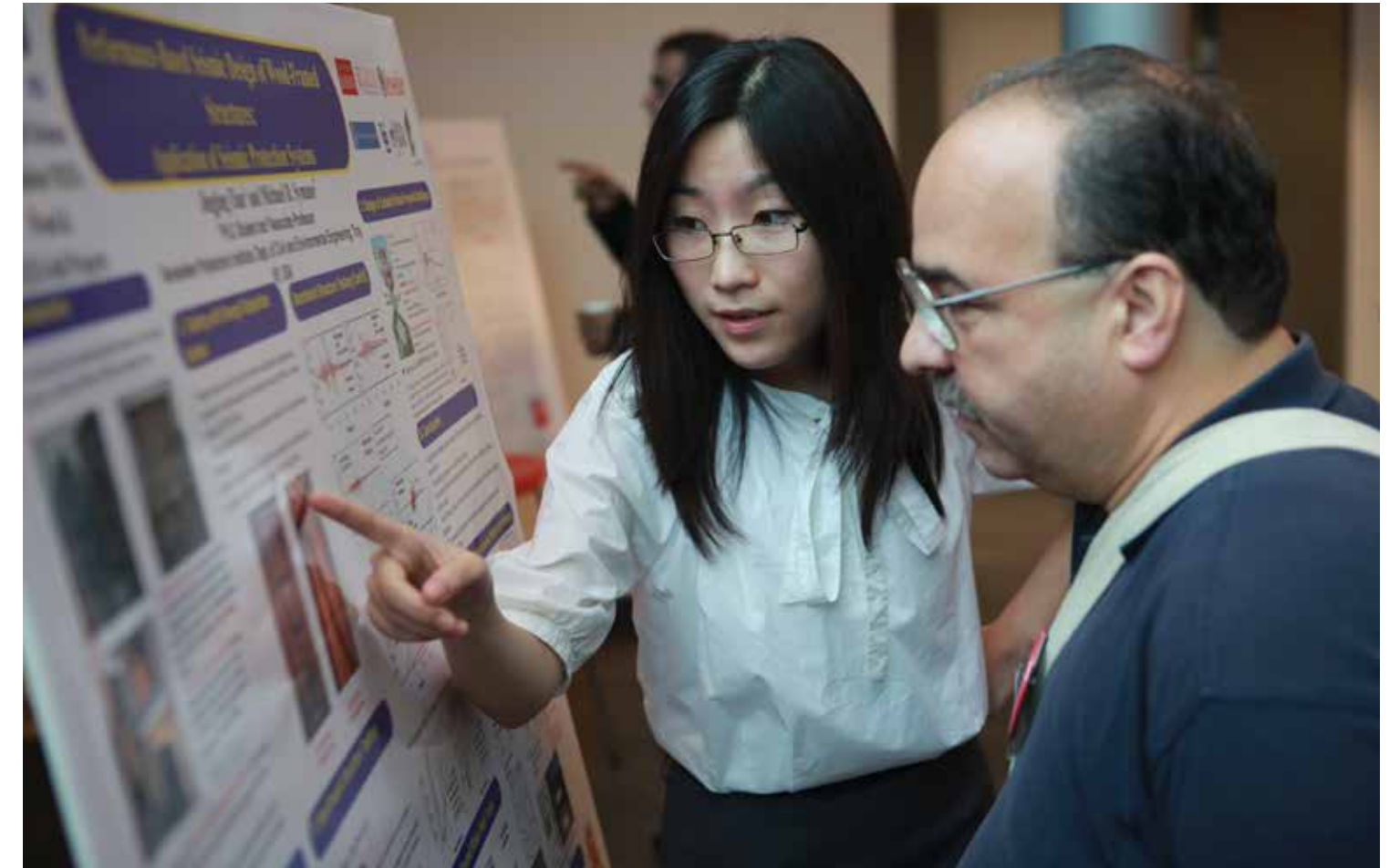
OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2014 learned about the campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer's many clubs and activities, and met soon-to-be classmates.

FIRST YEAR EXPERIENCE SUMMER ORIENTATION The Office of the First-Year Experience conducts Student Orientation in July and August, introducing new students to life at Rensselaer, for them to become familiar with the campus—including EMPAC—and to meet faculty, staff, and upperclass students.

NAVIGATING RENSSELAER AND BEYOND Navigating Rensselaer & Beyond is a five-day program for all first-year students, including freshmen, transfers, and graduate students, to help with the transition to Rensselaer as well as to provide opportunities to meet new students. NRB programs at EMPAC include MashUP! (described under Academic Collaborations) and Fanfare, an annual concert presented by the Rensselaer Music Association.

STAR PROGRAM The Science, Technology, Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to the campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current students.



SCHOOL OF ENGINEERING CELEBRATION OF THE 175TH ANNIVERSARY OF CIVIL ENGINEERING

SCHOOLS AND CENTERS

SCHOOL OF ARCHITECTURE

SCHOOL OF ARCHITECTURE LECTURE SERIES This annual lecture series included Philip Beesley, *Abject Fertility: Liminal Responsive Architectures*; Tom Wiscombe, *Emergent, Composite Assemblies*; Jose Oubrerie, *Architecture With and Without Courbusier*; Brigette Shim/Shim-Sutcliffe Architects, *Testing Ideas*; Weiss/Manfredi, *Sequence/Sections*; and Thom Mayne/Morphosis, *Questions on the Continuity of Contradiction*.

SCHOOL OF ENGINEERING

CELEBRATION OF THE 175TH ANNIVERSARY OF CIVIL ENGINEERING Over several days, Rensselaer celebrated its place in history as the first university in the United States to issue a degree in civil engineering, including a colloquy and lecture at EMPAC. *The Civil Engineering Revival: Challenges, Grand Challenges, and Champions* colloquy featured President Jackson and Dr. G. Wayne Clough, Secretary of the Smithsonian Institution. David P. Billington, Professor of Engineering, Emeritus, Princeton University, delivered the keynote lecture, *Building the United States 1835-2010: Bridges, Dams, and Civil Engineering Education*, on America's built infrastructure and its impact on our society.

SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/ DEPARTMENT OF THE ARTS

ANNA LINDEMANN AND N F CHASE, LOVELY ISOMERS A concert of eclectic sounds and visuals featuring Lindemann's work *Bird Brain* for ensemble, electronics, and stop-motion animated video; and Chase's *Ngoma Lungundu* for multi-channel electronics and environmental video projection.

DEEP LISTENING CLASS Pauline Oliveros, composer and Distinguished Research Professor of Music in the Arts at Rensselaer, developed Deep Listening, an embodied meditative practice of enhancing one's attention to listening that relates to a broad spectrum of other practices across cultures and can be applied to a wide range of academic fields and disciplines.

GAMEFEST 2010 *GameFest* showcased computer games designed by more than 20 student teams from the game development and experimental game design classes. Projects range from an underwater world simulation generated in real time to an engaging 3D interactive game for children who are afraid of the dark.

JOSHUA THORSON, PARADOX RULES A PhD in Electronic Arts, Joshua Thorson presented his narrative video work which hybridizes Hollywood genre and convention with home-movie DIY-style shooting and abstraction.



MICROSOFT'S CRAIG MUNDIE VIEWS A DEMONSTRATION OF MFA STUDENT YEHUDA DUENYAS' INFINITY SIMULATION

KYLE DECAMP, URBAN RENEWAL (MFA THESIS) A solo performance by Kyle deCamp, *Urban Renewal* is a meditation on perception and public policy inspired by deCamp's experience of growing up in Chicago in the chaotic '60s.

NAO BUSTAMANTE, SILVER AND GOLD Film and live performance are joined in this evocation of legendary filmmaker Jack Smith and his tribute to 1940s Dominican movie starlet María Montez in an exploration of race, glamour, sexuality, and the silver screen performed by Professor Bustamante.

NEIL ROLNICK'S EXTENDED FAMILY Composer Rolnick, founding director of Rensselaer's iEAR Studios and MFA program in Electronic Arts, presented *Extended Family*, a string quartet written for and performed by ETHEL; and *MONO*, a new work for solo laptop. Rensselaer alumnus Bob Gluck performed *Faith*, a piece for piano and computer commissioned by Rolnick in 2008.

RENSELAEER CONTEMPORARY MUSIC ENSEMBLE CONCERT The Rensselaer Contemporary Music Ensemble performed a program that included work by John Cage, Anna Lindemann, Pauline Oliveros, Frederic Rzewski, Arnold Schoenberg, and Kurt Weill.

TRIPLE POINT & FRIENDS, NORTH SOUTH CURRENTS Triple Point is an improvising trio whose core instrumentation is soprano saxophone (Jonas Braasch), digital accordion synthesizer (Pauline Oliveros), and interactive electronics (Doug Van Nort, GREIS system). This telematic concert featured Oliveros, Anne Bourne (cello), Ben Grossman (hurdy-gurdy), and Jesse Stewart (percussion) in Guelph, Ontario; Ricardo Arias (balloon) in Bogotá, Colombia; and Braasch, van Nort, Curtis Bahn (dilruba) and Blair Neal on video in Troy, NY.



NAO BUSTAMANTE, SILVER AND GOLD



CELEBRATION OF THE 175TH ANNIVERSARY OF CIVIL ENGINEERING

STUDENT PROGRAMS

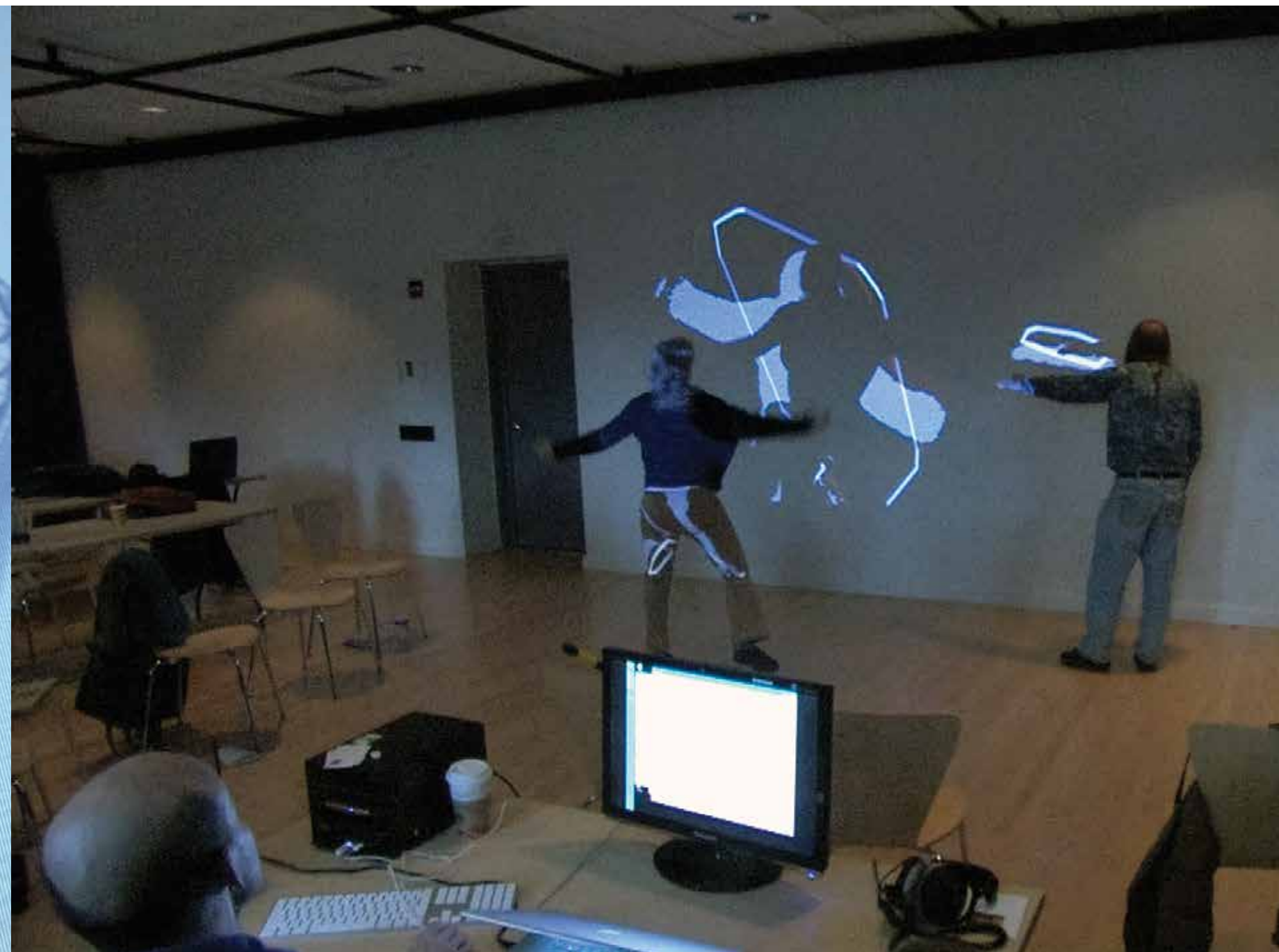
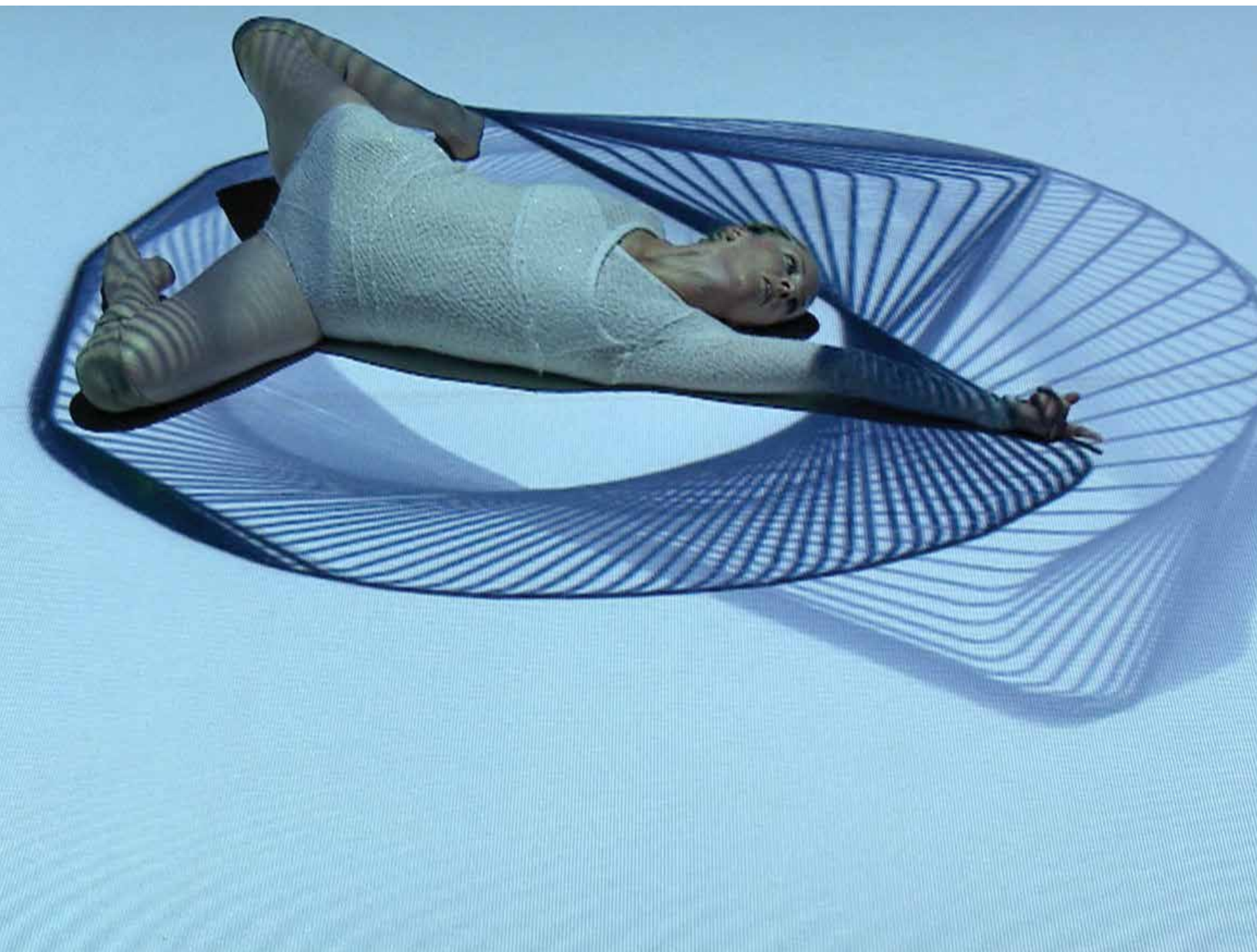
IMPROVACAPPELLA The Rensselaer a cappella groups, including The Rensselyrics, Duly Noted, Partial Credit, and The Rusty Pipes performed various Michael Jackson and Jackson 5 songs.

DANCE CLUB RECITAL Rensselaer's dance club annual spring recital, themed *Bust a Move*, featured performances by the ballet, modern, jazz, tap, and hip-hop classes as well as the Rensselaer Dance Team.

RENSELAEER MUSIC ASSOCIATION, FAMILY WEEKEND CONCERT Rensselaer Ballroom sponsored *Jump, Jive, and Jazz!*, one of their signature swing dances featuring The Rensselaer Jazz Orchestra, The Campus Serenaders, and The Contemporary Jazz Ensemble.

RENSELAEER MUSIC ASSOCIATION'S SPRING CONCERT This concert featured Rensselaer's Percussion Ensemble, Brass Quintet, Symphonic Band, and Woodwind Quintet and included music inspired by drummer John Bonham; also on the program: *Also Sprach Zarathustra* by Richard Strauss, *Mars* from *The Planets* by Gustav Holst, and John Phillips Sousa's *People Who Live in Glass Houses*, a suite of humorous pieces.

2009
Days 2,323-1,991



DECEMBER 3 + 4, 2009

DISCIPLINE Dance

CURATOR H el ene Lesterlin

Conceived as a "biotech fiction" by Australian choreographer Gideon Obarzanek and interactive software creator Frieder Weiss, *Glow* transforms a solo dancer into a mutant figure both sensual and grotesque. As she slides and thrashes across a white floor, her form generates a constantly shifting digital habitat of projected light. Her smallest gestures are captured by an overhead tracking system, while interactive video technology creates motion graphics that shift in real time in response to her movement.

Founded by Obarzanek in 1995, Chunky Move is a Melbourne-based dance company that constantly seeks to redefine what contemporary

dance is, or what it can be, through stage productions, installations, site-specific works, and films.

DECEMBER 2 + 5, 2009

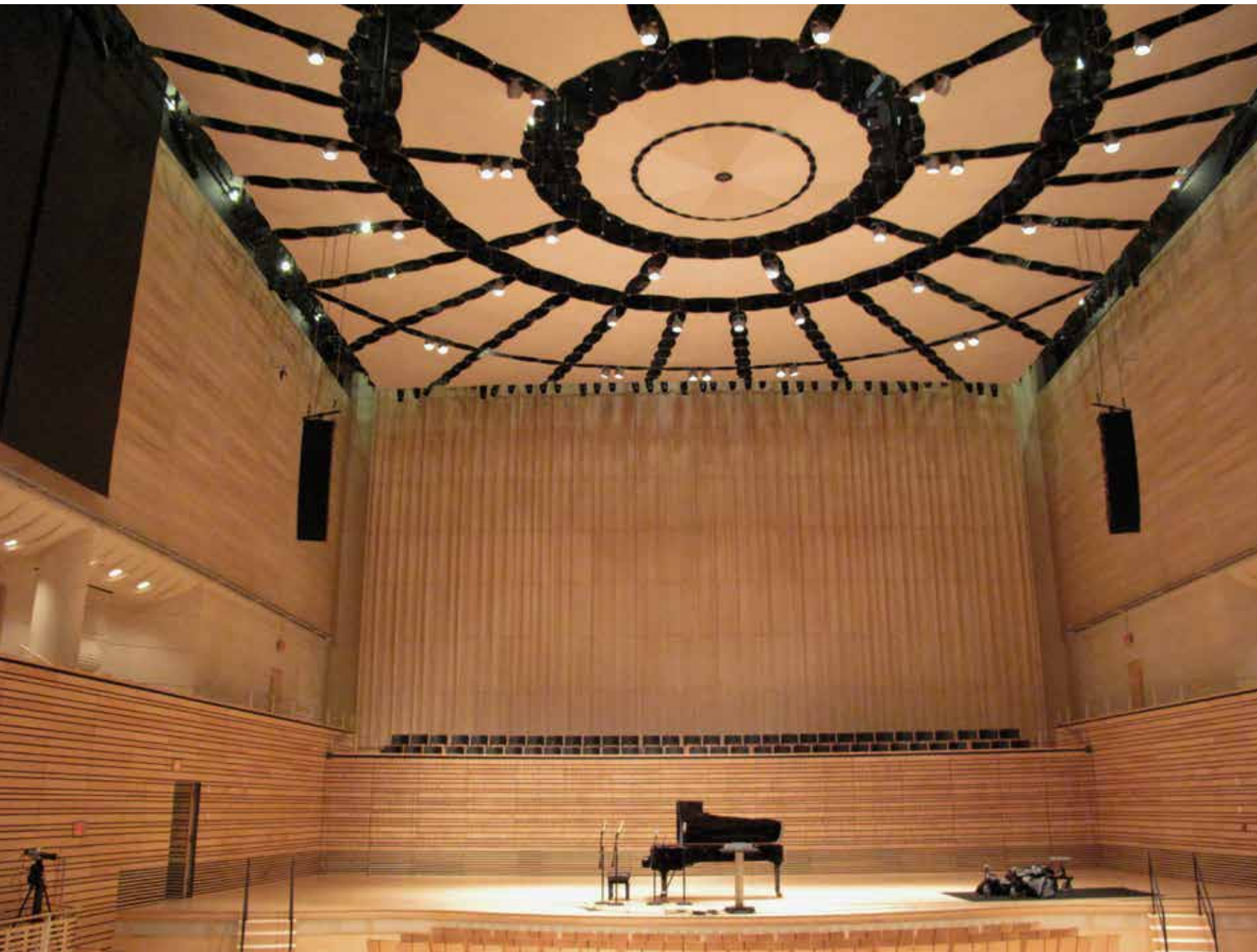
DISCIPLINE Contemporary Performance; Dance; Music/Sound; Tools and Technology

CURATOR H el ene Lesterlin

Frieder Weiss, an engineer who specializes in real-time computing and interactive computer systems in performance art, presented a talk and workshop over two days. *From Technological Research To Sensual Engineering* offered a critical review of developments and achievements in the genre of interactive performance, suggesting that not only has technology changed, but that the very paradigms of interactivity have shifted. Weiss offered his recipe for successful interactive experiences, including brief overviews of software and hardware systems.

The workshop *Perceivable Bodies* gave 15 participants an introduction into artistic uses of video

motion-sensing technologies. Weiss develops his own video motion-sensing programs for use with dance, music, and computer art. Eyecon links physical movement spaces with computer generated sound environments; by drawing virtual zones on screen a user can map human movement to real-time sound and visual media. Kalypso software allows visual effects based on body outlines (similar to what was created for *Chunky Move's Glow*, also presented at EMPAC). Workshop participants learned the basics of the software, then set up and tested a customized interactive environment.



**NOVEMBER 20, 2009–
JULY 14, 2010**
(2 VISITS)

DISCIPLINE Music/Sound

CURATOR Micah Silver

Per Tengstrand, who was a featured performer at the inaugural concert for EMPAC’s opening, is a Swedish concert pianist who has performed internationally and has a special interest in the relationship between the evolving technology of the piano and development of piano repertoire. During this residency he recorded work for solo piano by Beethoven—an emblematic body of work that evolved in relation to technological shifts in piano design—as part of Tengstrand’s effort to record the complete piano sonata cycle for his Mindfeel label.

Tengstrand performed the complete Beethoven cycle in a number of cities and venues, and blogged

extensively about his artistic approach to learning and recording all 32 sonatas, posting detailed analyses of each work demonstrated with short sound files. An advocate of Scandinavian repertoire, in 2005 Tengstrand was decorated by King Carl XVI Gustaf of Sweden with the Royal Medal Litteris et Artibus for outstanding service to the arts, the youngest recipient ever to be so honored.

NOVEMBER 17, 2009

DISCIPLINE Film/Video; Tools and Technology;
Visual Art

CURATOR Kathleen Forde

Full Immersion convened an exceptional panel of international artists, engineers, and producers representing the evolving field of work created for the 360° panoramic screen. The panelists reflected various fields—film, data presentation, and visual arts—but had in common an expertise in realizing works that surround the viewer, with effects that may be subtle, spectacular, or unsettling.

The panel included: Stewart Smith, who approaches art and software through the lens of graphic design, and has created collaborative works with Diller Scofidio+Renfro, Warning Office, and *Death by Cyan*; Bernd Lintermann, an artist and scientist in the field of real-time

computer graphics with a strong focus on interactive and generative systems, who has worked with Bill Viola, Peter Weibel, and Jeffrey Shaw; Eric Ameres, Senior Research Engineer, where he regularly consults and collaborates with artists and scientists on a variety of projects, including multiple projects for EMPAC’s 360° screen; and Thomas Soetens and Kora Van Den Bulcke, founding members of Workspace Unlimited, an international collective that creates compelling virtual worlds and interactive installations.



RESIDENCY:
NOVEMBER 14–15, 2009

PERFORMANCE:
NOVEMBER 14, 2009

DISCIPLINE Music/Sound

PUBLICATION *Ghosts* by Garth Knox recorded at EMPAC, released by NMC

CURATOR Micah Silver

One of the world's few virtuosos of the viola, Garth Knox is known for playing some of the most demanding music written for that instrument with elegance and dash. For this concert, he also performed pieces for the viola d'amore, a 17th century instrument with resonating strings mounted beneath its bowed ones. The program ranged from Tobias Hume's 1605 *Pavane* to one of Knox's own compositions to the world premiere of a new piece for viola d'amore and electronics by English composer James Dillon. A talk with the artist preceded the concert.

Knox studied viola at London's Royal College of Music and has been a member of Pierre Boulez's

Ensemble InterContemporain and the Arditti String Quartet. As a soloist, he has premiered works by Henze, Ligeti, Schnittke, Fernyehough, James Dillon, George Benjamin, and many others. Knox was in residence at EMPAC as well to record a work for viola d'amore by the British composer Ed Bennet for *My Broken Machines*, a CD released in 2011 by NMC Recordings.

NOVEMBER 13, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

Prefuse 73 (Guillermo Scott Herren), who is at the forefront of hip-hop and avant-guard rock, offered a percussive set running from hazy psychedelia to bass-heavy, chopped-up hip-hop.

The Brooklyn-based Skeleton\$ are not so much a band as "a musical personality," fronted by founder Matt Mehlan and including a classically-trained trombonist and punk-rock drummers. Their ebulliently noisy music was characterized by *Pitchfork* magazine as "an outsize global-a-go-go mélange of Afrobeat guitars, free jazz, and Timbaland's approach to kitchen-sink percussion." The evening also included a performance by the Italian multi-instrumentalist (musical saw,

piano, and the Vietnamese dan bau) and protean composer, Luciano Chessa, reading Futurist poetry and performing a composition for piano and stuffed animals.

New Nothing features a series of performances of national and international musicians working in the hybridized terrain of experimental-leaning popular music. These groups exemplify a global reality where music hasn't just crossed borders but made them irrelevant.

NOVEMBER 7, 2009

DISCIPLINE Dance: Film/Video

ABOUT THE PRODUCTION Commissioned
by EMPAC

PUBLICATION DANCE MOVIES EMPAC
DVD, commissioned and published by EMPAC

CURATOR Hélène Lesterlin

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

body/traces (US, 7-minute looping video installation) Created and co-directed by Sophie Kahn and Lisa Parra. Using a DIY 3D laser scanner and stop-motion 3D digital animation to track a dancer's movement through space and time, *body/traces* illuminates the physical presence and disappearance of the body.

SEE RELATED RESIDENCY ON PAGE 543.

Eyes Nose Mouth (US, 10 mins.) Choreographed by Noémie Lafrance, directed in collaboration with Patrick Daughters. *Eye Nose Mouth* follows characters navigating through a series of changing landscapes. The site-specific choreography reacts to the urban and natural environments creating a narrative thread that evokes the characters' emotional states.

Looking Forward—Man and Woman (Brazil/The Netherlands, 10 mins.) Directed by Roberta Marques, choreographed and performed by Michael Schumacher and Liat Waysbort. A love letter from a man to his wife at the end of their long lives, and simultaneously a portrait of a younger couple at the beach, where both the waves and time run backwards in opposition to the drift of fate.

Sunscreen Serenade (US, 5 mins.) Directed and choreographed by Kriota Willberg. In homage to Busby Berkeley's flamboyant kaleidoscopic style of the 1930s, scantily clad finger puppets tackle the issue of ozone depletion. Cheerfully dancing in formation, the diminutive dancers deliver a gentle reminder that environmental and political trends come and go, much like the drift of our culture through movie fads.

BODY/TRACES

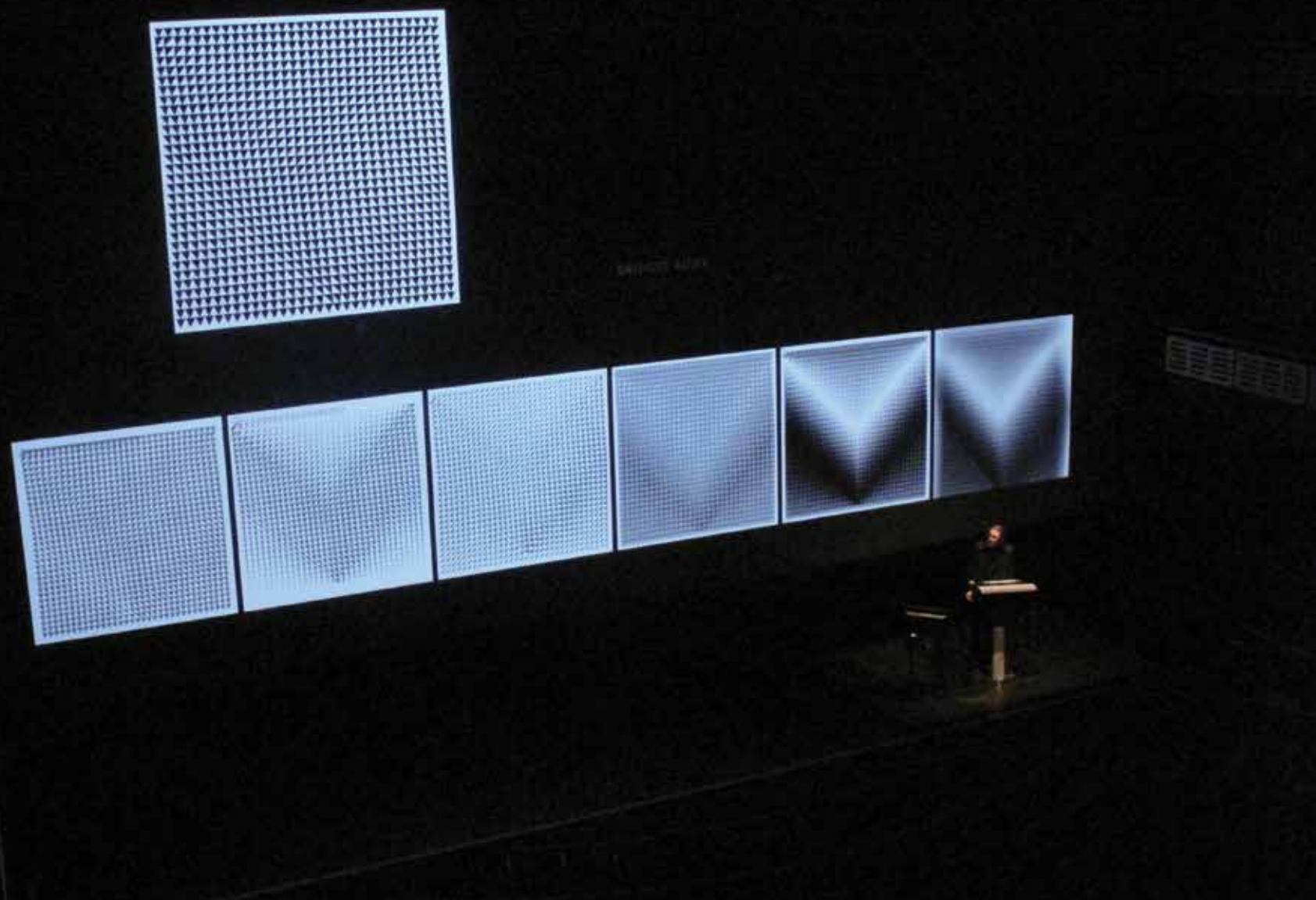
LOOKING FORWARD—MAN AND WOMAN

SUNSCREEN SERENADE

FIELD: THE SECRET WORLD
OF MAKING ART BY WRITING CODE

Marc Downie

TALK
WORKSHOP



NOVEMBER 6 + 7, 2009

DISCIPLINE Film/Video; Tools and Technology

CURATOR Micah Silver

With the creation of the open-source programming environment *Field*, artist and artificial intelligence researcher Marc Downie may have done more to change the landscape of real-time video and other digital art forms since the release of *Max/MSP/Jitter*. *Field* is at once more radical and more accessible, since it attempts to bridge as many different programming languages and ways of doing things as possible and to permit users to customize virtually any of its features. In these related events, Downie offered a talk about the software and some of the art that he and other members of The OpenEnded Group have made, and then led an immersive, two-day workshop for coders to start navigating in *Field*.

Downie holds an MA in natural science and a Master of Science in physics from Cambridge University, and a PhD from MIT's Media Lab. He has authored interactive installations, compositions, and projections in the fields of interactive music, machine learning, and computer graphics. In addition to collaborating with other members of The OpenEnded Group, Downie has worked with Merce Cunningham, Bill T. Jones, and Trisha Brown.

EXHIBITION

THEY WATCH
Workspace Unlimited

OCTOBER 30–
NOVEMBER 21, 2009

DISCIPLINE Film/Video; Visual Art

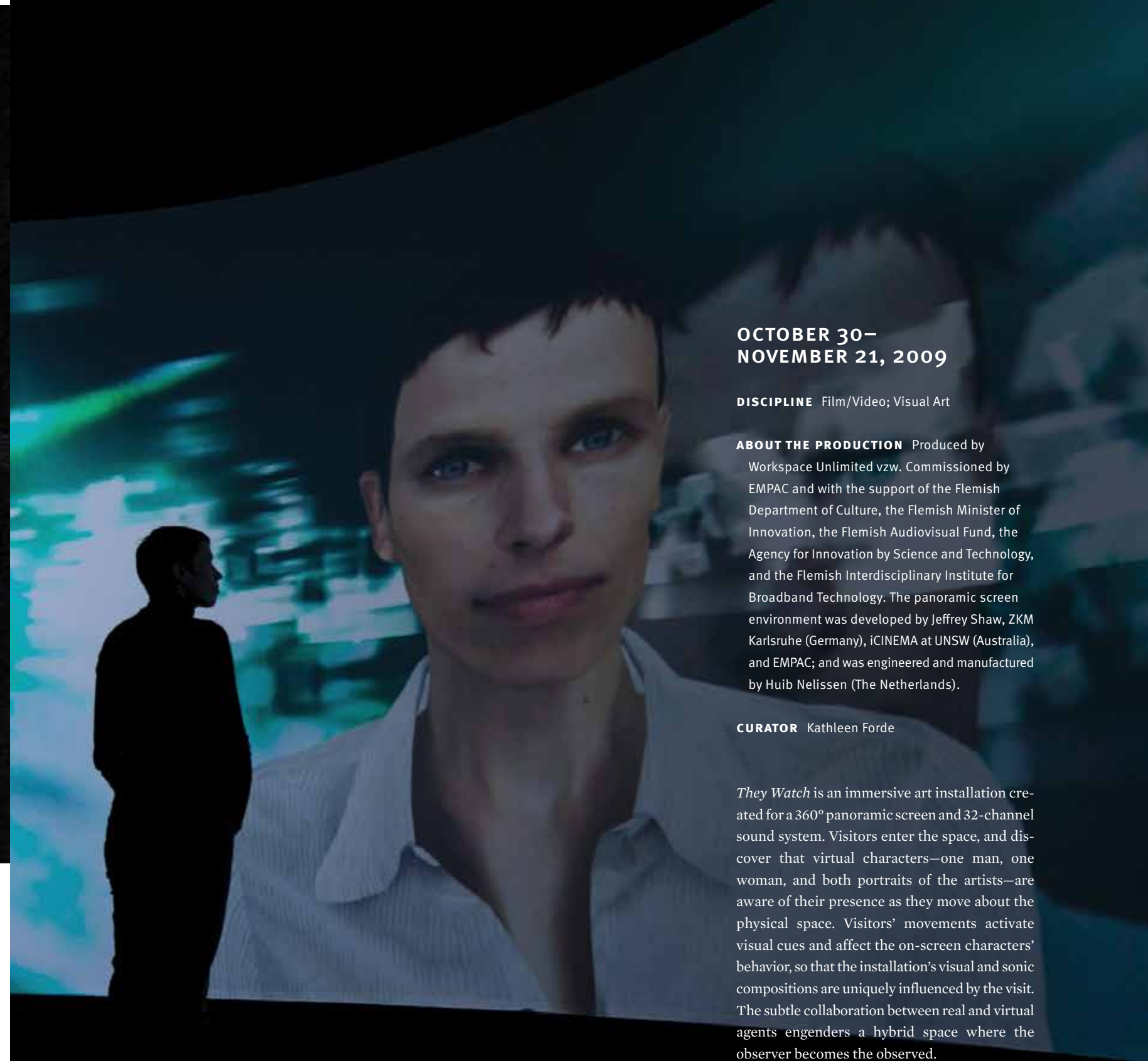
ABOUT THE PRODUCTION Produced by Workspace Unlimited vzw. Commissioned by EMPAC and with the support of the Flemish Department of Culture, the Flemish Minister of Innovation, the Flemish Audiovisual Fund, the Agency for Innovation by Science and Technology, and the Flemish Interdisciplinary Institute for Broadband Technology. The panoramic screen environment was developed by Jeffrey Shaw, ZKM Karlsruhe (Germany), iCINEMA at UNSW (Australia), and EMPAC; and was engineered and manufactured by Huib Nelissen (The Netherlands).

CURATOR Kathleen Forde

They Watch is an immersive art installation created for a 360° panoramic screen and 32-channel sound system. Visitors enter the space, and discover that virtual characters—one man, one woman, and both portraits of the artists—are aware of their presence as they move about the physical space. Visitors' movements activate visual cues and affect the on-screen characters' behavior, so that the installation's visual and sonic compositions are uniquely influenced by the visit. The subtle collaboration between real and virtual agents engenders a hybrid space where the observer becomes the observed.

Workspace Unlimited, founded in Belgium by Thomas Soetens and Kora Van den Buleke, is an international collective creating compelling virtual worlds and interactive installations.

SEE RELATED RESIDENCY ON PAGE 590.



**OCTOBER 30, 2009****DISCIPLINE** Music/Sound**CURATOR** Micah Silver

Zs, the scariest band presented during EMPAC's *Between a Rock and a Tiny Bell* concert, returned on Halloween for a careening performance as part of the experimental New Nothing series. Founded in 2000, Zs describes their primary concern as "making music that challenges the physical and mental limitations of both performer and listener," while the *New York Times* says that the band "creates conceptual art objects that set form and content against each other—like, say, a perfect birthday cake made out of sawdust, or a perfect hammer made of bird feathers." Opening the concert was Little Women, a quartet whose ghost notes and violent disassembling of their instruments concoct riotous sets that

run the gamut from pop to free jazz to noise and back again.

New Nothing features a series of performances of national and international musicians working in the hybridized terrain of experimental-leaning popular music. These groups exemplify a global reality where music hasn't just crossed borders but made them irrelevant.

OCTOBER 28, 2009**DISCIPLINE** Film/Video; Visual Art**CURATOR** Emily Zimmerman

Screened at EMPAC, *Systems* is an episode from the fifth season of the PBS series *Art in the Twenty-First Century*. Produced by Art21, it is the only series on television to focus exclusively on contemporary visual art and artists in the United States. This episode focuses on artists who invent new processes to convey the attitude of today's information-based society, examining why we find comfort in some systems while rebelling against others.

Systems features artists who realize complex projects through acts of appropriation or accumulation. In some instances, they create projects vast in scope, which almost elude comprehension.

Artists included in this episode are Julie Mehretu, John Baldessari, Kimsooja, and Allan McCollum.

THE BREAK/s: a mixtape for the stage

Marc Bamuthi Joseph

PERFORMANCE

RESIDENCY / COMMISSION

ANATOMY OF MELANCHOLY

Nuria Fragoso



OCTOBER 23 + 24, 2009

DISCIPLINE Contemporary Performance

CURATOR H  l  ne Lesterlin

In this "mixtape for the stage," the poet and hip-hop theater performer Marc Bamuthi Joseph traces hip-hop's evolution from a local and highly political art movement to a worldwide cultural force. Taking its lead from journalist Jeff Chang's *Can't Stop, Won't Stop*, *The Break/s* is a multimedia travelogue of Planet Hip-Hop, where an art form forged in the street meets the commercial and cultural stresses of globalism.

Through movement, spoken word, and personal narrative, Bamuthi shows us a world where even kids in Senegal dress in counterfeit FUBU-wear and sing along with rapper Tupac Shakur. Among other accolades, *The Washington Post* called *The*

Break/s "a thunderous, expansive and deeply felt wrestling match with being an American in the 21st century." Featuring live music by human beat-box and percussionist Tommy Shepherd and DJ Excess, live video by David Slzasa, and directed by Michael John Garc  s.

OCTOBER 19—JUNE 27, 2010 (2 VISITS)

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION Commissioned by EMPAC

PUBLICATION *DANCE MOVIES EMPAC 2009–2010* DVD, published by EMPAC

CURATOR H  l  ne Lesterlin

Nuria Fragoso is a Mexican artist, dancer, and performer whose work explores the phenomenon of space as a social reality and as shaper of human relationships. A recipient of a DANCE MOVIES Commission, Fragoso came to EMPAC first to research, and then to complete post-production on *Anatomy of Melancholy*. Shot in Mexico in contrasting environments including stark black-and-white interiors and a parched desert environment, the film uses visual metaphors about space and emotion to portray the quality of melancholy in social groups, catalyzed by the inadequacy of communication between individuals. Choreographed collectively by the performers, the film was edited in residence by Fragoso and Martha

Uc; also working in residence, Antonio Russek created the film's original sound.

SEE RELATED EVENT ON PAGE 418.



OCTOBER 6–10, 2009

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION *Upending*, including this recording by the Flux Quartet, was an EMPAC commission.

PUBLICATION *Morton Feldman's* String Quartet No. 1 by FLUX Quartet, recorded and produced at EMPAC, released by Mode Records

CURATOR Micah Silver

Flux Quartet have championed the works of the American composer Morton Feldman for over a decade, finding a way to even perform his second quartet whose duration is six hours. In collaboration with EMPAC, a new recording of Feldman's first quartet was made to highlight the delicate physicality of the music, specifically recorded to accompany the 3D video project *Upending* by OpenEnded Group, an EMPAC commission.

Strongly influenced by the irreverent spirit and "anything-goes" philosophy of the fluxus art movement, violinist Tom Chiu founded FLUX in the late '90s. The quartet has since cultivated an uncompromising repertoire that follows neither

fashions nor trends, but rather combines yesterday's seminal iconoclasts with tomorrow's new voices. Alongside late 20th-century masters like Cage, Feldman, Ligeti, Nancarrow, Scelsi, and Xenakis, FLUX has premiered more than 100 works by many of today's foremost innovators, including Michael Byron, Julio Estrada, David First, Oliver Lake, Alvin Lucier, Marc Neikrug, and Matthew Welch.

OCTOBER 6–10, 2009

DISCIPLINE Music/Sound

PUBLICATION *Nathan Davis: The Bright and Hollow Sky* by Nathan Davis / International Contemporary Ensemble, Audio recorded at EMPAC and Smith College Oktaven Audio, released by New Focus Recordings

CURATOR Micah Silver

After performing in EMPAC's opening festival, International Contemporary Ensemble returned to EMPAC's state-of-the-art recording venue to record *The Bright and Hollow Sky*, an album of the electro-acoustic music of Nathan Davis.

Davis is a New York City-based composer and percussionist whose work blends acoustical and electronic sound sources with fascinating results. Davis has studied at Rice University and, while on a Fulbright Fellowship, at the Rotterdam Conservatorium; he has also explored the philosophies of meditation and tonalities of Karnatic music. Davis has composed pieces for ensembles, including the Calder Quartet and the Ethos per-

cussion ensemble, which have also been featured at the Ojai Festival and at performances of the International Contemporary Ensemble.

PROGRAM
COMPOSITIONS BY NATHAN DAVIS
Like sweet bells jangled
pneApnea
The Mechanics of Escapement
Dowser
The Bright and Hollow Sky

DANCE MOVIES: COMMISSIONS
2007–2008

SCREENING

OCTOBER 3, 2009

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTIONS Commissioned
by EMPAC

PUBLICATION DANCE MOVIES EMPAC
2007–2008 DVD, commissioned and published
by EMPAC

CURATOR Hélène Lesterlin

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

Kino-Eye (US, 7 minutes) Directed by Joby Emmons; choreographed and performed by dancer Elena Demyanenko. Exploiting the technologies that constantly monitor us, *Kino-Eye* shadows a dancer through the public and private realms of contemporary Moscow. Immersed in an aesthetic of video surveillance, the dancer shifts in and out of glitches and static as video playback anonymously manipulates her stolen image.

Veterans (US, 17 minutes) Choreography and direction by Victoria Marks; photography, editing and direction by Margaret Williams. Five US vets recovering from PTSD make their way through the streets of Los Angeles, converging in a quiet alley and finding themselves in a ritual re-enactment of combat before returning to their separate lives. Marks and Williams worked with actual veterans to translate their imaginary and real experiences into a visual and kinetic story of longing and displacement.

PH Propiedad Horizontal (Argentina, 10 min.) Created by David Farias, Carla Schillagi and Maria Fernanda Vallejos. A group of dancers use a narrow passageway, typical for Argentinean urban housing, to create an elegant, abstract, and lively piece of pure movement and form.

Nora (US/Zimbabwe/Mozambique/UK, 35 min.) Directed by Alla Kovgan and David Hinton; choreographed by Nora Chipaumire with Souleymane Badolo. Chipaumire returns to the landscape of her African childhood and, using performance and dance, brings her history to life in a swiftly moving poem of sound and image. The result is a film about family dramas, difficult love affairs and militant politics, which moves back and forth between the comic and the tragic, the joyful and the mournful. With film score by a legend of Zimbabwean music, Thomas Mapfumo.



PH PROPIEDAD HORIZONTAL



KINO-EYE



VETERANS

THE BATTLES OF BEETHOVEN

Per Tengstrand

PERFORMANCE

RESIDENCY

my eyes...my ears...
Bruce Odland & Sam Auinger



OCTOBER 3, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

Swedish pianist Per Tengstrand presented a recital and talk revealing the technological breakthroughs that gave rise to Beethoven's piano sonatas, as well as the innovations that followed from them. Tengstrand performed most of the recital on an eight-foot-long Steinway grand, but also used a hammerklavier from the 1790s, the forerunner to the modern piano that was used by Beethoven in his early keyboard writing. The recital included Tengstrand performing portions of Beethoven's Piano Sonata No. 12 in A flat major, Op. 26 on each of the pianos. "Every instrument is a machine that we use to create music and sound," Tengstrand has said. "The development of that machine (the piano) made

composers write differently. It's the same as how there's an interaction between how cars are made and how we drive." Tengstrand has performed the complete Beethoven cycle of 32 sonatas in a number of cities, and is currently recording the complete cycle for his Mindfeel label.

PROGRAM

BEETHOVEN Sonata Op. 26 No. 12—*Funeral*

March (1801)

FRANZ LIZST *Funérailles* (1849)

BEETHOVEN: Sonata Op. 2 No. 3 (1796)

SEPTEMBER 29 + 30, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

What would it mean to build the city based on what we hear rather than what we see? Bruce Odland and Sam Auinger (O+A) are known for their observation of the urban soundscape and the resulting sound installations for public spaces around the world. Created with production support from EMPAC, *my eyes...my ears...* is a performance piece that deals with perception, memory and the failure of the "sonic commons." Based on their unique dual binaural recording process, the 40-minute performance immerses the audience in an extremely detailed spatial audio environment. This piece is intended to be followed by a round table discussion with relevant experts in fields of perception, psychoacoustics,

urban studies, architecture, economics, medicine, the environment, and other related fields. While in residence, Odland and Auinger researched possible loudspeaker systems. Using speakers on moving carts, they were able to perform a variety of tests that would inform upcoming performances of this work in the US and Europe.

SLOW WAVE: SEEING SLEEP

EXHIBITION

SEPTEMBER 25–27, 2009

DISCIPLINE Multidisciplinary

CURATOR Emily Zimmerman

Slow Wave: Seeing Sleep was an exhibition and three-day festival devoted to the visual methods used for understanding sleep, as part of a larger history of visual representation within medical imaging. The exhibition included seven artworks by Rodney Graham, Jennifer Hall, Pierre Huyghe, Fernando Orellana and Brendan Burns, Ana Rewakowicz, Ted Spagna, and Andy Warhol that each consider photographic and graphic methods for representing sleep. In the interdisciplinary exhibition, recordings of brain waves functioned as poetic transcriptions and artworks doubled as experiments. *Slow Wave: Seeing Sleep* included a commissioned visual essay, *Hidden Landscapes: The Time Lapse Sleep Photography of Ted Spagna*, by famed sleep scientist J. Allan Hobson that chronicled his long-term collaboration with photographer Ted Spagna, which resulted in the development of new tools for monitoring sleep. Over the weekend a series of events took place including a performance of Alvin Lucier's *Music for Solo Performer*, a multi-channel installation of lullabies in EMPAC's Concert Hall, a sleepover under Andy Warhol's famous first film, *Sleep* (1963), a workshop on reading polysomnograms, a screening of Richard Linklater's *Waking Life* (2001), tours, and conversations.

SLEEP WAKING



HIDDEN LANDSCAPES: THE TIME-LAPSE
SLEEP PHOTOGRAPHY OF TED SPAGNA



EPILEPTIFORMS: 5 REM

EXHIBITION

EXHIBITION:

Jennifer Hall, **Epileptiforms: 5 Rem** (1999) Hall's sculptures draw their form from an EEG recording of the artist's brain during REM sleep; each sculpture, rendered by a 3D printer, represents a five-second sample of brain activity.

J. Allan Hobson, **Hidden Landscapes, The Time-Lapse Sleep Photography of Ted Spagna** (2009) This visual essay documents the collaboration between Hobson, a Harvard University sleep researcher, and photographer Ted Spagna, whose photographs inspired new insights into scientific understandings of the stages of sleep.

Pierre Huyghe, **Sleeptalking** (1998) This video appropriates a three-minute loop from Warhol's 1963 film *Sleep*, paired with a 60-minute sound recording of John Giorno (the subject of the film) recounting his experiences around the time of the filming.

Rodney Graham, **Halcion Sleep** (1994) This 26-minute video shows Graham's static body in the back of a moving taxicab driving through the streets of Vancouver after ingesting a double dose of a sedative; the artist sought to enact "a regression based on my earliest recollection: that of briefly, only briefly, awakening from a luxurious and secure sleep in the back of my parents car on the way home..."

Fernando Orellana and Brendan Burns, **Sleep Waking** (2008) Modulations in EEG data from the artist's brainwaves during REM sleep trigger a series of physical actions in a robot similar to those experienced in a dream state—flying, lying, sitting, looking.

Ana Rewakowicz, **A Modern-day Nomad Who Moves as She Pleases** (2005) This installation presents videos that document the experiences and thoughts of six people who spent a night in the artist's SleepingBagDress Prototype, an inflatable dress powered by solar panels that can also serve as a nomadic structure for living.

Andy Warhol, **Sleep** (1963) Warhol's famous first film shows the poet John Giorno sleeping for five-and-a-half hours; the film's reductionist aesthetic abides by many of the same codes as scientific films produced in laboratory settings: the lack of a soundtrack, extreme length, and fixed camera position all recall early sleep footage.

EVENTS AND PERFORMANCES:

Music for Solo Performer (1965) Alvin Lucier's piece processes the brain waves of a seated, still performer to create spatial percussion music of resonances, rattles, and crashes. This rarely produced, radical composition from the '60s featured special guest performers from Rensselaer.

Waking Life (1999) Taking its title from George Santayana's statement that "Sanity is a madness put to good uses; waking life is a dream controlled," Richard Linklater's film *Waking Life* follows a young man through a series of philosophical conversations that take place while he is caught in a lucid dream.

Sleepover under Warhol's **Sleep** (1963) Visitors brought a sleeping bag and pillow for a sleepover under a projection of Warhol's marathon five-and-a-half hour film, *Sleep*.

Lullabies from all around all around you: EMPAC's Concert Hall played recorded lullabies from all over the world—simultaneously, and from many directions.

Portraying the Body in Sleep was a workshop on reading polysomnograms by Dr. Rober Rider, the primary means used by sleep labs to depict changes that take place in the body during sleep.



WAKING LIFE



SLEEPTALKING



SLEEPOVER UNDER WARHOL'S SLEEP



HALCION SLEEP



MUSIC FOR SOLO PERFORMER



LULLABIES



A MODERN-DAY NOMAD WHO MOVES AS SHE PLEASURES

PERFORMANCE
RESIDENCY

RESIDENCY:
SEPTEMBER 22–23, 2009
OCTOBER 18, 2009

PERFORMANCE:
OCTOBER 16–17, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

Taking advantage of the unique sound system built for EMPAC's 360° screen, composers and sound artists Daniel Teige (Germany) and Volkmar Klien (Austria) were invited to create new works for this 40+ speaker surround sound system. Over two weeks they worked in split shifts, culminating in a joint concert.

Daniel Teige is a Berlin-based composer, sound artist, and sound director specializing in installations, improvisation, and interactions. His quirky sound collages combine ambient sound with elegant musical progressions, for an effect that is both classically restrained and whimsical. Teige is also an expert interpreter of the music of composer Iannis Xenakis, having reconstructed and performed his magnum opus *Persepolis* several times in Europe.

Volkmar Klien works in various areas of the sonic arts, from electronica to interactive installations and instrumental compositions. Klien was invited to EMPAC to remix a composition—*Start-Ziel-Siege*, in which washes of electronic feedback float over computer-generated percussion—for dozens of speakers. “Start-Ziel-Siege” is a phrase used in the German racing world that signifies a “start-to-finish victory.”

PROGRAM

VOLKMAR KLEIN *Start-Ziel-Siege*
DANIEL TEIGE, SIMON LEE, & EVE SUSSMAN
Parade of Artificial Things



**SEPTEMBER 21, 2009–
MARCH 5, 2012**
(3 VISITS)

DISCIPLINE Theater

ABOUT THE PRODUCTION *RE: Walden* was made possible with the support of Etant donnés: The French-American Fund for the Performing Arts, a program of FACE.

CURATOR Hélène Lesterlin

Director Jean-François Peyret was inspired by the writings of transcendental philosopher Henry David Thoreau and two years spent living by Walden Pond to create *RE: Walden*, a piece that merged theater, music, live performance, and large-scale video projection. Peyret's work uses theater for reveries on the living and artificial, bodies and machines, and mankind's technical destiny, often influenced by the writings of philosophers and scientists. Peyret and his team used their month-long residency in 2010 to collaborate with EMPAC audio and video engineers on the piece's sonic and video environment. The artists also conducted on-site research at Walden Pond in Massachusetts, and set up a photo rig to

capture images of the pond over the course of a year, viewing their video experiments in full resolution. Composer Alexandros Markeas worked on a composition for player piano, multi-channel speaker array, and various resonators.

SEE RELATED EVENT ON PAGE 291.

**SEPTEMBER 17, 2009–
MAY 13, 2010**

DISCIPLINE Film/Video

CURATOR Hélène Lesterlin, Kathleen Forde, Micah Silver, Emily Zimmerman

Unfiction: A series of documentary films that turn truth into something other than fact, disobeying typical documentary filmmaking practice—using poetry and imagination rather than transparency and objectivity.

September 17, 2009: **The Sounds of Science** (2002) Eight short mesmerizing science films of Jean Painlevé (1902-89) with a score by the rock band Yo La Tengo.

October 8, 2009: **White Sky** (1998) The title refers to the cloud of dust that arrives to the Russian town of Monchegorsk every morning from the local nickel mine, obscuring the sky. Focusing on the day-to-day lives of a family who live and work in the town, *White Sky* presents a view of human relationships and adaptability rather than of ecological disaster.

November 19, 2009: **Examined Life** (2008) Filmmaker Astra Taylor accompanies some of today's most influential thinkers on a series of unique excursions through places that hold particular resonance for them; featuring Cornel West, Avital Ronell, Pete Singer, Kwarne Anthony Appiah, Slavoj Žižek, and others.

December 10, 2009: **Encounters at the End of the World** (2007) A study of the sublime and the absurd at the southernmost point of the planet, Werner Herzog's documentary examines the psychology of the scientists and technicians who have chosen to live and work in this formidable landscape.

February 4, 2010: **The Beaches of Agnès** (2008) Made as its auteur approached her 80th birthday, this is a playful, elegiac autobiography: a moving collage in which clips from her earlier films are juxtaposed with images from her travels, projects, and relationships, as documentary realism gives way to dreamy montages and surrealist set pieces.

April 8, 2010: **Man on Wire** (2008) An Academy Award-winning documentary about Philippe Petit's daring and defiant tightrope walk between the Twin Towers, known as the "artistic crime of the century." Presented in conjunction with *Dancing on the Ceiling: Art & Zero Gravity*.

May 13, 2010: **Megunica** (2008) Filmmaker Lorenzo Fonda follows the Italian graffiti artist Blu through Mexico, Guatemala, Nicaragua, Costa Rica, and Argentina. The result is an ebullient and unscripted film, mixing animation and cinema vérité, that asks questions about art in the urban landscape and its transformative powers.



SEPTEMBER 11, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

The New York Times once described the music of the Osaka-based Boredoms as “writhing, howling, spasmodic, cartoon art-punk built on split-second timing.” Adding banks of drummers, often playing in unison for an effect at once hypnotic and propulsive, Boredoms performed *77BOADRUM* in 2007 (with 77 drummers) and *88BOADRUM* in 2008. In 2009, they came to EMPAC for *Boadrum 9*, continuing their free-ranging aural play with a circle of nine drummers that generated a field of densely layered ambient percussion that literally shook the house, with unexpected pockets of deep and meditative calm. As one of their members, Yamamoto Seichii, described the Boredoms approach, “sound is everywhere. It is anything.

And whatever we think is interesting sound, we begin to collage it together...but don't take so seriously what we're doing.”

Opening for the Boredoms was the Atlanta trance-punk band Deerhunter, whose reverb-heavy sound incorporates influences from girl-group to garage.

New Nothing features a series of performances of national and international musicians working in the hybridized terrain of experimental-leaning popular music. These groups exemplify a global reality where music hasn't just crossed borders but made them irrelevant.

ELEVATED

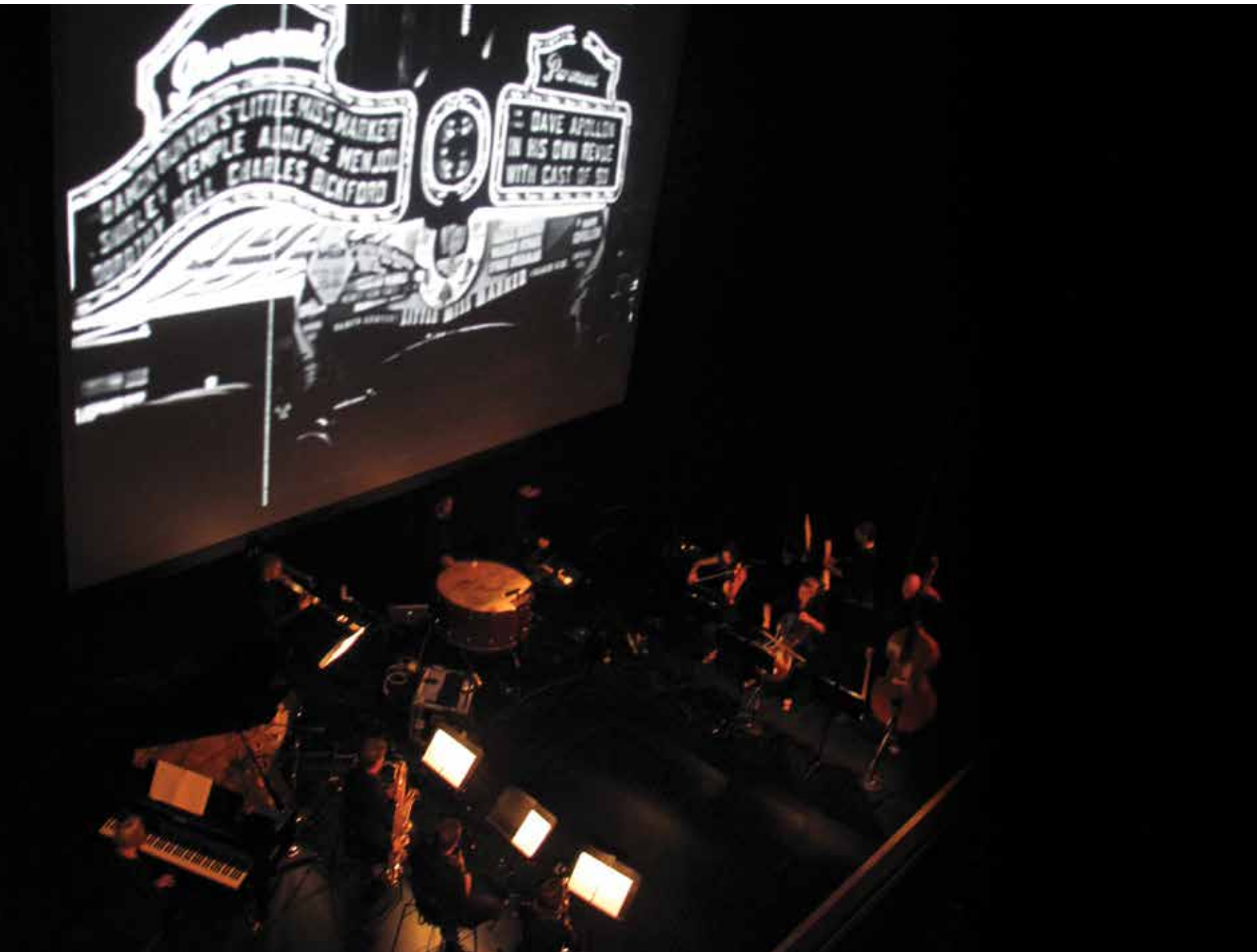
Contact Ensemble

PERFORMANCE

RESIDENCY

LUCID POSSESSION

Toni Dove



SEPTEMBER 3, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

Composer David Lang (co-founder and artistic co-director of Bang on a Can) presented four recent works—performed by Contact Ensemble—in conjunction with films by four ground-breaking visual artists: photographer William Wegman, filmmaker Bill Morrison, videographer Doug Aitken, and conceptual artist Matt Mullican. The compositions in *ELEVATED* range from the densely orchestrated *Men* (trombone, English horn, bass clarinet, baritone sax, keyboard, viola, cello, and double bass) to the spare and delicate *Wed*, whose solo piano provides an apt accompaniment to Wegman’s film of one of his haunted Weimeraners at play. Morrison’s grainy footage of an iceberg rising majestically above a heaving

sea is paired with the martial drumbeat and sinuous, meditative cello and guitar of *How to Pray*. And Lang reworks the Velvet Underground classic *Heroin* as a somberly beautiful duet for voice and cello. The collaboration with the filmmakers and Contact (an ensemble dedicated to performing new music that is at once accessible and challenging and that embodies values of inclusiveness and innovation) suggested new pathways—both neural and aesthetic—between music and cinema, hearing, and sight.

AUGUST 3–16, 2009

DISCIPLINE Contemporary Performance

CURATOR Kathleen Forde

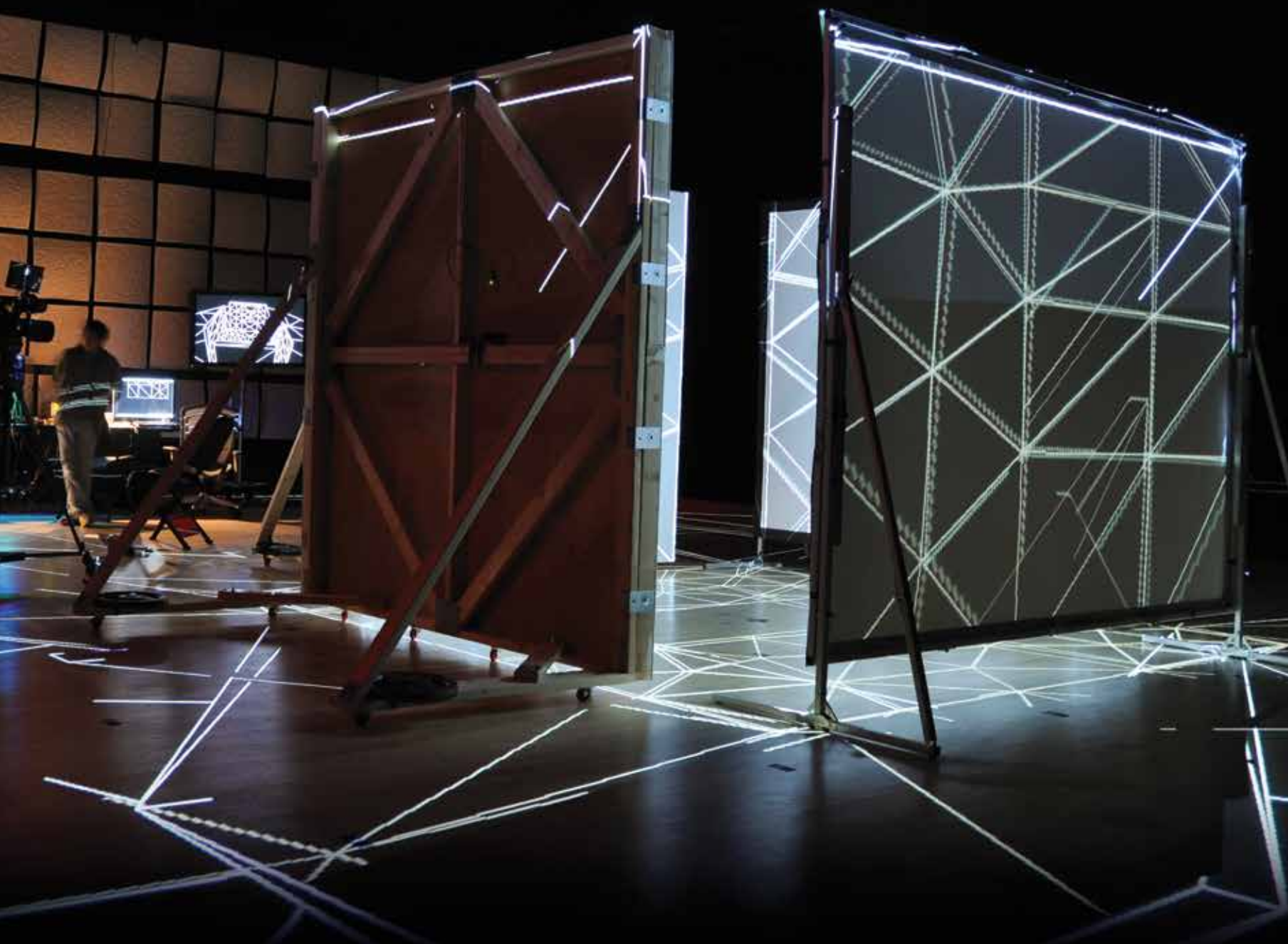
Lucid Possession is a live-mix cinema performance. Musicians, a VJ, and stage-controlled robotic screens combine to present a contemporary ghost story—a poetic musing on managing the mass of online information “noise.” *Lucid Possession* draws the audience into a world in which video characters come to life: The wave of a hand moves a video body, and video characters lip sync live to a singer. The players onstage collectively perform the movie, which spills off the dynamic, dimensional screens onto the stage. The result is like a complex three-dimensional, automated video pop-up book, and as characters are brought to life through motion, voice, and robotics, the boundaries of the real and virtual are blurred.

At EMPAC, Dove worked with her team on the challenges of projection on non-traditional surfaces, such as fog, as well as filming segments of the piece with EMPAC’s Steadicam equipment.

VIRTUAL HELIODON

Barbara Cutler, Yu Sheng,
Theodore C. Yapo, & Christopher Young

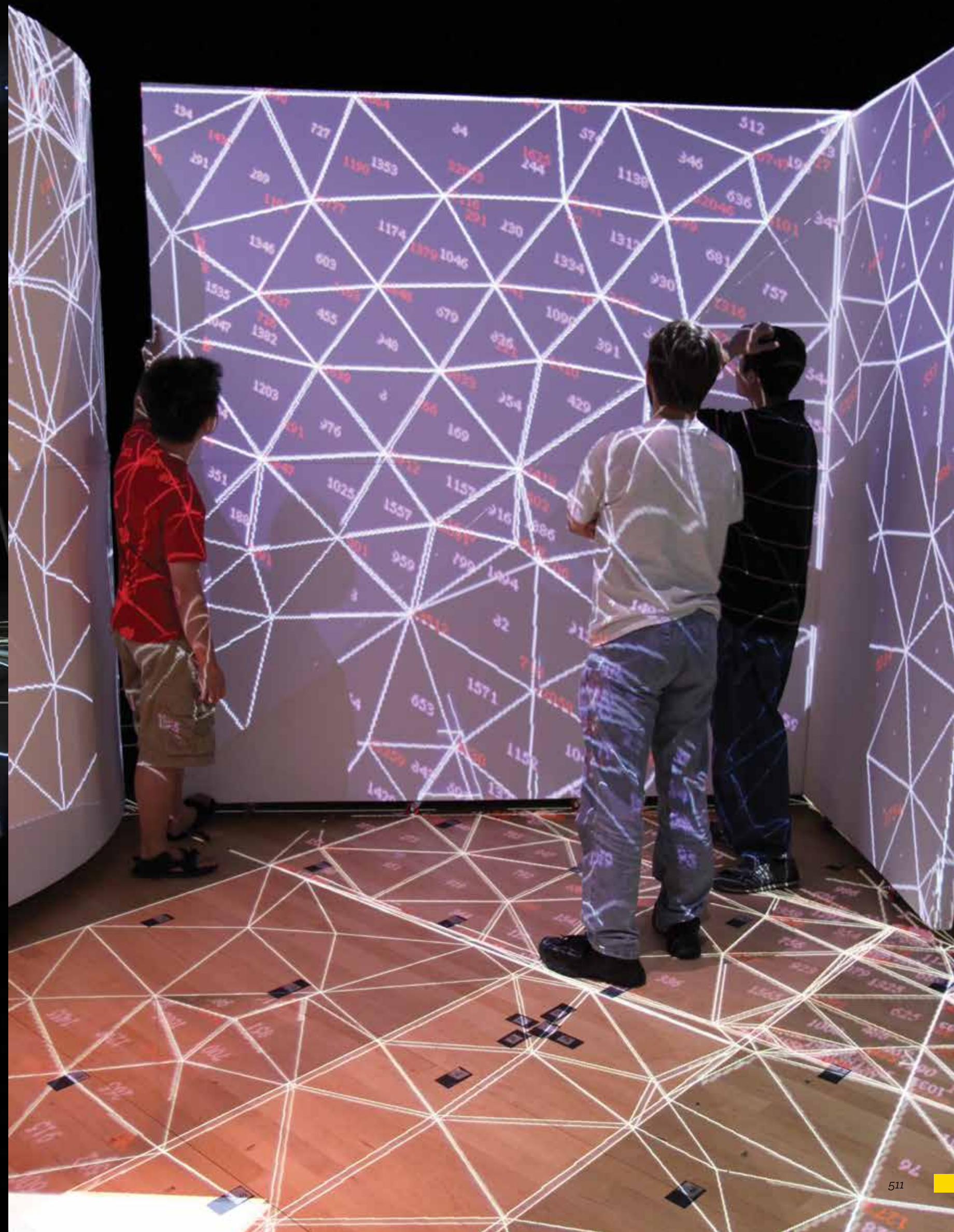
RESEARCH



AUGUST 1, 2009–
JULY 31, 2010

Virtual Heliodon: Spatially Augmented Reality for Architectural Daylighting Design was research into a physical design environment where designers can experience animated visualizations of the natural illumination within a proposed design by controlling the time of day, season and climate. This interactive illumination and augmented reality environment allows designers to explore alternative designs and new technologies for improving the sustainability of buildings. A set of actual scale walls can be moved to model a given room configuration, and participants can also redesign the space by repositioning virtual windows on the walls, and immediately see an

updated lighting simulation. Images of walls and their changing location are captured by a camera above the scene, and are processed to construct a virtual 3D model. To achieve interactive rendering rates, a hybrid rendering technique is used, leveraging radiosity to simulate the inter-reflectance between diffuse patches and shadow volumes to generate per-pixel direct illumination. The rendered images are then projected on the real model by four to six calibrated projectors to help users study the daylighting illumination. This work was also supported by a grant from IBM.



A LAUGH TO CRY
Miguel Azguime

RESIDENCY

RESIDENCY

INTONARUMORI CONSTRUCTION
Luciano Chessa



JULY 10–AUGUST 9, 2009

DISCIPLINE Contemporary Performance; Music/
Sound

CURATOR Micah Silver

Miguel Azguime, a composer, percussionist, and poet from Portugal, began work at EMPAC with his team on a new multimedia performance piece, *A Laugh to Cry*, including stereoscopic projection, a small chorus, and several onstage musicians. An evening-length work featuring himself as soloist, the piece was based on a variety of texts in several languages: Gertrude Stein, Antonin Artaud, James Joyce, as well as contemporary Portuguese poets. The work was premiered at the Warsaw Autumn Festival in 2013.

Azguime's previous opera *Salt Itinerary* toured America, Canada, Europe, and Asia; in its performance he spoke and sung in five languages,

and used a combination of real-time algorithmic audio and video. Azguime has composed instrumental and/or vocal works with and without electronics, electroacoustic music, sound poetry, including music for sound installations, theater, exhibitions, dance, and cinema. He also dedicates himself to the promotion of contemporary music as artistic director of the independent label Miso Records and of the Música Viva International Festival.

JULY 5–18, 2009

DISCIPLINE Music/Sound; Contemporary
Performance

ABOUT THE PRODUCTION A Performa
Commission with San Francisco Museum of
Modern Art and EMPAC

CURATOR Micah Silver

Luciano Chessa came to EMPAC to reconstruct Futurist composer and inventor Luigi Russolo's *intonarumori* (or noise intoners). In collaboration with EMPAC and Performa, Chessa embarked on this reconstruction using his research that revised longstanding misconceptions about their construction, making this ensemble the first sonically accurate portrayal. Chessa brought instrument builder Keith Carey to EMPAC and a small team worked in Rensselaer's architectural fabrication studios to produce the ensemble of instruments. A demonstration video was also created to share with a number of composers—Blixa Bargeld, Pauline Oliveros, Ellen Fullman, Ulrich Krieger, and Mike Patton—commissioned

by Performa to compose new works for the *intonarumori* to be premiered at New York City's Town Hall as part of Performa 09. Chessa is a composer and musicologist, and teaches music history at the San Francisco Conservatory. The research done at EMPAC contributed to his book, *Luigi Russolo, Futurist: Noise, Visual Arts, and the Occult*, published by UC Press in 2012.



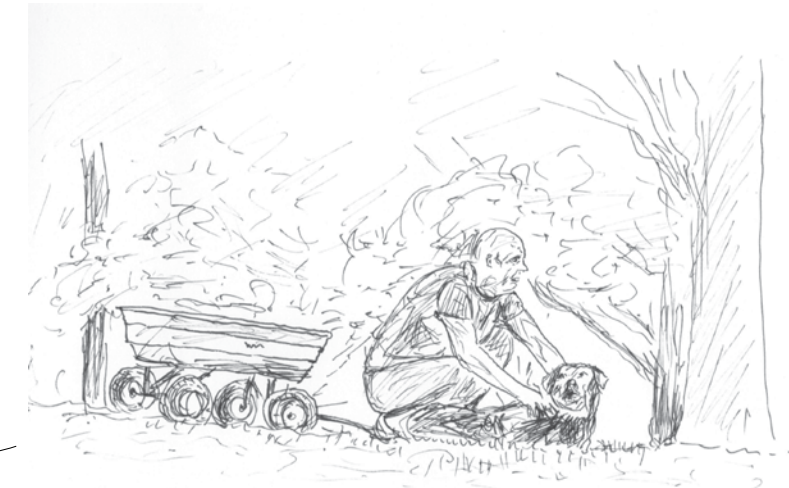
EXHIBITION
RESIDENCY / COMMISSION

TAKE A DAY FOR YOURSELF!

Mads Lynnerup



Heading to Farmers Market



Massaging the dog



Taking a stroll the rest of the way



Biking and juggling



Admiring tug boats

RESIDENCY:
JUNE 17–
OCTOBER 1, 2009
(2 VISITS)

INSTALLATION:
OCTOBER 1–
DECEMBER 16, 2009

DISCIPLINE Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Kathleen Forde

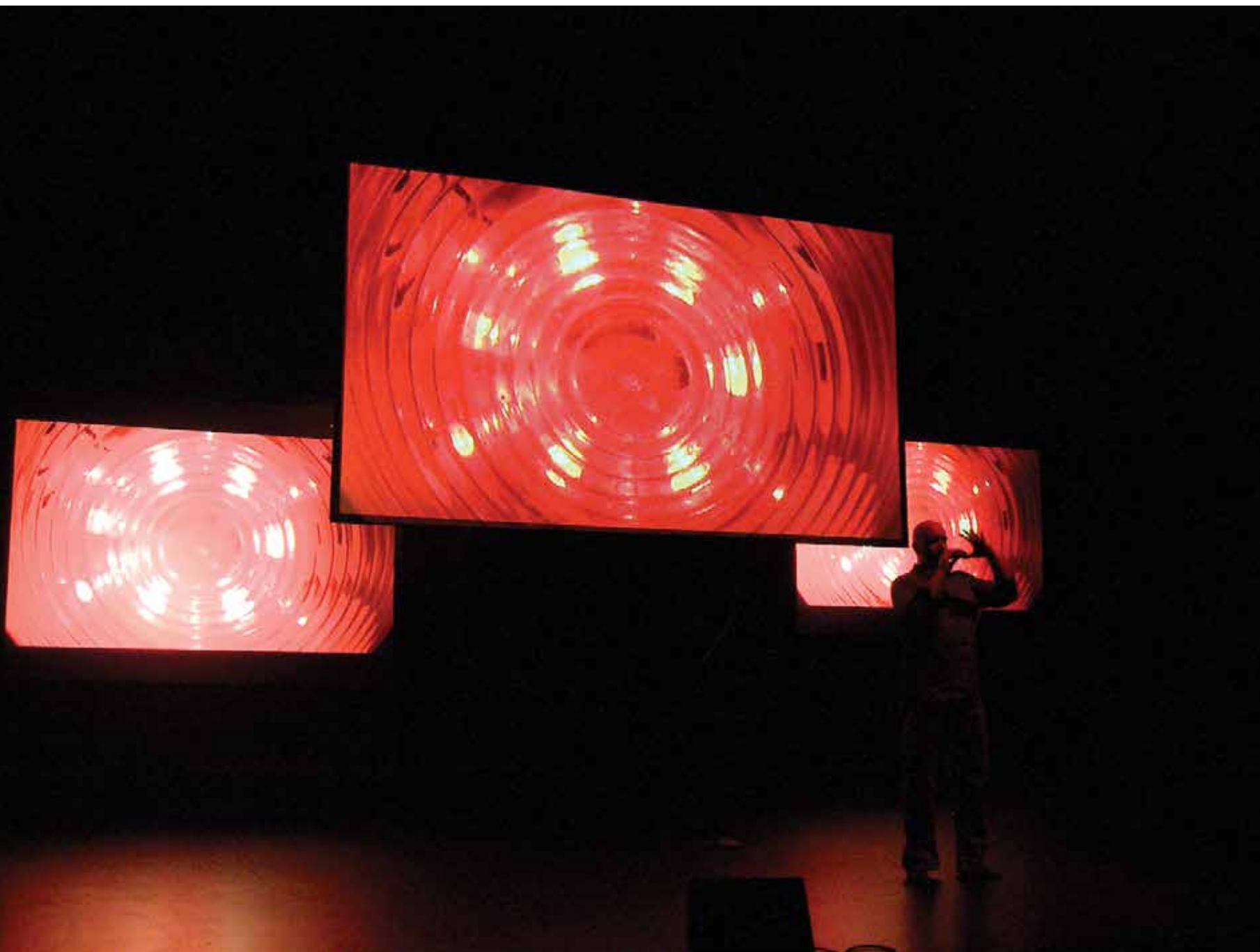
Many of the themes in the work of Mads Lynnerup, a Brooklyn-based Danish artist, have roots in his interest in the everyday, whether it's the influence of billboards and advertisement texts, or his obsession with the daily routines taking place in public space. During his residency to create *Take A Day For Yourself*, Lynnerup recruited members of the Rensselaer and Troy communities willing to "call in sick" so he could follow each of them for a day to document their preferred activities. The rich and inventive uses that Lynnerup's subjects made of the 12 hours of stolen time were shown on short videos and oversized posters that together made up a whimsical visual guide to taking a day off in Troy—or anywhere else—and to gently subverting some of the fundamental expectations of our society. Lynnerup has shown his work at the SFMOMA, The Mori Art Museum in Tokyo, MoMA PS1 New York City,

and Warsaw's Zacheta National Gallery of Art, and is represented in the collections of the Blanton Museum of Art, the Miami Art Museum, the Orange County Museum of Art, and the San Jose Museum of Modern Art.

BEACONS

Yvon Bonenfant

PERFORMANCE



MAY 29 + 30, 2009

DISCIPLINE Music/Sound; Contemporary Performance

CURATOR Micah Silver

With his voice and singing as the starting point, Yvon Bonenfant has created or collaborated on live performance, installation, and video art. *Beacons* extends Bonenfant's interest in using live performance to engage and transform the body, joining the video work of David Shearing with his otherworldly extended voice technique and his all-voice musical compositions. Exploring a simple concept, ubiquitous in our modern environment—the flashing beacon light—*Beacons* enters a world of presence and absence, of calling and wanting, and of the purity of the experience of light in darkness. Bonenfant's many voices—at times delivered solo and at others accompanied by choirs of carefully composed vocal environments,

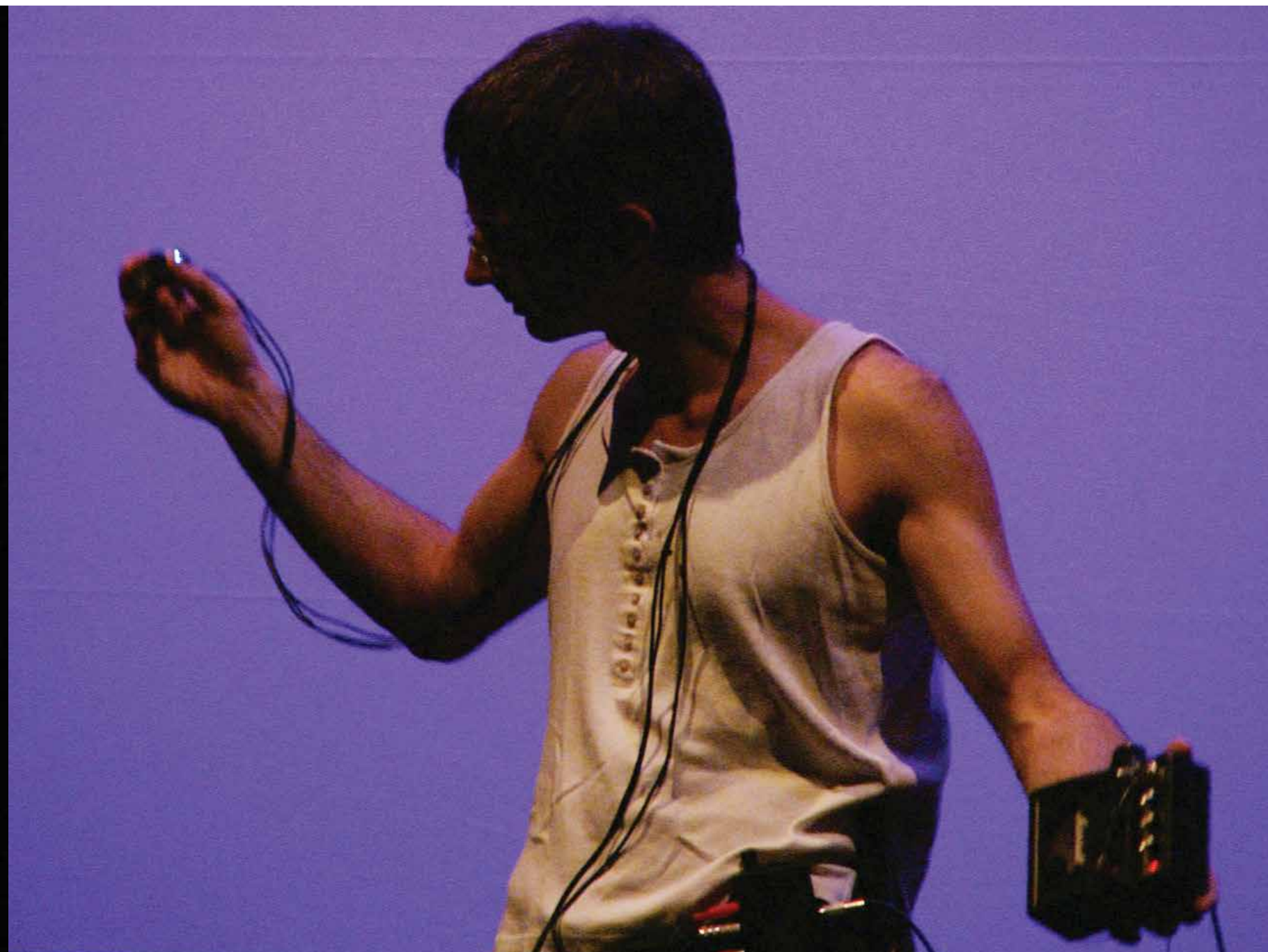
unamplified or amplified, both male and female sounding with the tonal range of the cello—takes the audience on a journey through a broad spectrum of sensation and emotion.

SEE RELATED RESIDENCY ON PAGE 531.

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PERFORMANCE



THE SPACE PROGRAM

Rafael Toral

MAY 8, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

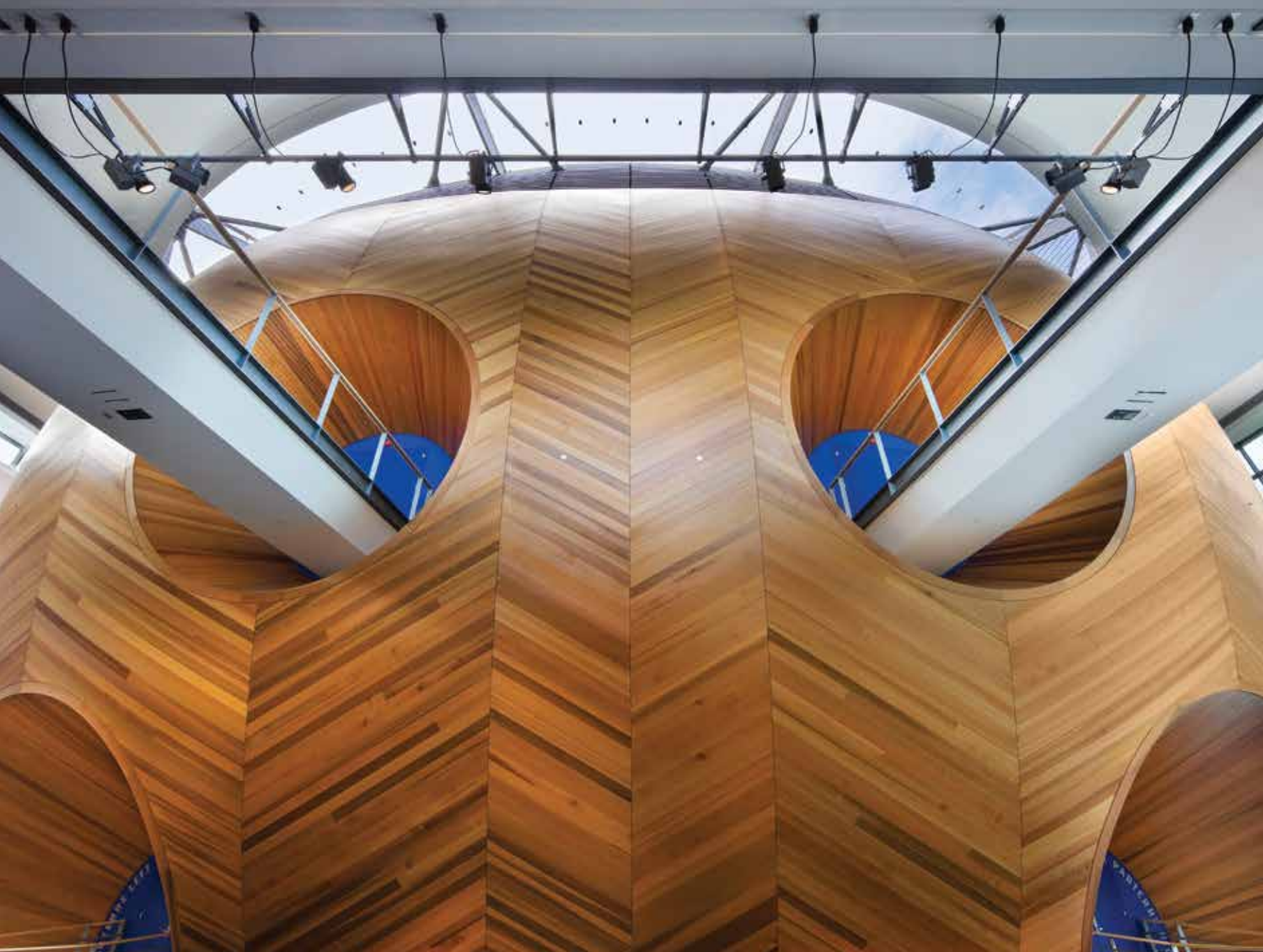
Space Studies is a series of works exploring different combinations of gestural control and sonic palette. Each study is an interdependent spatial and aural exploration that together creates an instrument of Toral's own design. These instruments require visible performance techniques that in many cases are more akin to dance than to what we think of as part of a laptop or electronic music performance (clicking, knobbing, mousing, buttoning).

Toral has performed internationally throughout Europe, US, Korea, Japan, New Zealand, and Australia. He has collaborated with Phill Niblock, John Zorn, Lee Ranaldo, Alvin Lucier, Jim

O'Rourke, Evan Parker, Roger Turner, and David Toop, among others. Formerly known for his acclaimed work with guitar, electronics, and records such as *Wave Field* (1994) or *Violence of Discovery* and *Calm of Acceptance* (2000), in 2003 he embarked on a quest for a discipline/process to structure musical discourse in "post-free jazz" electronic music, releasing *Space* in 2006, his first CD from *The Space Program*.

2114

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**APRIL 27, 2009–
JANUARY 21, 2011**
(5 VISITS)

DISCIPLINE Music/Sound

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

Michael J. Schumacher is a composer, performer, and installation artist based in Brooklyn, NY. He works predominantly with electronic media, creating computer-generated acoustic environments that evolve continuously for long time periods. In their realization, Schumacher uses multiple speaker configurations that relate the sounds of the installation to the architecture of the exhibition space. Architectural and acoustical considerations thereby together become basic structural elements.

At EMPAC, Schumacher continued his site-specific, multi-channel sound installations—called *Room Pieces*—with *Room Pieces Troy 2010*. Each

Room Piece takes on a unique identity based on the space in which it is installed. During his residencies, Schumacher developed his piece for EMPAC's vast, multi-zone public address system to be experienced in and around the current noise of the building—not only adding a sound environment but reframing the one that already exists.

SEE RELATED EVENT ON PAGE 423.

APRIL 24–26, 2009

DISCIPLINE Theater

CURATOR Héléne Lesterlin

Dogugaeshi takes its name from a 17th-century Japanese stage technique in which sliding paper screens depicting animals, interiors, or landscapes are whipped away by puppeteers to reveal new backdrops. It has been described as a “wood-and-paint version of multimedia.” Puppeteer Basil Twist takes the technique as a departure point for an intimate, contemporary work of puppetry influenced both by the tradition of dogugaeshi and his own encounters with the remaining rural caretakers of this once-popular art form. Blending lightning-quick sliding screens, a magnificent puppet of a white fox, trompe l’oeil perspective, and video projection, and accompanied by original shamisen compositions created

and performed by authorized master musician Yumiko Tanaka, Twist creates a magical and meditative miniature universe.

Twist is a third-generation puppeteer, and the only American to graduate from the École Supérieure Nationale des Arts de la Marionnette in France, one of the world’s premier puppetry training programs.



APRIL 17–19, 2009

DISCIPLINE Film/Video; Music/Sound;
Visual Art

CURATOR Kathleen Forde

The US premiere of this international showcase of the moving image featured groundbreaking short film screenings, installations, live cinematic performances, and VJ/DJ events. EMPAC was the only US stop in the 2009 international tour.

Participating artists included Jenks, Jesse Stiles, Olga Mink, Quayola, Scanner, skfl, and Troika. The three-day festival featured:

: All-day screenings of compilations of short-form videos representing the latest innovative work in moving image including music videos, character animation, experimental digital shorts, and motion-graphic design;

: Installations by Troika and Quayola: Troika's *Digital Zoetrope* took the form of a modern digital zoetrope, a cylindrical drum that displays a multitude of audio-visual outputs, while Quayola's *Strata #1* was an audio-visual installation exploring icons from Rome's renaissance architecture presented on huge screens suspended from the ceiling;

: Performances including *The Nature of Being*, a live audiovisual "conversation" between Scanner and Mink, comprised of three channels of immersive video projections, panoramic views and surround sound with a haunting live soundtrack, and Quayola's *Path to Abstraction*, a live synesthetic audiovisual event using the *Strata #1* installation.

The London-based onedotzero is an international moving image and digital arts organization that commissions, showcases, and promotes innovation across all aspects of moving image, digital, and interactive arts. Founded in 1996, its collaborative approach is attuned to technological advances and changes within digital arts and the contemporary cultural landscape.



DELUSION

Laurie Anderson

RESIDENCY

APRIL 2—NOVEMBER 20, 2009

(5 VISITS)

DISCIPLINE Music/Sound;
Contemporary Performance

CURATOR Kathleen Forde

During multiple residencies at EMPAC, Laurie Anderson developed *Delusion*, a new meditation on life and language by way of music, video, and storytelling. Commissioned for the 2010 Winter Olympics, Anderson conceived of the work as a 90-minute series of short plays featuring two characters (both played by Anderson) that would look at opposing views of issues, beliefs and themes. Anderson described her motivation to address how “our strident media culture communicates increasingly in tirades... Contemporary culture is full of dualities and conflicts and these plays would address themes like the creation of enemies, the dependence on experts, and contrasting views on death, religious beliefs, and the nature of time.” The residency was also an opportunity for Anderson to revisit her use of video in a theatrical setting. In particular, she experimented with screens and equipment that are small, flexible, and easy to tour. The residency included work-in-progress sessions with students, faculty, and staff.

One of America’s most renowned performance artists, Laurie Anderson’s genre-crossing work encompasses performance, installation, film, music, writing, and photography. Anderson has invented several technological devices for use in her recordings and performance art shows, and published books, produced numerous videos, films, radio pieces, and original scores for dance and film.

SEE RELATED EVENT ON PAGE 406.

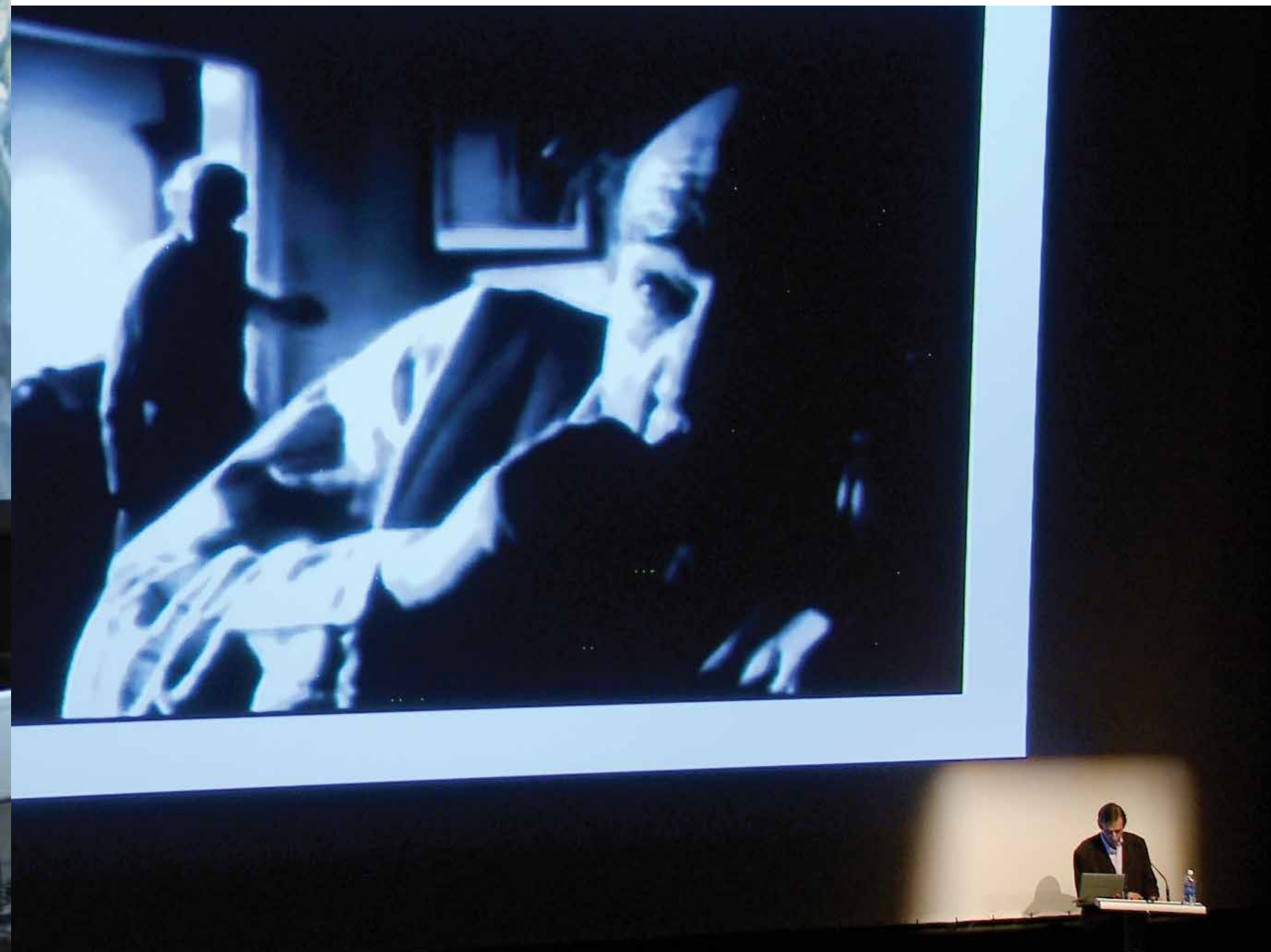


IN A GLASS HOUR

TALK / COMMISSION

THE CHRONOPHER

Steven Connor



APRIL 2, 2009

DISCIPLINE Humanities

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

The Chronopher was an EMPAC-commissioned talk about time and the voice written and delivered by Steven Connor, academic director of the London Consortium Graduate Programme in Humanities and Cultural Studies. As a writer and scholar, Connor’s range of interest is vast: from Samuel Beckett to the housefly, from post-modern culture to ventriloquism, Connor has embraced, elucidated, and entwined high and popular cultures in a career of investigation as erudite as it is broad. As a speaker, he is similarly adventurous. In a series of radio essays for the BBC, Connor has discussed *Twilight*, *Tristram Shandy*, Glenn Gould, and London’s Great Smog of 1952. In work that has been praised as incisive,

colorful, and scholarly but wry, Connor weds an anthropologist’s comprehensive curiosity with academic rigor and a dry wit, taking readers on surprising tours of the human condition.

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.



MARCH 26–28, 2009

DISCIPLINE Dance

CURATOR Hélène Lesterlin

Tere O'Connor looks to concepts of adaptability in contemporary architecture as source for the intimate and shifting environment of *Rammed Earth*. Audience members are incorporated into the expanding, contracting, liquid space of this site-adaptive dance work, as they are moved into different places within the space throughout the performance. The dance unfolds around them in layers of meaning, gesture, energy, and emotion. In all of O'Connor's works, he aims to connect the rational and the unconscious mind, so that shifting perceptions create a web of personal and historical impulses. This work was sparked by his interest in sentient architecture, in which structures form in response to tem-

perature, climate, or human interactivity. Though the title of the work refers to a building technique, it has a metaphorical resonance. In *Rammed Earth* there is the suggestion of force, of an environment under siege.

MARCH 24, 2009

DISCIPLINE Dance; Music/Sound; Tools and Technology

CURATOR Hélène Lesterlin

Frédéric Bevilacqua, leader of the Real Time Musical Interactions team at IRCAM—the Paris-based Institute for Music/Acoustic Research and Coordination—shared his current research in gesture analysis and software development, including real-time demonstrations of potential applications in music and dance.

Bevilacqua works at the intersection of the scientific analysis of movement, the engineering of creative interfaces, and artistic collaboration. He has participated in the development of artistic projects that make use of motion-capture data to generate other elements of the piece (such as the movement of a dancer driving the sound)

and his team created a software system called the *gesture follower* that can learn and recall specific gestures performed live by a dancer. This workshop included a live demonstration of the *gesture follower* system with a dancer and violinist/composer Mari Kimura demonstrating different features of the augmented violin.

WANDERING BETWEEN THE WORLDS

Johannes Goebel

TALK
PERFORMANCE

EXHIBITION

TRIANGLE OF NEED, THE CHITTENDENS

and D-PATTERN

Catherine Sullivan with Sean Griffin



MARCH 21, 2009

DISCIPLINE Music/Sound

EMPAC can be seen as a big instrument that bridges the world we can see, hear, touch and move around in, the world we can experience, and the intangible realm of digital computers that can only become meaningful when it is connected to our experience through sound, light, images, movement, or anything our senses can perceive. While in the Old World, EMPAC's Director Johannes Goebel built non-traditional instruments out of wood, metal, and plastic; when in the New World, he programmed instruments in digital code. In this workshop, Goebel described how digital and physical worlds influenced his instrument building and compositions, which were demonstrated, and how musical instruments are

tuned more by culture than by human genes. In the concert, electronic pieces composed under the influence of both computers and centuries of instrumental music were presented.

Johannes Goebel joined Rensselaer as director of the Experimental Media and Performing Arts Center (EMPAC) in 2002.

MARCH 20-29, 2009

DISCIPLINE Film/Video; Music/Sound;
Visual Art

CURATOR Micah Silver

Three video installations were created in collaboration by composer Sean Griffin with the artist Catherine Sullivan. Sullivan's work comes out of theater, but has become primarily realized as a multi-screen video installation with Griffin scoring and collaborating on the overall sound of the work. In *The Chittendens*, 16 actors execute elaborate movement structures, vocalize, and portray distinct attitudes with characters embodying stereotyped identities of 19th and 20th century America. In *Triangle of Need*, the far-flung, conceptually mosaic work takes the idea of the Neanderthal as its source metaphor but explodes it into fractured narratives ranging from Nigerian email scams to figure skating. *D-Pattern* is an

exuberant work in which the emergence of narrative erupts from automata-like compositional/choreographic structures. "It's like a Ouija board," Griffin says, "a conjectural machine spelling out something that isn't really there."

UPENDING

The OpenEnded Group

RESIDENCY / COMMISSION

MARCH 14, 2009–
MARCH 25, 2010
(6 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Micah Silver

Upending, a work commissioned by EMPAC, is a stereoscopic theater performance, an actor-less drama of disorientation and reorientation that compels us to rethink our relationship with the material world. Using ordinary flat photographs and processing them with non-photorealistic rendering and stereoscopic HD video, *Upending* transfigures familiar objects, spaces, and persons in ways that are both beautiful and uncanny. *Upending* takes the form of live 3D cinema and has the viewers' eyes probing the projected imagery almost as if touching its light, feeling for the illusory surfaces of things as they cross the threshold from abstraction to likeness.

Upending is enacted on both perceptual and thematic levels. Ordinary objects, spaces, and bodies are probed and queried from unfamiliar perspectives, so that viewers become exquisitely aware of their own perceptual processes and of their minds' continual attempt to spin out meaning from what their eyes take in. The play of images is accompanied by an EMPAC-produced recording of Morton Feldman's First String Quartet by the FLUX Quartet that places the listener, literally, in the center of the ensemble, with every sonic gesture articulated across space simultaneously. Through this aural lens, the moving image becomes almost balletic, even as the projected play of light allows the audience to hear Feldman as never before.

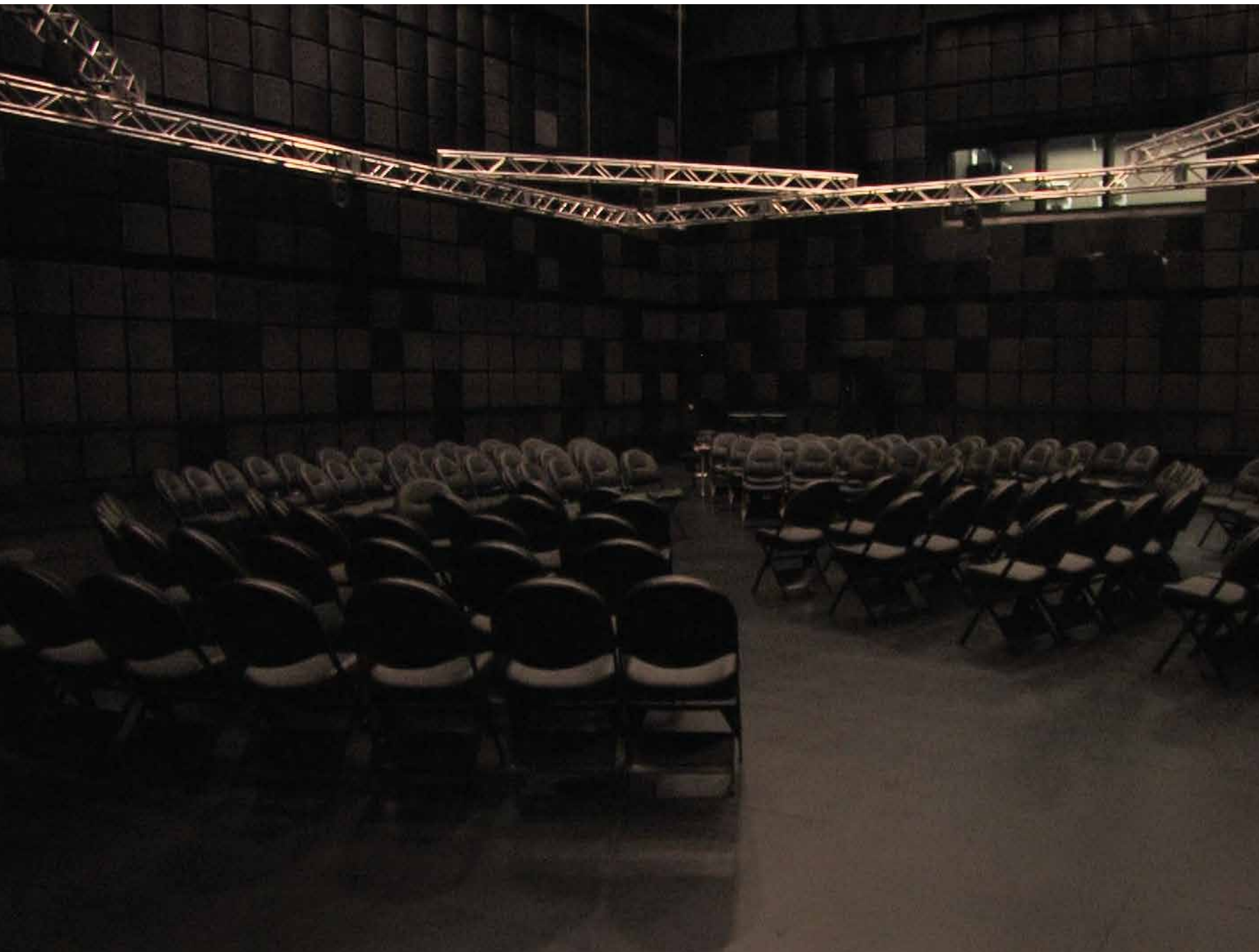
SEE RELATED EVENT ON PAGE 443.



ZEROTH CHANNEL II

*Doug Henderson, Seth Cluett,
and Natasha Barrett*

PERFORMANCE



MARCH 6, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

Is listening to a recording of a bottle somehow still listening to a bottle? What about the wind around a glacier or a hammer? This event presented new works using up to 18 loudspeakers by composers Doug Henderson (Berlin), Seth Cluett (Troy), and Natasha Barrett (Oslo) that lead the listener into questions of what is real, true, or important in identifying the concrete origin of a sound used in the work. What are the possible, or meaningful, transferences of time and place in audio works beginning with documentary-style sound recording? Is it possible to deliver an acoustic photograph? Is that the intention of the composer? And in either case, can we perceive it like that?

Zeroth Channel is a series of concerts using a variety of approaches to multi-channel sound diffusion, an area of musical practice since the 1950s where composers have explored how sound literally takes up space.

RESIDENCY

BEACONS

Yvon Bonenfant



MARCH 2–13, 2009

DISCIPLINE Contemporary Performance; Music/
Sound

CURATOR Micah Silver

Yvon Bonenfant, a vocal and interdisciplinary performance artist, collaborated with EMPAC staff to produce *Beacons*. The work was inspired by a simple, ubiquitous feature in our environment: the flashing beacon light. The work was a collaboration with David Shearing who generated a video landscape—replete with flashing highway lights, antenna beacons, ocean buoys, and lighthouses—that explored the ways humans signal to one another. Often working in the dark, the artists recorded layers of landscaped sound using the rhythms, structures, and poetic resonances of the lights as inspiration and experimented with screen, speaker placement, and lighting to balance the acoustic against electronic sound, and live

lights against the just-perceptible physical body doing the singing. Premiered at EMPAC, the piece went on to tour seven venues in the UK in 2011.

A UK-based Canadian artist, Bonenfant is also senior lecturer in Performing Arts and director of Research and Knowledge Exchange at the University of Winchester, UK, and an overseas associate of the Institut d'Esthétique des Arts et Technologies of the University of Paris 1 Pantheon-Sorbonne.

SEE RELATED EVENT ON PAGE 516.

FUTURE, PRESENT AND PAST
AS THREAT TO SANITY

Johannes Goebel

IN A GLASS HOUR
TALK

RESIDENCY

ACOUSTIC INVESTIGATIONS IN THE THEATER

Maryanne Amacher



FEBRUARY 17, 2009

DISCIPLINE Humanities; Music/Sound

CURATOR Emily Zimmerman

In this talk, Johannes Goebel—composer, director of EMPAC, and founding director of the Institute for Music and Acoustics at the Zentrum für Kunst und Medientechnologie (ZKM) in Karlsruhe, Germany—used music to reflect on time. The assumption that time, as we see it governing our lives, allows us to structure future, present, and past (in that order) is a political tool, for better and worse. Music on the other hand allows moments to be experienced apart from the pressure of future, present, and past—even though music plays explicitly with that triad and may be composed, improvised, or performed as an intricate structure that integrates on a conscious level all scales of time: 0.1 milli-

seconds, five seconds, three minutes, 45 minutes or a few hours.

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.

JANUARY 29–FEBRUARY 26,
2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

When composer Maryanne Amacher passed away in October 2009, she had been working for two years on an EMPAC-commissioned piece in residence. During the residency, she created an ethereal space for floating sounds with 30-plus loudspeakers, most hidden in rooms distant to the performance space. In 2010, the air plenum beneath EMPAC's Theater—a space for circulating air, which inspired Maryanne and which she called "The Star Room"—was named in her honor.

ground in areas of telematics with her *CityLinks* series in the 1960s, sound spatialization with her unique approach to structure-borne sound, and the creative use of otoacoustic emissions (sounds self-produced by the inner ear). Her work has been produced at festivals worldwide since the late 1960s and, until her death in 2009, she traveled extensively, continuing to research, compose, and inspire those around her.

Amacher was a major innovator in the field of 20th-century electronic music. A rigorously perceptive mind and uncannily sensitive listener, she created powerful situations for listening that broke new



JANUARY 25, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

A solo performance by the inimitable vocalist, improviser, conductor, and musical enigma, whose singular career includes performances with major symphony orchestras, several unusual ensembles of his own design, audience-participatory improvisations, 10 Grammys and one of the most popular songs of the 20th century (the 1988 hit song “Don’t Worry, Be Happy”).

From his early career as a pianist, through his groundbreaking work as a vocal improviser, to his stint as a pop superstar, to his conducting of the San Francisco Symphony Orchestra, McFerrin’s life in music has transcended expectation.



JANUARY 23, 2009

DISCIPLINE Music/Sound

CURATOR Micah Silver

The new early-music ensemble Quicksilver presented a concert of brilliant and virtuosic music from the avant-garde of the 1600s. Italy in the early 17th century was not just the home of the new science of Galileo, but of a *nuove musiche* or new music as well. Composers were experimenting with the emerging genre of the sonata—an abstract work for instruments—and discovering ways of creating elaborate and theatrical musical conversations between the players. This new music is full of abrupt contrasts, dramatic shifts of texture, and spectacular solo writing, as well as infectiously rhythmic dance movements and heartbreakingly beautiful melodies.

Led by Robert Mealy and Julie Andrijeski, two of today’s leading baroque violinists, Quicksilver is an ensemble featuring some of the finest historically informed performers in America today.

PROGRAM

GIOVANNI BASSANO (1560–1617)
ANTONIO BERTALI (1605–1669)
DARIO CASTELLO (FL. EARLY 17C)
GIOVANNI PAOLO CIMA (C.1570–1622)
GIOVANNI BATTISTA FONTANA (C.1589–1630)
BIAGIO MARINI (1594–1663)
TARQUINIO MERULA (1594–1665)
MICHAELANGELO ROSSI (1602–1656)

**SELF AND SUBJECTIVITY:
A MIDDLE WAY APPROACH**

Georges Dreyfus

IN A GLASS HOUR
TALK

PERFORMANCE
RESIDENCY / COMMISSION

**THE SEA AROUND US OR A MUSE, ME PISCES
and THE BOTTOM FELL OUT OF THE TUB**

Cathy Weis



JANUARY 22, 2009

DISCIPLINE Humanities

CURATOR H el ene Lesterlin

Professor Georges Dreyfus lived for over a decade as a Tibetan monk in an exile community in India and was the first westerner to obtain the title of *Geshe Lharampa*, the highest degree conferred within the traditional Tibetan monastic system. An expert in Tibetan Buddhist scholastic traditions and Mahayana philosophies, he has taught academic, Buddhist community, and general audiences. His research interests include post-colonial and cross-cultural studies and the study of religious intellectual practices, traditions, and identity. In this talk, Dreyfus explored the concept of “no-self”: We are not, Buddhist tradition holds, our forms, feelings, perceptions, experiences, or consciousness. All these, over time,

shift, fade, distort, realign, and morph. They do not, and cannot, comprise selfhood. As challenging as it is for many westerners, according to Dreyfus, this view is in sync with recent scientific ideas about subjectivity and identity evolving over time.

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.

**RESIDENCY:
JANUARY 19–
FEBRUARY 7, 2009**

**PERFORMANCE:
FEBRUARY 6 + 7, 2009**

DISCIPLINE Dance; Contemporary Performance

ABOUT THE PRODUCTION *The Sea Around Us or A Muse, Me Pisces* and *The Bottom Fell Out of The Tub* were EMPAC commissions.

CURATOR H el ene Lesterlin

In Cathy Weis’ work, performers partner with technology to negotiate the boundaries between the recorded and live, the electronic and human, and real and imagined experience in surprising, whimsical, and moving ways. Two new works by the Guggenheim fellow and Bessie award-winning artist were commissioned by EMPAC and created during a two-week artist residency. *The Sea Around Us or A Muse, Me Pisces* blends pre-recorded underwater footage with live performance into a dreamscape of radically shifting scale. Performer Scott Heron is in a tug-o-war battle of the great and small, proportions and power. *The Bottom Fell Out of The Tub* exists in the intersection of dimensions: where the 2D

image interrupts 3D space. Jennifer Monson maneuvers a rolling screen that bends shadow, light and the projected image of the live video. The merging and reemerging of these dimensions create moments of surprising disorientation and revelation. The subsequent performance included an excerpt from *Electric Haiku: Calm as Custard* from Weis’ *Electric Haiku* series. When the original series premiered in 2002, it was selected by *The New York Times* as one of the top 10 dance events of the year. Imbued with Weis’ characteristic inventiveness and wit, this excerpt presents four haiku from *Calm as Custard* and asks the question: “When technology and the human body become partners, who leads?”

GOD BUILDS LIKE
FRANK LLOYD WRIGHT

Brent Green

PERFORMANCE

PERFORMANCE
RESIDENCY

HITTING THINGS, SAYING THINGS

Sean Griffin



JANUARY 16, 2009

DISCIPLINE Film/Video; Music/Sound

CURATOR Kathleen Forde

Best known for his darkly humorous stop-motion animated films that touch on themes of love, death, salvation, and the underworld, filmmaker Brent Green performed live with a series of his short films. The self-taught animator is part 21st-century folk artist, part rock star, part confessional poet, and part Blakean visionary. In live performance he screens a stop-motion autobiography of rich, idiosyncratic symbology to an accompaniment of raw Americana, harrowing and beautiful in its fragility.

Guest musicians Brendan Canty (Fugazi), Howe Gelb (Giant Sand), and Jim Becker (Califone), accompanied Green's intense narration, ranging

from quiet, vulnerable storytelling to cathartic fumes bordering on the evangelistic.

RESIDENCY:
JANUARY 12–17, 2009

PERFORMANCE:
JANUARY 17, 2009

DISCIPLINE Music/Sound;
Contemporary Performance

CURATOR Micah Silver

Composer Sean Griffin has created large and small-scale concert works, collaborative sound and video installations, film scores, and many projects in between. While in residence at EMPAC, Griffin created and then presented *Hitting Things, Saying Things*, an evening of performances that spans work that Griffin refers to as “percussion theater.” These staged compositions use ploys such as an aurally driven, virtuosic game of patty cake, theatricalized misuse of household objects, and other dissolutions of music performance into the terrain of theater.

Performers included Don Nichols, Greg Stewart, and Aiyun Huang and the show featured the

premiere of a new work for Huang, an acclaimed soloist from Montreal whose theatricality as a performer blends music with theater. Encompassing many languages, styles, media, and forms, Griffin states that his unique compositional works “rely on interdisciplinary incongruities positioned at the intersection of sound, image, performance, and the archive.” His works have been commissioned and presented internationally; Griffin lives and works in Los Angeles.

*Lars Jan & Early Morning Opera*

**JANUARY 12, 2009–
AUGUST 2, 2010**
(3 VISITS)

DISCIPLINE Theater

ABOUT THE PRODUCTION *ABACUS* was an EMPAC commission with support from The Tiffen Company, makers of the Steadicam camera stabilizing systems.

CURATOR Kathleen Forde

ABACUS is a large-scale multimedia presentation inspired in part by Buckminster Fuller's Geoscope (a planned data visualization device that would comprehensively model the Earth's "vital statistics," historic patterns, and future projections) and by two dominant forms of persuasive discourse today: TED-style presentations and megachurch media design. *ABACUS* features a charismatic lecturer, Paul Abacus, aided by the Geoscope and a chorus of Steadicam operators, who argues the obsolescence of national borders and proposes their dissolution. *ABACUS* serves as an interrogation of the art of persuasion as a catalyst for cultural evolution, examining the moment that data—distilled, visualized, spun—yields a visceral, rather than merely conceptual, impact.

At EMPAC, Director Lars Jan and his team of designers and programmers worked on creating their Geoscope, an array of curved projection surfaces which displays visuals generated from archived and real-time geographical, environmental, and financial data culled from governmental agencies and public datasets on the Internet. Additional residencies developed the integration of two Steadicam operators and live imagery into the piece.

Lars Jan is a director, designer, writer, and media artist. His performance and film works have been seen at Symphony Space (NYC), REDCAT (LA), the Venice Architectural Biennale, The Edinburgh Fringe Festival, The Philadelphia Live Arts & Fringe Festival, and the Whitney Museum of American Art (NYC).

SEE RELATED EVENT ON PAGE 414.

RESIDENCY:
JANUARY 5–28, 2009

INSTALLATION:
JANUARY 27, 2009

DISCIPLINE Dance; Film/Video

ABOUT THE PRODUCTION: Commissioned
by EMPAC

CURATOR H el ene Lesterlin

PUBLICATION DANCE MOVIES EMPAC 2008-
2009, DVD, commissioned and published by
EMPAC

One of four winners of the DANCE MOVIES Commission 2008, new media artist Sophie Kahn and choreographer Lisa Parra collaborated on a single-channel video installation during their three-week residency. *body/traces* consists of video imagery created by 3D laser scans of a body in motion, which are animated in post-production to create a life-size ghostly body moving through space. *body/traces* is an imperfect document of the traces left by the dancer's body in space. The deeper one looks, the less familiar the body becomes, appearing awkward and fragmented. The project looks at the unstable representation of women's bodies and of movement by addressing the questions: What happens to the body in motion when it becomes a still image? And what becomes of that image when it is returned to the moving body whence it came? During the residency, the artists experimented with this technique; refined the storyboard for the project; completed several scanning sessions of dancers in motion and the rendering of the images via animation; tested the projection to scale; and worked with Sawako Kato, a digital sound artist, on the sound score. A work in progress presentation of a video installation that was commissioned as part of DANCE MOVIES.

SEE RELATED EVENT ON PAGE 484.

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research. In 2014, interactions between EMPAC artists and scholars and the campus included a variety of lectures, class visits, post-show discussions, workshops, and master classes.



STUDENT WORK AT THE ONEDOTZERO_ADVENTURES IN MOTION FESTIVAL

The US premiere of the onedotzero_adventures in motion festival came to EMPAC with an internationally curated showcase of the moving image, featuring short film screenings, installations, and live cinematic performances. onedotzero issued an open call to the campus for short films and animations. Curated works by faculty, staff, and students that were screened at the festival include: *10,000 (Or Less)* by Blair Neil; *Unrealistic Expectations* by Patrick Jalbert; *June Bug* by Anna Cardillo; *Confessions of A Conflicted Filmmaker* by Eleanor Goldsmith; *Spazio In Mezzo* by Calvert Williams; *The Journey Of A Dandelion Seed* by Jessica Krannitz; *Kodoku* by Patrick Jalbert; and *Sunlight Parties* by Michael Bullock.

Other EMPAC-academic interactions included a workshop where choreographer

Tere O'Conner demonstrated how movement can be a form of philosophy to students from professor Ted Krueger's architecture class and dance students from professor Susan Sgorbatti's class at Bennington College.

In 2009, EMPAC began hosting and co-teaching a new course as part of Rensselaer's information technology (IT) and web science degree program—IT for arts and performance—with an emphasis on the practical issues faced by artists and IT professionals covering developing immersive environments for live performance, installation, visualization, etc. The student program, launched the previous year, continued to grow, with students working at EMPAC in technical, production, and administrative capacities, learning and advancing skills through an apprenticeship model.

Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2009.



PRESIDENT JACKSON AND STUDENTS FOLLOWING A TOWN MEETING

CAMPUS AND PRESIDENTIAL EVENTS

2009 PRESIDENT'S COMMENCEMENT COLLOQUY: THE LONG VIEW: LEADING AND THRIVING IN CHALLENGING TIMES President Shirley Ann Jackson was joined by Peter Schwartz, Class of 1968, chairman of Global Business Network, Kenneth Chenault, chairman and CEO, American Express, physicist and Nobel Prize winner Robert Richardson, and chemist, entrepreneur, and art collector Samuel Josefowitz, Class of '42.

2009 STATE OF THE INSTITUTE ADDRESS: UNLIMITED OPPORTUNITIES President Jackson delivered the first state of the institute address to be held in the new EMPAC Concert Hall, celebrating Rensselaer's history and future opportunities.

2009 TOWN MEETINGS In President Jackson's fall speech titled *Signs of Progress: Rensselaer Vignettes*, she discussed the diverse, multifaceted, multidisciplinary community that Rensselaer has created, assessed progress made, and examined the direction forward. In *The Flight to Quality: Leadership in Challenging Times*, the theme of her spring speech, President Jackson noted that "how we tackle national and global economic security, how we heal our planet's climate, how we contend with energy security challenges and seize economic opportunities inherent in them, and how we manage the interactions between and among nations will tell our future."

BLACK FAMILY TECHNOLOGY AWARENESS DAY President Jackson hosted this 11th annual event for more than 900 area students and their families participating. The event spurs young people's interest in pursuing careers in the science, technology, engineering, and mathematics (STEM) fields and the arts; the theme for 2009 was *The World Is Mine*.

CELEBRATION WEEKEND TRIBUTE TO THE TRANSFORMATION OF RENSSELAER A two-day program chronicled the first decade of the successful implementation of *The Rensselaer Plan*, the 10th anniversary of the tenure of President Jackson, and the successful completion of the \$1.4 billion *Renaissance at Rensselaer: The Campaign for Rensselaer Polytechnic Institute*. The weekend included President Jackson sharing her thoughts on the premiere of a new video highlighting the transformation under *The Rensselaer Plan*, and a donor recognition ceremony. Weekend highlights also included performances by Aretha Franklin and violin virtuoso Joshua Bell.





BELA FLECK AND THE AFRICA PROJECT

DR. MARTIN LUTHER KING JR. HUMAN RIGHTS WEEK President Jackson presented a speech at EMPAC titled *Dr. Martin Luther King Jr. and the Human Rights Imperative*, noting that the change from Diversity Week to Human Rights Week “reflects the measure of our achievement at Rensselaer, where we actively encourage students from groups traditionally underrepresented at research universities—women and minorities—and where we welcome students from more than 70 different countries. We truly are a global community.”

HONORS CONVOCATION Parents, family, and friends gathered and watched as the Rensselaer Medalists—along with students with a 4.0 GPA, graduate student fellowship awardees, and faculty were honored at this convocation that celebrates their outstanding academic achievements.

OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2013 learned about the campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer’s many clubs and activities, and met soon-to-be classmates.

RENSELAER MEDALIST OPEN HOUSE For more than 90 years, the *Rensselaer Medal* has been awarded to secondary school students who have distinguished themselves in mathematics and science. Medal winners and their families explored labs and centers, and learned about current research and academic programs.

STAR PROGRAM The Science, Technology, Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to the campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current students.



RENSELAER MEDALISTS AT HONORS CONVOCATION

SCHOOLS AND CENTERS

LALLY SCHOOL OF MANAGEMENT

JEROME S. REINERT '56 VISITING EXECUTIVE SERIES Marshall N. Carter, chairman of the New York Stock Exchange (NYSE) Group and deputy chairman of NYSE Euronext, spoke in the program entitled, *Navigating a Perfect Storm: Regaining Our Bearings After the Global Financial Crisis*.

WILLIAM F. GLASER '53 RENSELAER ENTREPRENEUR OF THE YEAR AWARD

This annual celebration honored Amba Preetham Parigi, managing director, Entertainment Network (India) Limited, and managing director and CEO of Times Infotainment Media Limited, with a panel discussion on *Global or Local: Identifying Opportunities and Establishing Relationships*.

SCHOOL OF ARCHITECTURE

SCHOOL OF ARCHITECTURE LECTURE SERIES This annual series included Sachiko Kodama, *Dynamic Ferrofluid*; Kim Keever, *Nature as Sublime Catastrophe*; Zbigniew Oksiuta, *Your Personal Biosphere*; Reiser + Umemoto, *Continuous Variation*; Tristram Carfrae / Ove Arup & Partners, *A Box of Bubbles: The Water Cube, Beijing*; Theverymany / Marc Fornes, *Text-based Morphologies*; Barkow Leibinger Architects, *Revolution of Choice*; Lars Spuybroek, *The Radical Picturesque*.

SCHOOL OF ENGINEERING

AIAA DISTINGUISHED LECTURE SERIES Professor Daniel J. Inman, director of the Center for Intelligent Material Systems and Structures, G.R. Goodson Professor and American Institute for Aeronautics and Astronautics (AIAA) Fellow at Virginia Tech, lectured on *Morphing, Monitoring, and Harvesting*.

SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/ DEPARTMENT OF THE ARTS

2009 GAMEFEST AND SYMPOSIUM Student games exhibition and symposium with guest speaker Chris Crawford, co-founder of Storytron, delivering a keynote address and leading an Interactive Storytelling Workshop.

AN EVENING OF FINE NOISE AND LIGHT: MICHAEL BULLOCK, THE BSC AND PAULINE OLIVEROS

PhD candidate Mike Bullock presented a concert featuring solo contrabass, a new sound and video piece by rise set twilight, Bullock’s duo with Linda Aubry, and a performance with special guest, composer and Rensselaer Professor Pauline Oliveros on accordion.



AN EVENING OF FINE NOISE AND LIGHT: MICHAEL BULLOCK



WHITNEY COLEMAN

DRIP 2009: BIG QUESTIONS FOR YOUNG MEDIA-MAKERS Twenty-four digitally created short videos offered a glimpse of the potential of the digital age; selected from student submissions from Rensselaer, University of Illinois, and Virginia Commonwealth University School of the Arts.

PIANO X 2 X 4 Compositions for two and four pianos including works by J.S. Bach, Colin McPhee, W.A. Mozart, Bela Bartok, Meredith Monk, Julius Eastman, and Igor Stravinsky.

SOLO RECITAL BY MICHAEL CENTURY Works by Igor Stravinsky, Terry Riley, Guy Klucevsek, and Michael Century, for piano and accordion.

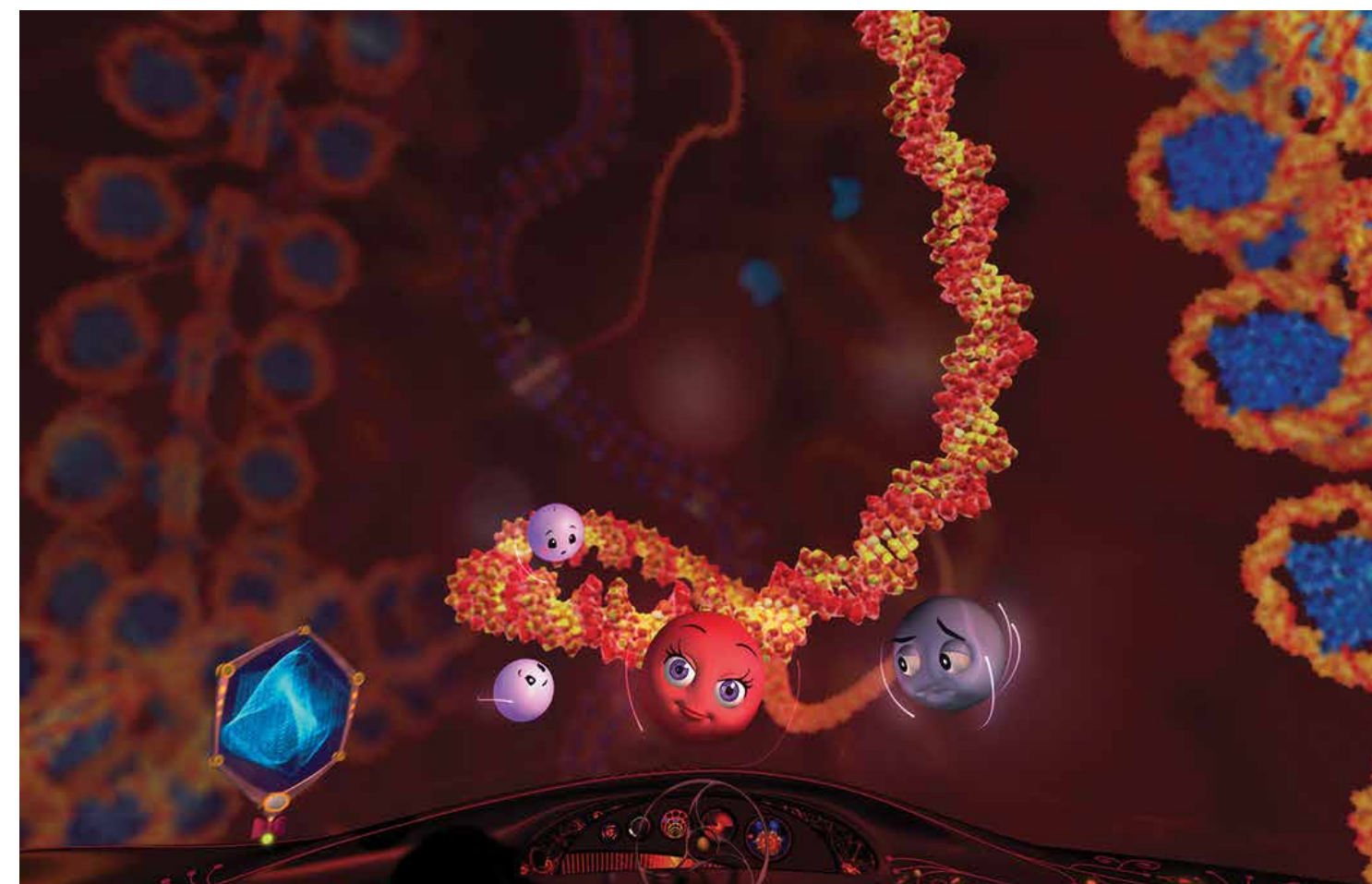
TATSU AOKI: IMAGINING SOUND & NON-ACCIDENTAL IMAGES A PhD colloquium presentation by Aoki on music and image was accompanied by screenings of a film/video works.

TELEJAM: OPEN YOUR EARS TO THE POSSIBILITIES The IUPUI Telematic Ensemble and Tintinnabulate performed together and featured a 16-piece drum circle over the Web with people playing simultaneously from around the world.

WHITNEY COLEMAN Rensselaer student Whitney Coleman '10 performed original gospel songs from her first CD, *Bright Morning Star* in a free concert.

SCHOOL OF SCIENCE

POSTER SESSION Thirty-five posters were displayed at EMPAC prior to the School of Science awards reception: awards for the best posters were voted on by the audience.



SCREENING OF MOLECULES TO THE MAX!

STUDENT PROGRAMS

BELA FLECK AND THE AFRICA PROJECT This concert celebrated the banjo's roots in Africa; Fleck's collaborations with African musicians were captured in the acclaimed film *Throw Down Your Heart* and inspired his landmark tour, which features kora master Toumani Diabate and others. Presented by Student Life, in partnership with the Office of the Provost.

LARRY WILMORE Senior Black Correspondent to *The Daily Show with Jon Stewart*, comic, producer, and author of *I'd Rather We Got Casinos and other Black Thoughts* gave a lecture entitled, *Let's Make Race Fun Again*.

PARTIAL CREDIT Rensselaer's a cappella group Partial Credit performed at the spring 2009 ICCA finals.

NINTH ANNUAL RENSSELAER COLLOQUIUM ON TEACHING AND LEARNING Sponsored by the Office of the Provost, The Science of Art/The Art of Science featured keynote speakers from UC San Diego, Bucknell, and Central Saint Martin's College of Art & Design.

RENSSELAER MUSIC ASSOCIATION: AN EVENING OF JAZZ The Contemporary Jazz Ensemble, the Campus Serenaders, and the Repertory Jazz Ensemble performed an evening of jazz and swing with music from great artists like Gerry Mulligan, Steve Allan, Oscar Pettiford, and Duke Ellington.

SCREENING OF MOLECULES TO THE MAX! An animated 3D adventure that transported audiences to the nanoscale world of atoms and molecules. Produced by Rensselaer, funded by Trustee Curtis R. Priem, Class of '82, and supported in part by the National Science Foundation, *Molecules to the MAX!* aims to boost science literacy through the use of story, song, subtlety, and fun.

THE MID-ATLANTIC QUARTERFINAL A CAPPELLA COMPETITION Rensselaer's The Rusty Pipes hosted eight collegiate a cappella groups in the Varsity Vocals International Championship of A Cappella Mid-Atlantic Quarterfinal competition.

2008
Days 1,978–1,631

SOUL LEAVES HER BODY

Peter Flaherty

RESIDENCY

DECEMBER 23, 2008–
AUGUST 22, 2010
(2 VISITS)

DISCIPLINE Contemporary Performance

CURATOR Kathleen Forde

Soul Leaves Her Body is an integrated-media performance synthesizing theatre, dance, live video, music, and cinema. Inspired by a 13th-century Chinese story about a young woman who tears her soul from her body in order to pursue her destiny in the city, the performance explores the soul-body relationship in today's networked, electronic culture. Director and video artist Peter Flaherty used the residency to continue his experimentation with custom-designed video interfaces and new techniques for integrating detailed choreography with live cameras. By manipulating such things as the tempo and perspective of the live camera imagery in real-time within the computer, Flaherty worked on creating an advanced visual bridge between physical action on-stage and pre-recorded cinematic imagery. The goal was to create a live event that is a hybrid of high-production filmic vision and intimate, theatrical performance. Flaherty's work has been seen in theatres, galleries, and museums internationally, and has collaborated with The Builders Association, Complicite, Francois Girard, Chen Shi-Zheng, Basil Twist, and Bang on a Can.



DECEMBER 11, 2008–
MARCH 19, 2009

DISCIPLINE Film/Video

CURATOR Hélène Lesterlin, Kathleen Forde,
Micah Silver, Emily Zimmerman

Unfiction: A series of documentary films that turn truth into something other than fact, disobeying typical documentary filmmaking practice—using poetry and imagination rather than transparency and objectivity.

December 11: **Our Daily Bread** (2005) Directed by Nikolaus Geyrhalte. Welcome to the world of industrial food production and high-tech farming; *Our Daily Bread* is a wide-screen tableau of a feast that isn't always easy to digest—and in which we all take part.

February 10: **Les Glaneurs et la glaneuse / The Gleaners and I** (2000) Directed by Agnès Varda. A moving and thoughtful visual essay on glean-ing, or scavenging, once ubiquitous in rural 19th century France. Varda's film is both a social doc-umentary and a frank and personal rumination on the experience of marginalization.

February 27: **Zidane: A 21st Century Portrait** (2006) Over the course of a single match, 17 film and video cameras captured every move of leg-endary footballer Zinedine Zidane. Directors Phillipe Parreno and Douglas Gordon create a modern portrait that is equal parts performance, athletic event, and intensely personal reverie, set to a soundtrack by Scottish post-rock phenoms Mogwai.

March 19: **Unfiction on Safari** Olaf Breuning's *Home 2* (2007), Sascha Paladino's *Throw Down Your Heart* (2008) with Bela Fleck, and Coco Fusco and Guillermo Gomez-Peña's *The Couple in the Cage* (1993) present a complex terrain of intention and action surrounding tourism, cul-tural interchange, appropriation, and hybridity.

ZIDANE

1966

IN A GLASS HOUR

TALK



DECEMBER 9, 2008

DISCIPLINE Humanities; Visual Art

CURATOR Emily Zimmerman

Visual artist Paul Ramirez Jonas presented a talk on time, expiration, and memory—themes that are central to his work. In his projects, what looks like invention is but a re-enactment and what seems to be an exploration is but walking in someone else's footsteps. However, not unlike a musician reading from a score or an actor performing from a play, the pre-existence of a text does not preclude passion, enthusiasm, humor and new meanings.

Jonas has an MFA from Rhode Island School of Design and a BA from Brown University; he has shown his work in solo and group exhibitions widely, and has built permanent public projects in

Cambridge, Massachusetts and for the Hudson River Park, New York. His work has been pro- filed in *ArtForum*, *ARTnews*, *The New York Times*, and *Art in America*, among others.

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.

1964

559



DECEMBER 4, 2008

DISCIPLINE Theater

CURATOR Kathleen Forde

Jumping from Shanghai to Los Angeles, Toronto to Troy, *Continuous City* tells the stories of a father on the road and his daughter at home who are both tethered and transformed by speed, hypermodernity—and failing cell phones. *Continuous City* is a fable about how contemporary experiences of location and dislocation stretch us to the maximum as our “networked” selves move through the world. With a participatory website and onsite filming, *Continuous City* provided a space for the Troy community to participate and be represented in this global and local production.

The Builders Association is an internationally acclaimed performance and media company that exploits the richness of contemporary technologies to extend the boundaries of theater. Based on unusual collaborations and extensive periods of development, The Builders Association’s productions feature a blend of text, sound, architecture, video, and stage performance that explores the impact of technology on human presence.

**NOVEMBER 23–
DECEMBER 19, 2008**

DISCIPLINE Dance

CURATOR Héléne Lesterlin

Dealing in themes of the afterlife, eternity, and cult behavior, *Miracle* creates a sonic and physical world of overwhelming fervor, spiraling group dynamics, and intense sound. The company focused their time at EMPAC on the creation of movement and sound material for the piece, originally titled *Fermata*. The choreographer and director of the company, composer, engineer, and sound designer, and the four dancers came to the residency to gather ideas and work out the choreography, which had been in development for a year. New York City-based International Contemporary Ensemble came to EMPAC for two recording sessions in the Concert Hall to capture the raw sonic material from which the

sound score was made—the pieces recorded were written by composer David Chisholm (who wrote the first part of the score ahead of time and finished it at EMPAC) who also created a specialized soundscore in post-production. BalletLab presented a 40-minute showing of the work at the close of the residency period, followed by discussion and Q&A with the audience.

SEE RELATED EVENT ON PAGE 416.



NOVEMBER 22 + 23, 2008

DISCIPLINE Theater

CURATOR Hélène Lesterlin

One morning in the low-rent office of a mysterious small business, one employee finds a ragged old copy of *The Great Gatsby* in the clutter of his desk and starts to read it out loud. And doesn't stop. At first his coworkers hardly notice, but then weird coincidences start happening in the office, one after another, until it's no longer clear where bewildering business operations end and the imaginary world of Gatsby's Long Island begins. An audacious theatrical tour de force, *Gatz* is not your typical stage adaptation of a classic novel but a verbatim reading of the entire book. A marathon production by a remarkable cast of 13, the performance ran six-and-a-half hours, with dinner in EMPAC's Evelyn's Café included.

Elevator Repair Service, a theater ensemble based in New York City, was founded in 1991 and subsequently has built a body of highly acclaimed work and has appeared on stages around New York, the US and Europe. The group's performances are built around a broad range of subject matter and literary forms, and combine elements of slapstick comedy, hi-tech and lo-tech design, both literary and found text, discarded furniture and found objects, and an idiosyncratic style of choreography.



NOVEMBER 18, 2008

DISCIPLINE Humanities

CURATOR Micah Silver

Alfred Crosby, author of *The Measure of Reality: Quantification and Western Society, 1250–1600*, spoke about time from the historical perspective of Western Europe's adoption of quantitative approaches to time, space, finance, art, and music.

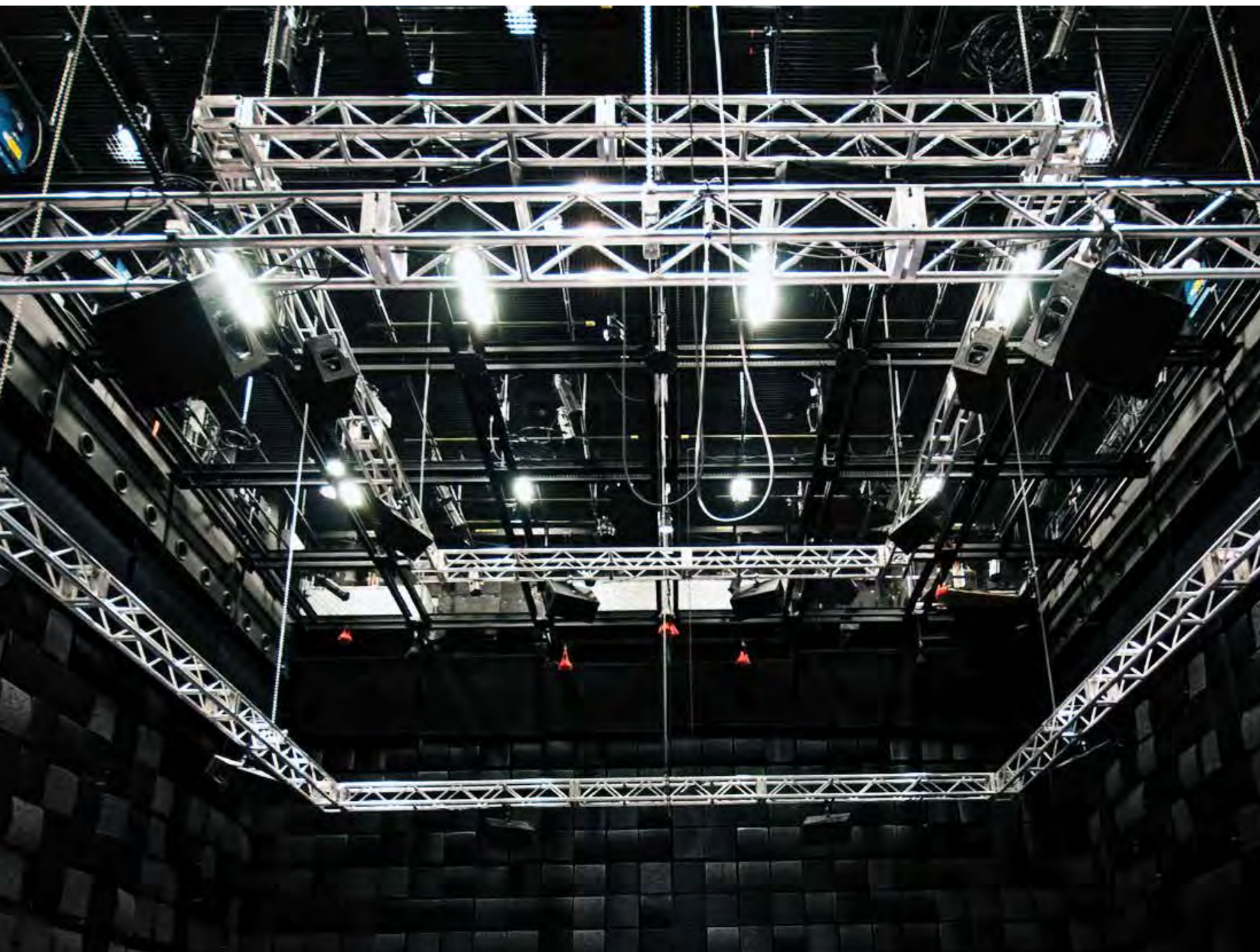
Alfred Crosby has received prestigious fellowships for his work, including a Guggenheim, a Fulbright, and awards from the National Institute of Health, National Humanities Institute, and American Academy of Arts and Sciences, among many others.

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.

**ZEROTH CHANNEL:
DANIEL TEIGE AND THE WORK OF XENAKIS**

Daniel Teige and Hans Tutschku

PERFORMANCE



NOVEMBER 15, 2008

DISCIPLINE Music/Sound

CURATOR Micah Silver

Sound artist and Iannis Xenakis expert Daniel Teige presented a mix of Xenakis' *Persepolis*, an epic composition commissioned in 1971 (by the Shah of Iran) for an Olympic-scaled spectacle celebrating the 2,500th anniversary of Iran's founding. The original event—an interdisciplinary, synesthetic spectacle—took place in the middle of the desert at the archaeological site of the former city of Persepolis, with 92 spotlights, 100 loudspeakers, lasers, and processions of torch-bearing children. Teige adapted the score and re-staged *Persepolis* using a multi-channel audio system distributed in three rings—from the floor to 32 feet in the air. In addition to *Persepolis*, the concert featured the US premiere of Hans

Tutschku's *Zwei Räume* (*Two Spaces*). Unlike Xenakis, *Zwei Räume* used divergent timbres, and a sense of ever-changing acoustic space, from sparse passages of sound that seem nearly within the ear to resonances that emanate from spaces seeming miles away. In addition to composing, Tutschku is a composition professor and director of the electroacoustic studios at Harvard.

Zeroth Channel is a series of concerts using a variety of approaches to multi-channel sound diffusion, an area of musical practice since the 1950s where composers have explored how sound literally takes up space.

PERFORMANCE



NOVEMBER 13, 2008

DISCIPLINE Film/Video;
Contemporary Performance

CURATOR Kathleen Forde

Spectrobia is a live-mix cinema event, a “scratchable” movie performed by video DJs playing a movie “instrument.” Toni Dove’s sci-fi hybrid, features time travel, telepathy, and elements of film noir in a drama set in England, 2099 and in New York City, 1931, following the Great Crash. Live performers orchestrate onscreen characters through an original mix of film, performance, and a unique system of motion sensing that serves as a cinematic instrument, creating a narrative form that is part video game, part feature film, and part VJ mashing. The audience sees through characters’ eyes, hears their interior thoughts, and even talks with characters via Dove and her co-performer, R. Luke DuBois, in a post-

SPECTROPIA

Toni Dove

show Q&A. Since the early 1990s, Dove has produced performances and installations that seek to redefine the form of traditional narrative using interactive components.



NOVEMBER 8, 2008

DISCIPLINE Music/Sound**CURATOR** Micah Silver

The Arraymusic ensemble is an eight-member performing group—comprising an unusual instrumentation of clarinet, trumpet, percussion, piano, violin, and double bass—from Toronto that is recognized for its innovative programming and virtuosic performance. Their extensive repertoire includes contemporary pieces they have commissioned from composers with highly individual voices from around the world. At EMPAC, they performed a program of Canadian composers whose works were composed specifically for the ensemble.

PROGRAM

CLAUDE VIVIER *Et Je Reverrai Cette Ville Etrange*
 JAMES TENNEY *Spectrum 1*
 ARRAYMUSIC *Miniatures*

NOVEMBER 6, 2008

DISCIPLINE Humanities; Tools and Technology

Wendy Hui Kyong Chun is Professor of Modern Culture and Media at Brown University and has studied both Systems Design Engineering and English Literature, which she combines and mutates in her current work on digital media. In this talk she explored the potential of ephemerals through artworks that make things disappear. New media, like the computer technology on which it relies, races simultaneously towards the future and the past, towards the bleeding edge of obsolescence. The slipperiness of new media—the difficulty of engaging it in the present—is linked to the speed of its dissemination. Also key to the digital as the new is a rhetorical conflation of memory and storage. Memory, with its constant

degeneration, does not equal storage; although artificial memory has historically combined the transitory with the permanent, the passing with the stable, digital media complicates this relationship by making the permanent into an enduring ephemeral. This event was curated by Michael Century and presented in collaboration with *iEAR Presents!*

In a Glass Hour: A series of talks exploring the topic of time from the diverse perspectives of media theorists, scientists, artists, historians, journalists, and others. Using a broadly interdisciplinary approach, the series demonstrated the elasticity of this pervasive topic.

DOCUMENTATION IS NOT AVAILABLE FOR THIS EVENT



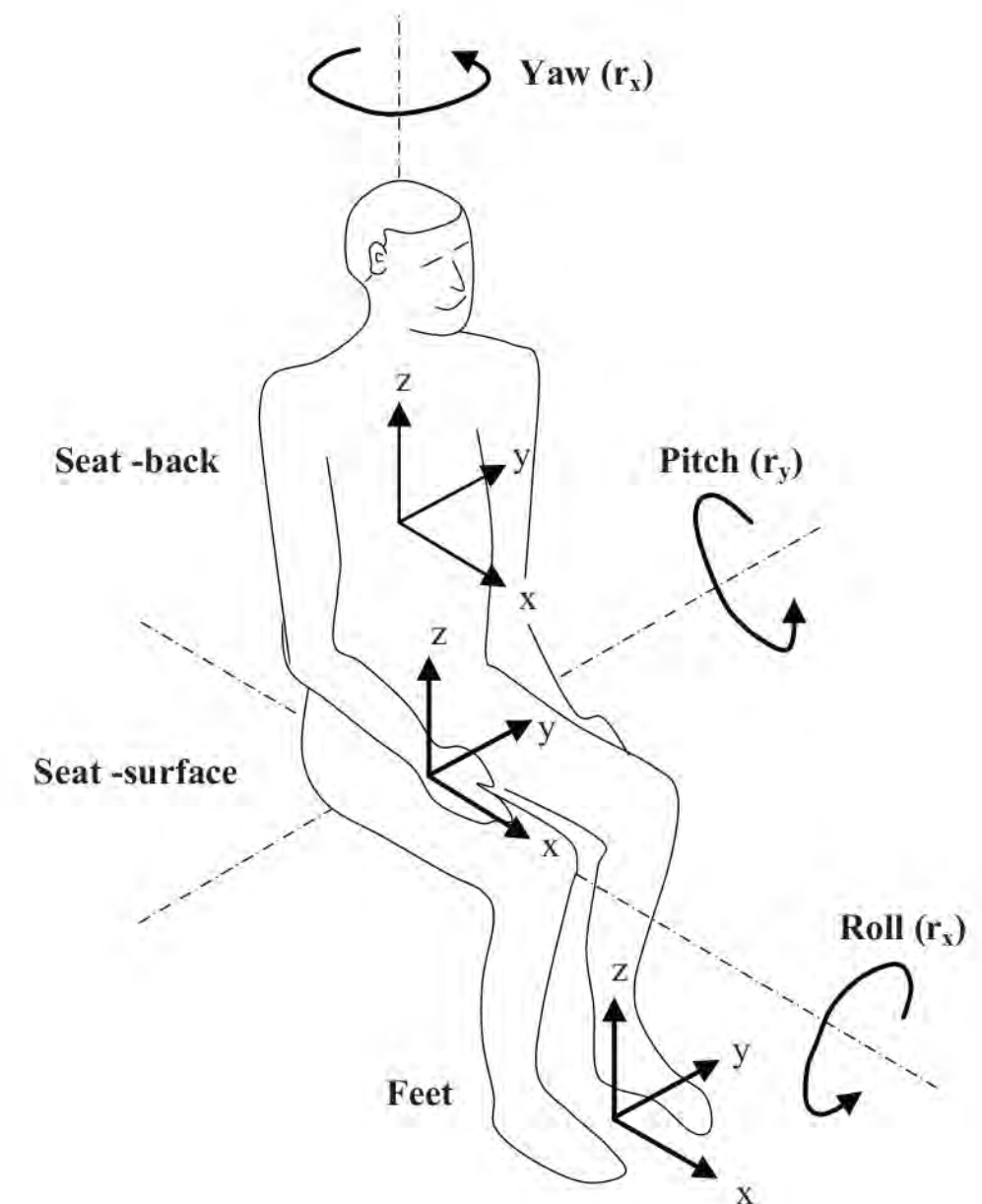
NOVEMBER 3–8, 2008

DISCIPLINE Film/Video; Music/Sound; Contemporary Performance

CURATOR Micah Silver

Maryanne Amacher and The OpenEnded Group collaborated on plans for a new, immersive multimedia performance with the working title *Lagrange: a Four Part Mini Series*. The piece was inspired in part by the evolutionary novels of British author and philosopher Olaf Stapledon that reflect on both humanity's past and possible futures. Amacher and The OpenEnded Group drew on their respective histories in technological and perceptual innovation to consider how advances in media and performance technologies—performed in real-time—could generate a new kind of non-literal narrative, populated by visual and sonic characters. Their goal was a serialized narrative that would be

experienced by audiences over a period of several weeks in a non-traditional space where, by moving from location to location, they would explore the story in a physical way. The collaboration reflected the artists' mutual interest in immersive experiences. The OpenEnded Group (Paul Kaiser, Marc Downie, and Shelly Eshkar) has worked to define a new kind of 3D space that does not aspire to photorealism, while until her death in 2009, Amacher explored the acoustic dimensions of sound propagated through walls, floors, rooms, and corridors (as opposed to sound projected by loudspeakers only).



NOVEMBER 1, 2008–JUNE 30, 2009

Abstract: The constant pursuit of new architectural design methods and expanding use of multi-sensory music presentation calls for increased knowledge of human response to audio-tactile stimuli. This thesis presents an experiment to explore the human ability to distinguish differences in tactile signals generated by musical sources coupled with typical stage floor constructions. A contrabass is used to generate binaural audio and vibration signals. The mechanical impedance of several stage constructions is measured and used to synthesize tactile signals generated when coupled to the contrabass. The audio and tactile signals are reproduced using headphones and a calibrated

motion platform. Test participants are asked to identify differences in tactile signals given a fixed audio environment. Multidimensional scaling is used to identify perceptual dimensions in subjective responses. Results show that stage vibration exceeds the threshold of perception ranging with acceleration up to $.04\text{ms}^{-2}$ Wk peak on one construction. Vibration attenuation, propagation times and modal damping vary with construction type and direction of propagation with respect to beams and joists. Sensation level dominates perceived differences between tactile signals, while audio-tactile time delays of up to 74ms have little to no influence on perceptual differences.

EMPAC OPENING FESTIVAL

OCTOBER 3–19, 2008

DISCIPLINE Multidisciplinary

ABOUT THE PRODUCTION The Wooster Group's *THERE IS STILL TIME..BROTHER* and *DANCE MOVIES* Commissions 2007-2008 were commissioned by EMPAC.

CURATORS Kathleen Forde, Johannes Goebel, H el ene Lesterlin, Micah Silver

In celebration of the opening of the Experimental Media and Performing Arts Center, Rensselaer Polytechnic Institute presented three weekends of artistic performances and workshops, premieres of EMPAC-commissioned artworks, presentations of research at the frontiers of science, and social events ranging from black-tie elegant to come-as-you-are eclectic. The Gala Weekend offered audiences an introduction to the EMPAC program and mission with performances ranging from 15th-century choral music performed in a 21st-century concert hall to late-night DJ-VJ parties; a Presidential Colloquy and the official Ribbon Cutting kicked off the weekend. The Symposium Weekend brought together an international group of directors from leading research institutions to share their work in the arts, design, and media-based research, spanning augmented reality to the visualization and auralization of scientific data; and the Homecoming and Family Weekend offered events and performances ranging in media and style—including many student groups—focused on the greater Rensselaer community.





CURTIS R. PRIEM EXPERIMENTAL MEDIA AND PERFORMING ARTS CENTER

RIBBON-CUTTING AND BUILDING DEDICATION. LEFT TO RIGHT: WALTER PARKES; PETER SCHWARTZ '68; A. PREETHAM PARIGI; PRESIDENT SHIRLEY ANN JACKSON; CURTIS R. PRIEM '82; CHAIRMAN OF THE BOARD OF TRUSTEES SAMUEL HEFFNER '56; EMPAC DIRECTOR JOHANNES GOEBEL.





OPENING FESTIVAL

GALA OPENING NIGHT



CHAIRMAN OF THE BOARD OF TRUSTEES SAMUEL HEFFNER '56 AND PRESIDENT SHIRLEY ANN JACKSON



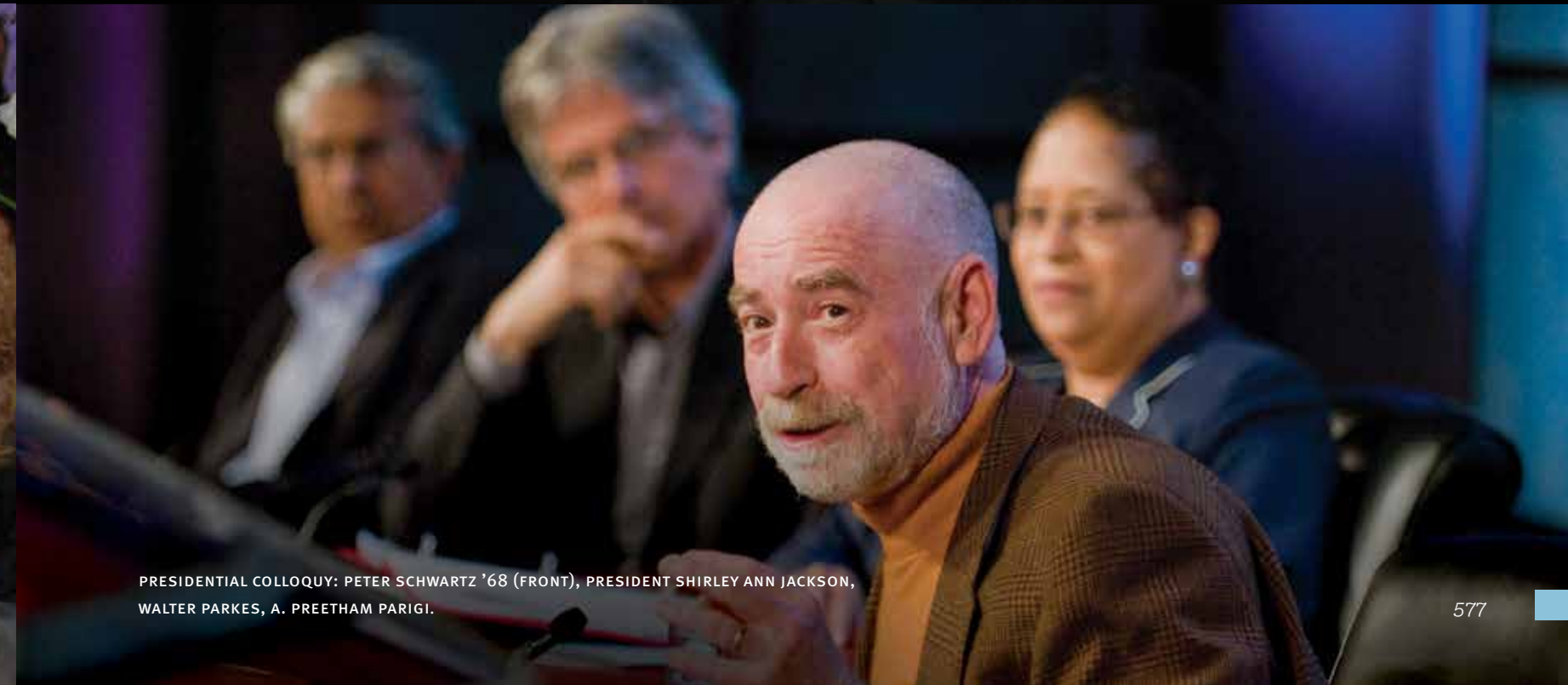
CURTIS R. PRIEM



ARCHITECT SIR NICHOLAS GRIMSHAW



GALA OPENING NIGHT. PRESIDENT SHIRLEY ANN JACKSON AND IN THE CENTER THEATER DESIGNER JOSHUA DACHS, ACOUSTICIAN LARRY KIERKEGAARD, AND GUESTS.



PRESIDENTIAL COLLOQUY: PETER SCHWARTZ '68 (FRONT), PRESIDENT SHIRLEY ANN JACKSON, WALTER PARKES, A. PREETHAM PARIGI.



VOYAGES



OPENING FESTIVAL

ROY HAYNES FOUNTAIN OF YOUTH BAND



CURTIS R. PRIEM '82 SPEAKING BEFORE THE INAUGURAL CONCERT



THERE IS STILL TIME..BROTHER



578 JAZZ AT LINCOLN CENTER ORCHESTRA WITH WYNTON MARSALIS



LOUDER

579



INAUGURAL CONCERT



IN THE FLESH



DANCE MOVIES COMMISSIONS



580

MADLIB

OPENING FESTIVAL

ONGOING INSTALLATIONS AND EXHIBITIONS

Workspace Unlimited: Hybrid Space and the Panoramic Screen Immersive, moving-image projects were created with modified video game engines for the 360° screen.

Billy Cowie: In The Flesh An intimate and uncanny 3D video installation where a dancer appeared in front of viewers.

The Wooster Group: THERE IS STILL TIME.. BROTHER An interactive war film where the audience stood inside a 360° projection screen.

Offsite: EMPAC Events 2004-2008: Documentation of EMPAC events presented on campus and in the region leading up to the opening.

EMPAC Architecture and Design Exhibit: Drawings, videos, and models from Grimshaw architects tracked the evolution of the EMPAC building.

GALA WEEKEND

PRESIDENTIAL COLLOQUY, RIBBON CUTTING, AND BUILDING DEDICATION

Photons, Sound Waves, and Data Bytes: Creativity at the Nexus of Science, Technology, Media and the Arts, moderated Shirley Ann Jackson, PhD 18th President of Rensselaer Polytechnic Institute with A. P. Parigi, Managing Director & CEO, Times Infotainment Media Ltd.; Walter F. Parkes, film producer and former co-head of DreamWorks Pictures; Peter Schwartz '68, futurist, entrepreneur, and founder and chairman of Global Business Network.

INAUGURAL CONCERT

A 70-minute concert composed as an uninterrupted flow from one piece to the next, spanning 400 years of music.

Giovanni Gabrieli, *Canzon Septimi Toni No. 2*; Charles Ives, *The Unanswered Question*; Györgi Kurtág, *Grabstein für Stephan*; Györgi Ligeti, *Lux Aeterna*; Robert Schumann, Piano Concerto in A Minor; Thomas Tallis, *Spem In Alium*. Performed by Albany Symphony Orchestra under David Alan Miller; Albany Symphony Orchestra Brass Octet under Eric Berlin; International Contemporary Ensemble (ICE) under Gregory Vajda; Vox Vocal Ensemble under George Steel; Per Tengstrand, Piano.

PERFORMANCES AND SCREENINGS

Per Tengstrand: 2 Hands, 3 Pianos Works played on three of EMPAC's grand pianos: the deep clarity of the Bösendorfer, the delicate precision of the Fazioli, and the massive sound of our Hamburg Steinway.

Dumb Type: Voyage A multimedia performance that examined the uncertainty and dislocation of the modern world through a combination of sound, movement, text, and projected images.

Verdensteatret: Louder Robotics, video, music, shadow play, and object theater are combined in this piece that was inspired by travels in the Mekong Delta.

DANCE MOVIES Commission Premiere The world premiere of the first four dance films as part of DANCE MOVIES Commission.

Cecil Taylor: Floating Gardens Composer, pianist, poet, Guggenheim Fellow, MacArthur Genius Award winner, and one of the most singular voices of the last century presented an afternoon reading of his poetry.

Pauline Oliveros and Cecil Taylor Two of the most renowned composer/improvisors in the world shared a stage for the first time, presenting a concert in three parts: Taylor solo, Oliveros solo, and a duo improvisation.

Open Late with Madlib Madlib's fused strata of encyclopedic beats, the turntable mastery of J. Rocc, the 8-bit hip-hop antics of Juiceboxxx, and live video projections by lmnopf.

TALKS AND PRESENTATIONS

EMPAC Building Presentation: EMPAC's architect and design team talked about aspects of the building architecture, acoustics, design process and structure.

Sunday Talks & Brunch: Talks on many of the artworks and performances commissioned and presented by EMPAC, including an informal talk given by Johannes Goebel, director of EMPAC; Pauline Oliveros who lead a free public workshop introducing her Deep Listening practice; and Elizabeth LeCompte, director of the Wooster Group.



INAUGURAL CONCERT



CINEMA FOR THE EAR

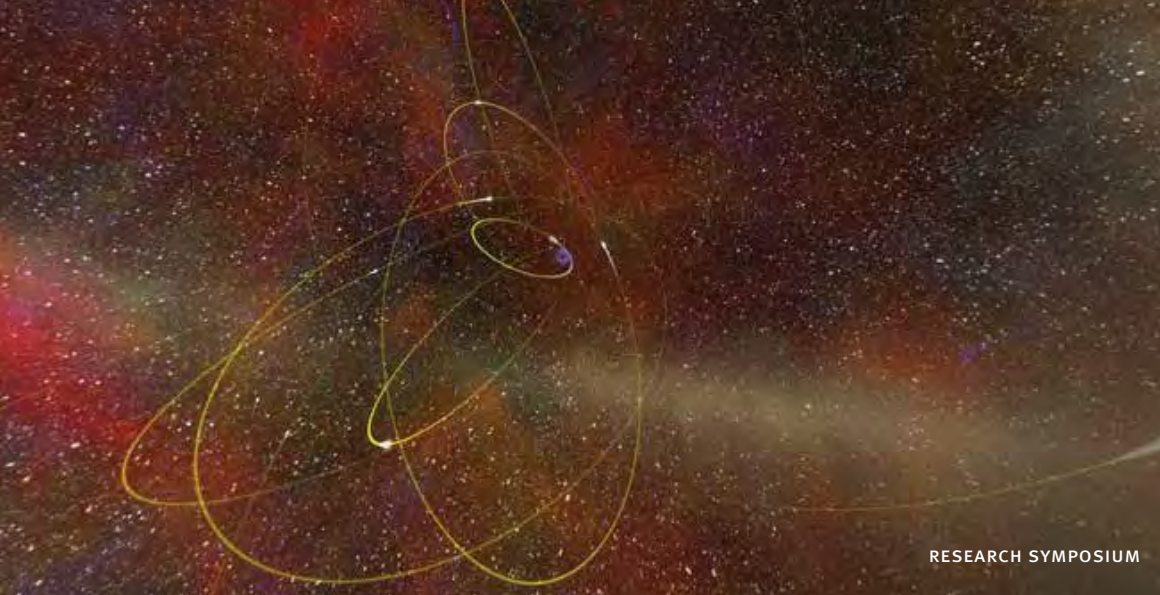


CECIL TAYLOR AND PAULINE OLIVEROS



MADLIB

581



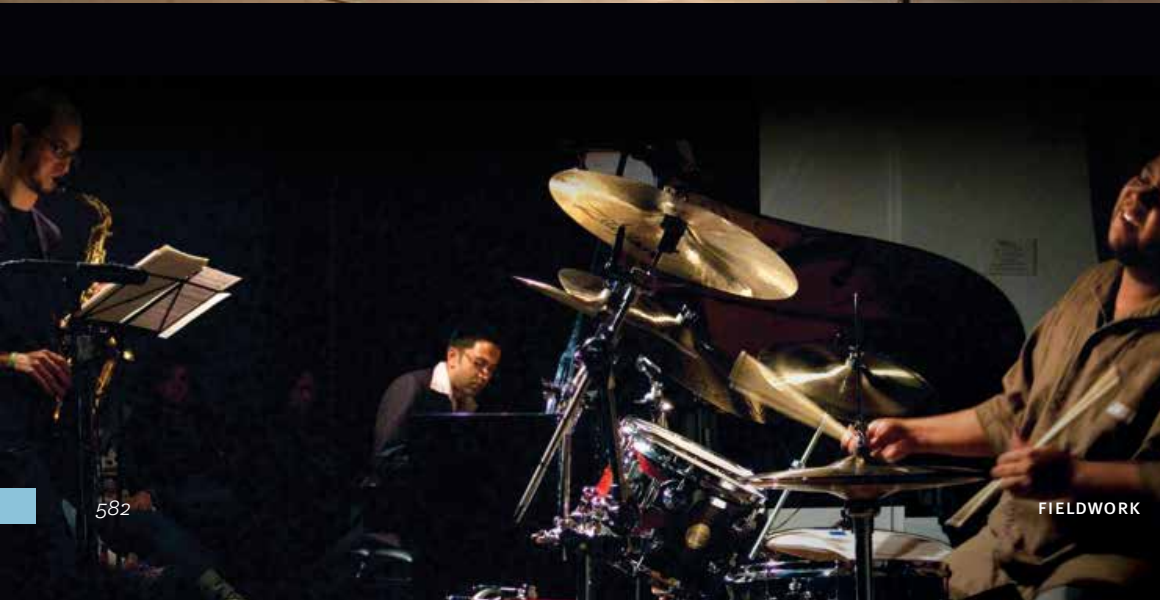
RESEARCH SYMPOSIUM



AS IF STRANGER



2 HANDS, 3 PIANOS



FIELDWORK

OPENING FESTIVAL

Behind the Scenes: DANCE MOVIES Commission: A panel discussion by the artists who created the first four dance film projects of the DANCE MOVIES Commission program.

Pioneers of Experimental Media A discussion of works by Arts Department faculty, alumni, the department's events series, *iEAR presents!*, and a screening of a compilation DVD created for the EMPAC opening.

In sight / Out look Rensselaer scientists, Selmer Bringsjord, Barbara Cutler, Shekhar Garde, and Kenneth Jansen, presented their research where light, images, and media were an integral aspect.

SYMPOSIUM WEEKEND

RESEARCH SYMPOSIUM

Transcending Boundaries in Sciences, Arts, and Media Research. Over the course of two days, leading researchers shared their work in areas of arts, design, and media-based scientific research in a series of 90-minute sessions. The keynote was presented by Roger Malina, chairman of the board of Leonardo, the International Society for the Arts, Sciences, and Technology.

PERFORMANCES AND SCREENINGS

Richard Siegal: The Bakery, As If Stranger was a solo dance performance with live sound in which images, movement, presence, and streams of words weave a seeming narrative, oscillating between fact and fiction, transparency and poetry.

Robert Normandeau: Cinema for the Ear A winner of nearly every major prize within the field of electroacoustic music, Montreal-based composer Robert Normandeau explored the Concert Hall's ideal design for multi-channel electronic music.

Fieldwork A collective of three widely celebrated young composer/performers, Fieldwork's music reflects each member's ties to the American jazz tradition, modern composition, African and South Asian musics, underground hip-hop and electronica, and the influential music of Chicago's A.A.C.M.

DANCE MOVIES Commission Premiere The world premieres of the first four dance films as part of DANCE MOVIES Commission.

Jazz at Lincoln Center Orchestra with Wynton Marsalis The Jazz at Lincoln Center Orchestra, comprising 15 of the most classic jazz soloists and ensemble players today, has been the Jazz at Lincoln Center resident orchestra for over 12 years.

HOMECOMING AND FAMILY WEEKEND

PERFORMANCES

Gamelan Galak Tika & Ensemble Robot Galak Tika traveled in a processional across campus performing beleganjur, Indonesian marching music. Once arrived at EMPAC, the two ensembles performed in the open-air space of EMPAC's Café.

Roy Haynes Fountain of Youth Band Freeing jazz's borders, infusing its lifeblood, steering it towards greater freedom and more distinctive expression, Roy Haynes is a national treasure who continues to forge new paths well into his 70s, dumbfounding jazz lovers, not to mention Father Time and Mother Nature.

STUDENT PERFORMANCES

Rensselaer Campus Serenaders, Choir, Sheer Idiocy, Orchestra, Improvacapella, Symphonic Band, Percussion Ensemble, and Swing Dancers Events and performances ranging in media and style including many student groups reflected the diversity of interest on, and beyond, the Rensselaer campus.



GAMELAN GALAK TIKA & ENSEMBLE ROBOT



HYBRID SPACE AND THE PANORAMIC SCREEN



SYMPHONIC BAND



FLOATING GARDENS

A ROBUST DISTRIBUTED INTELLIGENT SYSTEM FOR TELEMATIC MUSIC APPLICATIONS

RESEARCH

Jonas Braasch, Pauline Oliveros, & Doug Van Nort

AUGUST 1, 2008–
JULY 31, 2010

A Robust Distributed Intelligent System for Telematic Music Applications is a project funded by the National Science Foundation's CreativeIT program. This project aimed to develop intelligent agents for improvisational music collaborations over the Internet. Complex communication for co-located performers within telepresence applications across networks is still impaired compared to performers sharing one physical location. This impairment must be significantly reduced to allow the broader community to participate in complex communication scenarios. To achieve this goal, an avatar in the form of a musical conductor with forms of artificial intelligence coordinates between co-located musicians. Improvised Contemporary Live Music of a larger ensemble, serving as a test bed, is arguably one of the most complex scenarios one could think of, because it requires engaged communication between individuals within a multiple-source sound field that also has to be considered as a whole. The results are expected to inspire solutions for other communication tasks.

The avatar system actively coordinated co-located improvisation ensembles in a creative way. To achieve this goal, Computational Auditory Scene Analysis (CASA) systems, to allow robust feature recognition, and Evolutionary algorithms, for the creative component, were combined, to form the first model of its kind. The research results are significant by themselves and are not bound to telematic applications. With regard to the latter, the system has a clear advantage over a human musician and conductor, while intelligent algorithms are clearly lagging behind human performance in most other applications, especially when it comes to creativity.



**BETWEEN A ROCK
AND A TINY BELL**

PERFORMANCE

EXHIBITION

MEN IN THE WALL
Liz Aggiss & Billy Cowie



APRIL 25, 2008

DISCIPLINE Music/Sound

CURATOR Micah Silver

LOCATION Rensselaer Armory

Between a Rock and a Tiny Bell was a night of bands and solo performances whose work featured unlikely, powerful—and in many cases loud—synergies between divergent musical legacies. The lineup included Black Moth Super Rainbow, Han Bennink and Peter Brötzmann, Zs, Blarvuster, and Health. These artists have gone beyond “fusion” or “polystylism” to create a new identity from seemingly irreconcilable forces. The evening offered new alchemies of punk, heavy metal, complexity, Scottish traditional music, '70s psychedelia, and gritty minimalism.

APRIL 15–19, 2008

DISCIPLINE Film/Video; Visual Art

CURATOR Héléne Lesterlin

LOCATION Greene Building Gallery (Architecture)
on the Rensselaer Campus

Men in the Wall is a four-screen 3D video installation where four men, life-size, chat across the boundaries of their own cramped frames, looping through a sequence of poetry, jokes, songs, quibbles, flamenco, and napping. To enter this quirky world, viewers don 3D glasses to watch these shared lives, public quartet of private differences.

Longtime collaborators, Liz Aggiss and Billy Cowie made over 20 live performance pieces for their company Divas and toured extensively, as well as creating single and multiple screen dance installations, films, and live perfor-

mance installations alongside dance theater, cabaret, and live art.

HI JINX
Liz Aggiss

PERFORMANCE

TALK

DATA SPEAKS. ARE YOU LISTENING?
Jonathan Berger



APRIL 15, 2008

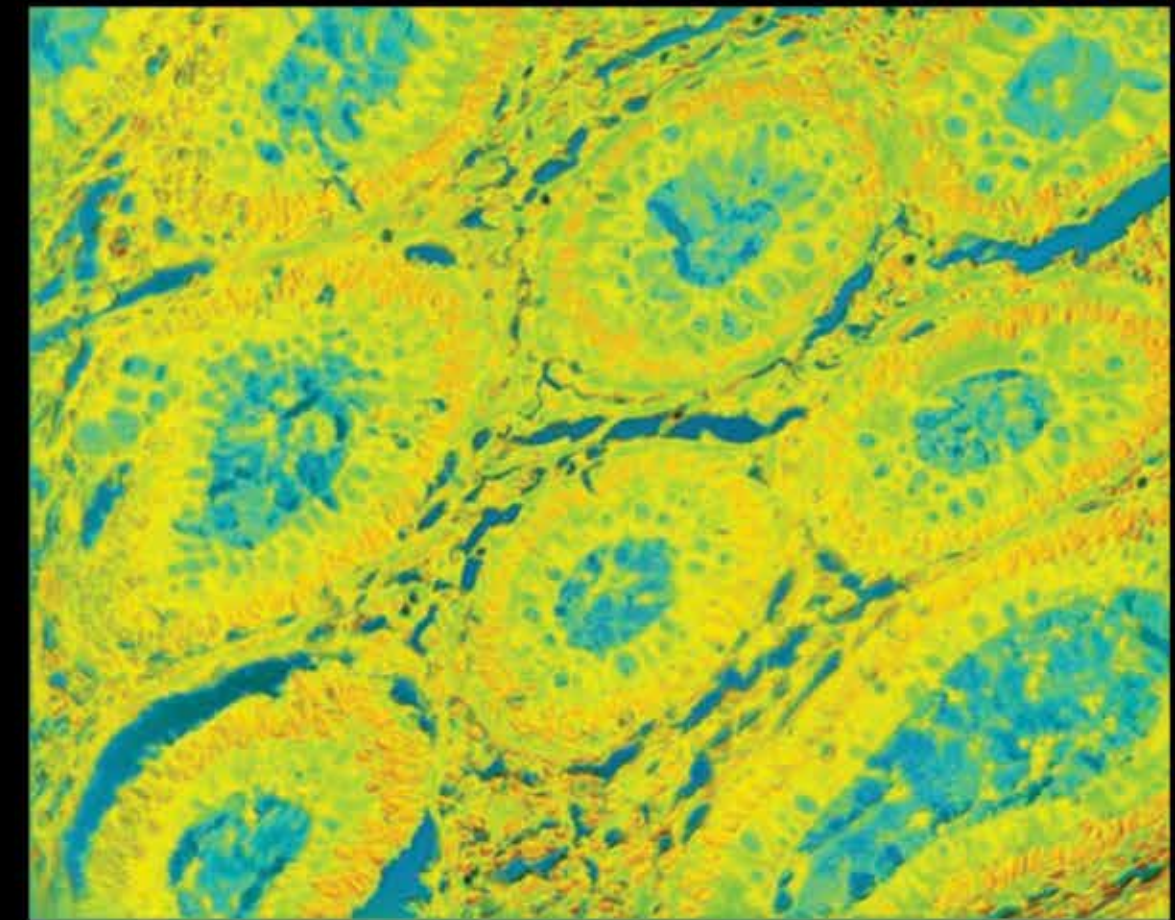
DISCIPLINE Dance;
Contemporary Performance

CURATOR Hélène Lesterlin

LOCATION Academy Hall on the
Rensselaer campus

Liz Aggiss performed a lecture entitled *Hi Jinx*, an homage to Heidi Dzinkowska, a seminal (and fictional) early 20th-century dancer, choreographer, and filmmaker. A cheeky take on the creation of mythologies, personal gurus, and the history of art, the event featured dance reconstructions, films, and live demonstrations of Dzinkowska's highly influential "dance commandments."

Aggiss is a performer, choreographer, filmmaker, and writer whose provocative and eclectic work is often characterized by grotesque, stylized movement, and who explores issues of body politics, wordplay, power, and the artifice of performance.



Hyperspectral image of cellular material (Berger, Coifman, et al, 2008)

MARCH 6, 2008

DISCIPLINE Music/Sound; Tools and Technology

CURATOR Micah Silver

LOCATION Center for Biotechnology and
Interdisciplinary Studies (CBIS) on the Rensselaer
campus

Data Speaks. Are You Listening? shared Jonathan Berger's latest research and discussed the creative potentials for experiencing and analyzing data with our ears rather than our eyes. "I've been developing other means of expressing complex multidimensional data using sound. The picture is a representation of a high-dimensional spectral analysis of colon cells. Each pixel comprises many dimensions. Thus the compression to a 2-dimensional RGB image is not terribly telling. But mapping the array of each pixel to sound parameters reveals the underlying chemistry—and allows us to detect the difference between a healthy and malignant cells."

Berger is a leader in the field of sonification and music perception as well as being a composer of instrumental and electronic music. He has authored over 60 publications that range from collaborations with doctors, scientists, mathematicians, and athletes to extensive work on the perception of timbre and pitch. As a composer he has received three fellowships from the National Endowment for the Arts and won several major composing prizes in the US and Europe.

THEY WATCH

Workspace Unlimited

RESIDENCY / COMMISSION

MARCH 1–
OCTOBER 30, 2009
(4 VISITS)

DISCIPLINE Film/Video; Visual Art

ABOUT THE PRODUCTION Produced by Workspace Unlimited vzw, Commissioned by EMPAC. Created with the support of The Flemish Department of Culture, the Flemish Minister of Innovation, the Flemish Audiovisual Fund (VAF), IWT, IBBT. The panoramic screen environment was developed by Jeffrey Shaw; ZKM Karlsruhe, Germany; iCINEMA at UNSW, Australia; and EMPAC. The frame for the screen was engineered and manufactured by Huib Nelissen, The Netherlands.

CURATOR Kathleen Forde

They Watch was an immersive installation commissioned by EMPAC for a panoramic screen, 360° interactive projection method, and a 32-channel sound system. Over a period of years and several residencies at EMPAC, including research and development with game-technology, Workspace Unlimited advanced methods to allow them to track audience members, and to develop interactive functions enabling avatars (virtual versions of the artists) that would appear to be aware of visitor's presence within the panoramic environment. EMPAC's panoramic screen is a cylindrical projection and software environment for 360°-panoramic projections, developed at the ZKM | Institute for Visual Media, at the Center for Art and Media in Karlsruhe, Germany in collaboration with the iCinema Research Centre, Sydney. It can display panoramic films via four or six projectors, such as 3D animations or video footage, as well as stereoscopic VR-applications and a wide range of applications for interactive real-time work.

Workspace Unlimited (WU) is a digital arts collective co-founded by visual artist Thomas Soetens and architect Kora Van Den Bulcke that has been commissioned by cultural institutions to create large-scale digital environments for specific exhibits or buildings. WU's projects feature hybrid spaces, merging the thin line between physical environments and perceptual realities. Conceptually rooted in the convergence of art and architecture, WU reconciles these two "realities" through the creation of environments where virtual space overlaps with "real" physical space, through the use of immersive environments, real-time gaming technology, projections, body tracking, and mirroring techniques.

SEE RELATED EVENT ON PAGE 487.



NINE YEARS

Lone Twin

PERFORMANCE

SCREENING

THE PERVERT'S GUIDE TO CINEMA

Sophie Fiennes & Slavoj Žižek



FEBRUARY 13 + 14, 2008

DISCIPLINE Contemporary Performance

CURATOR Kathleen Forde

LOCATION Rensselaer Playhouse

Nine Years is a funny and hopeful—yet also borderline tragic—performance in the format of lecture/travel video diary. A summation of the collaboration of UK-based theater duo Gregg Whelan and Gary Winters, *Nine Years* refers to their attempt to bring together their entire body of over 700 performances over nine years of work in one 90-minute show. Drawing from extensive video documentation, *Nine Years* recapitulated—and, in some cases, rewrote—true stories from their travels across the globe conducting research for their work including: 12-hour line dances blindfolded and dressed as cowboys in *Ghost Dance*; daily cycle rides interacting with a variety of local communities in *To The Dogs*; and their

reading of all 135 chapters (plus epilogue) of *Moby Dick* on a North Sea journey from Rotterdam to England.

JANUARY 29, 2008

DISCIPLINE Film/Video; Humanities

CURATOR Micah Silver

LOCATION Heffner Alumni House on the Rensselaer campus

The Pervert's Guide to Cinema is an exhilarating ride through some of the greatest movies ever made, featuring a rock star of contemporary philosophy, psychoanalyst Slavoj Žižek, as presenter and guide. With his unusual, engaging and passionate approach to thinking, Žižek delves into the hidden language of cinema, uncovering what movies can tell us about ourselves. *The Pervert's Guide to Cinema* offers an introduction into some of Žižek's most exciting ideas on fantasy, reality, sexuality, subjectivity, desire, materiality, and cinematic form. Whether he is untangling the famously baffling films of David Lynch, or overturning everything you thought you knew about Hitchcock, Žižek illuminates the screen

with his passion, intellect, and unfailing sense of humor. *The Pervert's Guide to Cinema* applies Žižek's ideas to the cinematic canon, in what *The New York Times* calls "an extraordinary reassessment of cinema."

LIGHT ABOVE THE HUDSON

Jennifer Tipton

EXHIBITION / COMMISSION



JANUARY 11–
FEBRUARY 3, 2008

DISCIPLINE Visual Art

ABOUT THE PRODUCTION Commissioned
by EMPAC

CURATOR Kathleen Forde

For three weeks, acclaimed lighting designer Jennifer Tipton turned the EMPAC construction site into a dynamic light sculpture that could be viewed intimately from nearby as well as from across the Hudson and beyond. Commissioned by EMPAC, Tipton used recent innovations in lighting to illuminate the EMPAC building. Well known to dance and theater audiences alike as one of the most accomplished lighting designers, this was Tipton's first site-specific lighting installation.

Wagoner, among many others; her work in the theater has garnered two American Theater Wing Awards, an Obie, two Drama Desk Awards, and two Tonys.

In dance, Tipton has collaborated with Mikhail Baryshnikov, Jiri Kylian, Dana Reitz, Jerome Robbins, Paul Taylor, Twyla Tharp, and Dan





Campus Connections

Each year, EMPAC hosts more than 250 events from all facets of the university, including schools and centers, Alumni Relations, the President's Office, the Office of Admissions, student clubs and performing groups, and other campus organizations. EMPAC is the stage for the President's Commencement Colloquy, town hall meetings, high-level events, and student and professional performances. It serves as laboratory and testing ground for students conducting thesis projects, and is a venue for lectures, seminars, academic convenings and colloquia. And EMPAC is the locus for annual gatherings of the campus community for dialogue and celebration.

Following is a selection of events in 2008



HONORS CONVOCATION

OFFICE OF ADMISSIONS

ACCEPTED STUDENTS CELEBRATION The Class of 2008 learned about the Rensselaer campus, including EMPAC, heard from representatives from each school, explored academic programs, discovered Rensselaer's many clubs and activities, and met soon-to-be classmates.

STAR PROGRAM The Science, Technology, Arts at Rensselaer (STAR) Program brought academically talented, underrepresented minorities and young women to the campus to experience life as Rensselaer students: attending classes, touring the campus, visiting laboratories and facilities, and socializing with current students.

SCHOOLS AND CENTERS

SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES (HASS)/ DEPARTMENT OF THE ARTS

THE RENSSELAER CONTEMPORARY MUSIC ENSEMBLE Rensselaer's chamber music instrumentalists had their debut at EMPAC in a program that included two works of music-theater composed in the 1970s: Frederic Rzewski's *Coming Together* evokes an era of bitter social strife, while *Spiral Mandala* by Pauline Oliveros recalls a decade when concert music reached out to embrace theater and ritual.

STUDENT PROGRAMS

RENSSELAER MUSIC ASSOCIATION WINTER CONCERTS This event featured student ensembles including the Percussion Ensemble, Sax Quartet, Jazz Ensemble, Tuba Ensemble, Symphonic Band, the Symphony Orchestra, Concert Choir, Brass Quintet, String Quintet, and Campus Serenaders.

2007
Days 1,576-1,274



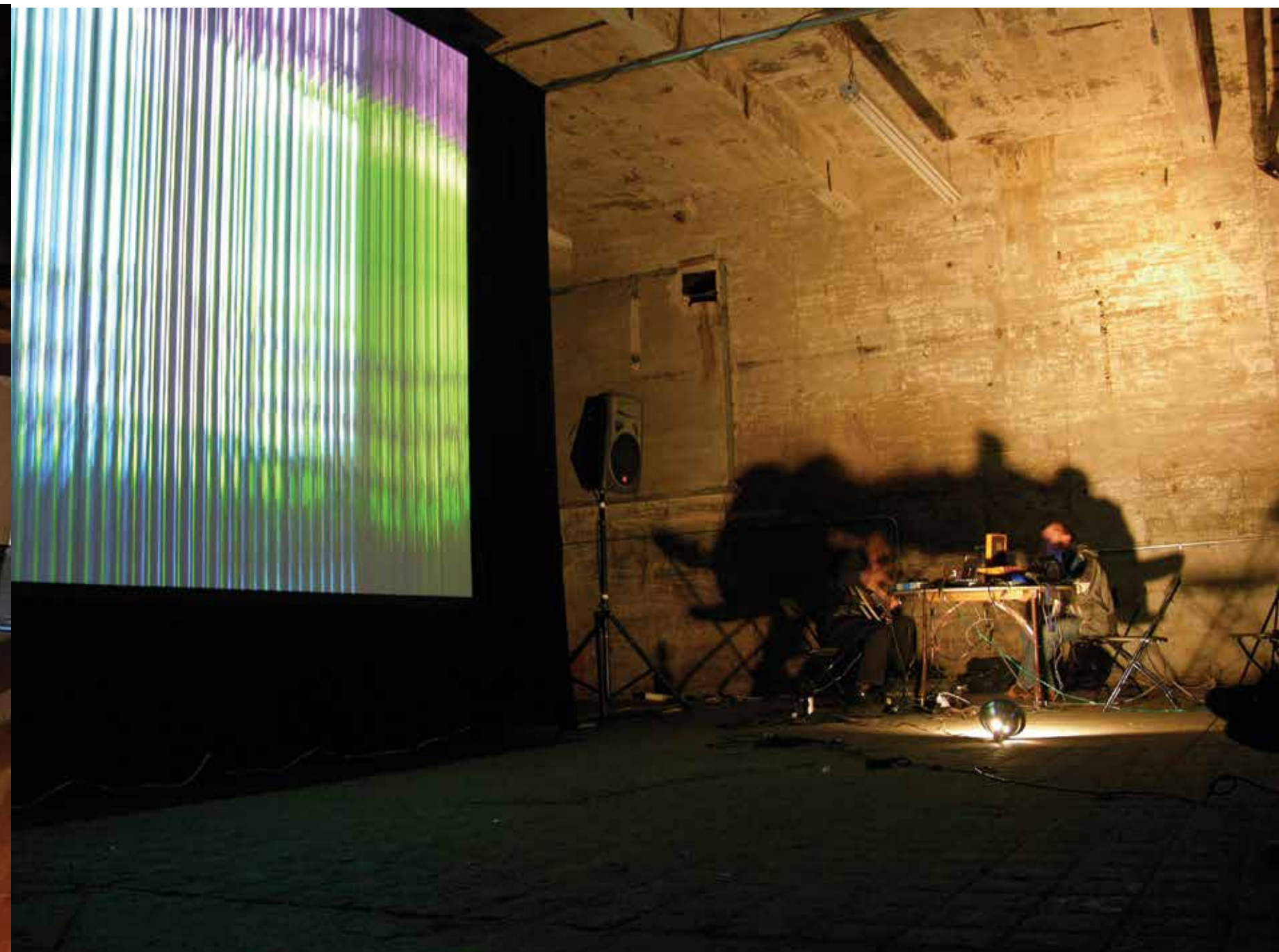
NOVEMBER 17, 2007

DISCIPLINE Music/Sound

CURATOR Micah Silver

LOCATION Academy Hall on the Rensselaer campus

In celebration of his 60th birthday, this concert honored Neil Rolnick's 30+ years of activity as a composer and educator. Todd Reynolds, Kathleen Supové, and singers Amy Fradon and Leslie Ritter performed pieces that included *Digits*, *Shadow Quartet*, *Requiem Songs*, and a new work for iFiddle and piano. Since the late 1970s, Rolnick has been a pioneer in the use of computers in performance, and his music has been performed around the world. In addition to his work as a composer, from 1981–2013, Rolnick was a professor of music at Rensselaer, where he was founding director of iEAR Studios, the first interdisciplinary electronic arts program in the country.



OCTOBER 26, 2007

DISCIPLINE Film/Video; Music/Sound; Tools and Technology

CURATOR Kathleen Forde

LOCATION Heffner Alumni House on the Rensselaer campus

Custom Control featured three performances by artists who build their own audio and video performance tools. *I.C.You* was a live film by Sue Costabile and Laetitia Sonami, which used a suitcase-sized Foley stage, photographs, drawings, videos, shadow theater, and miniature lighting rigs. Video artist R. Luke Dubois and guitarist Manrico Montero (AKA Karras), using a specifically programmed Max/Jitter patch, created an improvised collaboration of sound and video entitled *Night Breeze*, translating the rich sonic language of Montero's playing into a cinematic event. *Dialed In* was a live solo electronic drum work by Bobby Previte (with four movements performed in real time, with no loops,

no laptops, and no overdubbing) with video artist Benton C. Bainbridge responding by altering visuals in real-time process, much like Previte's kit-triggered music.

Custom Control was presented in conjunction with the Department of the Arts' *TOOLS:Analog and Intersections*, a series of events that included workshops, lectures, an exhibition, and publications all focusing on artists who develop their own electronic and/or digital tools for video and audio in performance.

**OCTOBER 19, 2007****DISCIPLINE** Music/Sound**CURATOR** Micah Silver**LOCATION** Chapel + Cultural Center on the Rensselaer campus

World-renowned saxophonist and composer Anthony Braxton and his 12-piece ensemble—the 12(+1)tet—performed his compositions titled *Ghost Trance Music*. The performers both played and conducted, taking on different roles, as they collaged Braxton's compositions. As a collective, the group moved freely between the performance of compositions and improvisations, between solos and ensemble playing.

Braxton is one of the most prolific of contemporary American musicians/composers having released over 100 albums of his works since the 1960s. He taught at Mills College in the 1980s, and was professor of music at Wesleyan University from

the 1990s until his retirement in 2013. In 1994, he was named a MacArthur Foundation “genius” and was named a 2014 National Endowment for the Arts Jazz Master.

**OCTOBER 4 + 5, 2007****DISCIPLINE** Film/Video; Theater**CURATOR** Héléne Lesterlin**LOCATION** WHMT Studios in the Rensselaer Technology Park

For *KOMMER*, the actors of the Amsterdam-based theater collective Kassys used precise movement and a deadpan delivery to create a stilted world on stage, where six people gather to mark and ponder the loss of a dear friend. Each person tries to absorb the news and give relief to the others, but the well-meant words and gestures wind up more like misplaced clichés. They reflect the inherent discomfort of the situation, stuck between tenderness and missed communication. In the second half of the performance, the actors left the stage, and a film showed the performers’ “real” lives, as they went out into the night after the show.

Kassys is a theater-initiative of Liesbeth Gritter and Mette van der Sijs, founded in 1999 and based in Amsterdam. Kassys performances combine theater and film in an effort to expose the codes of each medium. Their subject matter explores the beauty of human success and failure and differences and similarities between “being yourself” and “pretending.” With self-mockery and humor, Kassys finds inspiration in the murky overlap of everyday human behavior, voyeurism, and fiction.



SEPTEMBER 20–22, 2007

DISCIPLINE Dance

CURATOR Hélène Lesterlin

LOCATION Rensselaer Playhouse

In *Amplification*, Australia's foremost contemporary dance company combined fierce dancing, driving music, and unsettling imagery for an exhilarating and engaging performance. Choreographer Phillip Adams' work pushes against human physical and mental limits with both dark humor and morbid fascination. Taking car accidents as the starting point, *Amplification* magnifies the moment of impact—1.6 seconds of frozen time—alternating between highly charged, skidding movement and the cold, clinical atmosphere of an emergency ward. Featuring sensational dancers, live turntable composition and a lab-like visual design, *Amplification* refracted a world of ritual, burial, and betrayal.

Hailing from Melbourne, *BalletLab* is regarded as one of the most inventive experimental dance companies working in Australia today. Combining densely layered, technical dancing with installation, sound, and set collaborations, Artistic Director Phillip Adams has created a significant body of work that is sophisticated, physically idiosyncratic, and aesthetically unique.

SEPTEMBER 14, 2007

DISCIPLINE Film/Video, Music/Sound, Contemporary Performance

ABOUT THE PRODUCTION Commissioned by EMPAC

PUBLICATION *True Fictions: New Adventures in Folklore*, Audio recorded at EMPAC, released by NLS Records

CURATOR Kathleen Forde

LOCATION Robison Gymnasium on the Rensselaer Campus

Commissioned by EMPAC, and recorded in and around Troy, New York—the birthplace of archetypal character Uncle Sam—*True Fictions: New Adventures in Folklore* fused documentary filmmaking, live and electronic music, animation, and motion graphics with innovative digital video performance tools. Taking American folklore as a departure point for this performance, this UK-based collective tackled questions of how personal, political, and national myths evolve from subjective stories into widely held truths.

The Light Surgeons were founded in London in 1995 by artist and filmmaker Christopher Thomas Allen with like-minded media artists and film-

makers; they specialize in creative content for video productions, live performances, and installation-based projects. The group develops new forms of cross-disciplinary practice through the fusion of film production, animation, motion design, and the application of creative code and cutting-edge tools.

SEE RELATED RESIDENCY ON PAGE 628.



The surface area of the embouchure hole (S_E) is to the effective length of the embouchure hole (L_E), as the surface area of the main bore at the embouchure hole (S_0) is to $L_{B(e)}$:

$$\left[\frac{S_E}{L_E} = \frac{S_0}{L_{B(e)}} \right] = \left[\frac{\pi \left(\frac{d_E}{2} \right)^2}{l_E + \Delta(d_E)} = \frac{\pi \left(\frac{d_0}{2} \right)^2}{L_{B(e)}} \right]$$



MAY 3, 2007

DISCIPLINE Music/Sound

CURATOR Micah Silver

LOCATION Rensselaer Playhouse

Natasha Barrett used more than 20 individual loudspeakers to perform her own compositions and those by French composer Luc Ferrari. Each of Barrett's compositions exist as a recording instead of a musical score, which she interprets live by projecting through speakers in, around, and above the audience, creating unique realizations of each piece. The program included *Red Snow* and *Trade Winds*; both pieces are intense and intricate—full of dramatic gesture, vivid sounds, and elusive narratives. She also performed Ferrari's *Music Promenade* and selections from *Far West News*, inspired by an iconic road trip across America to the Grand Canyon and Los Angeles, expressed through quirky combina-

tions of field recordings and Ferrari's oddball synth overlays.

Natasha Barrett is a composer working with music, research, and creative uses of sound, including using scientific data and geological processes in sound-art, spatial composition for hemispherical loudspeaker array, and higher-order ambisonics (HOA). Barrett's works have been performed and commissioned internationally and have received numerous recognitions.

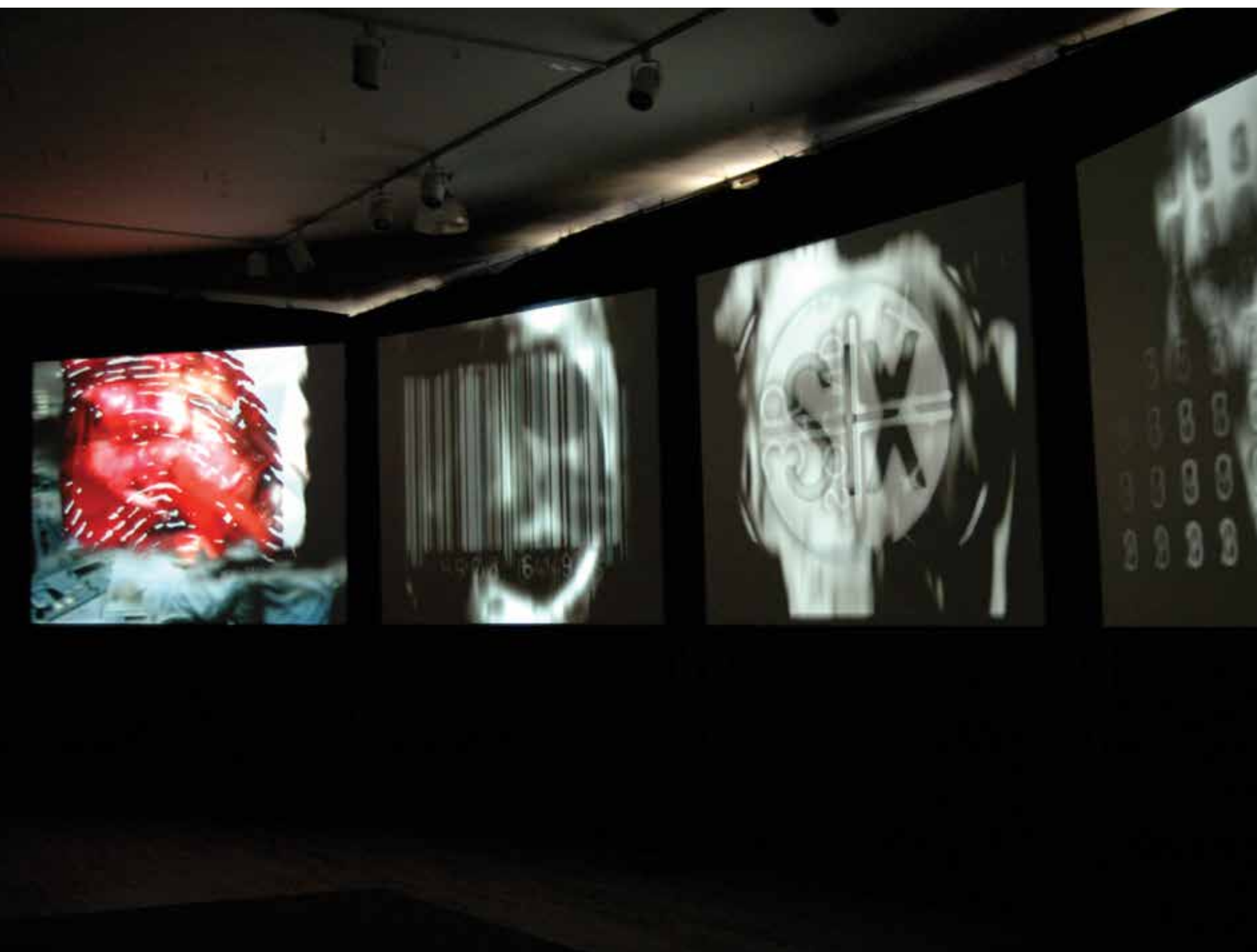
APRIL 24, 2007

DISCIPLINE Multidisciplinary, Science

CURATOR Kathleen Forde

LOCATION Center for Biotechnology and Interdisciplinary Studies (CBIS) on the Rensselaer campus

Johannes Goebel, EMPAC's director, took a tour through motivations and goals of science, art and engineering with excursions into taste and religion. The goal was to spark ongoing discussion of assumed truths, acquired prejudices, and the boxes we put ourselves and others into.



MARCH 28–31, 2007

DISCIPLINE Film/Video; Music/Sound;
Visual Art

CURATOR H el ene Lesterlin

LOCATION Greene Building Gallery (Architecture)
on the Rensselaer campus

Originally the name for a medieval English insane asylum, "bedlam" has since become a synonym for tangled, chaotic states. This audio and video installation by international artists Robert Darroll and Sean Reed used multi-channel sound and an amalgam of computer graphics, animation, and video projected onto five oversized screens to draw viewers into the minds of five individuals planning their joint escape from bedlam.

Robert Darroll has long worked in the field of experimental animation and has presented his works worldwide at major museums and numerous media art and music festivals. He was a professor at the Tokyo National University of Fine

Art and Music (2001-2002) and the Nagoya University of Arts and Sciences (2003-2014). Sean Reed is an American composer of instrumental ensembles as well as interactive and fixed-media electroacoustic works and multimedia collaborations with other artists. He taught orchestration, instrumental composition, and software for electroacoustic composition at Trinity College in Dublin, Ireland, and is a member of the Dublin Spatial Music Collective. His independent and collaborative works have been widely performed internationally.

MARCH 15, 2007

DISCIPLINE Film/Video, Dance

CURATOR H el ene Lesterlin

LOCATION West Hall on the Rensselaer campus

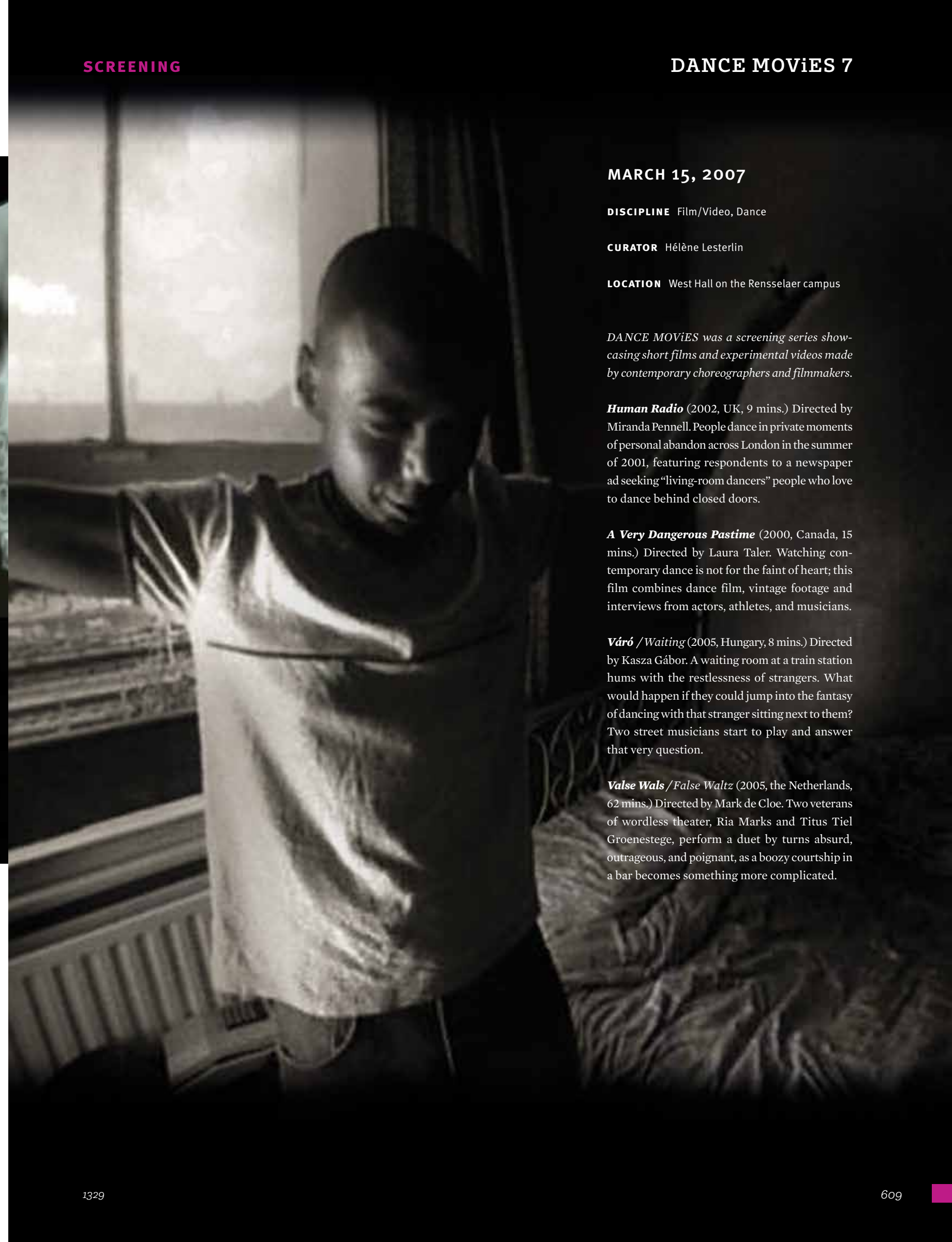
DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

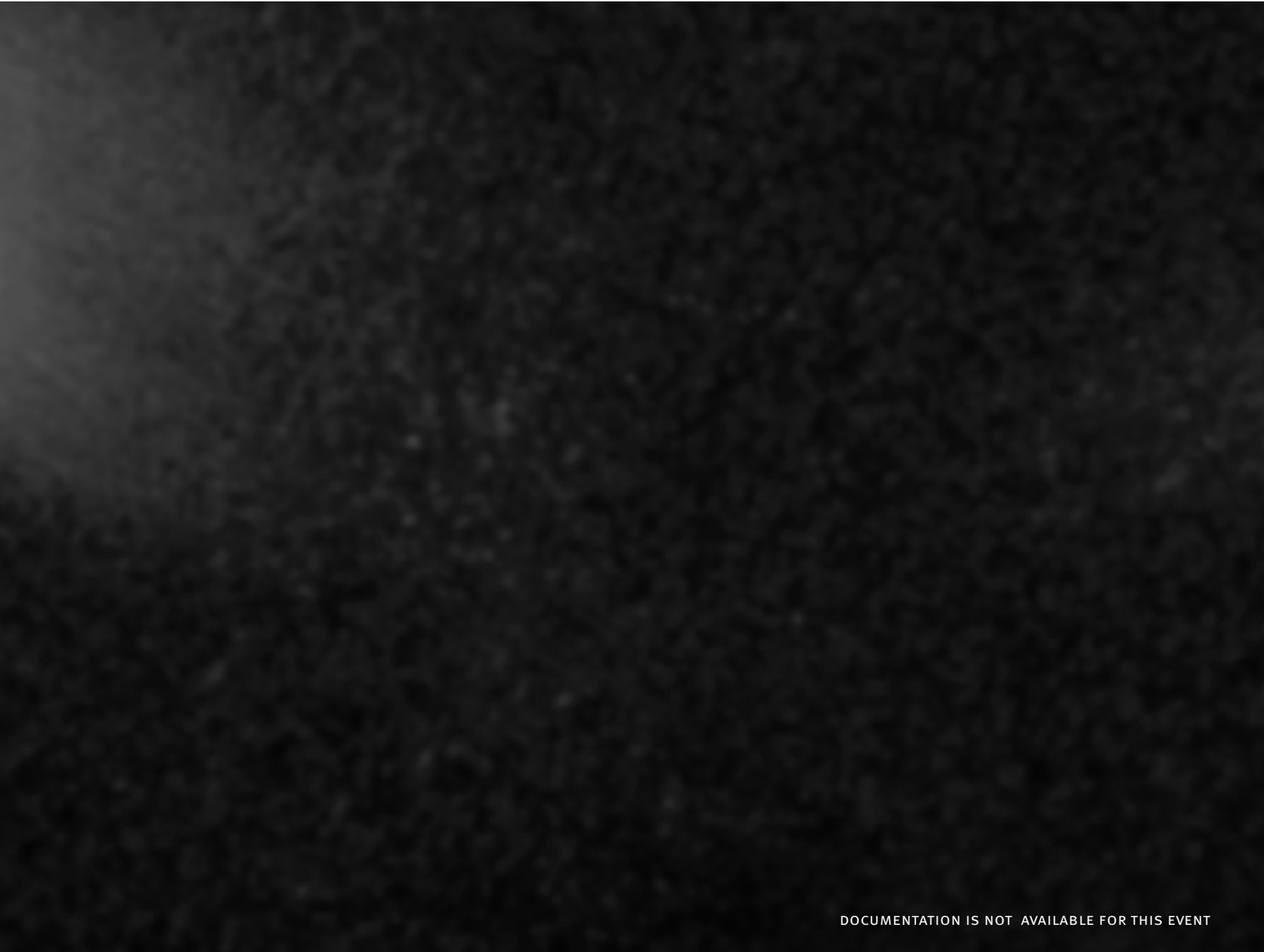
Human Radio (2002, UK, 9 mins.) Directed by Miranda Pennell. People dance in private moments of personal abandon across London in the summer of 2001, featuring respondents to a newspaper ad seeking "living-room dancers" people who love to dance behind closed doors.

A Very Dangerous Pastime (2000, Canada, 15 mins.) Directed by Laura Taler. Watching contemporary dance is not for the faint of heart; this film combines dance film, vintage footage and interviews from actors, athletes, and musicians.

V ar o / Waiting (2005, Hungary, 8 mins.) Directed by Kasza G abor. A waiting room at a train station hums with the restlessness of strangers. What would happen if they could jump into the fantasy of dancing with that stranger sitting next to them? Two street musicians start to play and answer that very question.

Valse Wals / False Waltz (2005, the Netherlands, 62 mins.) Directed by Mark de Cloe. Two veterans of wordless theater, Ria Marks and Titus Tiel Groenestege, perform a duet by turns absurd, outrageous, and poignant, as a boozy courtship in a bar becomes something more complicated.





DOCUMENTATION IS NOT AVAILABLE FOR THIS EVENT

FEBRUARY 27, 2007

DISCIPLINE Humanities

CURATOR Kathleen Forde

LOCATION Center for Biotechnology and
Interdisciplinary Studies (CBIS) on the Rensselaer
campus

Stein presented research he carried out in his role as director of the Institute for the Future of the Book, and discussed the shift in our worldview from the individual to the network, which he viewed as a radical reconfiguration in culture. In Stein's words, "Notions of authority are being challenged. The roles of author and leader are morphing and blurring. Publishing, methods of distribution, peer review, and copyright—every crucial aspect of the way we move ideas around—is up for grabs. The new digital technologies afford vastly different outcomes ranging from oppressive to liberating. How we make this shift has critical long-term implications for human society."

Stein is founder and co-director of the Institute, and founder of the Voyager Company. For 13 years he led the development of over 300 titles in the Criterion Collection, a series of definitive films on videodisc, and more than 75 CDROM titles. Previous to Voyager, Stein worked with Alan Kay in the research group at Atari on a variety of electronic publishing projects. Stein also started Night Kitchen to develop authoring tools for the next generation of electronic publishing. That work is now being continued at the Institute for the Future of the Book.

FEBRUARY 23, 2007

DISCIPLINE Film/Video

CURATOR Kathleen Forde

LOCATION Rensselaer Playhouse

Stop.Watch was a screening of rock, pop, and electronic music videos by top directors. Slowing down or speeding up time, collapsing its boundaries or simply rendering time topsy-turvy, this program featured work by directors who create videos that not only trigger us to think about the aesthetic implications of time as an artistic device, but to physically see its creative manipulation in motion.

PROGRAM

- Smiley Faces* Gnarles Barkley
- Velvet Cell* Gravenhurst
- You Gonna Want Me* Tiga
- Beneath the Rose* Micah P. Hinson
- Sugar Water* Cibo Matto
- Sometimes* Kid606
- Motus* Seb Martel
- Summer Skin* Death Cab for Cutie
- PDA* Interpol
- Timber* Coldcut
- Over and Over* Hot Chip
- The Girl and the Sea* The Presets

FEBRUARY 17, 2007

DISCIPLINE Music/Sound

CURATOR Micah Silver

LOCATION Lobby of the Center for Biotechnology and Interdisciplinary Studies (CBIS) on the Rensselaer campus

Exploring and expanding stylistic boundaries is a trademark of the FLUX Quartet. Partly as homage to the '60s Fluxus art movement, violinist Tom Chiu founded the FLUX Quartet in the '90s with a quest similar to that of some of the original Fluxus artists: a search for a living art for all people with an embracing "anything goes" spirit. To that end, FLUX has always been committed to projects of unique vision that defy aesthetic categorization.

For this concert, FLUX performed a piece by Alvin Lucier called *Group Tapper* that takes the Biotech Center's acoustics as instrument, Matthew Welch's Scottish-Indonesian inspired *Siubhal Turnlar*,

the architect and composer Iannis Xenakis's gritty *Tetora*, Anton Webern's \pm 30 second micro-masterpieces *6 Bagatellen*, and Giacinto Scelsi's *Quatuor N°2*.

SEE RELATED RESIDENCY ON PAGE 492.

FROZEN MOMMY
Tere O'Connor Dance

PERFORMANCE



FEBRUARY 9 + 10, 2007

DISCIPLINE Dance

CURATOR Hélène Lesterlin

LOCATION WMHT Studios in the Rensselaer
Technology Park

Frozen Mommy was a darkly humorous dance theater work stripped of theatrical spectacle or hidden narrative; the dancers inhabited a bare stage space and deftly led the viewer on an elliptical journey, bringing together in close proximity snippets, dances, words, and elements of great disparity. Imitating the magpie strategy of human thought processes, the dancers' actions accumulated and combined over the course of the work to create a funny, disturbing, and strangely familiar vision. The score was composed by Tere O'Connor and James Baker.

O'Connor has been making dances since 1982 and has created over 35 works for his company.

The company has performed throughout the US and abroad. O'Connor has created numerous commissioned works for dance companies around the world, among these have been works for Lyon Opera Ballet, White Oak Dance Project, de Rotterdamse Dansgroep, Dance Alloy, and Zenon. O'Connor is a 2009 United States Artist Rockefeller Fellow, a 1993 Guggenheim Fellow, and has received three New York Dance and Performance "Bessie" Awards, including one for *Frozen Mommy*. O'Connor is a professor at the University of Illinois at Urbana-Champaign.

RESEARCH

**A CINEMATIC SPATIAL SOUND DISPLAY
FOR PANORAMA VIDEO APPLICATIONS**
Jonas Braasch, Johannes Goebel, & Todd Vos



**JANUARY 31, 2007–
JUNE 30, 2010**

PUBLICATION Jonas Braasch, Johannes Goebel,
Todd Vos (2010), *A Cinematic Spatial Sound
Display for Panorama Video Applications*, in
Organised Sound, Cambridge University Press,
Volume 15 Issue 3

The Cinematic Sound Spatialization Display (CSSD) was originally conceived for interactive panorama video installations, with the EMPAC commission of the interactive movie *THERE IS STILL TIME..BROTHER* by The Wooster Group as a concrete project; but the architecture goes beyond this particular application. The CSSD is characterized by its scalability to various loud-speaker configurations. It spatializes sound from dry sound files or live sources using control data that describe the spatial scenes. The timelines for source positions and other experimental parameters can be stored and edited in the CSSD, and the system can also process live user input to control selected parameters. The CSSD is more than just a sound-positioning tool, and the underlying Virtual Microphone Control (ViMiC) technology was developed to support artists in designing new forms of spatial imagery. The software enables the user to create computer-generated rooms with virtual microphones and sound sources.

DANCE MOVIES 6

SCREENING

JANUARY 25, 2007

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Heffner Alumni House on the Rensselaer campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers, and filmmakers.

Foxtrot Tetrameter (2007 Sweden, 5 mins.) Directed by Mary Westermarck and Sofie Lagergren; choreographed and performed by Lisa Spets. A dancer moves to an internal jogging rhythm as transportation streams eddy around her.

No One (2004, US, 15 mins.) Directed and choreographed by Arielle Javitch. A somber piece that combines imagery, wordless theater, location, and dance. Created as a meditation on the genocides that took place in Bosnia and Rwanda in the '90s, and the response of the international community.

I Ti / Fingerdansen (2002, Sweden, 6 mins.) Choreographed and performed by Cristina Caprioli. A strikingly simple premise: two hands fly eloquently and fluently over a flat surface, flashing through hidden narratives, gestures, signs, and finger dances. Inspired by Italo Calvino's *Ti con Zero* and made in collaboration with artist Mateusz Herczka.

A.P.A.A.I. (2005, Spain, 10 mins.) Directed by Guillem Morales, choreographed by the company Erre que erre. A nightmarish vision peopled by pale and stylish patrons, waiting in an unidentified lobby; it becomes clear that these people have entered a loop in time they cannot escape.

Zimmer (2004, Iceland, 8 mins.) Directed by Helena Jonsdottir. Jonsdottir redefines the body, itself a landscape, and leads the viewer subtly through cultural perspectives on physical expression and awareness in the age of instant communication and entertainment.

Bitings and Other Effects (1995, Netherlands, 30 mins.) Directed by Clara van Gool, choreographed by Angelika Oei. Inspired by the southern Italian dance the Tarantella, which itself was named after the poisonous spider and the supposed cure for its bite: a frenetic dance.

BITINGS AND OTHER EFFECTS

1280

PERFORMANCE

SO PERCUSSION *and* DIRTY PROJECTORS



JANUARY 19, 2007

DISCIPLINE Music/Sound

CURATOR Micah Silver

LOCATION Academy Hall on the Rensselaer campus

Two different approaches to contemporary music collided when So Percussion met Dirty Projectors. So Percussion is a four-member percussion ensemble in the tradition of the virtuosic Percussion Group Cincinnati and Les Percussions de Strasbourg. They have differentiated themselves by commissioning new works from young composers and extending their repertoire beyond traditional 20th century avant-garde percussion music.

Dirty Projectors is the work of composer/performer Dave Longstreth, who with different groups of musicians performs his diverse compositions. In this incarnation the group featured Longstreth on guitar (played upside down, Hendrix-

style) and vocals, backup singers Amber Coffman and Susanna Waiche, Charlie Looker (member of Zs and Extra Life) on 12-string electric guitar, Nat Baldwin on electric and upright bass, Brian McOmer on drum set, and live video projection by James Sumner, animator of Dirty Projectors' full-length animated opera *The Getty Address*.

1274

617

Academic Collaborations

As an educational center at the intersection of arts, science, media, and technology, each year EMPAC enables students and faculty to cross boundaries of traditional academic learning and research.



Grasslands

In 2007 and before, during the years of design and construction leading up to the new building's opening late in 2008, EMPAC took several approaches to integrating EMPAC's project-based program with academics and curricula. With support from the Jaffe Fund for Experimental Media and Performing Arts, EMPAC initialized *Grasslands*, a site-specific installation for a hillside between the EMPAC construction site and the Arts Department. Two classes, co-led by Larry Kagan, professor in the Arts Department, and Michael Oatman, professor in the School of Architecture, collaborated to develop different proposals for the site. The project was on view in the summer of 2007. This interdisciplinary collaboration gave students insight into the creative practice of many of the artists that EMPAC presented, and later, would bring to campus in residence.

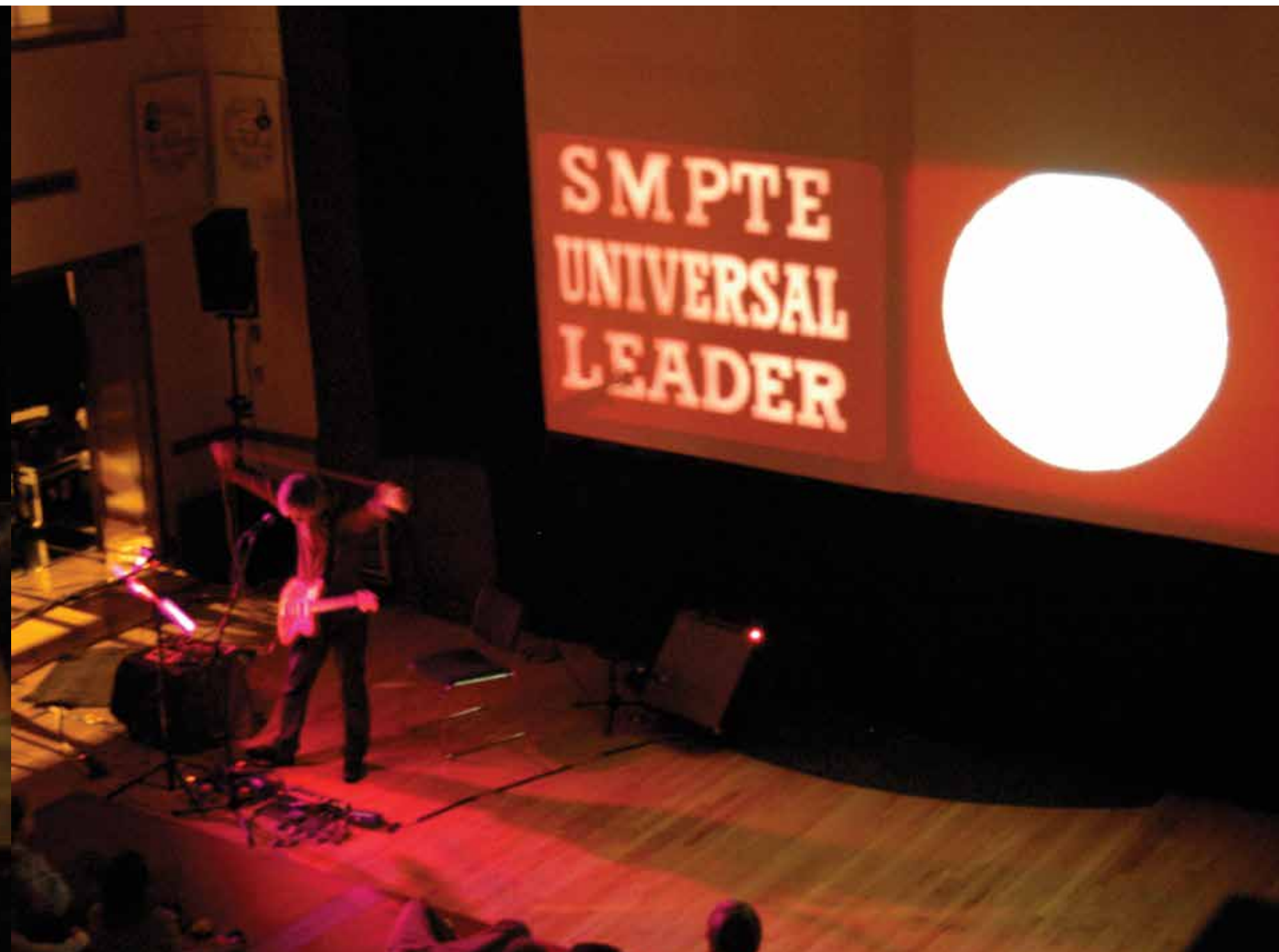
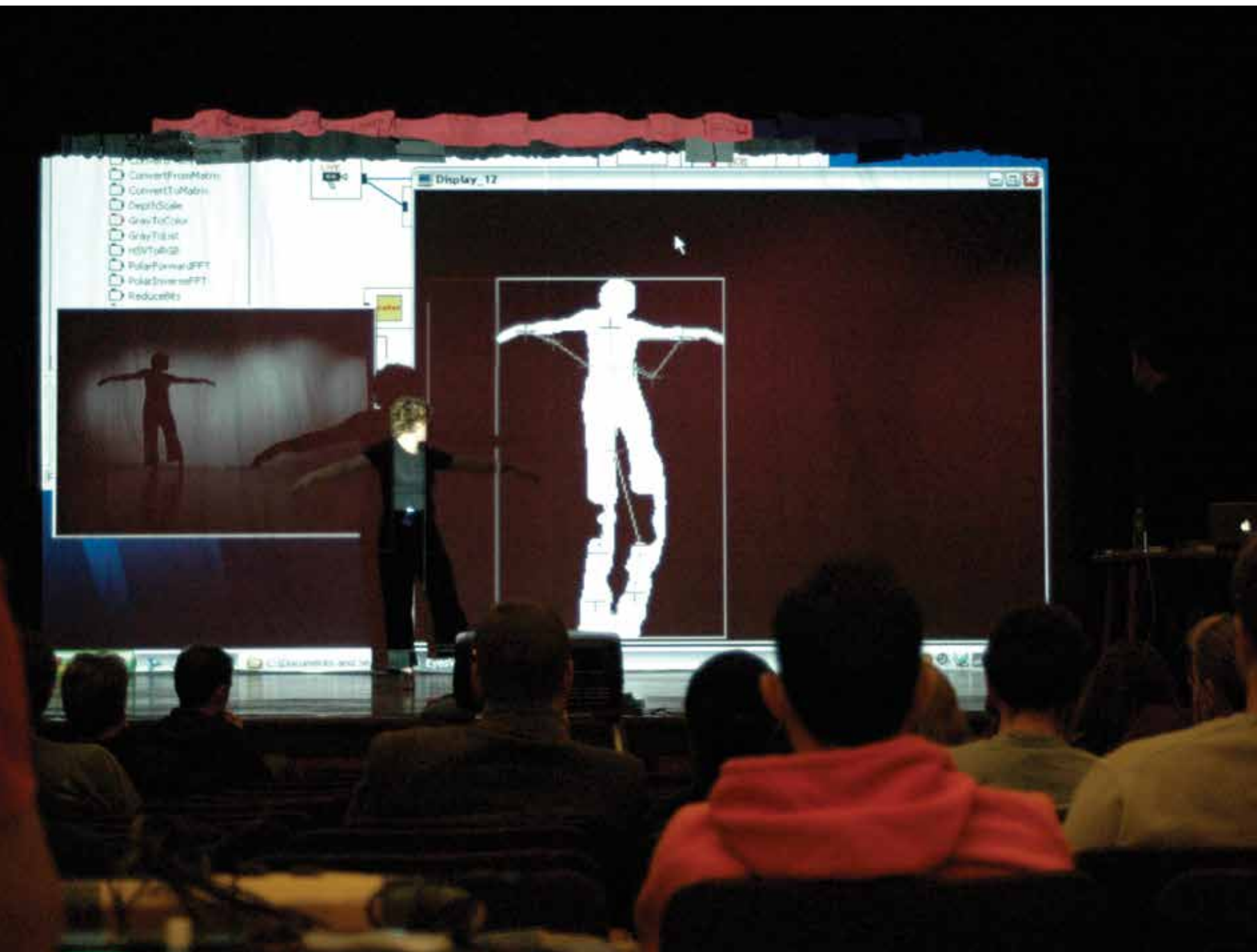
The *EMPAC plus* program also supported and collaborated with existing lecture and performance programs across Rensselaer, especially the Arts Department's longstanding, leading electronic arts series, *iEAR Presents!* The collaboration included a lecture on interactive projects by Blast Theory, a presentation of *Geyser Land* by Mary Ellen Storm and Ann Carlson, a concert by composer and pianist Frederic Rzewski, and a concert by Musica Electronica Viva. Also in conjunction with the Arts Department and *iEAR Presents!*, EMPAC presented *Custom Control*, an evening of three performances with artists who built their own audio and video performance tools, linked to research by Arts Department Professor Kathy High for the book *The Emergence of Video Processing Tools* (2014, Intellect Books), co-edited by Sherry Miller Hocking and Mona Jimenez.

2006
Days 1,210-952

*Kurt Hentschläger***NOVEMBER 16–18, 2006****DISCIPLINE** Film/Video; Music/Sound;
Visual Art**CURATOR** Kathleen Forde**LOCATION** Rensselaer Playhouse

FEED was an immersive performance in two parts that stressed the limits of perception. The first half featured projections of larger-than-life figures moving in a synchronized choreography, floating and convulsing in a world without gravity—their movements generated sounds, creating a symphonic drone. The second part was an immersive environment with artificial fog, stroboscopic, and pulse light, the combination inducing a complete loss of spatial orientation, without depth of field. A matching soundscape infused by feedback and intense sub-low bass augmented this sensation, generating an intense physical experience.

Chicago-based Austrian artist Kurt Hentschläger creates audiovisual performances and installations. Between 1992 and 2003, he worked collaboratively as one half of Granular Synthesis, whose performances and installations confronted viewers on both a physical and emotional level, overwhelming them with sensory stimulation.

**NOVEMBER 1, 2006**

DISCIPLINE Dance; Theater;
Tools and Technology

CURATOR H el ene Lesterlin

LOCATION Center for Biotechnology and
Interdisciplinary Studies (CBIS) and West Hall
on the Rensselaer campus

Troika Ranch gave two presentations: the first was an afternoon talk focused on movement-sensor technology, computer processing, and software development used for their dance theater productions; the second, in the evening, showed the technology in action with excerpts and demonstrations from their stage works.

Co-founded by choreographer and media artist Dawn Stoppiello and composer and media artist Mark Coniglio, Troika Ranch is an arts organization that creates contemporary, hybrid artworks through an ongoing examination of the moving body and its relationship to technology.

Troika Ranch uses interactive digital media and computer technology as an essential component of its performances.

OCTOBER 27, 2006

DISCIPLINE Film/Video; Music/Sound;
Visual Art

CURATOR Kathleen Forde

LOCATION Heffner Alumni House on the
Rensselaer campus

DRIFT was a collaborative performance between artist Leah Singer and musician Lee Ranaldo of the rock band Sonic Youth, offering an immersive sonic/visual environment consisting of Ranaldo's spoken texts and scorching music played in response to lush projections from two modified 16mm film projectors that Singer performed on live, much as a DJ scratches a vinyl record, manipulating her films in a improvisation with Ranaldo's guitar, poetry, and soundscapes.



OCTOBER 12–15, 2006

DISCIPLINE Contemporary Performance; Dance

CURATOR Hélène Lesterlin

A performance for one viewer at a time, *entre-deux* was experienced by appointment only, with each performance lasting 10 to 15 minutes in an office trailer set up on the Rensselaer campus. The event began with arrival at the “entre-deux lounge” in the campus library and time to enjoy coffee, tea, and sweets. Then the visitor was driven in a golf cart to the trailer. Once inside, the viewer witnessed a live video transmission of the performer (in a separate container) who interacted with the visitor. The performance took place “entre-deux”, between two: the two containers and the performer and the visitor.

The performance group *kondition pluriel*, based in Montréal, Canada, creates works combining performance, contemporary dance, interactive technologies, and video. Founded by choreographer and dancer Marie-Claude Poulin and media artist Martin Kusch, the group has presented its work extensively throughout Europe, in Japan, and South America. Often located in unconventional spaces and using custom-designed electronic tools and interfaces, *kondition pluriel*'s performance installations balance on the boundary between human experience and human-made technology.

SEPTEMBER 14, 2006

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Outdoors on the '86 Field on the Rensselaer campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

Break (2005, New Zealand, 14 mins.) Directed and choreographed by Shona McCullagh. Set in rural New Zealand, a nine-year-old boy and his parents struggle with an impending change. As their familiar world turns upside-down, gravity seems to shift too.

The Art of Weightlessness: excerpt (2003, US, 4 mins.) Directed by DB Griffith. Bill Shannon has made his name as a skateboard-hip-hop dancer and choreographer, and is also known as the Crutchmaster. DB Griffith captures him musing on his crutches by the seaside, slipping through the air as though escaping gravity's hold.

Alt I Alt /All in All (2005, Norway, 5 mins.) Directed by Torbjørn Skårild. Through the use of rhythmic cuts, edits, sounds, and constantly changing perspectives, this video builds an almost cubist refraction of the simple act of diving into a pool of water.

Tra La La (2004, UK, 3 mins.) Directed, choreographed, and animated by Magali Charrier. A poetical reflection on the ephemeral nature of innocence and childhood that magically combines live action with chalk-drawing animation to create a black-and-white tale where three young women lead us through the lost, imaginary realm of their past.

Montevideoaki (2005, Uruguay, 5 mins.) Directed by Octavio Iturbe. Based on the solo *While going on a Condition*, against the dramatic city backdrop of Montevideo, Uruguay, Hiroaki Umeda's fluid and subtle solo flickers against the hard lines of the buildings.

Counter Phrases (2) (2000, Belgium, 27 mins.) Directed by Thierry de Mey, choreography by Anne Teresa De Keersmaeker. Based on the stage work (*But if a look should*) *April Me*, this film features dances to original music commissioned from 10 contemporary composers.



TRUE FICTIONS: NEW ADVENTURES IN FOLKLORE

The Light Surgeons

SEPTEMBER 1, 2006–
SEPTEMBER 14, 2007
(3 VISITS)

DISCIPLINE Film/Video; Music/Sound;
Performance

ABOUT THE PRODUCTION Commissioned
by EMPAC

PUBLICATION *True Fictions: New Adventures in
Folklore*, Audio recorded at EMPAC, released by
NLS Records

CURATOR Kathleen Forde

LOCATION Robison Gymnasium

Commissioned by EMPAC, and recorded in and around Troy, New York—the birthplace of archetypal character Uncle Sam—*True Fictions: New Adventures in Folklore* fused documentary film making, live and electronic music, animation, and motion graphics with innovative digital video performance tools. Taking American folklore as a departure point for this performance, this UK-based collective tackled questions of how personal, political, and national myths evolve from subjective stories into widely held truths. *True Fictions: New Adventures in Folklore* was developed over the course of a year, as the artists developed a collage of documentary footage, interviews, and music recorded in Troy and across the rest of the state of New York: from Troy's Uncle Sam's Day Parade to a cramped music studio in Brooklyn, to an upstate Native American reservation and more.

The Light Surgeons were founded in London in 1995 by artist and filmmaker Christopher Thomas Allen with like-minded media artists and filmmakers; they specialize in creative content for video productions, live performances, and installation-based projects. They develop new forms of cross-disciplinary practice through the fusion of film production, animation, motion design, and the application of creative code and cutting-edge tools.

SEE RELATED EVENT ON PAGE 605.

RESIDENCY / COMMISSION

SCREENING

DANCE MOVIES 4

APRIL 20, 2006

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Academy Hall on the Rensselaer
campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

You Little Wild Heart (1981, USA, 25 mins.) Directed by David Heller, choreographed by Marta Renzi: A footloose gang dances at full tilt through the back streets of Boston.

Street Spirit (1996, UK, 5 mins.) Directed by Jonathan Glazer: A sense of mystery and darkness shroud the trailer park of Radiohead's *Street Spirit*, where people seem suspended in a timeless space.

Anarchic Variations (2004, U.K., 7.5 mins.) Directed by Billie Cowie, choreographed and performed by Liz Aggiss: In a white room, a woman plays out a series of variations on the themes of space, orientation, punk, and tagging.

Dispersion (2006, US, 4.5 mins.) Directed by Mike Yamrus Traceurs. "Parkour" runners or "traceurs" sweep through urban landscapes with the goal of complete flow in their forward momentum—no stopping, no hesitating, no matter what the obstacle.

Carbon Minoxide (2004, Japan and France, 5 mins.) Directed by Kaori Ito. A girl rambunctiously yearns for her crush, and then traipses through Brooklyn, NY, in search of love and companionship, to the music of NY-based singer-songwriter Regina Spektor.

MARCH 23, 2006

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Academy Hall on the
Rensselaer campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

Nascent (2005, Australia, 10 mins.) Directed by Gina Czarnecki. A mesmerizing experiment in which footage of Australian Dance Theater dancers is refracted and smeared, leaving traces and turbulent impressions across the screen.

POD (2005, UK, 9 mins.) Directed by Shelly Love. Four lackluster people kill time in a windowless waiting room; things go from strange to stranger as animate sheets of rubber start to encase faces and bodies and then the room itself.

Snow (2003, UK, 8 mins.) Directed by Rosemary Lee and David Hinton. Archival footage of winter antics from the 1890s to the 1960s is cut and re-combined to create a rhythmic choreography of gesture and action on the slippery sidewalks and slopes of a bygone era.

Magnetic North (2003, UK and Finland, 9 mins.) Directed and choreographed by Miranda Pennell. The director casts a subtle eye on adolescent rituals playing out across the wintry landscapes of small-town Finland: girls skate on a frozen lake, while boys play electric guitar in their rooms, dogs bark, and the sun goes down.

Hohenluft (2005, Netherlands, 25 mins.) Directed by Annick Vroom. Set in a 1920s sanatorium in the Swiss Alps, hilarity runs at a fever pitch, literally, as the patients cavort, ignoring the facts of illness and death, preferring to crash headlong into love and folly.

MARCH 3, 2006

DISCIPLINE Film/Video; Music/Sound

CURATOR Kathleen Forde

LOCATION Heffner Alumni House on the
Rensselaer campus

This screening explored the influence of surrealism on music videos, featuring the work of directors such as Spike Jonze, Michel Gondry, and Chris Cunningham, and artists including Björk, Beck, Arcade Fire, LCD Soundsystem, and Aphex Twin. Music videos offer both musical artists and film directors a creative challenge of working within the commercial limitations of the short video clip. Consequently, many music videos have begun to look more like an art form reminiscent of experimental short films than a commercial product. The videos were preceded by *Entr'acte* (1924), a 13-minute surreal film by René Clair.

PROGRAM

Sky Starts Falling The Doves
E Pro Beck
Tribulations LCD soundsystem
Just Briefly Daedelus
Will The Summer Make Good For All of Our Sins? Múm
Fortress Pinback
4 Ton Mantis Amon Tobin
Human Carpark North
Destroy Everything You Touch Ladytron
Triumph of a Heart Björk
What Else is There? Röyksopp
Come to Daddy Aphex Twin
Rebellion The Arcade Fire
Hyperballad Björk
Hayling FC Kahuna

2005
Days 858–776

FAIR GAME: THE ART OF VIDEO GAME ENGINES

TALK

NOVEMBER 29, 2005

DISCIPLINE Film/Video; Tools and Technology; Visual Art

CURATOR Kathleen Forde

LOCATION Heffner Alumni House on the Rensselaer campus

Fair Game featured artists who use video game engines to create work that spans cinema, video gaming, hacker art, immersive installation, and software development. Rather than a traditional panel discussion, the event included demos, show and tell presentations, film screenings, and game playing. The audience watched video games played on massive screens, and then witnessed artists manipulating the software engines to create their own works. Kurt Hentschläger gave a live demonstration of the audiovisual instrument used for his performance *FEED*; Friedrich Kirschner showed a modification of the Unreal Tournament 2004 game engine as a tool for animated movie productions, real-time audiovisual performances and other art-related projects; Paul Marino discussed the growth of Machinima and its influence on animated filmmaking; The ILL Clan did a live interactive machinima performance of their show, *Trash Talk with ILL Will*; and the Workspace Unlimited collective presented the *Virtual World of Art* project, a series of networked virtual worlds connected to physical public spaces. Expert gamers from Rensselaer's Games Research Lab played games such as Unreal Tournament and Quake 3 on oversized screens for the audience preceding the event.

EXHIBITION

BUBBLES

Kiyoshi Furukawa & Wolfgang Münch, with Jim Lewis



NOVEMBER 19, 2005–
APRIL 23, 2006

DISCIPLINE Music/Sound; Visual Art

ABOUT THE PRODUCTION The Nautilus Double Spiral Dome for *Bubbles* was commissioned by EMPAC. The program for *Bubbles* was on loan from ZKM Karlsruhe, Germany.

CURATOR Johannes Goebel

LOCATION Schenectady Museum, Schenectady, NY

Bubbles was an interactive exhibit by German artist Wolfgang Muench and Japanese composer Kiyoshi Furukawa. For this public art installation, EMPAC commissioned Troy sculptor Jim Lewis to design and build a portable, domed, multimedia theater, where viewers could enter and be immersed in sounds and images. Interaction with the piece was simple: a viewer walks in front of the projector's light beam, and virtual bubbles bounce off the shadow's outlines, at the same time emitting sound effects. By moving your body and its resultant shadow, you can play with these bubbles and the sound composition. In effect, the shadow becomes an "analog interfacing device" used to interact with a com-

pletely digital world. *Bubbles* was originally produced at ZKM Karlsruhe, Germany.

SEE RELATED EVENT ON PAGE 649.

OCTOBER 26, 2005

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Sage Building on the Rensselaer campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

Peep Show (2002, Canada, 4 mins.) Directed by Robert Deleskie; choreographed by David Danzon. A comical and absurdist take on a penny-arcade peep show, where a disgruntled couple pays to watch a bizarre courtship dance between a man and woman clad in sticky, black rubber bodysuits.

Left or Right for Love? (2002, UK, 6 mins.) Directed by Magali; choreographed by Maria Lloyd. A woman sinks into her bath of milk to emerge in a white world of fantasy, memory, and chaotic thoughts.

RIP / Rest in Peace (2000, Netherlands, 9 mins.) Written and directed by Annick Vroom. Three adult siblings attend their parents' funeral and reconvene after the wake in an empty and silent house. As the grief and shock ebb into the background, their current relationships draw into focus and things begin to go awry.

Portrait (2003, Finland, 5 mins.) Directed and choreographed by Saara Cantell. A tragicomedy about a middle-aged couple who enter a photographer's studio for a portrait.

Measure (2001, US, 7 mins.) Directed by Dayna Hanson and Gaelen Hanson; choreographed by Dayna Hanson. A duet takes place exclusively within the decaying walls of a corridor; as light spills in from the doorways of unseen rooms, a relationship emerges between the performers, revealed as much through their faces as through the timing of their rhythmically intricate steps.

The Cost of Living (2004, UK, 34 mins.) Directed by Lloyd Newson of DV8 Physical Theater. Shot in a faded seaside town on the Norfolk coast, two disillusioned street performers roam the streets, boardwalks, and bars; along the way, encounters lead to scuffles, romance, joy rides, outrageous claims, and solid camaraderie.

SEPTEMBER 21, 2005

DISCIPLINE Film/Video, Dance

CURATOR Hélène Lesterlin

LOCATION Outdoors on the '86 Field on the Rensselaer campus

DANCE MOVIES was a screening series showcasing short films and experimental videos made by contemporary choreographers and filmmakers.

Wake-up Call (1988, US, 7 mins.) Choreographed, directed, and performed by Pooh Kaye: Using her signature stop-motion animation, Pooh Kaye falls out of bed and dances through a wacky apartment of morphing wall paintings, watchful shadows, and animate furniture.

Walkabout of Alices (2003, Italy, 3 mins.) Directed and choreographed by Simona da Pozzo. In this kinetic short video, four dancers race in concentric circles in an asphalt field studded with hay bales, keeping up a furious pace.

Reimerswaal (2004, Netherlands, 8 mins.) Directed by Clara van Gool, choreographed by Suzy Blok. A young couple engages in a mysterious mating dance in and under water until the playfulness is lost and they must quickly swim their separate ways.

Boy (1995, UK, 5 mins.) Choreographed by Rosemary Lee, directed by Peter Anderson. Filmed on the coast of Norfolk in England, this film explores the joyous, magical world of an eight-year-old boy who conjures up his imaginary twin.

Le P'Tit Bal (1994, France, 4 mins.) Directed by Philippe Decouflé. A couple sits at a table in a vast, wind-blown field; the sudden appearance of household objects falling from the sky, the saturated colors, and the increasing use of time-lapse photography combine to create a heightened sense of sweet absurdity.

black spring (2002, Nigeria/France, 26 mins.) Directed by Benoit Dervaux, choreographed by Heddy Maalem. Bringing together dancers from Senegal, Nigeria, and French dancers of African descent, the film intercuts dances in the silence of the studio, with clanging scenes filmed in the streets.

Reines d'un jour / Queens for a day (1996, Switzerland, 26 mins.) Directed by Pascal Magnin, choreographed by Christine Kung. Six dancers tumble down the steep slopes of the Swiss Alps, among cows and shepherds, to join in a traditional village festival where mischief, pranks, and love run rampant.

SEPTEMBER 8, 2005

DISCIPLINE Multidisciplinary

CURATOR Kathleen Forde, Johannes Goebel, H el ene Lesterlin, M icah Silver

Marking the midpoint between groundbreaking and the opening of its new building, EMPAC presented this public celebration by inviting the audience to walk the periphery of the building site as the sun set and to experience performances—featuring aerial dance, music, live visuals, and pyrotechnics—happening on all sides. San Francisco-based Flyaway Productions created an aerial site-specific dance work that ranged over the walls and empty spaces along the periphery of the building site. Ethel, the New York City-based string quartet known for stretching the limits of convention, played amplified from several locations on the site. Long Island-based visual artist Benton C. Bainbridge and Troy composer, audio artist, and sound designer Stephan Moore collaborated in a real-time creation of projected video and sound. A pyrotechnics display entitled *Dialectic of Duration* and designed by renowned French pyrotechnics designer Pierre-Alain Hubert, placed fire and pyrotechnics within the volume of the future building, delineating the spaces with ephemeral light.

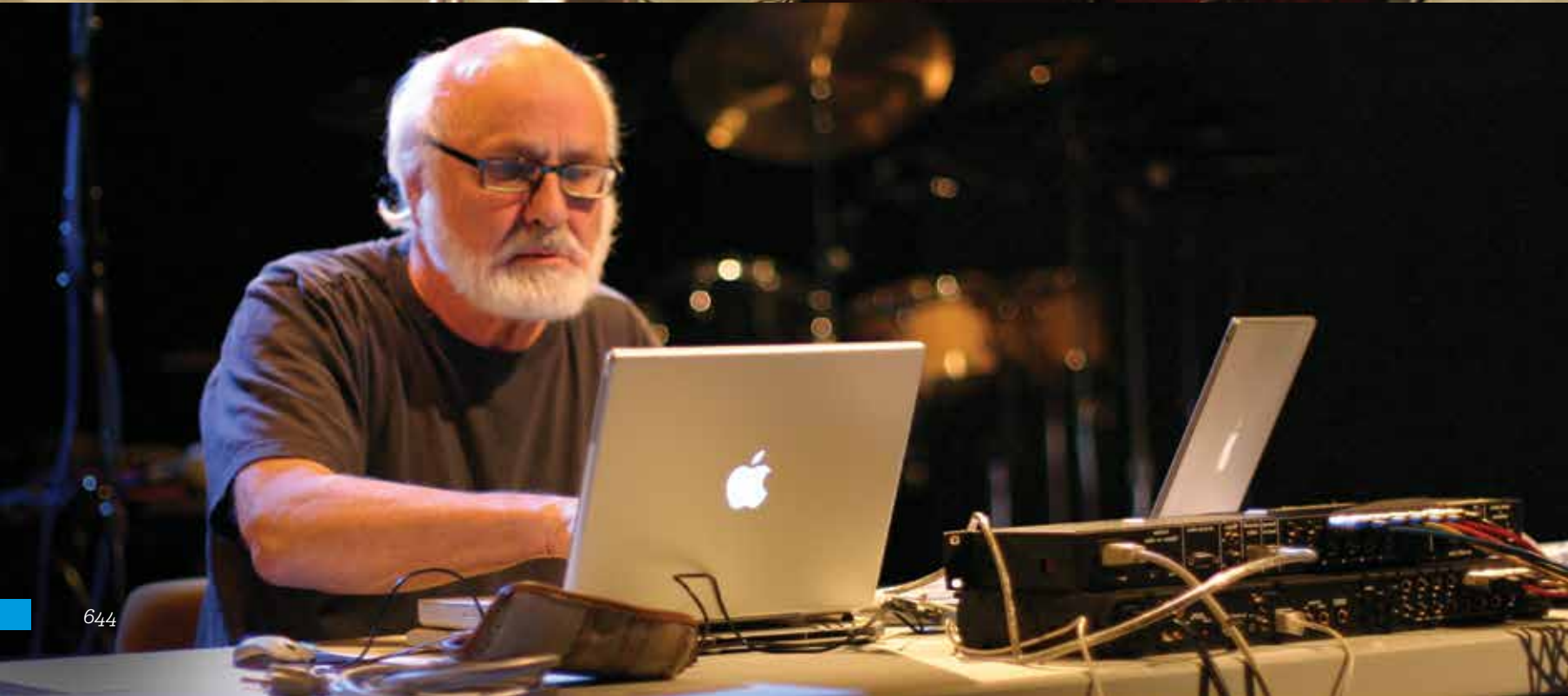




PERFORMANCE



2004
Days 434-1



PERFORMANCE

WOW AND FLUTTER: THE SAN FRANCISCO
TAPE MUSIC CENTER

OCTOBER 1 + 2, 2004

DISCIPLINE Music/Sound

PUBLICATION *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde* by David W. Bernstein with preface by Johannes Goebel, Book and DVD, published by EMPAC and University of California Press

CURATOR Johannes Goebel

LOCATION Rensselaer Playhouse

This two-day festival celebrated 40+ years of creativity by reuniting the original members of The San Francisco Tape Music Center (Bill Maginnis, Tony Martin, Pauline Oliveros, Ramon Sender, and Morton Subotnick) to perform concerts showcasing both celebrated SFTMC works and modern pieces. The festival included performances with the Ensemble Sospeso and a percussion ensemble under the direction of Brian Wilson. The San Francisco Tape Music Center connected music to technology during a legendary era in California's cultural history, with an influential group of creative artists whose pioneering early work—mixing electronic music, film and images, and sound—remain vital today. The Center developed new art forms through collaborations with Terry Riley, Steve Reich, David Tudor, Ken Dewey, Lee Breuer, the San Francisco Actor's Workshop, the San Francisco Mime Troupe, the Ann Halprin Dancers' Workshop, Canyon Cinema, and others.

PROGRAM

PAULINE OLIVEROS AND TONY MARTIN

Circuitry (for 5 percussionists and lights)

MORTON SUBOTNICK *Until Spring Revisited*

(for laptop and 8-channel audio)

TONY MARTIN *Silent Light*

RAMON SENDER *Tropical Fish Opera* (for fish and four musicians)

MORTON SUBOTNICK *Mandolin* (for viola,

piano, tape with visual composition and performance by Tony Martin)

PAULINE OLIVEROS *Bye, bye Butterfly* (for tape with visual composition and performance by Tony Martin)

RAMON SENDER *Great Grandpa Lemuel's*

Death-Rattle Reincarnation Blues

PAULINE OLIVEROS *Apple Box Double*

RAMON SENDER *Kore* (for tape with visual

composition and performance by Tony Martin)

RAMON SENDER *Desert Ambulance* (for

accordion, tape, with visual composition and performance by Tony Martin)

MORTON SUBOTNICK *Release* (for clarinet,

violin, cello, piano and 8-channel computer)

PAULINE OLIVEROS *Pauline's Solo* (for

accordion and eight channel Expanded Instrument System)

PERFORMANCE



THE FLY-BOTTLE

Shakespeare & Company

PERFORMANCE

EXHIBITION

BUBBLES

Kiyoshi Furukawa &
Wolfgang Münch, with Jim Lewis



SEPTEMBER 11–18, 2004

DISCIPLINE Theater

CURATOR Johannes Goebel

LOCATION Center for Biotechnology and Interdisciplinary Studies (CBIS) on the Rensselaer campus

For the opening of The Center for Biotechnology and Interdisciplinary Studies (CBIS)—initiated at the same time as EMPAC—Shakespeare & Company was invited to perform this play appropriate to the occasion, dealing with scientific investigation.

The Fly-Bottle, by David Egan, is based upon a factual, explosive event in 1946 among three of the last century's greatest minds: Ludwig Wittgenstein, Karl Popper, and Bertrand Russell. All three were present at Cambridge University's Moral Science Club, a gathering place for visiting philosophers to discuss their latest research with students and professors. Wittgenstein was the club's chairman and Popper the invited

speaker. Russell was in attendance. Speaker and chairman had never met before, and the two were in the same room for only 10 minutes before Wittgenstein stormed out in a rage. The play confronts the disparity in subsequent eyewitness accounts by examining the event from multiple perspectives. The performance was directed by Tina Packer (artistic director of Shakespeare & Company) and produced by Bruce Bouchard (founding artistic director of Capital Repertory Theatre, Albany, NY).

APRIL 20–MAY 24, 2004

DISCIPLINE Music/Sound; Visual Art

ABOUT THE PRODUCTION The Nautilus Double Spiral Dome for *Bubbles* was commissioned by EMPAC.

CURATOR Johannes Goebel

LOCATION The public concourse in the Empire State Plaza, Albany, NY. Another installation of *Bubbles* was on display in the Junior Museum, Troy, 2003–04.

Bubbles is an interactive exhibit by the German artist Wolfgang Muench and Japanese composer Kiyoshi Furukawa. For this public art installation, EMPAC commissioned Troy sculptor Jim Lewis to design and build a portable domed multimedia theater, which viewers could enter and be immersed in sounds and images. Interaction with the piece was simple: a viewer walks in front of the projector's light beam, and virtual bubbles bounce off the shadow's outlines, at the same time emitting sound effects. By moving your body and its resultant shadow, you can play with these bubbles and the sound composition. In effect, the shadow becomes an "analog interfacing device" used to interact with a completely digital world.

Bubbles was originally produced at ZKM Karlsruhe, Germany.

SEE RELATED RESIDENCY ON PAGE 635.

MODELING THE TRANSMISSIVE CEILING CANOPY

*Paul Henderson, Ioana Pieleanu,
Dr. Rendell Torres,
Dr. Mendel Kleiner,
Johannes Goebel,
& Kirkegaard Associates*

RESEARCH

JANUARY 31–MAY 30, 2004

As specified by acousticians Kirkegaard Associates, EMPAC's Concert Hall ceiling was to be constructed out of fabric. This research project was commissioned by EMPAC to construct a detailed computational model of the ceiling canopy design. There were three objectives for this applied research project: (1) to create a highly accurate computed model of the interior room acoustics of the Concert Hall, including the effect of the canopy on the early reflections and reverberation of the room; (2) to render these computed results as an auralization (being able to hear music in the virtual concert hall) using means that would provide for a natural reconstruction of the musical behavior of the room; and (3) to use these techniques combined with measured transmission and reflection properties of different fabrics (from canvas to synthetic materials) to select an optimal ceiling material. The project resulted in a surround-sound environment, in which the team could select different materials for the ceiling and have music played into the hall with the selected material while being in different locations in the hall to hear the different results.

Project Home Listen Now About the Project Simulation Methods Ambisonic Rendering About the Binaural Web Demo Project Team

Listener Position	Sound Source Position	Musical Program	Canopy Material	Sound File Format
<ul style="list-style-type: none"> 1-Conductor 2-Orchestra level ✓ 3-Orchestra level 4-Orchestra level 5-Balcony 	<ul style="list-style-type: none"> 1-Upstage 2-Downstage R 3-Downstage RC ✓ 4-Downstage LC 5-Downstage L 	<ul style="list-style-type: none"> ✓ Cello 1 Cello 2 Cello 3 Female Opera Vocal Organ Chord Piano Pink Noise Burst String Hit Snare Drum String Quartet Trumpet 	<ul style="list-style-type: none"> Canvas Auris ✓ 6mm Nomex 9.5mm Nomex Xorel Hard canopy No canopy 	<input type="text" value="Uncompressed WAV"/>

● Source Positions
● Listener Positions



THERE IS STILL TIME..BROTHER

The Wooster Group

RESIDENCY / COMMISSION

JULY 26, 2003–
JUNE 17, 2011

DISCIPLINE Contemporary Performance; Film/
Video; Music/Sound; Visual Art

ABOUT THE PRODUCTION Commissioned by EMPAC; produced by EMPAC in collaboration with iCinema Centre for Interactive Cinema Research and ZKM | Institute for Visual Media and in collaboration with the Wooster Group. Producers: Johannes Goebel and Kathleen Forde. The interactive panoramic cinema has been conceived of and designed by Jeffrey Shaw. SPHERECAM cinematography, production pre-view system and post-production: Volker Kuchelmeister [iCinema]. Real-time image processing and projection system for complex surfaces: Bernd Lintermann [ZKM]. Panoramic projection screen engineering: Huib Nelissen Decor en Constructiewerken, Haarlem, [NL]. Localization capturing system for moving sound sources and virtual microphone control for sound projection systems: Jonas Braasch, Communication Acoustics Research Lab, Rensselaer.

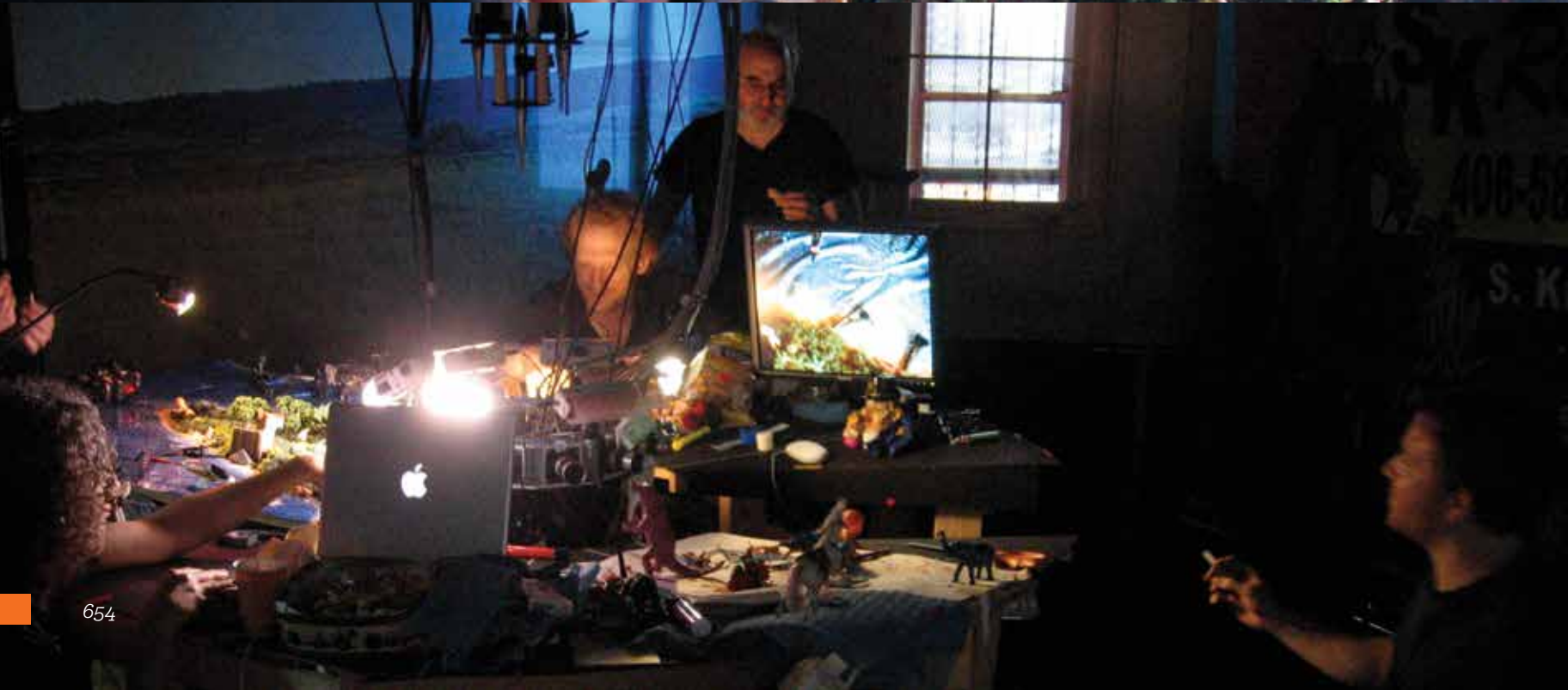
CURATOR Johannes Goebel

THERE IS STILL TIME..BROTHER is the Wooster Group's first interactive 360° war film. Sitting inside a panoramic screen, the audience is surrounded by the film's bewildering narrative space, where the action can only be seen and heard clearly through a virtual peephole that scans the circle, controlled by a member of the audience. The audience becomes immersed in a process of discovery whereby the very choice to look or turn away actually creates the story. This installation—which takes its title from a banner visible in the final scene of Stanley Kramer's 1959 film, *On the Beach*, depicting a post-nuclear apocalypse Earth—is a film about war and the ways that individuals respond to war. Seated in a revolving chair in the center of the 360° space, audience members take turns controlling a virtual “window” to highlight discrete aspects of a story about British and French troops battling for control of Fort Calypso (a battle site in the French and Indian War); joining the battle are grotesquely enlarged children's toys vying for attention with politically minded bloggers, unsavory YouTube videos, and a mercurial host who attempts to articulate the implications of this unique “narrative space.” With each viewing, a new cinematic experience is spun out of the choices of individual audience members.

Initiated in 2003 as EMPAC's first commissioned work, *THERE IS STILL TIME..BROTHER* took four years of development and production to complete, including technological research and collaboration with international partners in Australia and Germany. It was directed by Elizabeth LeCompte and developed with Jeffrey Shaw for his interactive panoramic cinema.

The Wooster Group is a collective of artists who make new work for the theater. Under the direction of Elizabeth LeCompte and with its associates and staff, the group has created over 40 works for theater, dance, and media. For more than 30 years, the Wooster Group has cultivated new forms and techniques of theatrical expression reflective of and responsive to our evolving culture, while sustaining a consistent ensemble and maintaining a flexible repertory. Elizabeth LeCompte has directed all of the Wooster Group's productions since the founding of the company in 1976. Jeffrey Shaw has been a leading figure in new media art since its emergence from the performance, expanded cinema, and installation paradigms of the '60s to its present day technology-informed and virtualized forms.





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...avec un frisson: Late Piano Works of Debussy & Boulez by Yegor Shevtsov, Audio Recording, recorded and produced at EMPAC and released by New Focus Recordings.

„... Zwei Gefühle ...” and Solo Works by Helmut Lachenmann, Lauren Radnofsky, Ensemble Signal, and Brad Lubman, Audio Recording and DVD, recorded at EMPAC and released by Mode Records.

A U R O R A by Ben Frost, Audio Recording, recorded in Eastern DR Congo, Reykjavik, and at EMPAC, mastered at Greenhouse Studios, and released by Bedroom Community.

Brent Green: Gravity Was Everywhere Back Then by Argeo Ascani and Brent Green; Book,DVD, and Bluray, recorded, produced and published by EMPAC.

The Cake of the Three Towers by Japanther, Book and DVD, commissioned, produced and published by EMPAC.

Chamber Industrial by Per Bloland with ECCE Ensemble, Audio Recording, recorded at EMPAC and released by Tzadik.

DANCE MOVIES EMPAC 2007-2008 by Joby Emmons (Kino-Eye), Victoria Marks (Veterans), David Farias, Carla Schillagi, and Maria Fernanda Vallejos (pH Propriedad Horizontal), and Alla Kovgan and David Hinton (Nora), DVD, commissioned and published by EMPAC.

DANCE MOVIES EMPAC 2008-2009 by Kriota Willberg (Sunscreens Serenade), Noémie Lafrance (Eyes Nose Mouth), Roberta Marques (Looking Forward—Man and Woman), and Sophie Kahn and Lisa Parra (body/traces), DVD, commissioned and published by EMPAC.

DANCE MOVIES EMPAC 2009-2010 by Marites Carino (HOOP), Rajendra Serber (Quince Missing), Valeria Valenzuela and Lilyen Vass (The Closer Ones Gets, The Less One Sees), Nuria Fragoso (Anatomy of Melancholy), and kasumi (MO-SO), DVD, commissioned and published by EMPAC.

DANCE MOVIES EMPAC 2010-2011 by Pooh Kaye (Spring Cleaning), Paulo Fernández (Fauna), Daniele Wilmouth (Fanfare For Marching Band), and Alison Crocetta (A Circus For One), DVD, commissioned and published by EMPAC.

Dancing on the Ceiling: Art & Zero Gravity by Kathleen Forde, Book, published by EMPAC.

Destination IV: Void by Peter Evans Quintet, Audio Recording, recorded at EMPAC and released by More Is More Records.

Fausto Romitelli : Anamorphosis by Talea Ensemble, Audio Recording, recorded at EMPAC and released by Tzadik.

The Hant Variance by Peter Edwards and Sabisha Friedberg, Audio Recording, recorded and produced at EMPAC, released by ISSUE Project Room.

Juicy: Works for Piano and Image by Jaroslaw Kapuściński, DVD, recorded at EMPAC and released by Everglade Records.

Morton Feldman's String Quartet No. 1 by FLUX Quartet, recorded and produced at EMPAC, released by Mode Records.

Music for 18 Musicians by Ensemble Signal and Steve Reich, Audio Recording, recorded at EMPAC and released by Harmonia Mundi.

Nathan Davis: The Bright and Hollow Sky by Nathan Davis / International Contemporary Ensemble, Audio Recording, recorded at EMPAC, Smith College / Oktaven Audio and released by New Focus Recordings.

the Negotiation of Context by Davíð Brynjar Franzson and Yarn/Wire, Audio Recording, recorded and produced at EMPAC, released by WERGO.

nonextraneous sounds by Mariel Roberts, Audio Recording, recorded and produced at EMPAC, released by Innova Records.

RELAY by Wet Ink Ensemble, Audio Recording, recorded at EMPAC and released by Carrier Records.

Rushes by Michael Gordon, Audio Recording, recorded and produced at EMPAC, released by Cantaloupe Music.

The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde by David W. Bernstein with preface by Johannes Goebel, Book and DVD, published by EMPAC and University of California Press.

Senses by Omar Sosa, Audio Recording, recorded at EMPAC and published by Otá Records.

SOLO-DUO-POETRY by Cecil Taylor and Pauline Oliveros, DVD, produced, recorded and published by EMPAC.

Surface Image by Vicky Chow and Tristan Perich, Audio Recording, recorded and produced at EMPAC, released by New Amsterdam Records.

The Surveyors by Architeuthis Walks on Land, Audio Recording, recorded and produced at EMPAC.

There Will Never Be Silence, Audio Recording featuring *A Concentric Crowned: Plain Hi-Roller* by Sabisha Friedberg, parts of which were recorded at EMPAC, released by The Museum of Modern Art and MoMA PS1.

Tone Builders by Yarn/Wire, Audio Recording, recorded and produced at EMPAC, released by Carrier Records.

True Fictions: New Adventures in Folklore, Audio Recording, recorded at EMPAC, released by NLS Records.

Uncertain Spectator by Emily Zimmerman with Max Hernández-Calvo, Exhibition Catalog, published by EMPAC.

Virgins by Tim Hecker, Audio Recording, recorded at EMPAC, Greenhouse Studios Iceland, and Avast! Recording Co., mastered at Black Saloon Studios, and released by Paper Bag Records.

Voix Voilées (Veiled Voices): Spectral Piano Music by Marilyn Nonken, Joshua Fineberg and Hugues Dufourt, Audio Recording, recorded and produced at EMPAC, released by Metier Records.

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ROXANNE DE HAMEL, Web Developer

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ZHENELLE FALK, Artist Services Administrator

WILLIAM E. FRITZ, Master Carpenter/Master Rigger

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JOHANNES GOEBEL, Director

IAN A. HAMELIN, Project Manager

KATHRIN A. HAMMON, Administrative Specialist

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SHANNON K. JOHNSON, Design Director

CATHYJO KILE, Business Manager

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CARL M. LEWANDOWSKI, Production Technician

STEPHEN MCLAUGHLIN, Senior Event Technician

JOSH POTTER, Marketing and Communications Manager

ALENA SAMORAY, Event Technician

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SUPPORT FOR EMPAC

The Curtis R. Priem Experimental Media and Performing Arts Center has only been possible through the vision and leadership of its President, Shirley Ann Jackson, the vital support and interest of Trustee Curtis R. Priem, and the Board of Trustees. This support is in recognition of the role EMPAC plays in the Institute's commitment to The New Polytechnic, rooted in the Rensselaer Plan (2000) and fully articulated in the Rensselaer Plan 2024, which is guiding the Institute to its bicentennial in that year.

Programming at EMPAC over the past 10 years has had major support from the Jaffe Fund for Experimental Media and Performing Arts, which enabled additional commissioning and production of new works, residencies, and student projects in art and research. The Fund also provided funding for the renovation of a campus building into four apartments for visiting artists and researchers.

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VISIT OUR VIMEO CHANNEL FOR MANY EXCERPTS OF EVENTS:

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Coming in fall 2015, EMPAC's video archive encompassing events since the opening of the building will be available for viewing in the building lobby.