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On June 23, 2011, MCA Chicago celebrated the achievements of MCA Stage with the reimagined/ remixed Performance Benefit. This innovative evening was cochaired by MCA Trustee Sara Albrecht and MCA Performance Committee member Jay Franke. Our sincere thanks to all who contributed to the event and to all who continue to support MCA Stage in its 15th season.

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Dance Exchange Liz Lerman’s The Matter of Origins

Thursday–Sunday, November 10–13, 2011

Museum of Contemporary Art Chicago

Photo: Agathe Poupeney
Welcome

It is a tremendous pleasure to welcome you to one of the highlights of this year’s Chicago Humanities Festival. When the festival conceived the 2011 theme of tech·knowledge—technology with knowledge at the center—we knew that MCA Stage would be a crucial partner.

Since its founding in 1967, MCA Chicago has been on the cutting edge when it comes to the intersection of art and technology. One of its first exhibitions was the legendary Art by Telephone, for which artists phoned in their works to be created on-site (and which we revisited in a festival event with participating artist IAIN BAXTER&). Other early classics that pushed the technological limits were Christo and Jean-Claude’s 1969 wrapping of the MCA’s former building of The Matter of Origins. The grant is helping us respond what happens for an audience when a research what happens for an audience when a dance contains some scientific ideas and when people have a chance to talk about it.

MCA Stage, has been similarly adventurous when it comes to probing the role of technology in the artistic field.

With that in mind, the presentation of Liz Lerman and Dance Exchange was a natural choice. Her groundbreaking Matter of Origins takes us from Marie Curie’s lab to Los Alamos to the Large Hadron Collider at CERN in order to explore the technology of particle physics in the idiom of modern dance. It’s a stunning conceptual adventure whose avant-garde spirit and sense of interdisciplinary adventure melds perfectly with the mission of both MCA Stage and Chicago Humanities Festival. Please enjoy this remarkable evening!

Peter Taub
Director of Performance Programs,
MCA Chicago

Matt Bunzl
Artistic Director, Chicago Humanities Festival

To our audience

Art matters. Science matters. And your experience matters to us as we observe what results when art meets science.

Dance Exchange is privileged to receive a grant from the National Science Foundation in support of The Matter of Origins. The grant is helping us research what happens for an audience when a dance contains some scientific ideas and when people have a chance to talk about it.

To do this we are asking you to share your responses through paper questionnaires you will receive at three points during the course of your Origins experience. Participation is optional, of course, but we hope you will take part. The reflections you offer will be very instructive to the Dance Exchange, to our generous funders, and to the fields of art and science as they continue to seek meaningful ways to collaborate. Thank you.

Dance Exchange
Liz Lerman’s
The Matter of Origins

Liz Lerman, Direction/Conception
Holly Burnell, Stage Manager
Amelia Cox, Production Manager
Kate Freer, Video Programmer
Sarah Gubbins, Dramaturge
Matt Hubbs, Associate Sound Designer
Meg Kelly, Assistant Stage Manager
Logan Kibens, Projection Designer
Lisa LaCharité-Lostritto, Tea Graphics Designer
Michael Mazzola, Scenic and Lighting Designer
Nakoa Nagata, Costume Designer
Erin B. Tinsley, Lighting Supervisor
Keith Thompson, Rehearsal Director
Darron L West, Soundscape Designer

Performing Ensemble
Ami Dowden-Font
Leo Erickson
Ted Johnson
Sarah Levitt
Paloma McGregor
Tamara Pullman
Shula Strassfeld
Keith Thompson
Benjamin Wegman
Martha Wittman

Cohost: Dr. Eric Landahl,
Assistant Professor of Physics, DePaul University

Provocateurs
Lindsey Barlog Thornton
Leslie Baum
Amy Bretz
Marianna Buchwald
Kristen Cox
Amanda Denham
Deb Durham
Karen Faith
Cassie Hamrick
Axel Hoffman
Jackie Intres
Maggie Kast
David Lakein
Lisa Laszczewicz
Heather Lindahl
Onye Ozuzu
Barbara Pool
Chris Preissing
Elvira Rodriguez Ochoa
Ari Rudenko
Bryan Saner
Sarah Schnadt
Myah Shein
Annie Shuminas-Nelson
Tamara Silverleaf
Emily Stein
Gwen Terry
Jacqui Ulrich

Tea servers
Rachel Berg
Dominique Boyd
Kaley Marissa Cross
Alyssa Diaz
Aundrea Frahm
Marta Juaniza

Matthew Kazbur
Susan Lyon
Sasha Manuylene
Donna Nalls
Sabri Reed
Bonnie Romano
Selena Roque
Alieen Sonja Schade
Marie Janine Socha
Janet Schmidt
Michelle Vasquez

Dance Exchange: Liz Lerman’s The Matter of Origins is a copresentation of MCA Stage and Chicago Humanities Festival.

Support for this project is generously provided by the Boeing Company.

Performances of The Matter of Origins are generously underwritten in part by Golden and Henry Burchard and Carol Rosofsky and Robert B. Lifton. The MCA Stage and DNP copresentation is in partnership with the Institute for the Humanities at the University of Michigan.

The dances for this performance are the result of collaborative processes developed at Dance Exchange over a span of more than three decades. The artistic director acknowledges that company members, as well as artistic collaborators, both past and present, contribute greatly to the creation of these works.

The Matter of Origins employs Isadore graphic programming software developed by Troika Ranch.
Seeking the Source of The Matter of Origins

11:30 am–12:30 pm
Intimate conversations and training
Thorne Auditorium, 375 E. Chicago Ave.
To learn more and join the conversation,
visit The Origins of Matter project blog at mcachicago.org/originsmatter and tweet during Act II using #originsmatter.

This series brings together MCA Stage artists and the public for a variety of intimate conversations and training to provide insight into the creative process.

November 9
MCA visitors were invited to view Dance Exchange at work on the stage during regular museum hours.

“Seeking the Source of The Matter of Origins”
Saturday, November 12,
11:30 am–12:30 pm
Presented by Chicago Humanities Festival
Thorne Auditorium, 375 E. Chicago Ave.
For tickets call 312.494.9509 or visit chicagohumanities.org.

Liz Lerman and physicist Gordon Kane have found benefits to the exploration of each other’s fields. Kane, director of the Michigan Center for Theoretical Physics (MCTP), who commented on the genetics theme and said with a smile, “We want one, too.” Charmed as I was, that wouldn’t have been enough to start me contemplating a new piece focused on physics.

In making The Matter of Origins, our curiosity began with wonder about the universe and what it is made of. This led my collaborators and me to a giant task, but with the help of scientists interpreting the particle world revealed by the supercollider at CERN and those probing the farthest reaches of the cosmos through the Hubble Space Telescope, we have had wonderful guides.

After taking our dance about the human genome to cities all over North America, I wasn’t expecting to make another piece centered on the forces that drive contemporary science. But then I went to the University of Michigan to give a keynote on creativity and science where we showed some excerpts from that dance, Ferocious Beauty: Genome. As we were leaving the theater, I met Gordon Kane, Director of the Michigan Center for Theoretical Physics (MCTP), who commented on the genetics theme and said with a smile, “We want one, too.” Charmed as I was, that wouldn’t have been enough to start me contemplating a new piece focused on physics.

But the next day we had a meeting with a group of MCTP physicists and three things happened.

First, they were all on time. This was impressive, as I believe dancers and choreographers have a certain respect for time that grows out of our discipline; I wondered if physicists did too. Second, Gordy and his colleagues talked with excitement about CERN and encouraged me to make a visit. Finally, Gordy described how the researchers at CERN would re-create the conditions in the sub-seconds after the Big Bang, which led me to the question of origins—not so much how things begin as the emotional ways that advances in science affect us. I was stimulated to think that art is one of the ways we get to live these changes and feel our way around what they might mean to us.

It happened that the summer before meeting Gordy I’d read a wonderful book, Kai Bird and Martin J. Sherwin’s American Prometheus, about J. Robert Oppenheimer, who directed the atomic weapons research activities at Los Alamos during World War II. In it, one sentence in particular caught my eye and my inner ear: the mention of Edith Warner, whom Oppenheimer had hired to feed some of his fellow physicists on the secret project a few nights a week at her desert tea house. In an instant I imagined these people in her little space, eating, talking, questioning, wondering, and I mused on the possibility of the same for an audience.

One of the recurring themes in my work is the search for what sustains us through hard times. Stories on this theme have emerged in dances about shipyards, slavery, history, and contemporary events. Stumbling along at this stage of my own life, the extremely complicated and driven lives of theoretical and experimental physicists surprised me by their poetry. Partnering brains and machines, they are devising complicated experiments to answer our oldest questions. I found making the piece a kind of refuge from the contemporary political world I live in. I know that most of these thinkers don’t like to be mentioned in the same sentence as religion, and by doing so I don’t mean in any way they are the same. But I did find that spending time in their world, with their writings and conversations, offered a kind of sacred feel: an opportunity to be away from the ordinary.

Tonight’s Tea is inspired by tea house gatherings of Edith Warner, and the question of what could happen if we combined the active minds of you, the audience, in a convivial atmosphere with a few stimulants: tea, cake, a team of table hosts (we call them provocateurs) from diverse backgrounds ... along with a few surprises. It is a laboratory of its own, so find your table setting and join us for this experiment, a chance to converse, react, muse, listen, or just observe, and enjoy Edith’s own chocolate cake recipe.

Liz Lerman
A brief guide to some of the sights, sounds, and speculations that helped inspire The Matter of Origins.

“When heaven and earth were still one, the entire universe was contained in an egg-shaped cloud. Deep within its swirling chaos slept the giant Pan Gu. One day after 18,000 years, he awoke and stretched, cracking the egg to release the matter of the universe.”

—The Classic of Mountains and Seas, classical Chinese text

The Science of Origins
Every culture has its tradition of how the world and its contents came to be. Over the course of history the question of the origins of the universe was taken up by philosophy and then by science, where it has become the domain of modern physics. Cosmology, which employs instruments like the Hubble Space Telescope, allows us to track evidence of past events in the universe’s currently observable activity. Particle physics, using such tools as CERN’s Large Hadron Collider, studies the scatter and decay of subatomic particles, observing their behavior for what it can tell us about the early formation of the universe and matter. With regard to both space and time, these two branches of physics observe phenomena at vastly contrasting extremes of scale.

The universe as we know it began with the Big Bang, meaning that at some finite point in the past it was extremely hot and concentrated, and has since cooled by expanding to its present diluted state. But was a bang the start of everything? This notion is challenged by the Cyclic Model, which theorizes that such a sudden expansion was merely one episode in an ever-cycling evolution of the universe involving multiple big bangs. This model further posits that the key events shaping the structure of the present universe occurred during a phase of slow contraction before the bang.

“Scientific models ... should always be regarded as approximations and aids to the imagination, rather than as the ultimate truth. When scientists tell you that, say, the nucleus of an atom is made up of particles called protons and neutrons, what they should really say is that the nucleus of an atom behaves, under certain circumstances, as if it were made up of protons and neutrons.”

—John Gribbin, The Origins of the Future

Manhattan Project, Los Alamos, and Edith Warner
The Manhattan Project was the code name for a project conducted by the United States and its allies to develop the first atomic bombs during World War II. With scientific research under the direction of physicist J. Robert Oppenheimer, the project’s central laboratory was based at Los Alamos in the desert of New Mexico. This research culminated in the atomic weapons that were deployed at Hiroshima and Nagasaki, killing hundreds of thousands of civilians and triggering the surrender of the Japanese, swiftly ending the war.

Bibliography

A bibliography of in-print references used by Dance Exchange in developing The Matter of Origins


Steinhardt, Paul J. and Neil Turok. Endless Universe: The Whole History the Question of the Origins of the Universe Is the Answer, the Matter of Its Creators, and its Contents Came to Be. Over the Course of History the Question of the Origins of the Universe Was Taken Up By Philosophy and Then By Science, Where It Has Become the Domain of Modern Physics. Cosmology, Which Employs Instruments Like the Hubble Space Telescope, Allows Us to Track Evidence of Past Events in the Universe’s Currently Observable Activity. Particle Physics, Using Such Tools as CERN’s Large Hadron Collider, Studies the Scatter and Decay of Subatomic Particles, Observing Their Behavior for What It Can Tell Us about the Early Formation of the Universe and Matter. With Regard to Both Space and Time, These Two Branches of Physics Observe Phenomena at Vastly Contrasting Extremes of Scale.

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The moral, philosophical, political, and scientific implications of the Manhattan Project have since been the stuff of nonfiction and fictionalized treatments in literature, film, theater, and opera. Among many other things, the Manhattan Project was significant as an early example of the collaboration between big government and big science, setting the stage for such current-day endeavors as the Hubble Space Telescope and the Large Hadron Collider at CERN.

The Manhattan Project also holds a human story, embodied in The Matter of Origins by Edith Warner, operator of a small tea house and inn at Los Alamos. Warner was requisitioned by Oppenheimer to serve regular dinners to some of the physicists working on the secret project.

“Our imagination is stretched to the utmost, not, as in fiction, to imagine things which are not really there, but just to comprehend those things which are there.”
——Richard Feynman, American physicist (1918–88)

The Large Hadron Collider (LHC)
Built by the European Organization for Nuclear Research (CERN), the LHC occupies a subterranean place beneath the French/Swiss border, where its ring-shaped tunnel measures more than 17 miles in circumference. Seen in video components of The Matter of Origins, the LHC is attempting to re-create the conditions that existed in the sub-seconds after the Big Bang. By accelerating protons (also known as hadrons) at 99.99 percent the speed of light to a collision point, an intense amount of energy will be created. The energy will then convert into new (or previously undetected) particles. Physicists expect that the data recorded from these collisions will begin to answer questions about the fundamental nature of matter. The LHC could also yield evidence as to the existence of dark matter, multiple dimensions, and the Higgs Boson—a theoretical particle that transforms energy into matter.

“All philosophy is based on two things only: curiosity and poor eyesight. ... The trouble is we want to know more than we can see.”
——Bernard le Bouvier de Fontenelle, French author (1687–1757)

The Hubble Space Telescope
Operating above the Earth’s atmosphere, which distorts and blocks the light that reaches our planet, the Hubble Space Telescope produces extremely sharp images of astronomical objects and phenomena near and far. Placed in orbit in 1990 through a partnership between NASA and the European Space Agency, Hubble has captured the public imagination with its breathtaking photographs of deep space objects, some of which are seen in The Matter of Origins. Beyond the visual thrill of pillarized nebulae and pinwheel galaxies, Hubble’s observations have led to breakthroughs in astrophysics, such as the discovery that our universe is expanding at an accelerating rate of speed.

“Dark matter and dark energy are two of the most mind-boggling ingredients in the universe. Ever since these concepts were first proposed, some astronomers have worked feverishly to figure out what each thing is, while other astronomers have tried to prove they don’t exist, in hopes of restoring the universe to the more understandable place many would like it to be.”
——Clara Moskowitz, Science.com

Dark Matter, Dark Energy
The gravitational pull that holds galaxies together cannot be explained by observable matter alone. And something needs to account for the accelerating rate of the universe’s expansion as revealed by the Hubble Telescope. Such enigmas have led scientists to postulate the existence of two quantities: dark matter and dark energy. Together they are proposed to constitute 96 percent of the mass/energy in the universe—meaning that the kind of matter that is directly observable and currently measurable constitutes a mere 4 percent of the stuff of the universe. This realm of speculation and research—much of it focused on measurement of the cosmic microwave background, a dimly glowing vestige of the Big Bang that pervades space—constitutes one of the most volatile arenas in contemporary physics.

“‘One can look at the world with the p-eye and one can look at the world with the q-eye, but when one would like to open both eyes, then one gets dizzy.’”
——Wolfgang Pauli, Austrian physicist (1900–58)

On the Nature of Measurement
In 1927 German theoretical physicist Werner Heisenberg published his Uncertainty Principle, which is expressed in the above equation. In the words of David Lindley, writing in Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science, Heisenberg’s principle posits that “You can measure the speed of a particle, or you can measure its position, but you can’t measure both. Or: the more precisely you find out the position, the less well you can know its speed. Or, more indirectly and less obviously: the act of observing changes the thing observed.”

Revolutionizing the emerging science of quantum physics, Heisenberg’s principle challenged the prevailing assumption that phenomena were precisely knowable. A probabilistic model supplanted the determinism that had characterized science since the age of Newton. As current-day theoretical physicist Lisa Randall states, “no measurement achieves infinite accuracy, despite the advances that have occurred over time. Some systematic error, characteristic of the measuring device itself, always remains. ... Measurements therefore always have some probabilistic component.

We can say a quantity fits in a narrow range with 95 percent probability, but in the absence of an infinitely accurate measuring device, we can never state a unique value with 100 percent odds.”

Notes compiled by Sarah Gubbins, Production Dramaturge, and John Borstel, Dance Exchange Senior Advisor/Humanities
The 22nd annual festival, tech•knowledge, explores technology with knowledge at its center.

CHF creates opportunities for people of all ages to support, enjoy, and explore the humanities. The organization accomplishes this by creating annual fall and spring festivals, by presenting programs throughout the year that encourage the study and enjoyment of the humanities, and by maintaining an online home for the humanities community on its website.

This year’s festival, tech•knowledge, offers more than 80 events at 19 venues in and around Evanston and Chicago’s Loop and Hyde Park neighborhoods, and features concerts, dance performances, exhibitions, discussions, gallery tours, lectures, and more. For more information and tickets, visit www.chicagohumanities.org or call the box office at 312.494.9509.

Have you visited our online home?
The CHF website offers lectures, slideshows, and materials from CHF’s 20-year archive, as well as blogs, ongoing conversations, and commentary. Join the conversation at chicagohumanities.org.

Join us for Stages, Sights & Sounds
CHF’s nationally-recognized spring festival appeals to a wide audience, including children and families. The 13th Stages, Sights & Sounds festival takes place in May 2012 at venues in Chicago and Evanston, including the MCA. Check the CHF website at chicagohumanities.org for more information in early 2012.

About the artists

Liz Lerman (direction/conception)
is a choreographer, performer, writer, educator, and speaker. Described by the Washington Post as “the source of an epochal revolution in the scope and purposes of dance art,” her dance/theater works have been seen throughout the United States and abroad. Her aesthetic approach spans the range from abstract to personal to political, while her working process emphasizes research, translation between artistic media, and intensive collaboration with dancers, communities, and thinkers from diverse disciplines. She founded Liz Lerman Dance Exchange in 1976 and has cultivated the company’s unique multigenerational ensemble into a leading force in contemporary dance. On July 1, 2011, she handed the artistic leadership of the Dance Exchange over to Cassie Meador and the next generation of Dance Exchange artists.

Lerman is pursuing new projects, first as artist in residence at Harvard University and then a series of fresh partnerships. She has been the recipient of numerous honors, and a 2002 MacArthur “Genius Grant” Fellowship. Her work has been commissioned by Lincoln Center, American Dance Festival, BallethMet, the Kennedy Center, and Harvard Law School, among many others. From 1994 to 1996, in collaboration with the Music Hall of Portsmouth, New Hampshire, she directed the Shipyard Project, which has been widely noted as an example of the power of art to enhance such values as social capital and civic dialogue. From 1999 to 2002 she led Haleiworth, which engaged people in 15 cities throughout the United States in the creation of a series of dance performances “in praise of” topics vital to their communities. She created Ferocious Beauty: Genome, premiered in 2006, with the participation of more than 30 scientists, and toured it to sites throughout North America, including MCA Stage (September 2006), the Mayo Clinic, and the Ontario Genomics Institute.

Lerman addresses arts, community, and business organizations both nationally and internationally, with recent speaking engagements at the Abbey Theatre in Dublin, the Big Intensive at Sadler’s Wells in London, and Harvard University. She is the author of Teaching Dance to Senior Adults (1983) and Liz Lerman’s Critical Response Process (2003). This spring, her collection of essays, Hiking the Horizontal: Field Notes from a Choreographer, was published by Wesleyan University Press (2011). She has written articles and reviews for publications such as Faith and Form, Movement Research, and Washington Post Book World. Co-commissioned by the University of Maryland and Montclair State University, her newest work, The Matter of Origins, examines the question of beginnings through dance, media, and innovative formats for conversation. Born in Los Angeles and raised in Milwaukee, Lerman attended Bennington College and Brandeis University, received her BA in dance from the University of Maryland, and an MA in dance from George Washington University. She is married to storyteller Jon Spelman.

Holly Burnell (stage manager)
received her bachelor of fine arts in Stage Management and Lighting Design from the University of Arizona in 2008. Since then she has worked for companies including the Milwaukee Repertory Theater, the Utah Shakespearean Festival, Glimmerglass Opera, and Dance Exchange.

Amelia Cox (production manager)
has been working in performance since 1989. For several years post-college she worked nationally and internationally with Double Edge Theater (MA) and the Gardzience Center for Theatre Practices (Poland), making theater happen in spaces from a 19th-century barn in Massachusetts to a hilltop medieval fortress in Romania. She came to the mid-Atlantic region as the technical director of Baltimore Theatre Project. From 2005 to 2011 she worked at Dance Exchange, leading production for the premieres of Small Dances About Big Ideas; Ferocious Beauty: Genome; Man/Chair Dances; Funny Uncles; Imprints on a Landscape: The Mining Project. From 2005 to 2011 she worked at Dance Exchange, leading production for the premieres of Small Dances About Big Ideas; Ferocious Beauty: Genome; Man/Chair Dances; Funny Uncles; Imprints on a Landscape: The Mining Project. From 2005 to 2011 she worked at Dance Exchange, leading production for the premieres of Small Dances About Big Ideas; Ferocious Beauty: Genome; Man/Chair Dances; Funny Uncles; Imprints on a Landscape: The Mining Project. From 2005 to 2011 she worked at Dance Exchange, leading production for the premieres of Small Dances About Big Ideas; Ferocious Beauty: Genome; Man/Chair Dances; Funny Uncles; Imprints on a Landscape: The Mining Project. From 2005 to 2011 she worked at Dance Exchange, leading production for the premieres of Small Dances About Big Ideas; Ferocious Beauty: Genome; Man/Chair Dances; Funny Uncles; Imprints on a Landscape: The Mining Project.

About Chicago Humanities Festival (CHF)
Starr Foster Dance Project, Charles O. Anderson, and Gesel Mason with Mason/Rhymes Performance Projects. She is in the lab with her company hersouldances (hersouldances.org) working on new projects.

Leo Erickson (performing ensemble)
most recently appeared with the Washington Stage Guild as Darwin in Darwin In Malibu. At the Studio Theatre, he has appeared in The Solid Gold Cadillac, Guantanamo, The Life of Galileo, A Class Act, and Prometheus. His regional theatre roles include Cyrano in Cyrano De Bergerac; George in Who’s Afraid of Virginia Woolf; and Honeymoon in A Walk in the Woods. International work includes Lee Blessing’s Two Rooms at the Sibiu Theatre Festival (Romania) and the Merlin Theatre in Budapest.

Kate Freer (video programmer)
is a Brooklyn-based video artist and theatrical designer. She has worked the past two years with projection designers Logan Kibens and Maya Ciarrocchi, and assisted on Red Hot Patriot (Suzanne Roberts Theater, directed by David Esbjornson) and The Devil You Know (La Mama, directed by Ping Chong). Her theatrical designs include John Faustus (1995–2003) and Ralph Lemon Company (1994–2008 after stage managing The Farthest Earth). Most recently, Colleen Thomas and Bill Young, among others. His improvisational work has been featured in collaborative ventures onstage from opera houses to circus tents to outdoor amphitheaters. A three-time Bessie Award winner, he has designed lighting and scenery for National Ballet of Finland, Oregon Ballet Theatre, North Carolina Dance Theatre, Bebe Miller Company, Rumpus Room, Royal Ballet of Flanders, and Dance Exchange. In the past two years he has received awards for lighting of musical theater and drama on the West Coast.

Michael Mazzola (scenic and lighting designer)
has designed critically lauded lighting for venues in the United States and Europe, ranging from opera houses to circus tents to outdoor amphitheaters. A three-time Bessie Award winner, he has designed lighting and scenery for National Ballet of Finland, Oregon Ballet Theatre, North Carolina Dance Theatre, Bebe Miller Company, Rumpus Room, Royal Ballet of Flanders, and Dance Exchange. In the past two years he has received awards for lighting of musical theater and drama on the West Coast.

Sarah Gubbins (dramaturge)
is a Chicago playwright whose most recent play, Fair Use, was produced at Actor’s Express in Atlanta after being developed at the Steppenwolf Theatre Company. Her plays have also been read or developed at the Public Theater, About Face Theatre, Chicago Dramatists, Next Theatre Company, and Collabroaction.

Matt Hubbs (associate sound designer)
recently designed Telephone for the Foundry Theatre, 1001 at Mixed Blood Theatre, Blueprints of Relentless Nature and The Life of Galileo, A Class Act, and Mission Drift. He is a frequent collaborator with the team of artists at Blissfield Media and regularly works with Liz Lerman. His designs include Kenneth Lonergan’s The Waverly Gallery and the Einstein Project for the Kennedy Center. Hubbs is a graduate of Harvard University and holds degrees in music composition and film scoring.

Ted Johnson (performing ensemble)
is a long-standing member of Dance Exchange. He was a member of Bebe Miller Company (1995–2003) and Ralph Lemon Company (1994–95). He has worked with choreographers Amy Sue Rosen, David Ake Harris, Sarah Pagonis, Eun Me Ahn, Cheng-Chieh Yu, and, more recently, Colleen Thomas and Bill Young, among others. His improvisational work has been featured in collaborative ventures onstage with Kirstie Simson, Gabriel Forestieri and Kayoko Nakajima. Johnson has a background in visual arts (drawing, photography, painting, and design), theater, and voice. He was a student of Klein/Mahlker Technique with Barbara Mahler and Susan Klein for over a decade, and continues a practice in contact improvisation (CI).

Meg Kelly (assistant stage manager)
joined Dance Exchange full time in December 2008 after stage managing The Farthest Earth from Thee (Capital Fringe 2007) and Muscle and Mortar (Capital Fringe 2008). She serves as the stage manager for Drift, Blueprints of Relentless Nature, Running with the Wind, and numerous keynotes, company concerts, and community projects. She has worked at the Shakespeare Theatre Company and Round House Theatre and holds a BFA in theater design and technology from the University of Arizona.

Logan Kibens (projection design)
is a Los Angeles-based filmmaker. Her work as a video designer includes projects in Chicago for Steppenwolf Theatre, the Goodman Theatre, Lucky Plush, and Lookingglass Theatre, and in Washington, D.C. at The Washington Opera. Her films have screened at venues such as the Chicago International Film Festival, the Brooklyn Museum of Art, and REDCAT Theater Los Angeles. Her film Recessive, a narrative/ documentary hybrid, is touring festivals. She holds an MFA in Film Directing from CalArts.

Lisa LaCharité-Lostitto (tea graphics designer)
is degree in architecture and her design work is based in the Boston area. Her research, practice, and teaching focuses on harvesting history, culture, and collective human consciousness in the experimental shaping of visual environments. She is co-founder of 0095b6, a collaboration providing services in graphic, media, and architectural design.

Sarah Levitt (performing ensemble)
is a dancer, choreographer, and teacher based in Maryland. She received her early dance training from Gene Kelly via VHS, Borton & Williams School of Dance, and Iliana Kessell. These formative experiences led to a Creative and Performing Arts Scholarship in Dance from the University of Maryland, where she received a BA in Dance and was honored with a Dorothy Madden Emerging Artist Award upon graduation. Levitt has danced in the work of Robert Battle, Liz Lerman, Gesel Mason, Cassie Mayer, Pearson/Widrig DanceTheater, and Keith Thompson. She began working with the Dance Exchange in 2007, became a full-time artist in 2010, and is a Resident Artist. Her teaching residencies include the Kohler Arts Center, Harvard University, and St. Elizabeths Hospital. She is an original member of Liz Lerman’s The Matter of Origins. In 2009 and 2010, she received Individual Artist Awards from the Maryland State Arts Council in Solo Performance and Choreography and in 2011, with collaborator Benjamin Wegman, received a Local Dance Commissioning Project award from the Kennedy Center for Hammock, which premiered at the Kennedy Center in September 2011.

Paloma McGregor (performing ensemble)
is a New York–based dancer, choreographer, and cofounder of Angela’s Pulse, a collaborative performance company. Her choreography has been presented throughout New York, including at The Kitchen, Harlem Stage, EXiT Art, the Brecht Forum, Tribeca Performing Arts Center, and Bronx Academy of Art and Dance. She toured internationally for five years with the critically
acclaimed Urban Bush Women dance company. McGregor earned a BS in Journalism (Florida A & M University) and MFA in Dance (Case Western Reserve University). She joined Dance Exchange as a Resident Artist this October.

Nooko Nagata (costume design) started her career as a biochemist in Japan. In 1998 with no formal training, Nagata created her first costume for Jeanine Dunning. She has created for numerous choreographers and dancers, notably Amanda Loutaki, Bebe Miller, David Dorfman Dance, Doug Ellkins, David Neumann, Ellis Faas, Gina Gibney, Liz Lerman, Nina Winthrop, Noro Chipaumire, Reggige Wilson, Tiffany Mills, Urban Bush Women, and Zvi Gotheiner.

Tamara Hurwitz Pullman (performing ensemble) has danced with companies José Limón Dance Company, Ann Vachon Dance Conduit, Pacific Dance Ensemble and Rosanna Gamson Worldwide. As a dance educator, she has taught dance to people of many ages and abilities in different settings ranging from dance conservatories to YMCAs. She received her BFA from UMass Amherst and MFA from Temple University. The Matter of Origins is Pullman’s second project with Dance Exchange. She lives in Los Angeles.

Shula Strassfeld (performing ensemble) began dancing relatively late and has trained with members of the José Limón Company and Collete Barry and Susan Klein. She has lived in the United States, Israel, and Canada, and danced for choreographers Susan Rose, Joy Keilman, Flora Cushman, Mirali Sharon, Jon Van Dyke, and Sandra Neels. She has an MA in Dance Education from Columbia University and has taught at Trinity College (Hartford), Rubin Academy of the Hebrew University, York University, and at the professional schools of Canadian Ballet Theatre, Ballet Creole, and the Kibutz Dance Company. She joined Dance Exchange in 2007 and is a Resident Artist.

Erin B Tinsley (lighting supervisor) has been working in theatre and dance in the DC metro area since 2007. As a freelance electrician, lighting supervisor, and lighting designer, she has worked for a variety of companies including the Washington Ballet, the Suzanne Farrell Ballet, and at the Kennedy Center. She has toured with The Matter of Origins to Augusta, Georgia, and holds a BFA in Lighting Design from Millikin University.

Keith Thompson (performing ensemble and rehearsal director) is a choreographer, performer, and educator. He completed his MFA Research Fellowship in Dance at Bennington College in 2003. He performed with Trisha Brown Dance Company for ten years, the last three of which he also served as rehearsal director. He has worked with Bebe Miller Company, Creach/Koeser Compass, and Danny Buraczeski. As a choreographer and teacher, Thompson has been on the faculties of American Dance Festival, Shenandoah University, George Mason University, and Temple University and is currently on faculty at Rutgers University. He creates choreography for his company danceTactics performance group, formed in 2005. He is an Associate Artist with Dance Exchange.

Benjamin Wegman (performing ensemble) is from Normal, Illinois and is a performer, choreographer, and teacher in the media of movement, text, geography, and rhythm. He has danced with Jeanne Ruddy Dance, Kun-Yang Lin/Dancers, Keith Thompson’s danceTactics, Headlong Dance Theater, CityDance Ensemble, SCRAP Performance Group, The Pillow Project, Troika Ranch, Mover Chautauqua Dance, Washington National Opera, and the Liz Lerman Dance Exchange (2006–11). He is an Associate Artist with the Dance Exchange, working with the company on collaboratively created dances with communities across the United States and internationally in Canada, France, Ireland, Japan, and Switzerland. He has taught at the American Dance Festival, University of Maryland, Towson University, International Festival of Arts and Ideas, the Japan Contemporary Dance Network’s Dance Life Festival, and Indiana University where he is a visiting lecturer at present. He had the honor of codirecting the premiere of Hidden Snow Memory with Keith Thompson in Sapporo, Japan and Tour Starts Here at the Corcoran Gallery of Art. In 2011, he choreographed and directed still we keep, a daylong, performative gallery installation incorporating movement, video, and 100 pounds of Legos, in collaboration with the National Building Museum. He and collaborator Sarah Levitt received a Local Dance Commissioning Project award from the Kennedy Center for Hammock, which premiered at the Kennedy Center in September 2011.

Darron L. West (soundscape) has created sound for dance and theater in more than 400 productions nationally and internationally. His awards for sound design include the 2006 Lortel and AUDELCO Awards, 2004 and 2005 Henry Hewes Design Awards, the Princess Grace, The Village Voice Obie Award, and the Entertainment Design magazine Eddy Award. He is the sound designer and a founding member of Anne Bogart’s SITI Company.

Martha Wittman (Performing Ensemble) has been teaching, dancing, and choreographing for more than 50 years. As a young performer she danced with the Juilliard Dance Theatre under the direction of Doris Humphrey in the companies of Ruth Currer, Joseph Gifford, and Anna Sokolow. For many years she was an associate choreographer with the Danses We Dance Company directed by Betty Jones and Fritz Ludin. Her awards include three National Endowment for the Arts fellowships, the Doris Humphrey Fellowship from the American Dance Festival, Individual Artist Awards from the Maryland Council on the Arts, and two awards from Dance/USA’s National College Choreography Initiative. She was a longterm member of the Bennington College dance faculty in Vermont, and has been a guest artist, teacher, and choreographer in numerous colleges, universities, and summer dance programs around the country. This summer 2011, Wittman completed 15 years as a company member with Dance Exchange. She is continuing as an Associate Artist with the new Dance Exchange.

Dance Exchange breaks boundaries between stage and audience, theater and community, movement and language, tradition and the unexplored. Founded in 1976 by Liz Lerman and now under the artistic direction of Cassie Meador, Dance Exchange stretches the range of contemporary dance through explosive dancing, personal stories, humor, and a company of performers whose ages span six decades. The work consists of concerts, interactive performances, community residencies, and professional training in community-based dance. Dance Exchange employs a collaborative approach to dance making and administration. Recent and current projects include explorations of coal mining, genetic research, human rights, particle physics, ecology, land use, and rest in a hyper-driven society.
Dance Exchange thanks the following scientist-collaborators whose expertise and insights contributed to the development of The Matter of Origins.

Dr. Andrew Boden, professor and chair, physics department, University of Maryland
Dr. William Dorland, experimental physicist, University of Maryland
Dr. Michael Doser, theoretical physicist, CERN
Dr. Eli Dwek, astrophysicist, NASA
Dr. Fabiola Gianotti, experimental physicist, CERN (director of ATLAS experiment)
Dr. James Gillies, CERN, head of communication and CERN spokesman
Dr. Marcela Glei, physicist and astronomer, Dartmouth College
Dr. Robert Horrocks, geochronist and sustainability expert, director of the Houston Advanced Research Center
Dr. Gordon Kane, theoretical physicist, University of Michigan, and Director of the Michigan Center for Theoretical Physics
Dr. Lawrence Krauss, theoretical physicist, Director of the Origins Initiative at Arizona State University

Dr. Mario Livio, astrophysicist, director of the Space Telescope Science Institute (home of the Hubble project). Johns Hopkins University
Dr. Christopher Monroe, Rice Zorn professor, physics department, University of Maryland
Dr. Lisa Randall, theoretical physicist, Harvard University
Dr. Alvaro de Rujula, theoretical physicist, CERN
Dr. Maria Spiropulu, experimental physicist, CERN (CMS experiment) and Caltech
Dr. James Wells, theoretical physicist, CERN

Special thanks to Dr. Eric Landahl, Assistant Professor of Physics, DePaul University

Dr. Landahl makes his debut with Dance Exchange for this performance. He studies the origins of everyday phenomena, tracking the motion of matter at the first and fastest times when outcomes are still uncertain, and many different behaviors are still possible. Examples of phenomena he studies include the initial harvesting of light by solar cells, or the first motions undertaken by biological molecules on their way to becoming part of active, living systems.

Although he is not a modern dancer, and has certainly never performed in the past, he sees parallels between the fast atomic motions he observes using lasers and X-rays and the behavior of modern dancers as they evolve from an initially excited state to reach new configurations and expressions. Dr. Landahl received his PhD in Applied Science from the University of California, Davis and worked as a physicist at several national laboratories before joining DePaul University in 2008. He has published more than 50 scientific papers, and teaches several courses for both physics students and nonscientists at DePaul University.

The Matter of Origins was co-commissioned by the Clarice Smith Performing Arts Center at Maryland and Peak Performances at Montclair State University. Additional support comes from the National Endowment for the Arts, Richard and Linda Greene and Kay Logan, and the National Dance Project of the New England Foundation for the Arts, with lead funding from the Doris Duke Charitable Foundation. Additional funding for National Dance Project is provided by the Andrew W. Mellon Foundation, the Ford Foundation, and the Community Connections Fund of the MetLife Foundation.


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Program notes compiled by Yolanda Cesta Cursach

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