

Saturday
April 14
4 pm

OPEN STUDIO

Emergent Improvisation
Susan Sgorbati

CURTIS R. PRIEM EXPERIMENTAL MEDIA AND PERFORMING ARTS CENTER
EMPAC

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Emergent Improvisation

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Saturday, April 14

70 minutes

Creative Concept Susan Sgorbati

Dancers Marie Blocker, Lydia Chrisman, Emily Climer, Theo Koppel, Katie Martin, Finn Murphy, Zornitsa Stoyanova, Niko Tsocanos

Music Jake Meginsky

AN OPEN STUDIO SHOWING

The dancers and I are inviting you in to our laboratory to witness and engage in our research. Please feel free to ask questions after the showing.

I. Complex Unison

The Complex Unison form is based on the observation of natural systems, which exhibit self-organizing structuring principles. In this form, open-ended processes are constantly adapting to new information, integrating new structures that emerge and dissolve over time. Complex Unison reveals the progression of closely following groups of individuals in space to the unified sharing of similar material and finally to the interplay of that material, which has both a degree of integration and variation, often displaying endlessly adaptive and complex behavior. This form was inspired by "order for free," a name Dr. Stuart Kauffman gave to the structuring principle of "self-organization."

II. The Remembered Present (The Memory Form)

In this form, the dancers and musicians create an event that is remembered by the ensemble, and then reconstructed over time, revealing memory as a complex structuring process. This process by the dancers and musicians investigates multiple interpretations that draw on signals that organize and carry meaning. In this way, memory of the initial event is a fluid, open-ended process in which the performers are continuously relating past information to present thinking and action. This reintegration of past into present draws on repetition, nonlinear sequencing, and emergence to construct new adaptations. The Memory Form was inspired by Dr. Gerald Edelman's concept, "the remembered present."

III. Multiples

This is a new experiment in looking at similar self-organization in different contexts. By viewing past filmed sequences in both a natural setting and a dance studio, and juxtaposing these images with a live ensemble exploration, we are interested in whether new perspectives or insights are gained. Do emergent phenomena appear not only within the live ensemble, but also in the relationships among all three images? Does the complexity challenge us now with multiple perspectives on those images, and a question about live and filmed versions of reality? Is there a way to make sense of the whole, or is it a fragmented set of separate experiences? What is similar about all three images and what are the differences? Different perspectives can suggest creative diversity or potential conflict. This experiment is a beginning into that exploration.

The first two forms were first performed as part of *The Emergent Improvisation Project*. *The Emergent Improvisation Project*, directed by Susan Sgorbati, was a co-commissioned project by the Flynn Center for the Performing Arts in partnership with Bennington College, the Neurosciences Institute, New England Complex Systems Institute, and the National Performance Network Creation Fund. The Creation Fund is sponsored by the Doris Duke Charitable Foundation, the Ford Foundation, Altria, and the National Endowment for the Arts. This work has received additional support from the Jerome Robbins Foundation, the Bumper Foundation, The Wyncote Foundation, and Bennington College.

The third experiment with the two screens is a segment from *Convergence: The Emergent Improvisation Film*, a collaboration between Susan Sgorbati and distinguished filmmaker Elliot Caplan (*Cage and Cunningham*, *Beach Birds for Camera*).

ARTISTS NOTES

A school of fish, a herd of elephants, a flock of birds, a swarm of bees, a brood of hens, a colony of ants, and an exaltation of larks—these are all examples of groups of living things. The phrasing suggests that these living things are collaborating in some way—that they are in relationship with each other. Their collective behavior is not without meaning, as we can discern order in this seeming chaos of groupings.

A pod of seals, a kindle of kittens, a gam of whales, a wedge of swans, a shoal of bass, and a parliament of owls are groupings whose terms are less known but easily imagined in motion. Shifting the landscape they inhabit, without a leader who maps out their destinations, but through an intricate self-organization, create an essential ensemble.

These groupings in motion are an example of a kind of organic structuring that I have named “emergent improvisation.” To date, my work in the practice and performance of emergent improvisation has focused on improvisation in dance and music ensembles. In this context, improvisation is understood to mean the spontaneous creation of integrated sound and movement by performers who are adapting to internal and external stimuli, impulses, and interactions. Ordinarily, we think of order and form as externally imposed, composed, or directed. In this case, however, new kinds of order emerge, not because they are preconceived or designed, but because they are the products of dynamic, self-organizing systems operating in open-ended environments.

This phenomenon—the creation of order from a rich array of self-organizing interactions—is found not only in dance and music, but also, as it turns out, in a wide variety of natural settings when a range of initial conditions gives rise to collective behavior that is both different from and more than the sum of its parts. Like certain art forms, evolution, for example, is decidedly improvisational and emergent, as is the brain function that lies at the center of what it is to be human.

Emergent forms appear in complex, interconnected systems, where there is enough order and interaction to create recognizable patterns but where the form is open-ended enough

to continuously bring in new differentiations and integrations that influence and modify the form. It is by way of these interactions that particular pathways for the development of new material are selected.

In linking the creative work of art-making to the emergent processes evident in nature, we find a basis for a rich and textured inquiry into how systems come together, transform, and reassemble to create powerful instruments of communication, meaning, and exchange. Emergent improvisation explores the ways in which natural processes underlie artistic expression, along with the possibility that art can help illuminate these processes.

Living things in our environment everywhere reveal to us the profound depths of structuring processes. Whether it is dancers improvising in ensembles, animal migration patterns, insect group behavior, or cellular development, there are hundreds of thousands of forms that have refined themselves over centuries of motion, adapting to their surroundings. *What connects them if there is no pre-defined choreography? Who determines the sequence and the arrangements? Who or what do they follow? Why do they form novel patterns? Why are their formations so beautiful?*

Seven years ago, I was fortunate enough to meet two scientists who are masters in their fields. Their visionary thinking greatly influenced how I began to interpret my observations of improvisation ensembles in the dance studio. The first meeting was with Dr. Gerald Edelman in a residency at the Neurosciences Institute in La Jolla, California, where he is the director. Dr. Edelman is also the founder of the Neurosciences Research Foundation and chairman of the Department of Neurobiology at the Scripps Research Institute. Dr. Edelman received the Nobel Prize for Medicine in 1972. Our many conversations and my reading his book, *A Universe of Consciousness*, resonated with my own thinking. Dr. Edelman's work includes a theory of consciousness that is based on neuronal group selection. His theory states that there are two fundamental properties of conscious states: integration and differentiation. My understanding of these properties is that every conscious state contains a unified whole and cannot be broken into individual parts, and, at the same time, each state can be highly differentiated and lead to

many different behaviors. These concepts deeply resonated with my observation of the dancers and musicians. The improvisational forms I was observing in the studio were producing coherent patterns that could not be deconstructed to each dancer and musician, yet produced endless variations. I questioned whether this level of complexity was a further amplification of the conscious state of each dancer and musician.

Another concept of Dr. Edelman's theory that resonated with my work and influenced my thinking was "the remembered present." This concept relates perception to memory. He defines perceptual categorization as "the ability to carve up the world of signals into categories adaptive for a given animal species." The remembered present links the imagined or immediate present experiences with a past history of behavior. Memory is a process linking past to present, actually reconstructing the past into the present. Memory is dynamic and emergent, not static. This understanding of memory resulted in an improvisational ensemble form called Memory Form: The Remembered Present.

I was also fortunate to meet Dr. Stuart Kauffman. I continue to be in collaboration and in ongoing conversations with Dr. Kauffman, and he is without a doubt, one of the most significant and transformative thinkers of our time. Stuart Kauffman is widely considered the father of complexity. He is a founding member of the Santa Fe Institute, the leading center for the emerging sciences of complexity. Dr. Kauffman is a winner of the MacArthur Award, the former director of the Center for Biotechnology and Informatics at the University of Calgary, and is currently the first Macmillan Scholar-in-Residence at the University of Vermont's Complex Systems Center. In his books *Origins of Order*, *At Home in the Universe*, *Investigations*, and *Reinventing the Sacred*, Dr. Kauffman is interested in seeking the construction principles of adaptation, believing that the property of such systems reside on the edge of chaos—what he calls "order for free." Poised between order and chaos, this is a result of a highly tuned selection process. When Dr. Kauffman visited Bennington College where I teach, he came into my dance studio and inspired me to explore and name the Complex Unison form with the dancers and musicians. His latest thinking revolves around two conceptual frameworks. One is on the consequences of the unpredictability of Darwinian pre-adaptations (how the squirrel eventually becomes a flying squirrel) and on how the creative process is always pushing us into the unknown, what he calls "the adjacent possible." These concepts are inspiring me to research new improvisational ensemble forms based on multiple perspectives.

The dance studio turned into a laboratory for systems thinking. The scientific knowledge of these two great men, combined with my own research, served as the basis for my understanding of complexity in improvisational ensemble forms. I started to name patterns with the dancers I had been seeing for years. Patterns were interactions that had an understood sequence, design, arrangement or relationship. They were observable by similar but not always identical units, whereby the boundaries and constraints determined the relationships in time and space. I began to see structures emerging that encompassed those patterns. Structures defined themselves as developmental patterns; relationships of more than one pattern to each other setting up more complex organization with longertime spans. Finally, emergent compositional forms developed out of the continuous practice in patterns and structures of the ensembles of dancers and musicians, as if a kind of evolution had taken place. Emergent forms are frameworks for developmental structures. Just as maple trees are different from oak trees, although they share common characteristics of trunks, branches, and leaves, so emergent forms have shared common characteristics but unique, essential natures. Over time, ensembles of dancers and musicians build the capacity to identify and repeat recurring patterns of development.

This work is now the basis for my creative research residency at EMPAC this spring. I am interested in continuing this research by exploring the systems of communication in self-organizing ensembles and how this understanding might be applied to problem solving. Communication is a process of exchanging meaning with others. The exchange of meaning within a dance ensemble can be through use of metaphor, narrative, or physical energy—textures, geometries, and spatial patterns—but at its heart relies on awareness and responsiveness to the choice making of others. In this work we view the dance ensemble as an adaptive, complex system capable of self-organizing structuring processes. The ensemble practice in emergent improvisation asks a group of dancers, each with his or her own unique movement history, to commit to collectively selecting patterns in the structural development of a composition. Working in an ensemble in this way requires and encourages the development of specific individual capacities for communication and collective choice making. While many individual capacities contribute to an ensemble's ability to self-organize, several have emerged as central to this work:

- **Pattern Recognition:** This is the ability to observe and signal the organization of relationships as they emerge within the development of a composition.
- **Negotiation of Roles:** This direct interaction is between the dancers. Serving the development of the composition is a priority, and noticing how one's preferences support or detract from the interests of the group composition is an interesting and challenging manifestation of the practice.
- **Listening:** Active listening, amplifying, and supporting the choices of others are all important aspects of attention. This does not mean imitation. What it does mean is an awareness of relational possibilities and shared responsibility for compositional development. Listening can happen through several modalities, including but not limited to aural, visual, and kinesthetic sensations.
- **Tracking:** The capacity for the dancer and musician to simultaneously track at the local, regional, and global levels of the composition enables local interactions to build rich, textured global pattern formations. This collective tracking creates deep connections and investment into an emergent group sensibility. The ability to track the development of the composition and contribute to the collective decisions about the selection and adaptation of patterns is the unfolding of a form.

- Attention to Development: This attention to development builds on the capacity of tracking and is also strengthened by knowledge and awareness of developmental arcs and time-based compositional skills (referencing, retrograding, accumulating, etc.). (Sgorbati, Blocker, and Climer)
- These notes are excerpts from an older essay published in *Scientifiquement Danse: Quand La Danse Puise aux Sciences et Reciproquement*, Bruxelles: Contredanse 2006, and *Contact Quarterly* 2007, and a new essay to be published in May by Spector Books.
- The names of ensembles are from James Lipton's 1968 book, *An Exaltation of Larks*.

I have been fortunate to be able to invite Dr. Tim McGee and Dr. Marco Iacoboni as part of this residency. Each is doing important research that can shed light on how organic structuring can have real applications and understanding for helping humans to live more constructively and sustainably. When I first started using the dance studio as a laboratory, I was fairly isolated in this work. Eight years later, I find myself in a dialogue with evolutionary biologists, systems engineers, physicists, urban ecologists, architects, and cognitive scientists. I am grateful that EMPAC is giving me an opportunity to further explore this material. I will end with this quote by Robert Laughlin, who won the Nobel Prize in Physics in 1998:

"Nature is regulated not only by a microscopic rule base but by powerful and general principles of organization. Some of these principles are known, but the vast majority are not."

—Susan Sgorbati

BIOS

Susan Sgorbati has created a form of dance called “emergent improvisation” that was inspired by dialogues with two distinguished scientists, Dr. Gerald Edelman, founder and director of the Neurosciences Institute, and Dr. Stuart Kauffman, first Macmillan Scholar-in-Residence at the University of Vermont. This work went on a national tour in 2006 and was supported by the Jerome Robbins Trust and Foundation and the National Performance Network’s Creation Fund. She currently is making the film *Convergence: The Emergent Improvisation Film*, with distinguished filmmaker Elliot Caplan. Sgorbati is a professional mediator, and the Barbara and Lewis Jones Chair of Social Activism at Bennington College, where she has been on the faculty for 25 years. She develops and supervises the curriculum in conflict resolution at Bennington College and a mediation clinic for Bennington County, and mediates for the Vermont Human Rights Commission.

Massachusetts-based composer and percussionist **Jake Meginsky** has collaborated and performed with such artists as Joan La Barbara, Greg Kelley, Bhob Rainey, Milford Graves, Joe McPhee, Thurston Moore, Sabir Mateen, Tatsuya Nakatani, William Parker, Cooper Moore, John Blum, Daniel Carter, Paul Flaherty, Arthur Brooks, and Bill Nace.

Meginsky’s work has been presented in a wide variety of venues, including Vision Festival, Joyce SoHo Presents, Dance Theater Workshop, the Stone, Improvised and Otherwise, the No Fun Festival, the Flea Theater, Free 103, Work in the Performance of Improvisation, Arts Center of the Capital Region, Pioneer Arts Center, the Fisher Center for the Performing Arts, and as a guest artist-in-residence at the University of Iowa. In 2006, Meginsky completed a national performance tour as musical director for Susan Sgorbati’s Emergent Improvisation Project, performing at such venues as the Neurosciences Institute, Bennington College, Flynn Center for the Performing Arts, and the New England Complex Systems Institute. His work has been supported by several organizations, including the Bumper Foundation, Vermont Arts Council, and the National Endowment for the Arts. Additionally, Meginsky has been commissioned by such dance artists as Nora Chipaumire, Paul Matteson, Gwen Welliver, Cori Olinghouse, Katie Martin, Peggy Florin, and by the New York City new music ensemble Nex(t)works.

His recordings can be found on Feeding Tube Records, Rel Records, Open Mouth Records, Hells Half Halo, Wooden Finger Records, Ultra Eczema Records, and Ecstatic Peace Records.

DANCERS' BIOS

Katie Martin, originally from Hilton Head Island, SC, is a dance artist and a Jacob K. Javits Fellow in dance, working within the spheres of choreography, performance, education, and movement research. She received her MFA in dance from Smith College, and was both a teaching fellow and Gretchen Moran Fellow. She received a BA with a concentration in dance from Bennington College.

Martin has danced in the works of such artists as Mark Dendy, Ann Carlson, Keith Thompson, Dana Reitz, Susan Rethorst, Meg Wolfe, Cathy Nicoli, and David Dorfman. Her own professional work has been presented at numerous venues and festivals in New York City and nationally, including at Joyce SoHo, Dance Theater Workshop, Danspace Project at St. Mark's Church, Symphony Space, Performance Mix Festival, the Flea Theater, and the Arts Center of the Capital Region.

Martin teaches dance widely and has been a guest artist and visiting assistant professor at Amherst College, Smith College, Hampshire College, Mount Holyoke College, Bennington College, Williams College, and Boston University, among others. Her choreographic work has been selected as a finalist for the National College Dance Festival in 2004, 2009, and 2010. She is honored to be in residence at EMPAC and to have worked with the Emergent Improvisation Project since its inception in 2004.

Zornitsa Stoyanova is a movement artist based in Philadelphia. A native of Bulgaria, she holds a BA in dance and sound design from Bennington College, where she studied with Dana Reitz, Eva Karczag, Susan Sgorbati, Susan Rethorst, Brendan McCall, Paul Matteson, Keith Thompson, and Terry Creach. After concluding her studies she moved to Philadelphia, where she started creating, producing, and presenting performing art and video under the name Here[begin] Dance.

Since moving to Philadelphia, Stoyanova has choreographed and performed numerous dances, improvisations, and human installations. Her work has been presented by Rutgers Camden Center for the Arts, Bowerbird, NEXUS Gallery, the New Edge Mix Festival, Etc. Series, StudioSeries, InHale Performing Series, The A.W.A.R.D. Show! Philadelphia, Spiel Hhr, New York Dance Exchange, as well as Mascher Artist-in-Residence show. She has also shown work at Joyce SoHo, Danspace Project at St. Mark's Church, Hubbard Hall in Cambridge, NY, in her

native Sofia, Bulgaria, as well as in Budapest, Hungary. Stoyanova also dances with Emergent Improvisation Project, based in Vermont, Group Motion Dance, <fidget>, Nicole Bindler, and others in Philadelphia.

In early 2007, Stoyanova formed Here[begin] Dance Co. She is devoted to helping young and emerging choreographers and has used Here[begin] to produce and support young choreographers in and around Philadelphia. She has produced *Current: an evening of dance and art* and *Dance Cinema Projects* geared specifically to Philadelphia communities.

Marie Lynn Blocker is a dance artist and improviser from Western Massachusetts. In 2010, she received her B.A. from Bennington College, where she studied dance choreography, performance, and improvisation. Since that time she has been a member of Susan Sgorbati's Emergent Improvisation Project. Blocker has also collaborated with dancer Emily Climer on Recall Form, a project exploring how the complex neuronal systems of the brain play a role in our ability to communicate and connect with one another through movement. Their work was presented at the Vision Festival in New York and the Schools Festival in Angers, France. Blocker is currently living in Singapore, where she is pursuing a solo dance project and working one on one in home-based programs for children with autism.

Lydia Chrisman, a native of Switzerland, is receiving her BA with a concentration in dance and voice from Bennington College. Chrisman's studies have been focused around improvisation and performance. Her own work is focused on the interaction of people, how to make familiar things unfamiliar, and creating worlds of movement, sound, and color. During the past four years she has had the opportunity to work with Susan Sgorbati on many projects, the latest being *Convergence: The Emergent Improvisation Film*. Chrisman is excited to share Sgorbati's work at EMPAC.

Emily Climer will be graduating this spring with a BA from Bennington College. She has studied dance with Terry Creach, Dana Reitz, and Susan Sgorbati. She recently performed her choreography as part of the Schools Festival at the Centre Nationale de Danse Contemporaine in Angers, France, and the Vision Festival in New York, NY. Climer is a dancer in the Emergent Improvisation Project, led by choreographer Susan Sgorbati and filmmaker Elliot Caplan. She also studies education research and policy.

Theo Koppel was born in Chicago, and is a dancer, choreographer, and comedian. He received improv comedy training at the Second City, iO Theater, and Annoyance Theater. Koppel is currently a student at Bennington College, where he studies dance and choreography under the guidance of Dana Reitz, Terry Creach, and Susan Sgorbati. Koppel recently spent a term working for the Merce Cunningham Dance Company as an intern/archivist. He is currently in the process of creating his senior show.

Finn Murphy began dancing in Los Angeles under the direction of Sarri Sanchez and Erik Speth at Renaissance Arts Academy. He is currently attending Bennington College under the tutelage of Susan Sgorbati, Terry Creach, and Dana Reitz, where he has also worked with Joseph Poulson and Souleymane Badolo. Along with dance, Murphy is also studying literature.

Niko Tsocanos received his BA in 2011 from Bennington College, where he concentrated his studies in dance and literature. He is now based in New York City working as a choreographer, performer, and tutor. Current projects include the Emergent Improvisation Project with Susan Sgorbati and Elliot Caplan, and new works with Boom Bat Gesture Performance Group, Elizabeth Dishman/Coriolis Dance, and Ardent August.

EMPAC 2012



Fri + Sat
April 20 + 21
8 pm
\$18
(discounted tickets available)

PERFORMANCE

TOOL IS LOOT

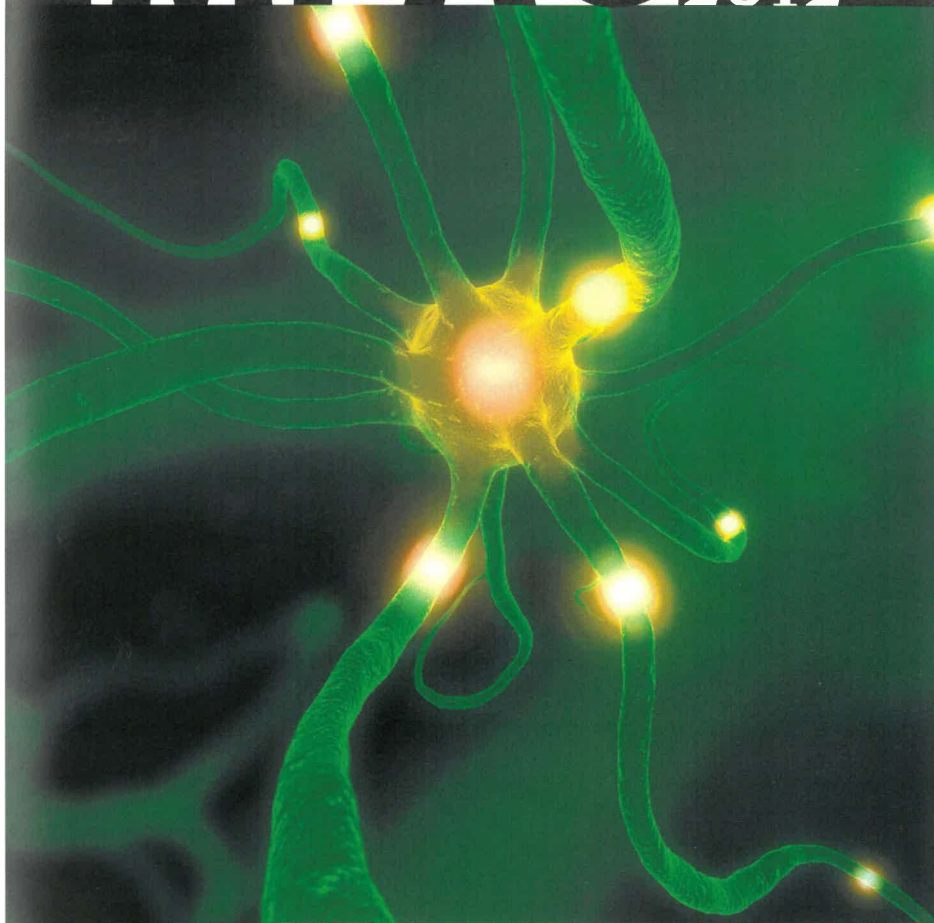
Wally Cardona + Jennifer Lacey with Jonathan Bepler

A dance duet that asks the question: "What comes after you don't know anymore?"

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EMPAC 2012



Wednesday
May 9
7 pm
free

TALK

Marco Iacoboni

Mirror Neurons and Our Capacity for Empathy

The role mirror neurons play in the human ability to accurately interpret the feelings and intentions of others.

Presented as part of the Susan Sgorbati creative research residency.

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