



JOHN ASLANIDIS

ANGIE DRAKOPOULOS

MARY HAMBLETON

DANIEL HILL

ROBIN HILL

NENE HUMPHREY

RON JANOWICH

MARY JUDGE

ED KERNS

DAVID MANN

KATE NICHOLS

DAVID ROW

OWEN SCHUH

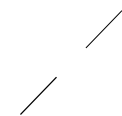
BARBARA TAKENAGA

JIM TOIA

ROBERT YASUDA

em e r g e n c e &

STRUCTURE



emergence & **STRUCTURE**



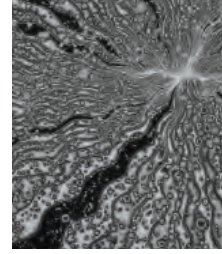
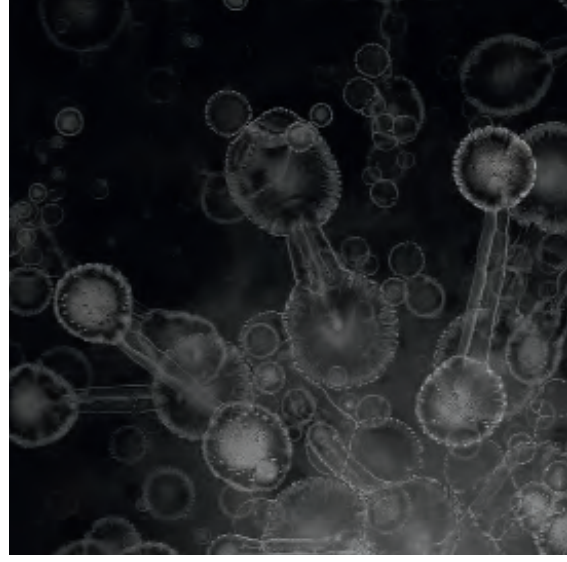
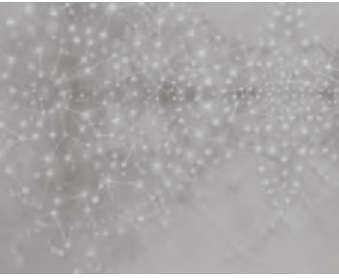
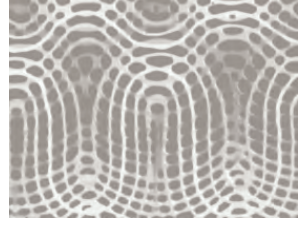
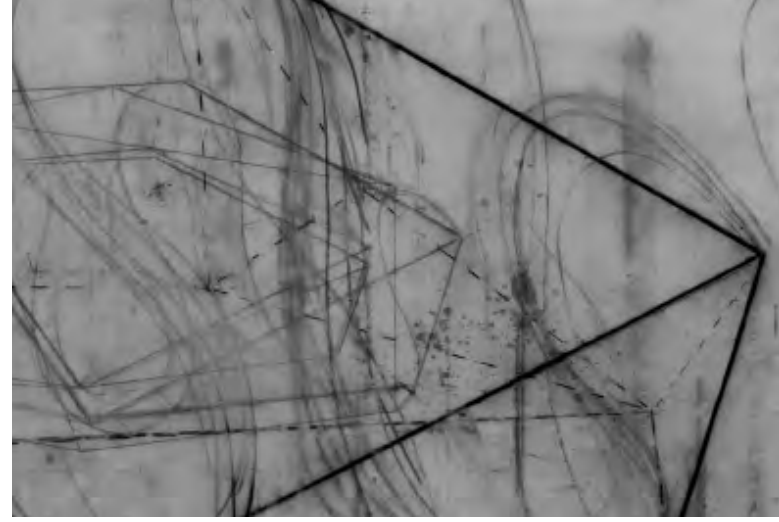


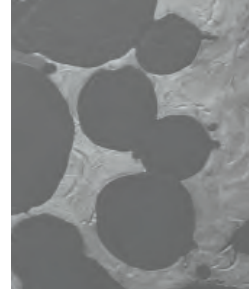
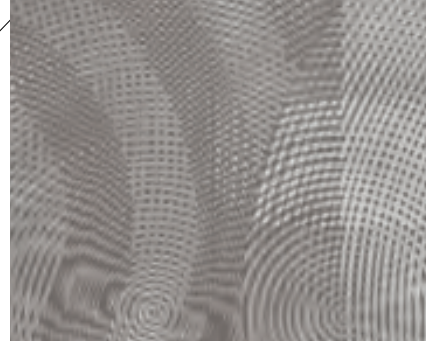
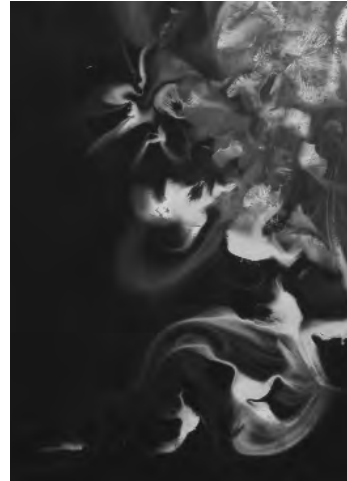
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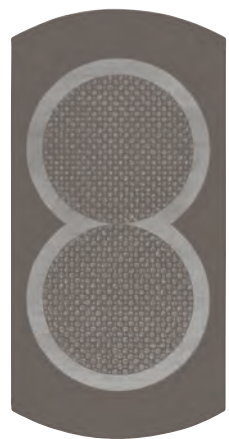
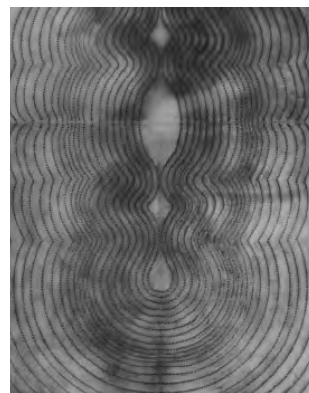
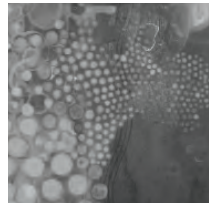
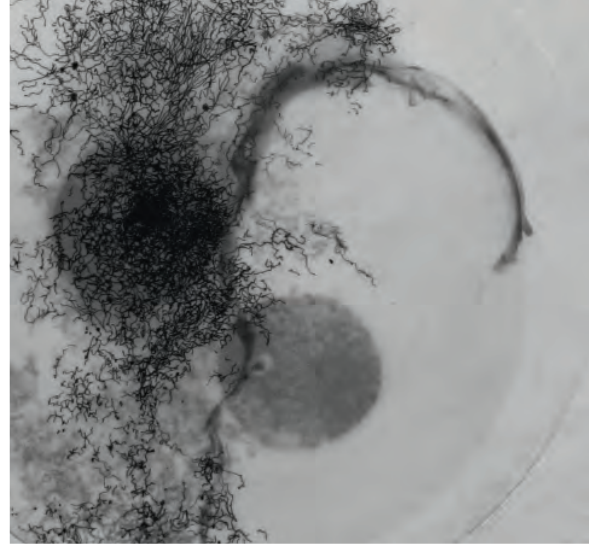
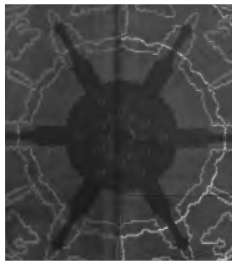
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foreword

The mind is a pattern machine. We see structure everywhere—in the constellations of stars, the spots on dice, and the silhouettes of clouds—shaped by a multitude of forces we can only vaguely comprehend. Although the universe is a noisy place, overflowing with randomness and contingency, we rage against what we can't understand, attempting to impose order onto the mess of reality.

This epistemic tension—the desire to see the world as it is, but also to make sense of what we see—begins to explain the necessity of art. For it is within the framework of art that we are able to affirm simultaneously the mystery, even as we seek to unravel it. Paint is dripped haphazardly onto a canvas; intricate lines intersect and then come apart; colors combine in unnatural ways. The picture insists on not being understood.

But here is the paradox: Even when staring at these deliberate abstractions, we still see the familiar stuff of life, those forms we never seem to leave behind. They emerge, like ghosts, from the brushstrokes and charcoal marks, from the acrylic on wood and the shellac on paper. Such simple materials give rise to such complex thoughts that the artist provokes us to see patterns while forcing us to recognize where these patterns emanate from. In this sense, the work of art is a mirror, a distillation of the mind in two dimensions. It captures the entangled nature of imagination and perception, the way we constantly exceed the literal and expand upon the actual.

In 1928, Jackson Pollock's father wrote his son a letter. Most of the sentences are about God and weather. But he also managed to dispense a touch of artistic advice: "The secret of success," he wrote, "is concentrating interest in life... interest in the small things of nature, insects, birds, flowers, leaves, etc. In other words to be fully awake to everything about you." Clearly, this artist was in that state as he created paintings.

That remains the secret to success. The remarkable artworks in this exhibition, like an epic Pollock painting, are interested in life. They document the small things of nature, forcing us to appreciate the spooky beauty of snowflakes, mushroom spores, and forms that, as yet, don't have names. But these images do something else, too. They expose the mental process whereby those small things become big things, noise becomes signal, chance becomes meaning. We can't say how this happens. We don't know where the meaning comes from, or why the patterns begin, or how the structure accumulates from streaks of paint. All we know is that we open our eyes and they are there.

We are fully awake.

JONAH LEHRER

*New York City
February 2012*

6 CURATORS' *state m e n t*

The seeds of this exhibition were sown several years ago in a series of conversations about the relationship between art and science and its impact upon our own studio practice of abstract painting and drawing. Interwoven in that ongoing conversation were recommendations of exhibitions to look at and books to read. Slowly, it became apparent that something was going on that was broad and nuanced. *This something, which is materializing in a great many art studios, is the subject of Emergence & Structure.*

This continuing dialogue includes a wide range of concepts from the sciences. Whether it is the Higgs boson particle and the origin of mass/structure (the so-called “God particle”); Heisenberg’s uncertainty principle; entanglement’s “spooky action at a distance”; or the experience of perception and the origin of consciousness, these ideas prove not only irresistible but abound in profound and potentially unrealized implications in the quest to comprehend our world. Art and science are both born from a sense of wonder and curiosity and a *desire to understand*. At first, we had no idea how many artists might fit into such a show. It soon became apparent, though, that an overarching science/art exhibition was too massive an undertaking, so we decided to limit *our research* to abstract painting and drawing because we feel most confident in our ability to see into those areas with greater understanding. Within this parameter, we took a broad approach in the hope that it would be conducive to a lively discussion of emergent visual languages.

Science has had an enormous impact on the way artists think and go about making their work. As provocative as any scientific idea may be, rarely does empirical data translate directly to a compelling visual experience. More is needed to make a visually sustainable painting or drawing. Choosing the art, then, was an exercise in balancing work that intuitively leads the viewer toward the kind of ideas we have been talking about, and yet is also visually compelling enough to pull in and engage the viewer. Intuition and insight guide the artist/curator to achieve an expanded notion of what it is to see and understand one’s own work as well as work that influences it.

The influence of science and mathematics is present to varying degrees in the work selected. In some cases, there are direct references to mathematical structures and quantum mechanical modeling; in other cases, the work is more closely aligned to the phenomenology of perception; in still others, recent insights into neuroscience have offered concrete evidence of the artist’s intuitive understanding of how the mind forms visual perceptions of concrete artistic processes. In nature, one can see how complexity emerges from a simple algorithm; some of the artists also utilize an algorithm, but one tempered with

aesthetic intuition, to create a powerful image that captivates the viewer. Because this process invites questions on how it was made, it can subsequently open the mind to larger questions.

These explorations, which create a foundation and baseline of discernment for the artist to build a personal body of work, expand the possibilities for abstract painting and drawing. Perception occurs in the silence of the gaze and into consciousness in the mind of the viewer. The artist is in a unique position to create objects of meditation that uncover truths about what it is to be human and comprehend the world on multidimensional levels. The artists featured have done that in ways that are original and expansive. Their investigations into the sciences have added significantly to the theoretical foundation of their practice. This exhibition is an expression of that understanding.

The contributions herein do not claim to be making empirical discoveries or breaking new scientific ground—rather, they provide a different platform from which to view the relationship of art and science, open the mind to possibilities, and spark the imagination.

DANIEL HILL
RON JANOWICH

*New York City
February 2012*

Emergence & Structure is an exhibition that represents a turning point in the process of education and public awareness of interrelated elements of science and art. Artists have long utilized content from myriad sources to interpret ideas through visual imagery. Science has been prevalent in art practice for a long time, and the art world has embraced similarities such as the notion that both disciplines are centered upon the study of that which does not yet exist. Imagination, creativity and the desire to break into new territory are integral to both art and science. What is new is audience demand for evidence of this relationship.

An exhibition such as this one is well suited for college venues. Campuses across America are revolutionizing curriculum to accommodate more interdisciplinary learning. A tremendous amount of research and attention is pointing toward the critical need for more integrative approaches to subject matter and learning. The timeliness of *Emergence & Structure* is a source of pride to our three institutions that have the fortune to host this important exhibition. We are grateful to the artists, writers and curators who worked diligently to organize this exhibition, and to the sponsors, designers and staff that have pulled it all together.

JEREMY MIKOLAJCZAK
MICHIKO OKAYA
AMY VIGILANTE

MARCH 20–APRIL 21, 2012

Richard A. and Rissa W. Grossman Gallery
Lafayette College
Williams Visual Arts Building
243 North Third Street
Easton, Pennsylvania
Michiko Okaya
Director, Lafayette Art Galleries
galleries.lafayette.edu

MAY 24–AUGUST 11, 2012

MDC Freedom Tower Gallery
Art Gallery System
Miami Dade College
600 Biscayne Boulevard
Miami, Florida
Jeremy Mikolajczak
Executive Director, Art Gallery System
mdc.edu/ags

OCTOBER 5–NOVEMBER 16, 2012

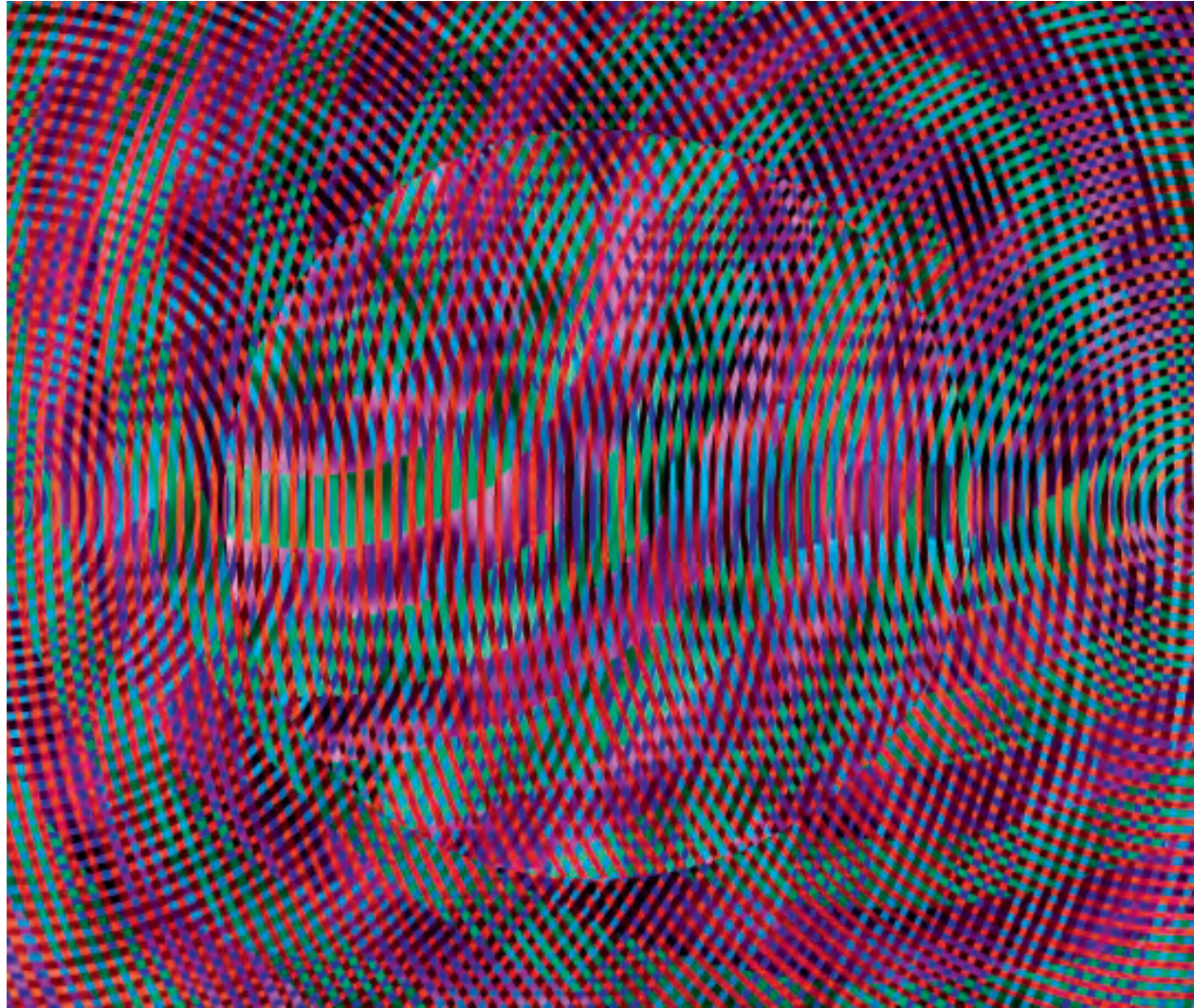
University Gallery
School of Art + Art History
College of Fine Arts
University of Florida
Gainesville, Florida
Amy Vigilante
Director, University Galleries
arts.ufl.edu/galleries

∞ c o l l a b o r a t i o n ∞

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plates //

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SONIC CURRENT NO. 2
 2007
Oil and acrylic on canvas
 41 x 50 inches

- JOHN ASLANIDIS
- ANGIE DRAKOPOULOS
- MARY HAMBLETON
- DANIEL HILL
- ROBIN HILL
- NENE HUMPHREY
- RON JANOWICH
- MARY JUDGE
- ED KERNS
- DAVID MANN
- KATE NICHOLS
- DAVID ROW
- OWEN SCHUH
- BARBARA TAKENAGA
- JIM TOIA
- ROBERT YASUDA



SONIC NETWORK NO. 10
 2011
Oil and acrylic on canvas
 96 x 120 inches



NEGENTROPY III
2007
Acrylic and resin on plexiglas
18 x 24 inches



JOHN ASLANIDIS
ANGIE DRAKOPOULOS

MARY HAMBLETON

DANIEL HILL

ROBIN HILL

NENE HUMPHREY

RON JANOWICH

MARY JUDGE

ED KERNS

DAVID MANN

KATE NICHOLS

DAVID ROW

OWEN SCHUH

BARBARA TAKENAGA

JIM TOIA

ROBERT YASUDA



AKASHA
2011
Acrylic and resin on plexiglas
18 x 24 inches



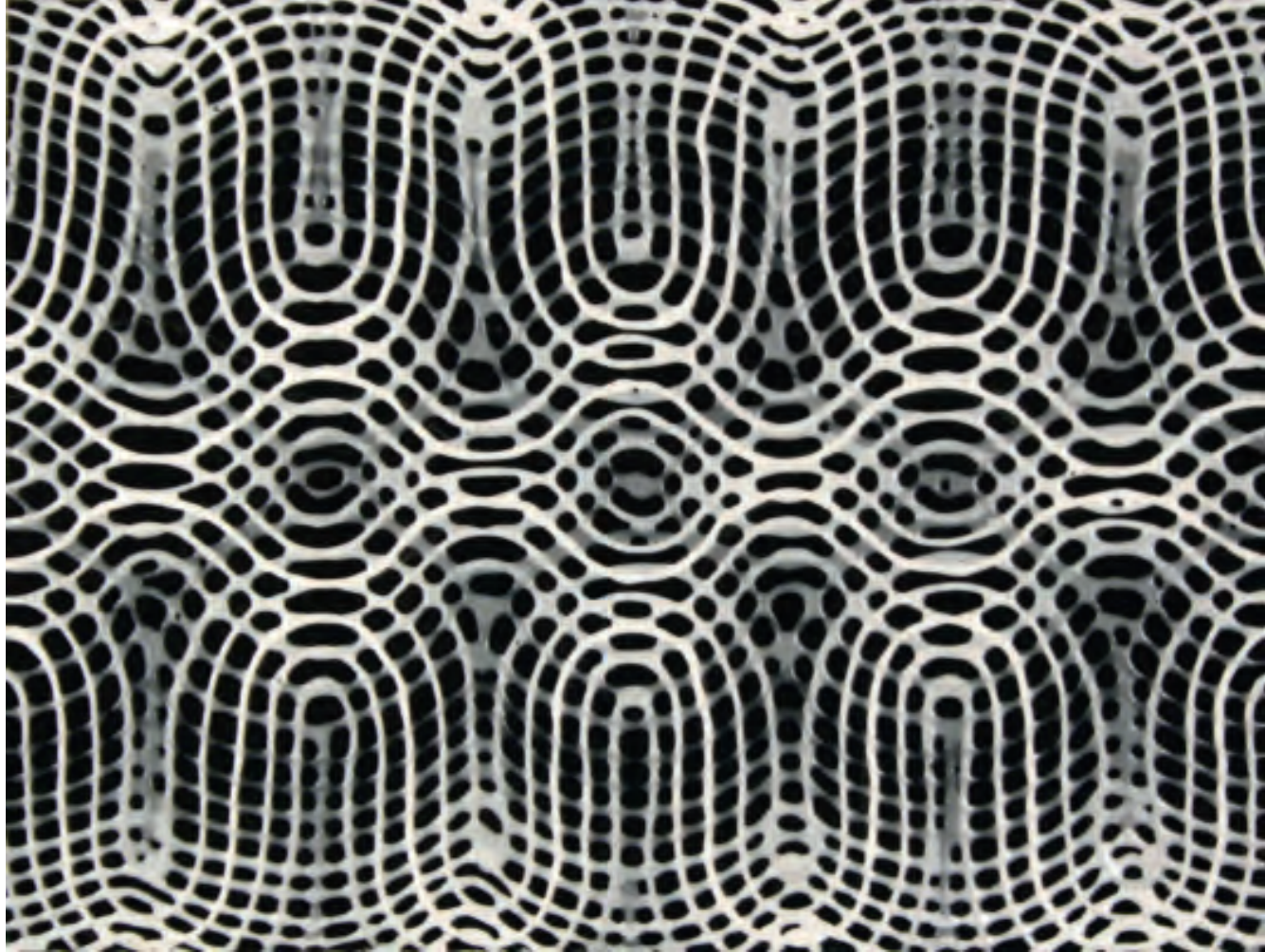
FATHOM
 2003
Oil and alkyd on wood
 10 x 10 x 4 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA

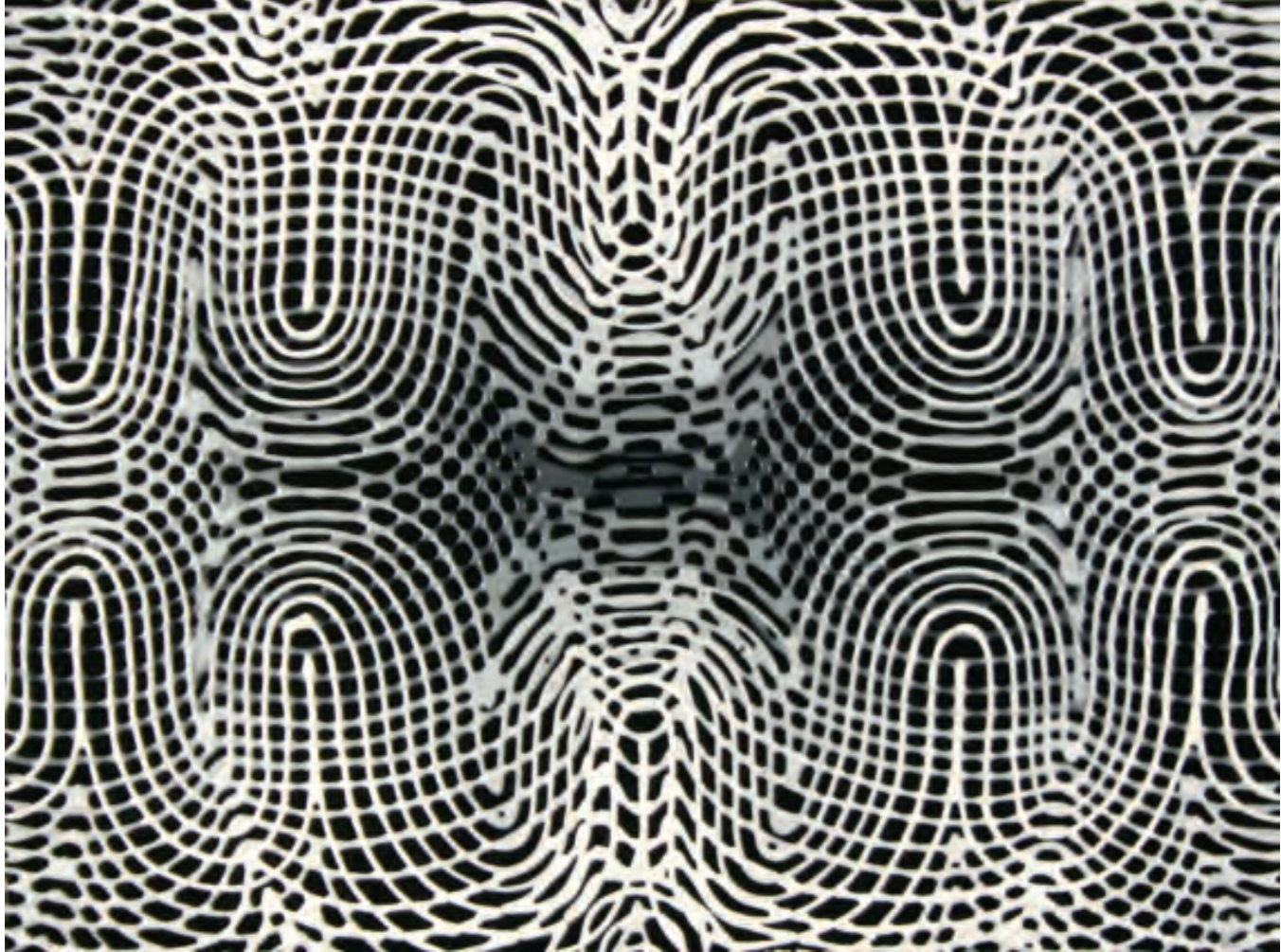


QUERY
 2004
Oil and alkyd on canvas on wood
 63 x 52 inches



UNTITLED 8
2011
Acrylic polymer emulsion on paper mounted on panel
9 x 12 inches

- JOHN ASLANIDIS
- ANGIE DRAKOPOULOS
- MARY HAMBLETON
- ✓ DANIEL HILL ✓
- ROBIN HILL
- NENE HUMPHREY
- RON JANOWICH
- MARY JUDGE
- ED KERNS
- DAVID MANN
- KATE NICHOLS
- DAVID ROW
- OWEN SCHUH
- BARBARA TAKENAGA
- JIM TOIA
- ROBERT YASUDA

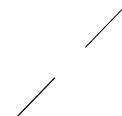


UNTITLED 9
2011
Acrylic polymer emulsion on paper mounted on panel
11 x 15 inches



SNOWFLAKE 2
 2011
 Cyanotype on paper
 derived from algorithm by Janko Gravner, mathematician
 96 x 96 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 \ ROBIN HILL \ C
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE
 ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



SNOWFLAKE 3
 2011
 Cyanotype on paper
 derived from algorithm by Janko Gravner, mathematician
 96 x 96 inches



IN THE SCALE OF THINGS #10
 2011
Mixed media, laboratory drawings of amygdala on mylar on paper
 16 in. diameter

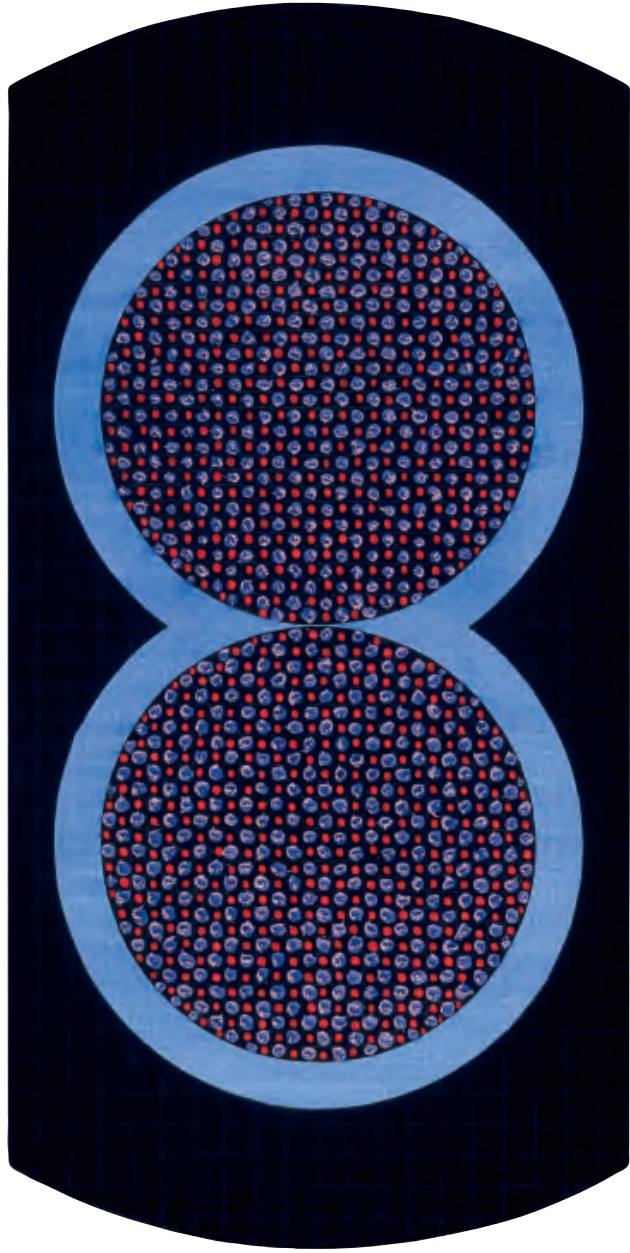
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 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL

\\ NENE HUMPHREY \\
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



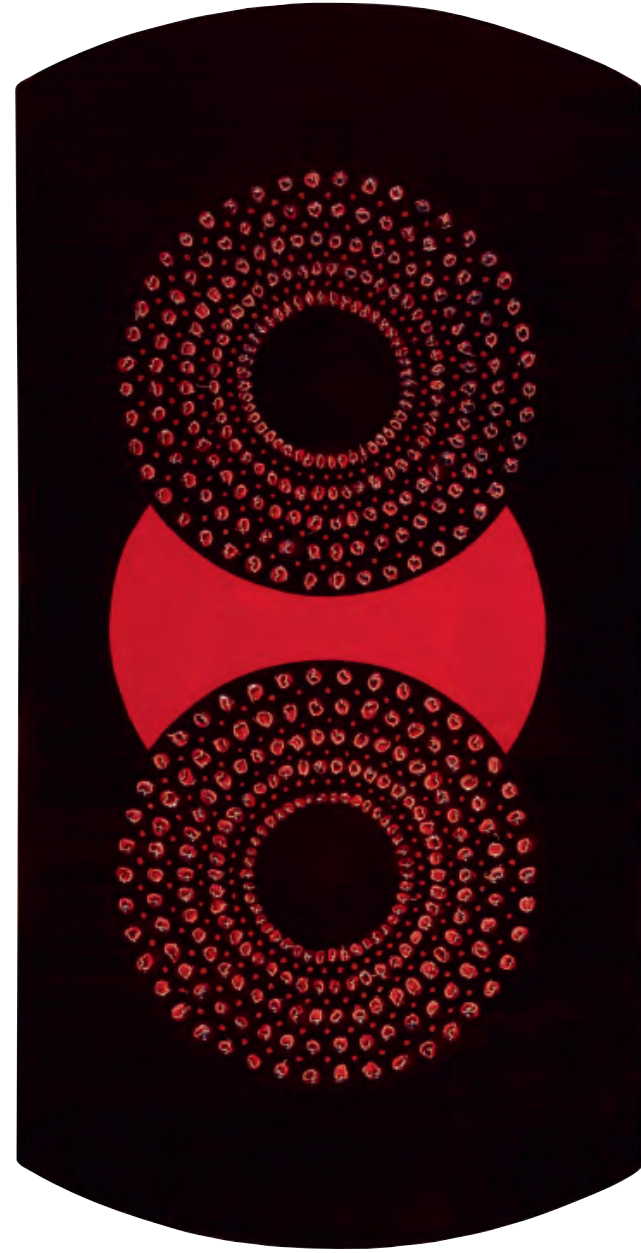
MENERBE, #91409
 2010
Mixed media, laboratory drawings of amygdala on mylar on paper
 16 in. diameter



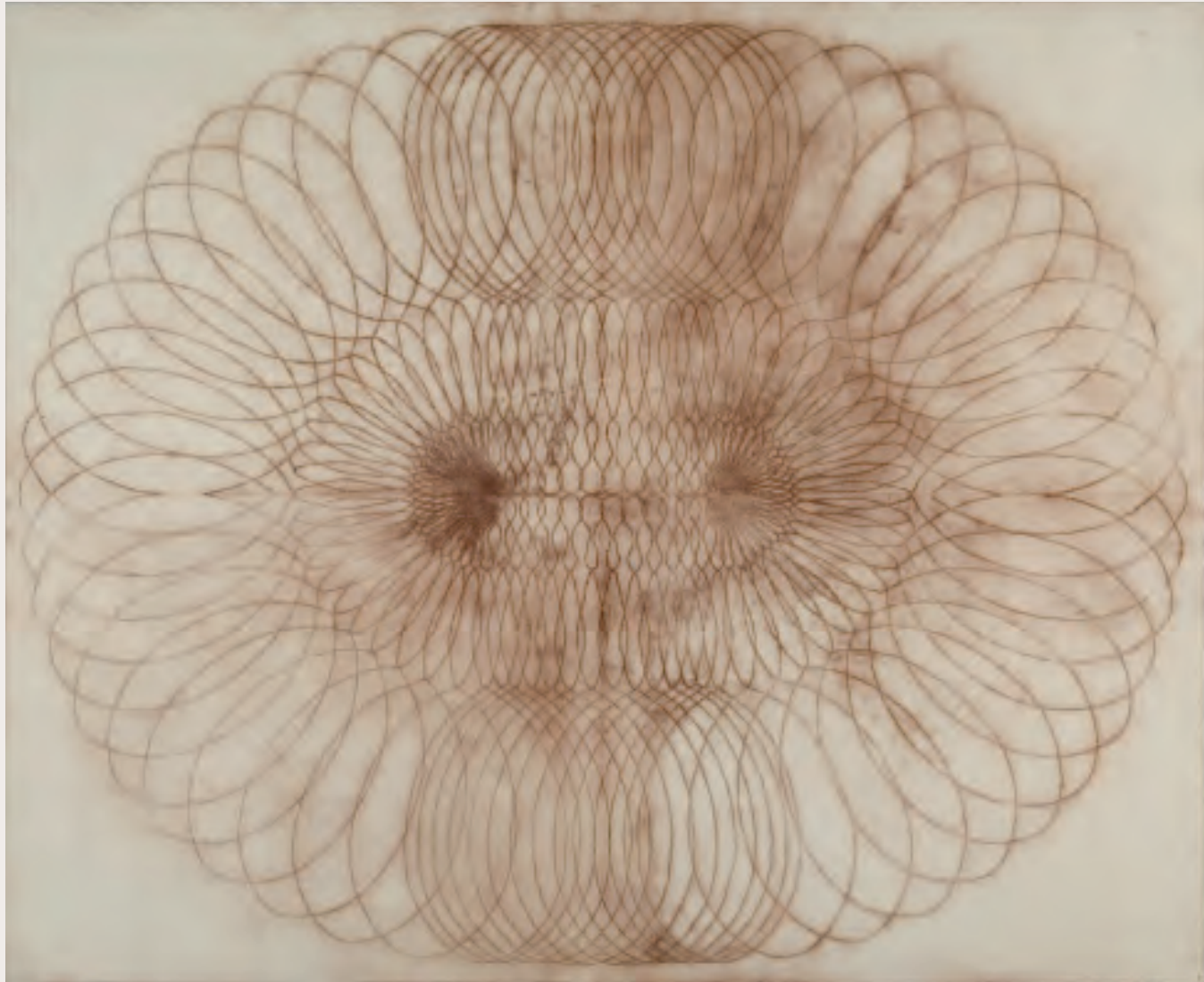
TESSELLATION 2
 2011
Oil on linen
 20 x 10 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 \ RON JANOWICH \ C
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



TESSELLATION 1
 2011
Oil on linen
 20 x 10 inches



SPIRAL FORM SERIES

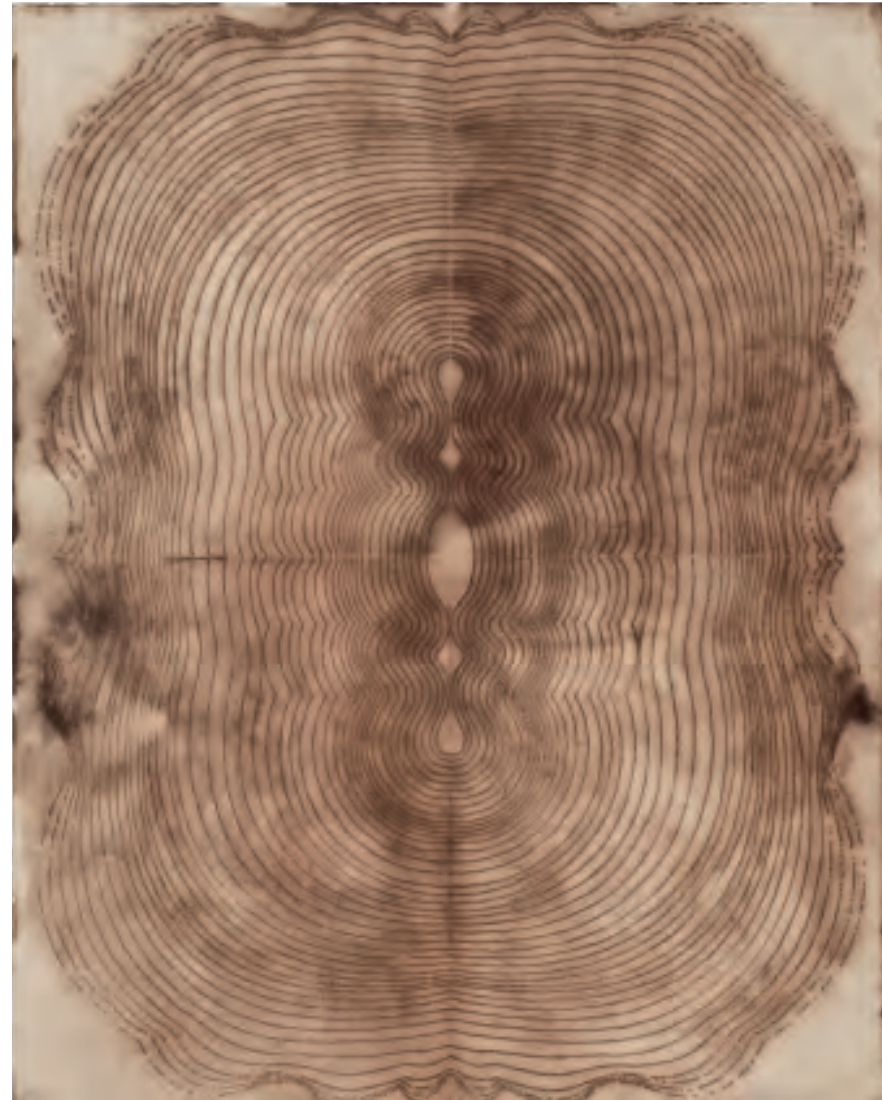
2004

Powdered pigment on 100% rag paper

40 x 54 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



CONCENTRIC SHAPE SERIES 10/7

1998

Powdered pigment on paper

38 x 30 inches



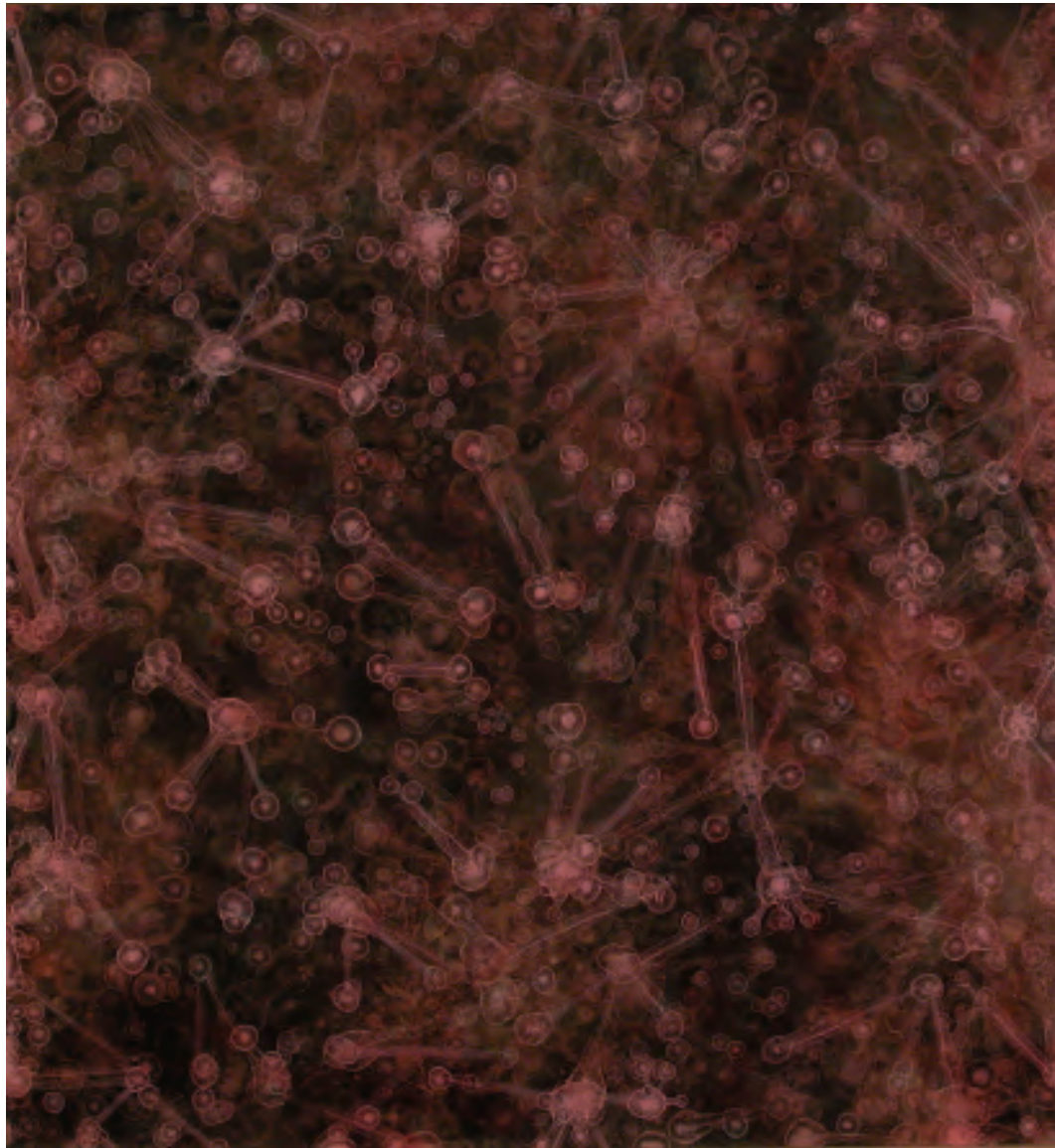
DR. HO
 2010
Acrylic on canvas
 41 x 27 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



CLIFF DIVER
 2010
Acrylic on canvas
 41 x 27 inches

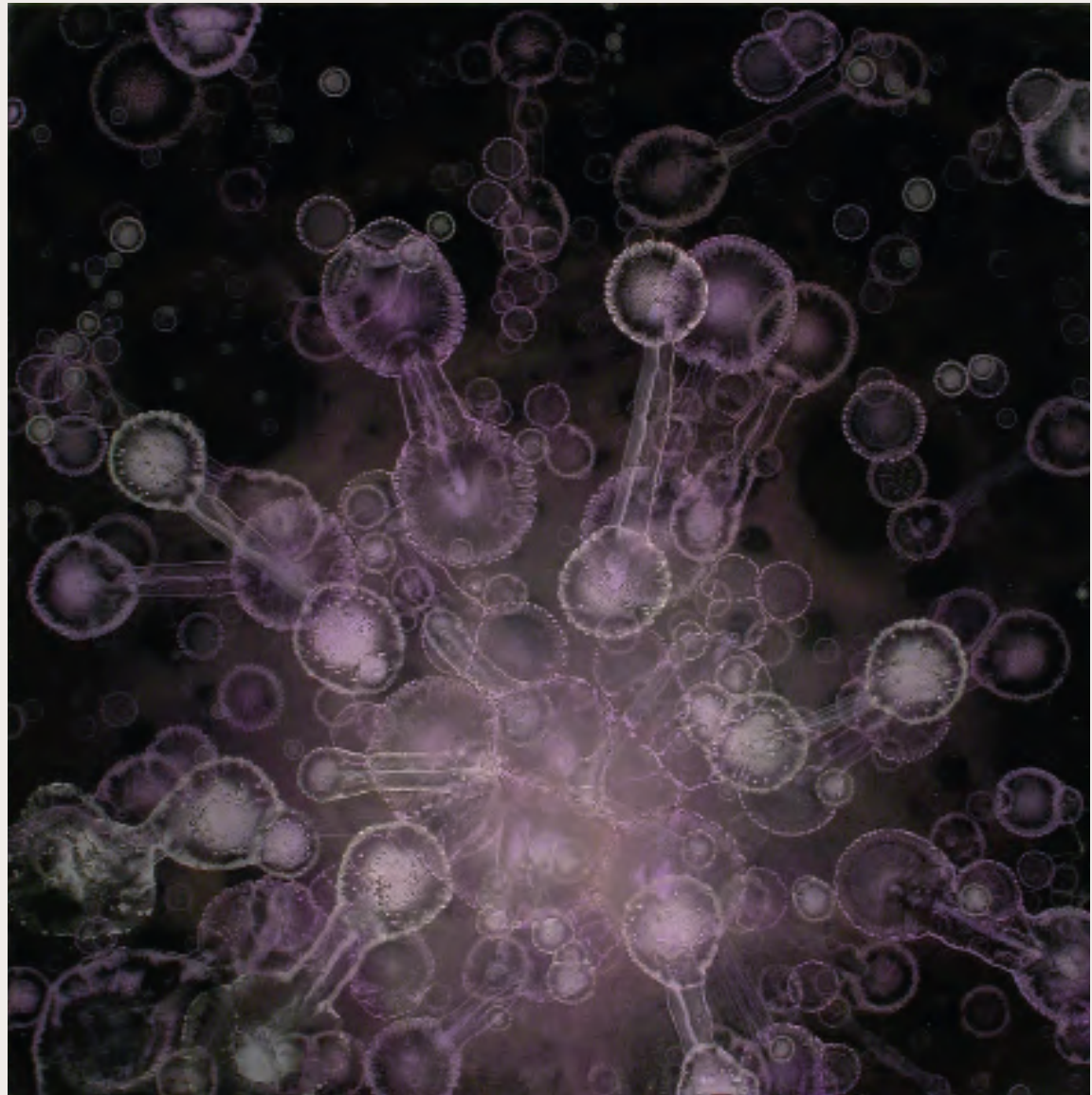
**SLIPSTREAM**

2011

Acrylic and oil on canvas stretched over board
78 x 72 inches

JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

ED KERNS
DAVID MANN
KATE NICHOLS
DAVID ROW
OWEN SCHUH
BARBARA TAKENAGA
JIM TOIA
ROBERT YASUDA

**ATTRACTORS**

2012

Acrylic and oil on canvas stretched over board
12 x 12 inches



SCALED 2
 2009
Graphite on paper
 10 x 8 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN

\\ KATE NICHOLS \\

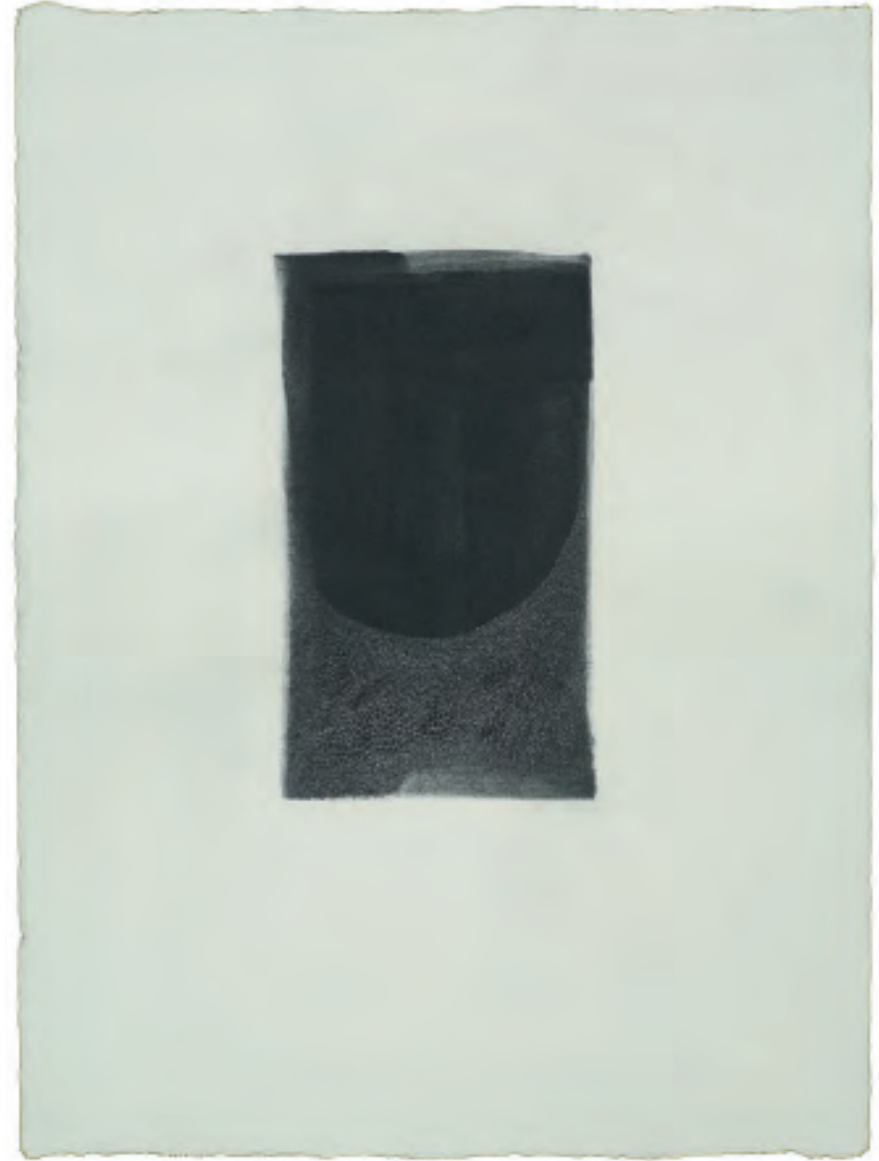
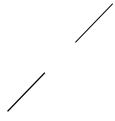
DAVID ROW

OWEN SCHUH

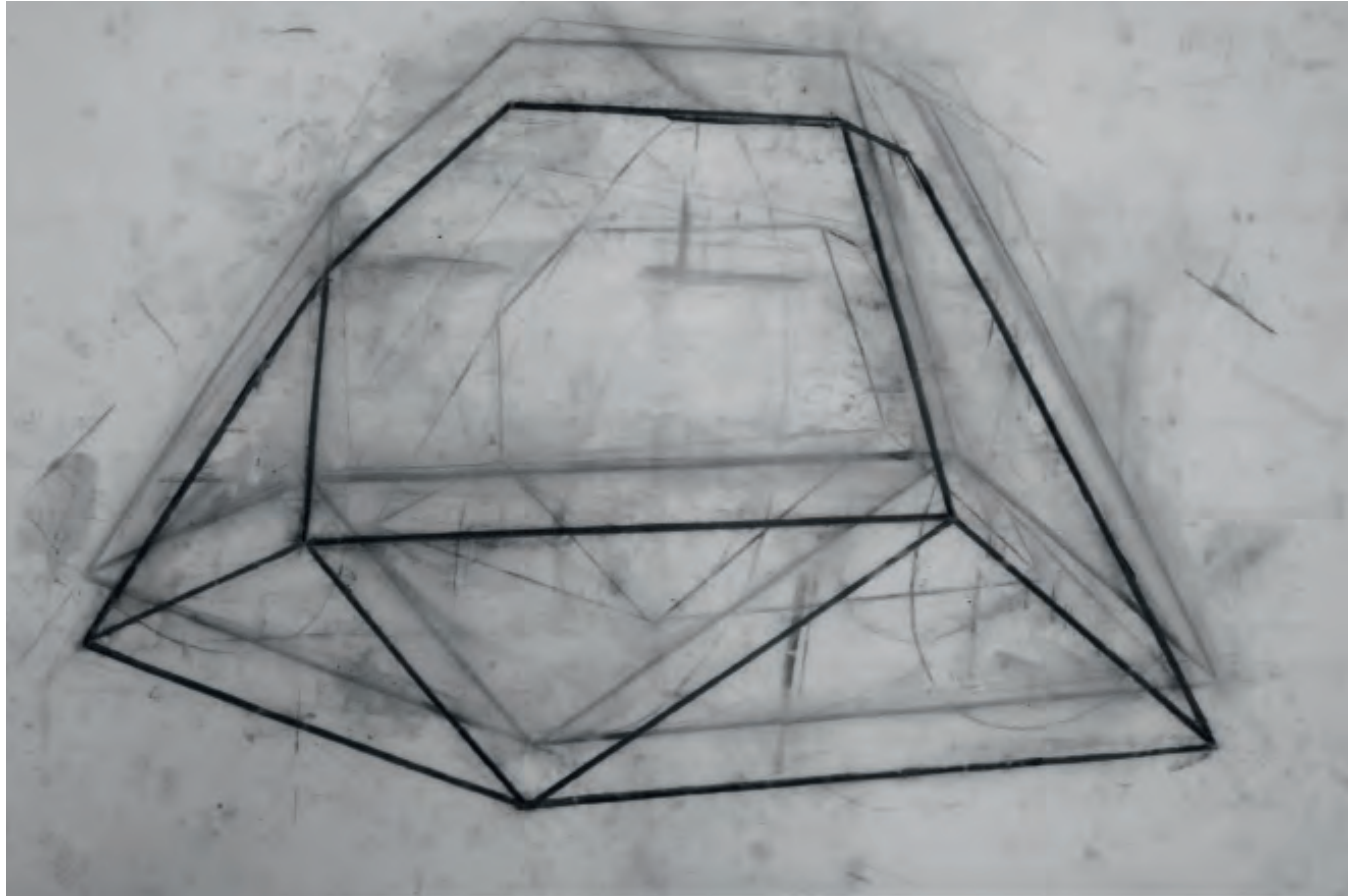
BARBARA TAKENAGA

JIM TOIA

ROBERT YASUDA



SCALED 7
 2009
Graphite on paper
 10 x 8 inches



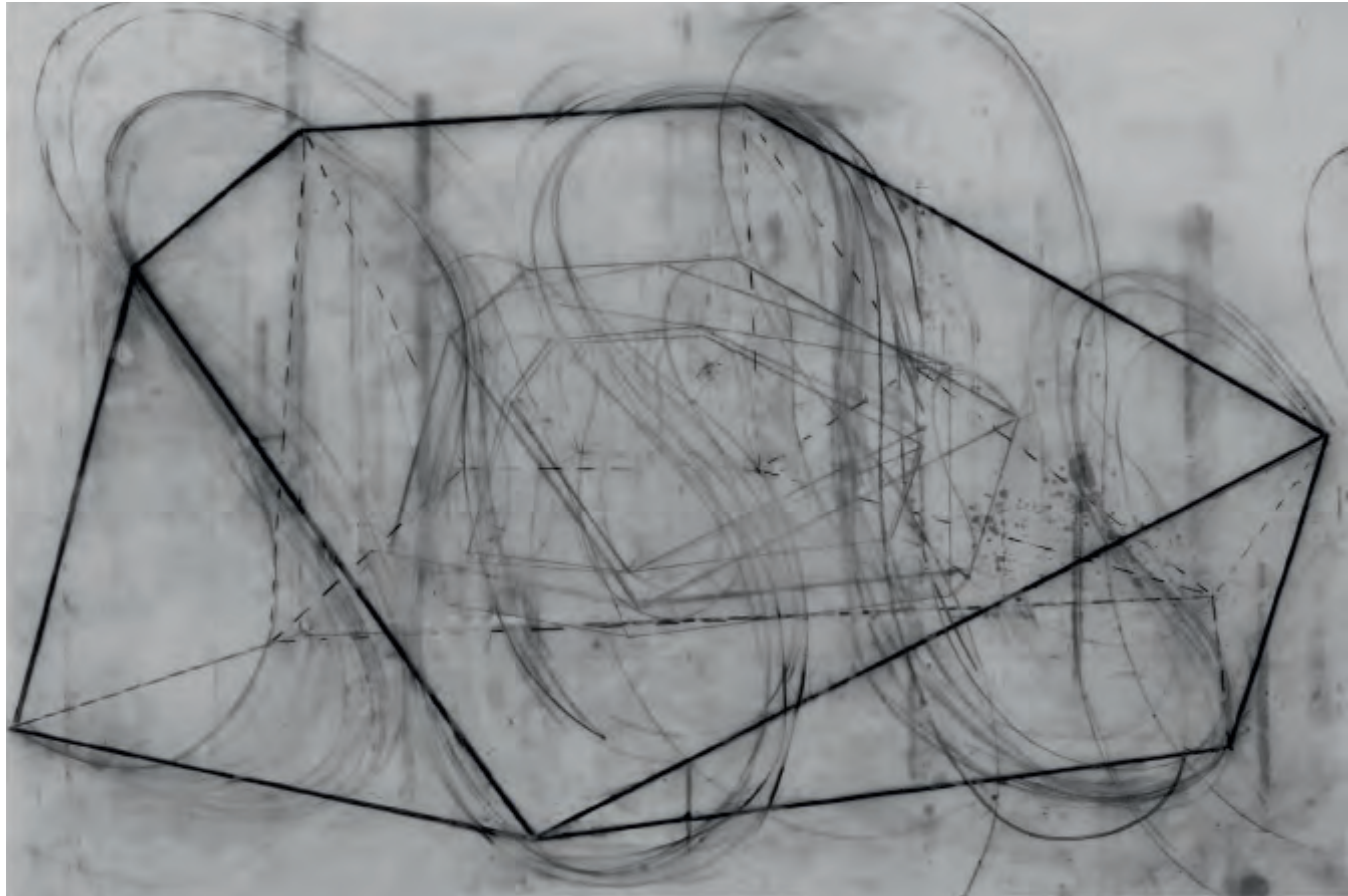
NINE
 2011
Charcoal on vellum
 24.5 x 37.5 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE

ED KERNS
 DAVID MANN
 KATE NICHOLS

DAVID ROW

OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA

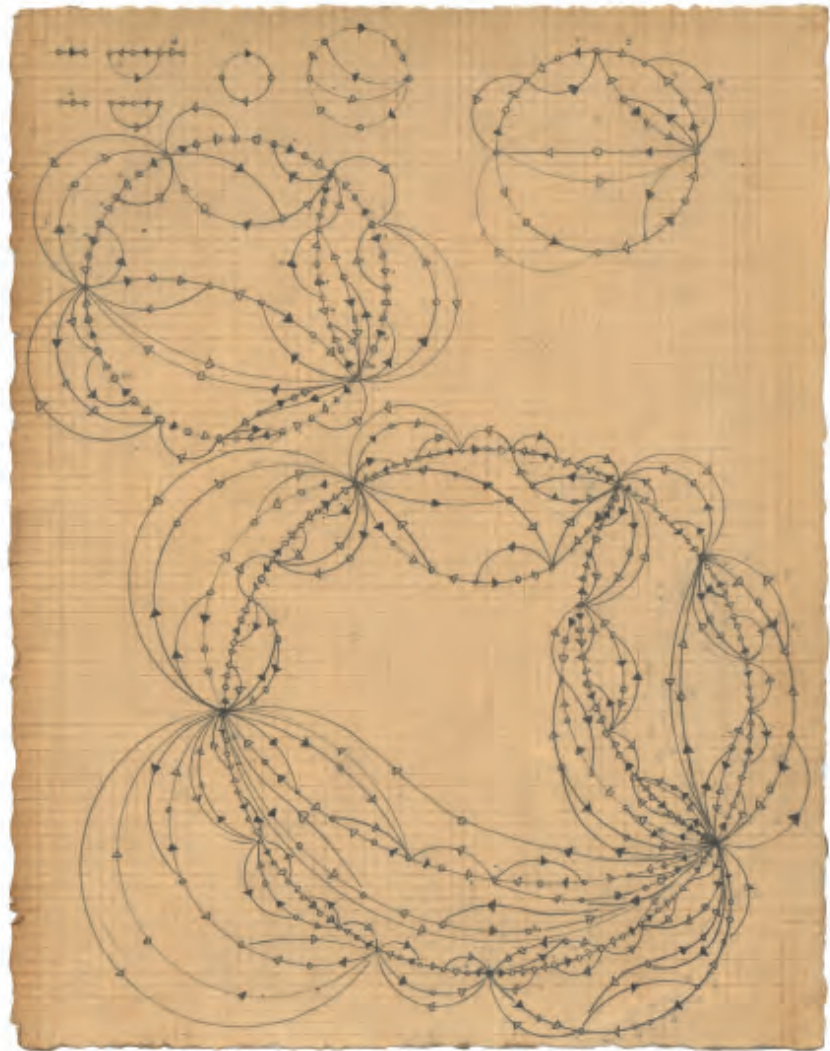


WAVE
 2011
Charcoal on vellum
 24.5 x 37.5 inches

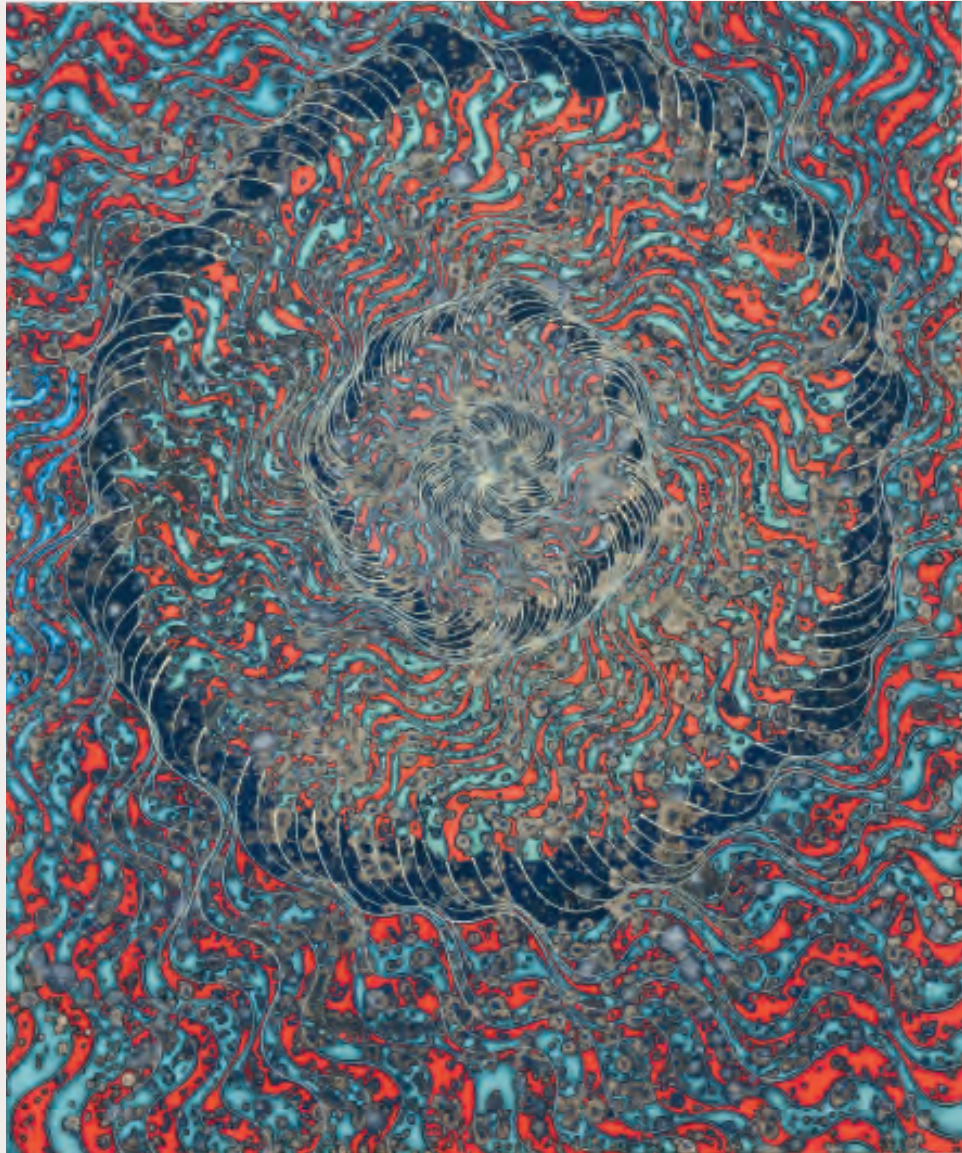


BRAMBLE
 2011
Graphite and tea on paper
 11 x 14 inches

JOHN ASLANIDIS
 ANGIE DRAKOPOULOS
 MARY HAMBLETON
 DANIEL HILL
 ROBIN HILL
 NENE HUMPHREY
 RON JANOWICH
 MARY JUDGE
 ED KERNS
 DAVID MANN
 KATE NICHOLS
 DAVID ROW
 OWEN SCHUH
 BARBARA TAKENAGA
 JIM TOIA
 ROBERT YASUDA



RECURSIVE NETWORK
 2011
Graphite and tea on paper
 11 x 7 inches

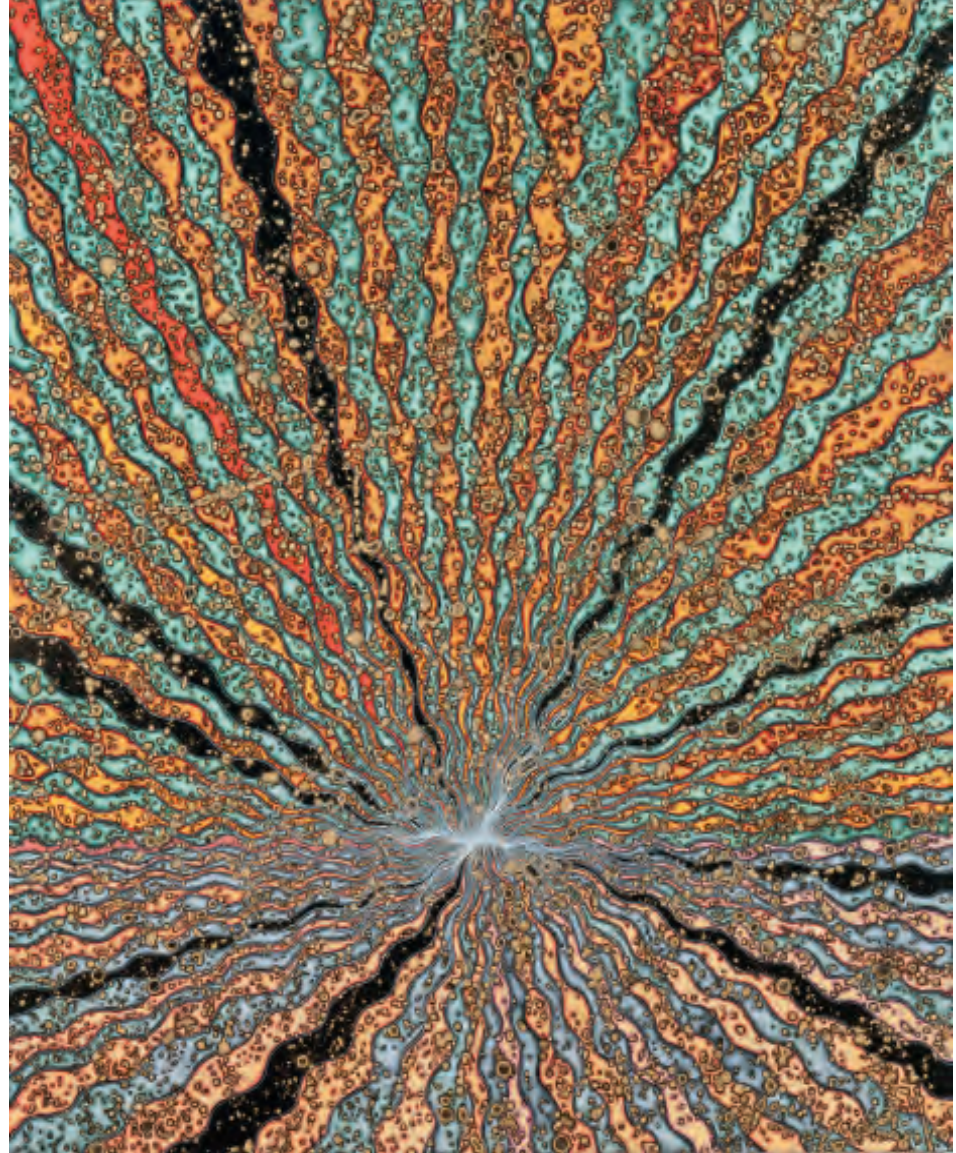


VERMILLION
2011
Acrylic on wood panel
24 x 20 inches

JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

ED KERNS
DAVID MANN
KATE NICHOLS
DAVID ROW
OWEN SCHUH

BARBARA TAKENAGA
JIM TOIA
ROBERT YASUDA



SPARK
2011
Acrylic on wood panel
42 x 36 inches



WARM BLOOD COLD WATERS

2008

Mushroom spore drawing on Art Spectrum paper
38 x 26 inches

JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

ED KERNS
DAVID MANN
KATE NICHOLS
DAVID ROW
OWEN SCHUH
BARBARA TAKENAGA
JIM TOIA
ROBERT YASUDA



FASHIONABLE KING

2009

Mushroom spore (multiple species) on Art Spectrum Colourfix black paper
38 x 26 inches



TRIBUTE
2009
Acrylic on fabric on wood
36 x 49 inches

JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

ED KERNS
DAVID MANN
KATE NICHOLS
DAVID ROW
OWEN SCHUH
BARBARA TAKENAGA

JIM TOIA
ROBERT YASUDA



VEIL
2010
Acrylic on fabric on wood
48 x 26 inches

We extend a special thanks to Ed Kerns, Eugene and Mildred Clapp '36 Professor of Art, Lafayette College. As an artist, Kerns has collaborated with neuroscientists, computational experts and technologists for the past decade nurturing an arena where ideas were exchanged and developed. At one of our many roundtable discussions, the idea for Emergence & Structure was born. As this exhibition took form over the next year and a half, Kerns served as a dedicated mentor, advising and facilitating interactions between the artists and curators.

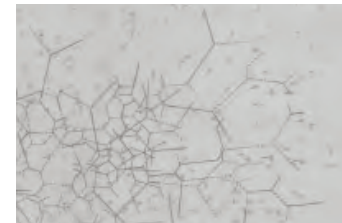
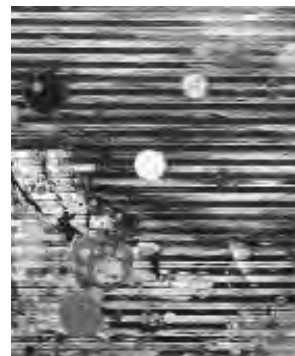
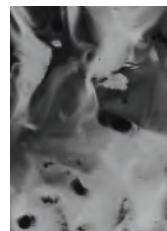
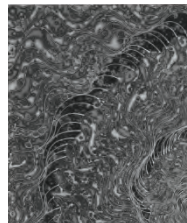
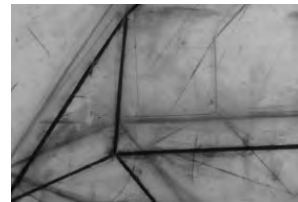
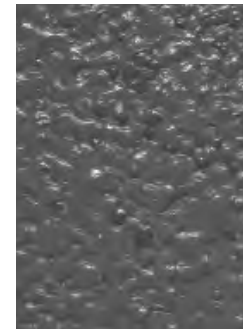
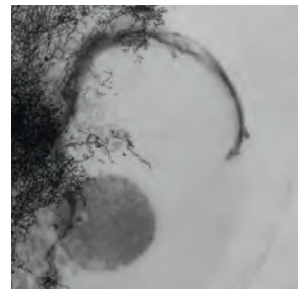
This publication is generously supported with funds from Lafayette College, MDC Freedom Tower Gallery at Miami Dade College, and University Gallery at the University of Florida in Gainesville. We thank gallery directors, Jeremy Mikolajczak, Michiko Okaya, and Amy Vigilante for their enthusiastic support of the exhibition.

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Daniel Hill is a painter/musician, and graduate of the School of Visual Arts in New York City. He has exhibited internationally and has been included in numerous exhibitions that explore the relationship between visual art, sound, and science.

Ron Janowich is a painter, digital artist and Associate Professor at the University of Florida. He has exhibited extensively, and lives and works in New York City and Gainesville. His work explores the role of particle physics in affecting spatial conventions.





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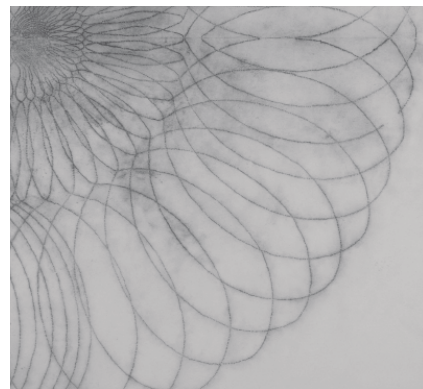
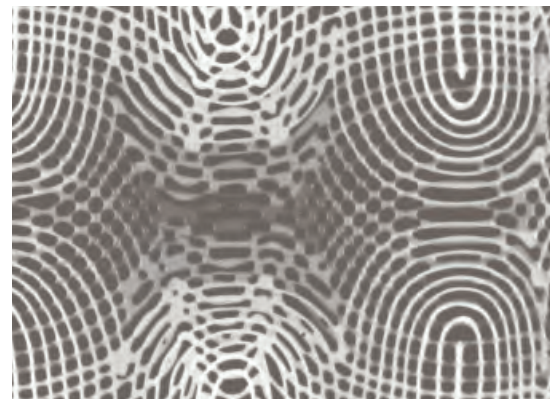
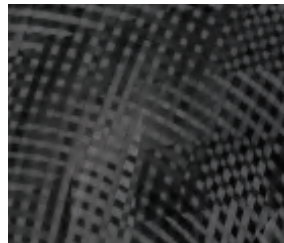
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Emergence & Structure is organized by Lafayette College. The exhibition and related programs at that venue are supported in part by Lafayette College's Environmental Studies Initiative funded by the Andrew W. Mellon Foundation. The Lafayette Art Galleries are funded in part with a grant from the Pennsylvania Council on the Arts, a state agency funded by the Commonwealth of Pennsylvania, and the National Endowment for the Arts.

Designed by Connie Hwang Design, San Francisco
Printed by Toppan Printing, Co.

p. 30-31: David Mann, Courtesy McKenzie Fine Art, NY;
p. 38-39: Barbara Takenaga, Courtesy DC Moore Gallery, NY, Photo: James Dee, NY





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STRUCTURE

