



JOHN ASLANIDIS

ANGIE DRAKOPOULOS

MARY HAMBLETON

DANIEL HILL

ROBIN HILL

NENE HUMPHREY

RON JANOWICH

MARY JUDGE

ED KERNS

DAVID MANN

KATE NICHOLS

DAVID ROW

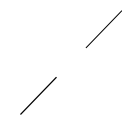
OWEN SCHUH

BARBARA TAKENAGA

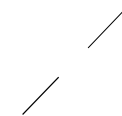
JIM TOIA

ROBERT YASUDA

emerge n c e & **STRUCTURE**



e m e r g e n c y & **STRUCTURE**



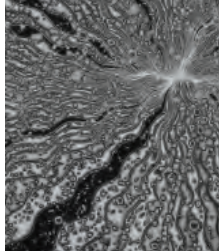
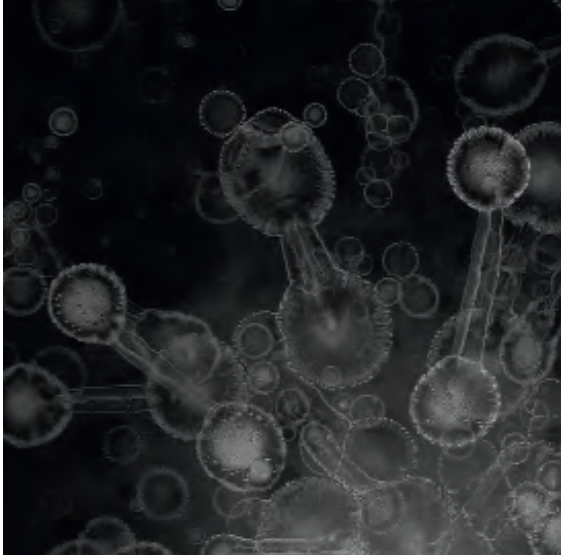
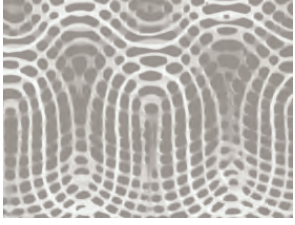
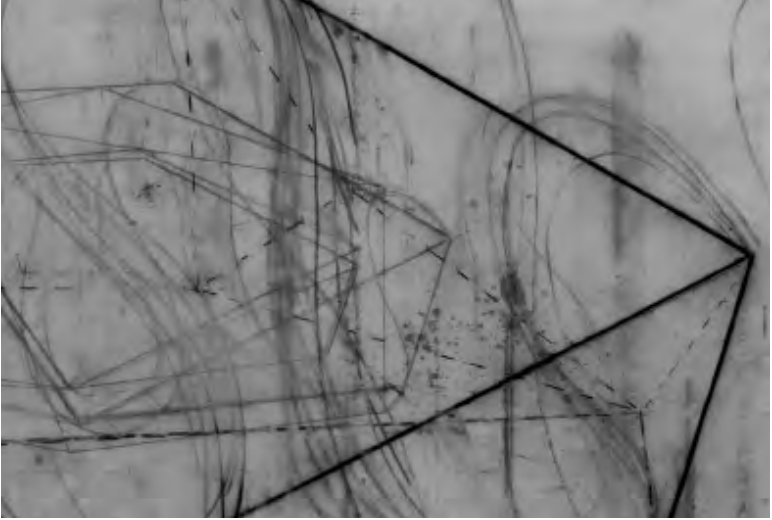


TABLE of contents

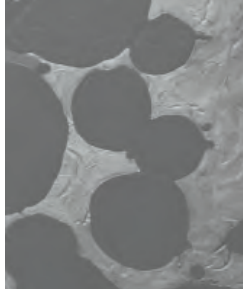
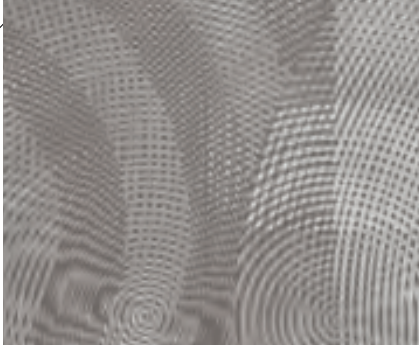
FOREWORD	5
CURATORS' STATEMENT	6
COLLABORATION	8
PLATES	11

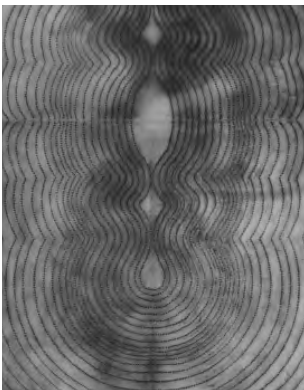
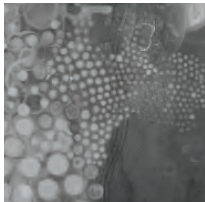
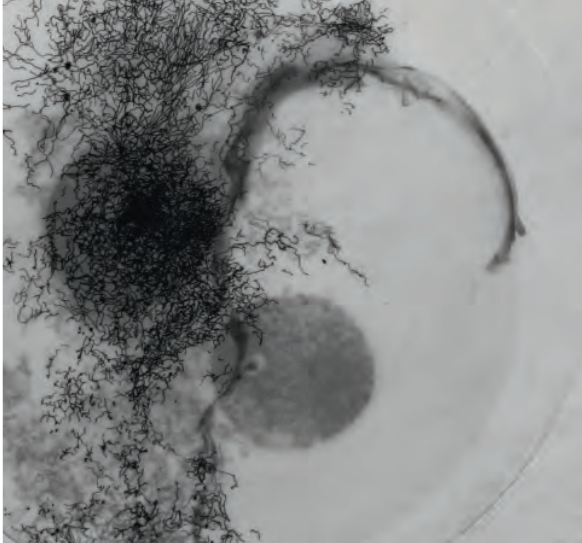
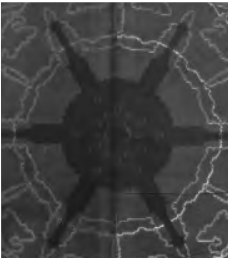


JOHN ASLANIDIS	12
ANGIE DRAKOPOULOS	14
MARY HAMBLETON	16
DANIEL HILL	18
ROBIN HILL	20
NENE HUMPHREY	22
RON JANOWICH	24
MARY JUDGE	26
ED KERNS	28
DAVID MANN	30
KATE NICHOLS	32
DAVID ROW	34
OWEN SCHUH	36
BARBARA TAKENAGA	38
JIM TOIA	40
ROBERT YASUDA	42



CUARTORS' THANKS	45
ARTIST INFORMATION	46
CREDITS	48





foreword

5

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.

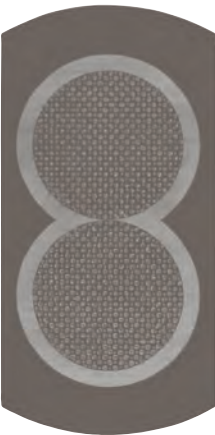
That remains the secret to success. The remarkable artworks in this exhibition, like an epic Pollock painting, are interested in life. They document the small things of nature, forcing us to appreciate the spooky beauty of snowflakes, mushroom spores, and forms that, as yet, don’t have names. But these 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*

4



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.

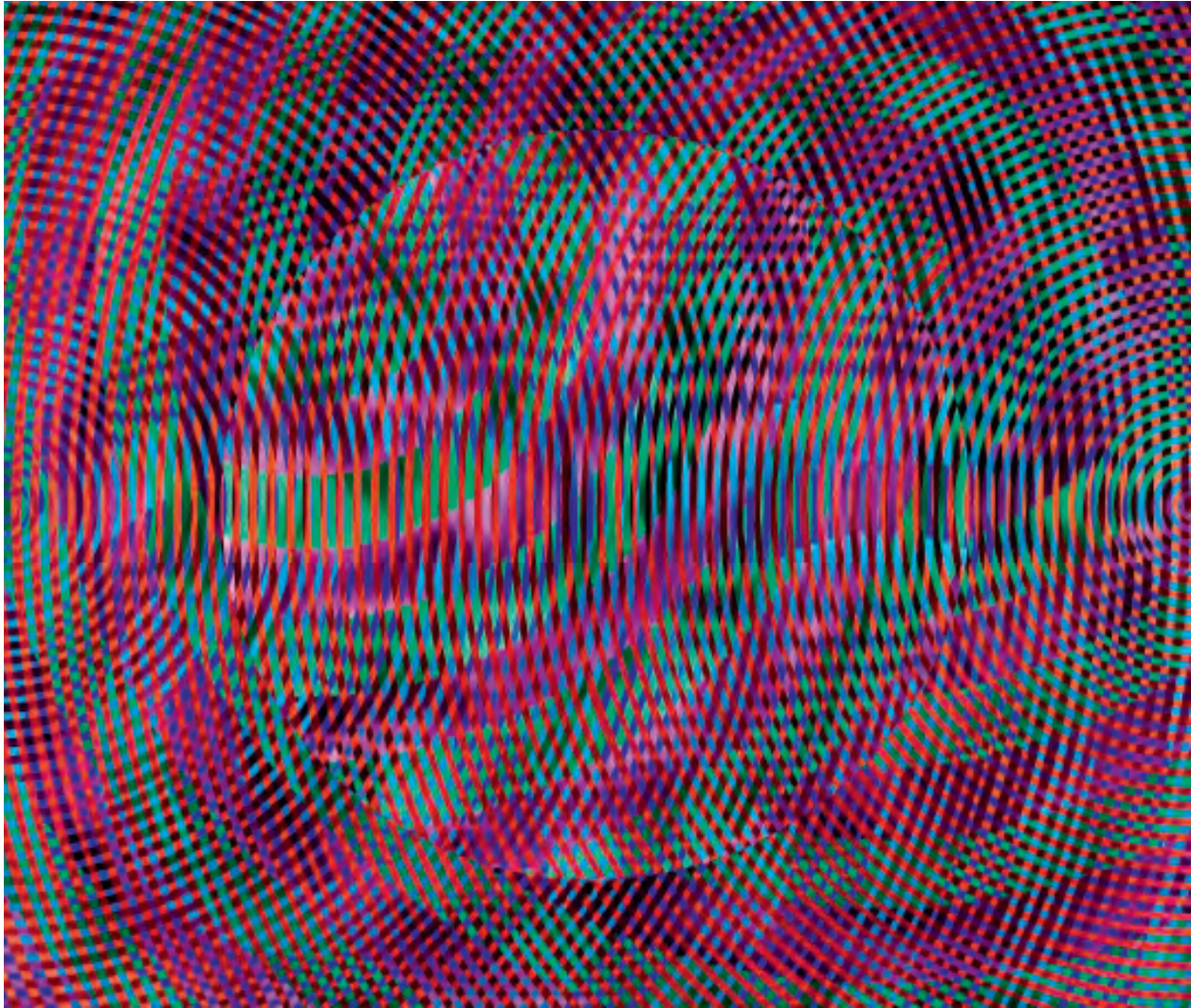
An exhibition such as this one is well suited for college venues. Campuses across America are revolutionizing curriculum to accommodate more interdisciplinary learning. A tremendous amount of research and attention is pointing toward the critical need for more integrative approaches to subject matter 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



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



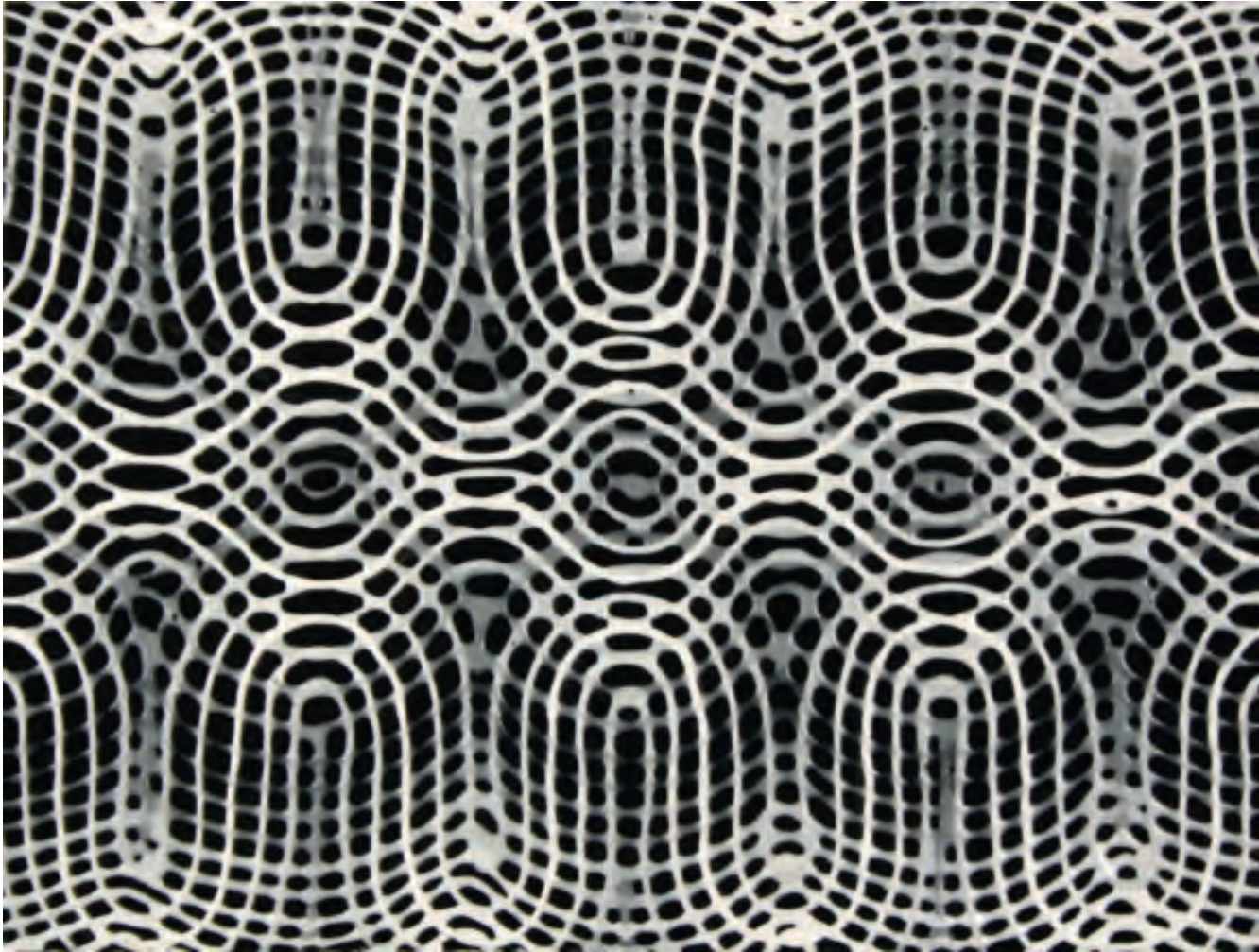
FATHOM
2003
Oil and alkyd on wood
10 x 10 x 4 inches

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

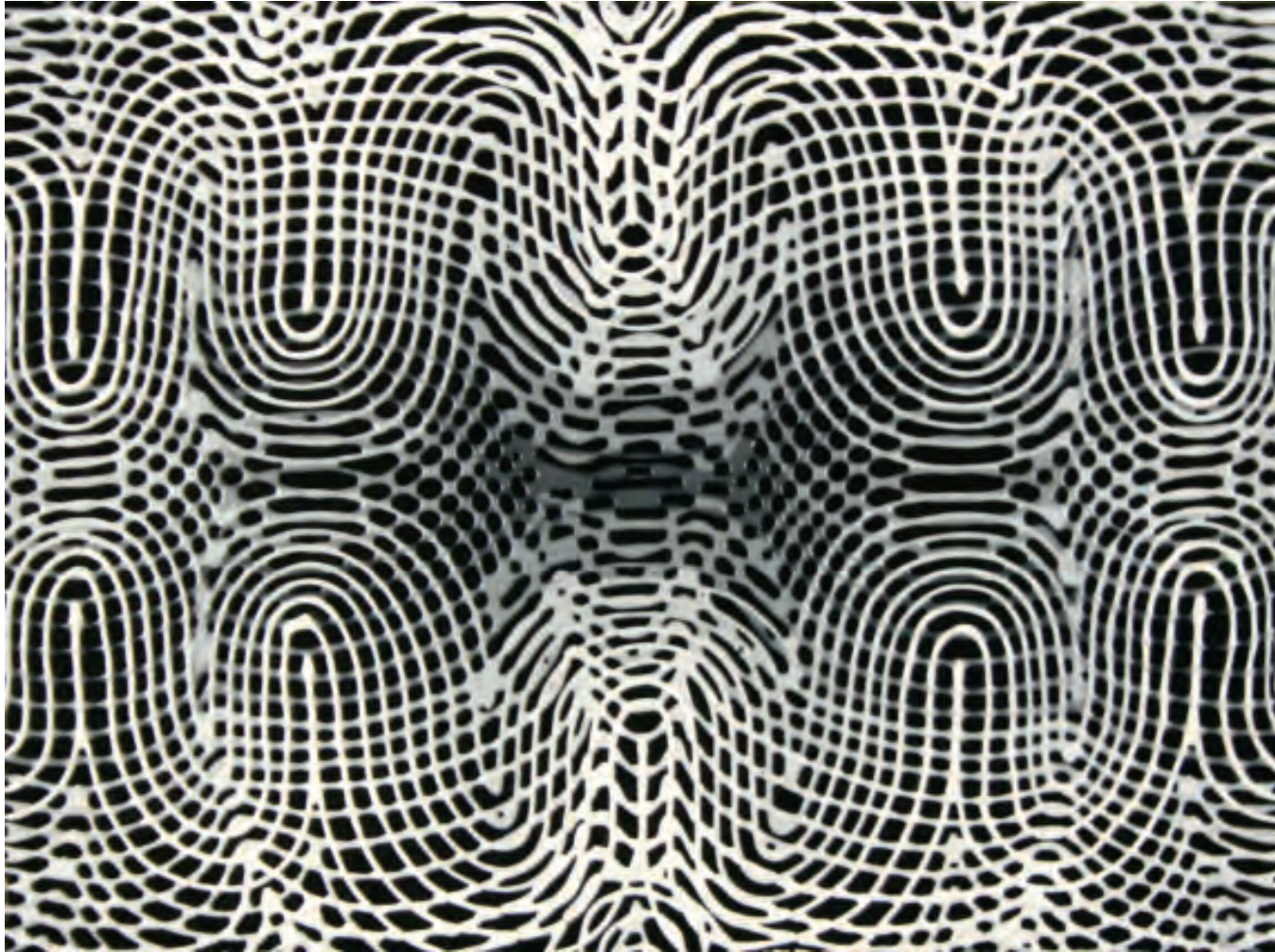
DAVID ROW

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
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

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

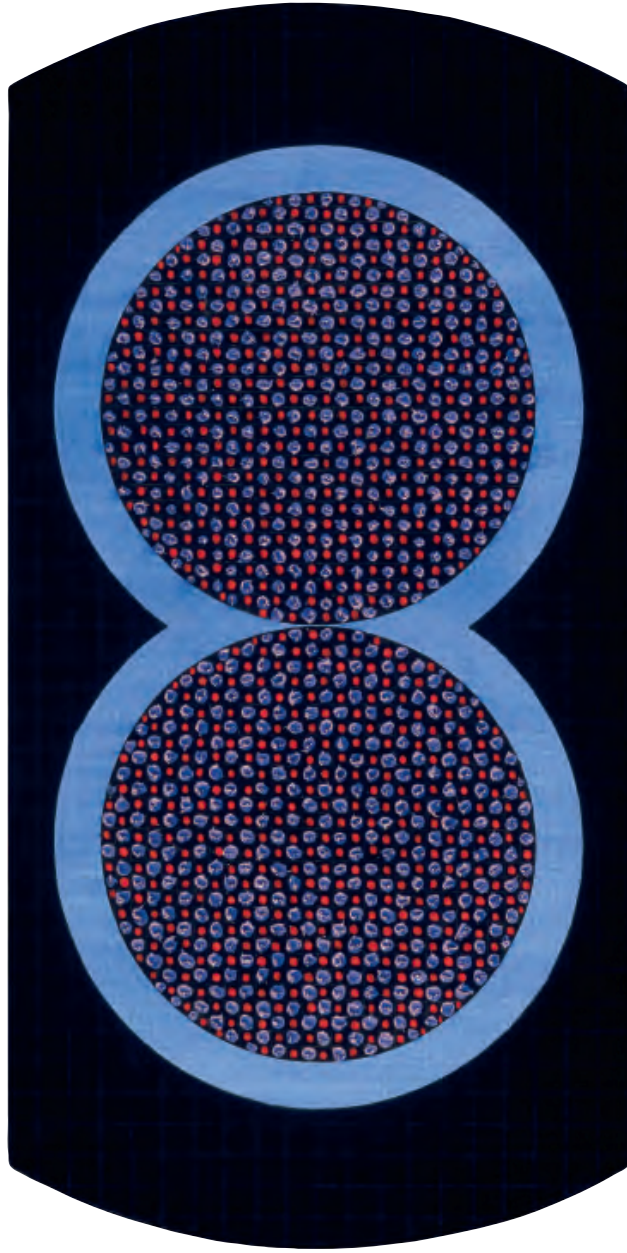
ROBERT YASUDA



MENERBE, #91409

2010

Mixed media, laboratory drawings of amygdala on mylar on paper
16 in. diameter

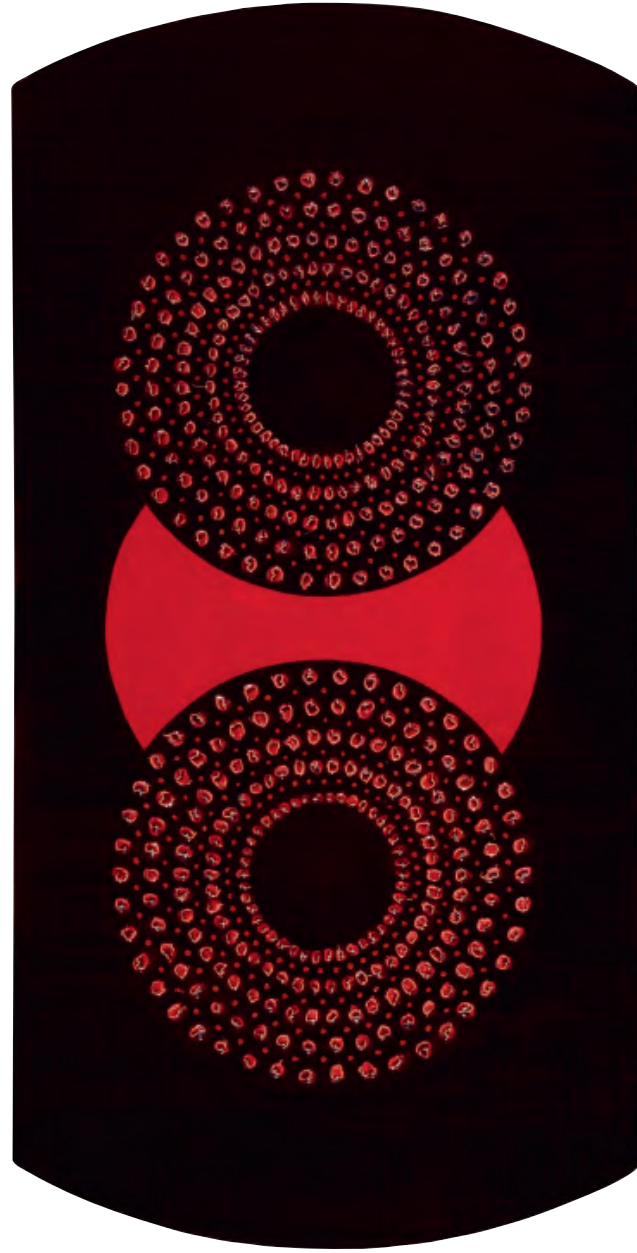


TESSELLATION 2
2011
Oil on linen
20 x 10 inches

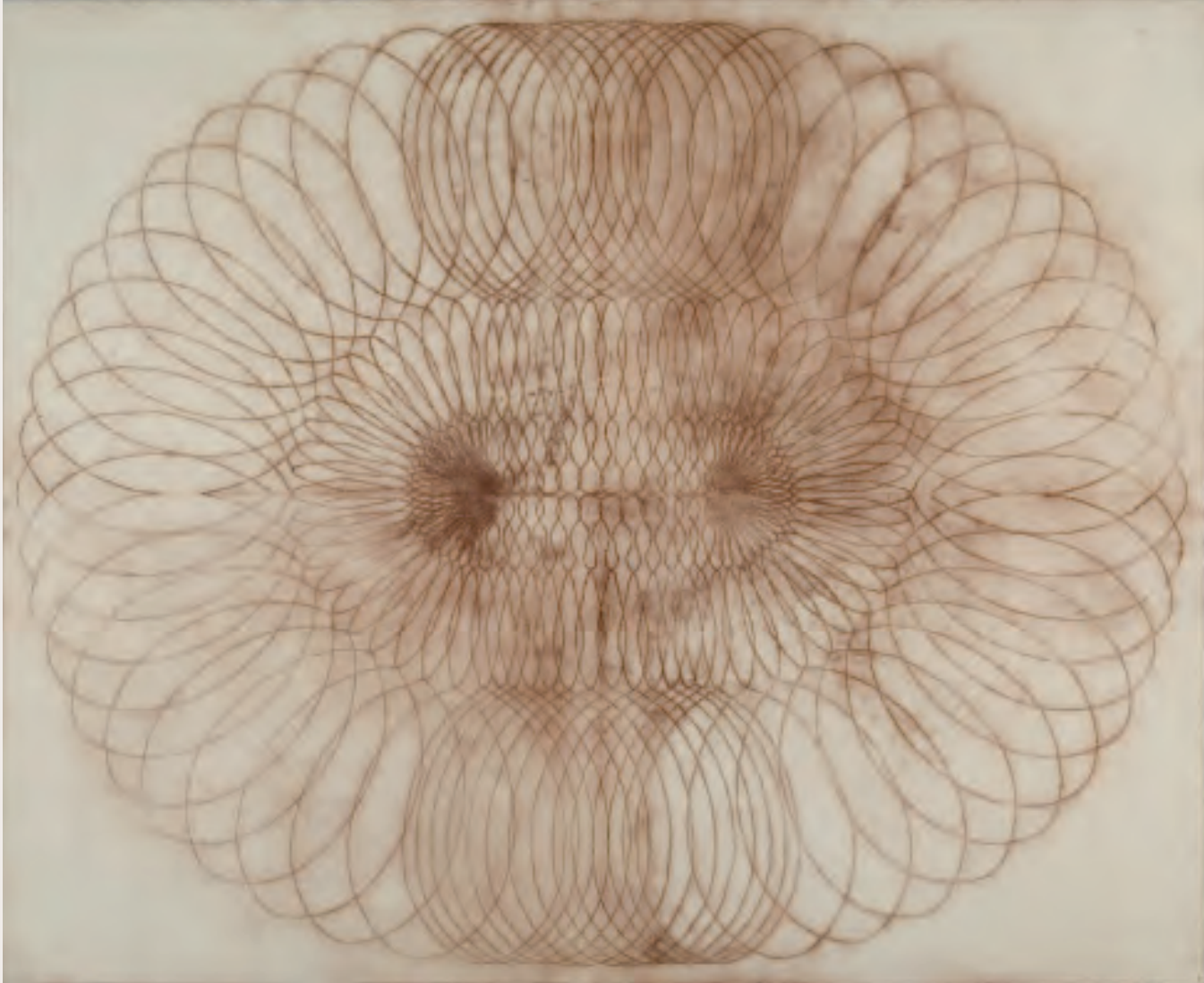
JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY

RON JANOWICH
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

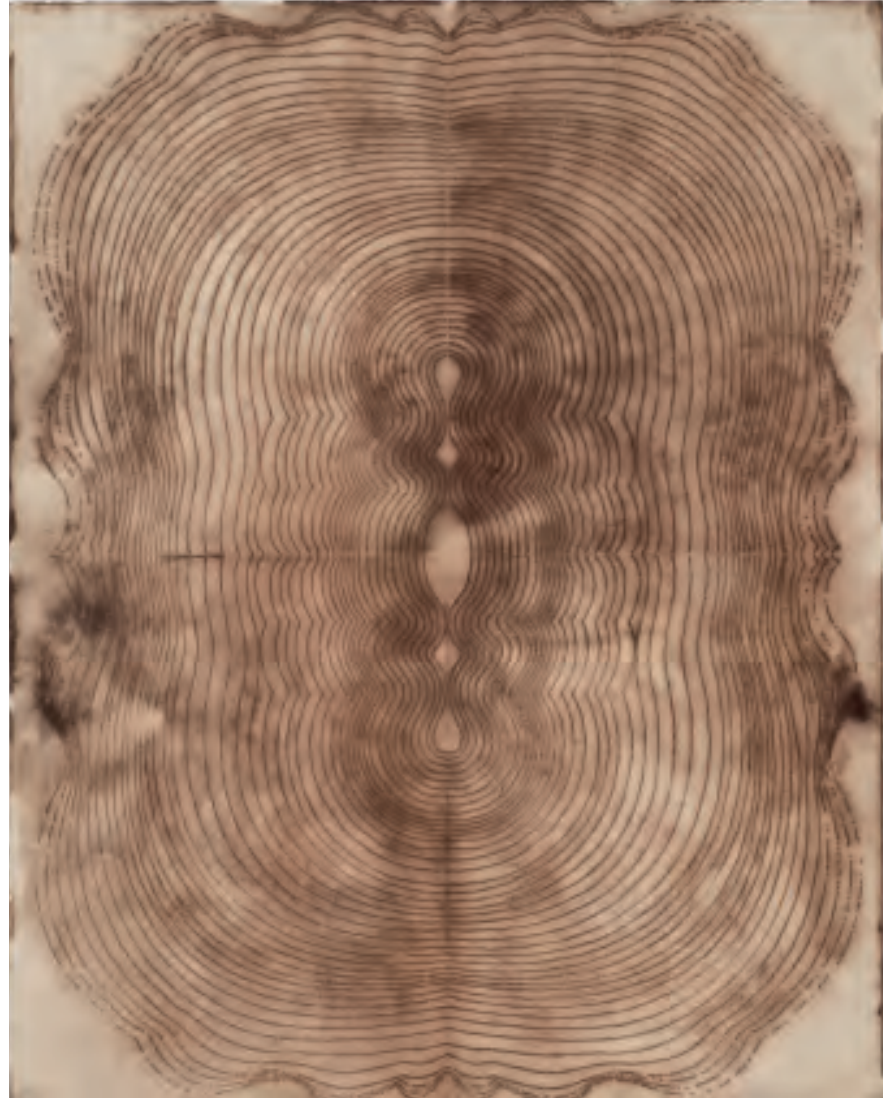
Powdered pigment on 100% rag paper

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



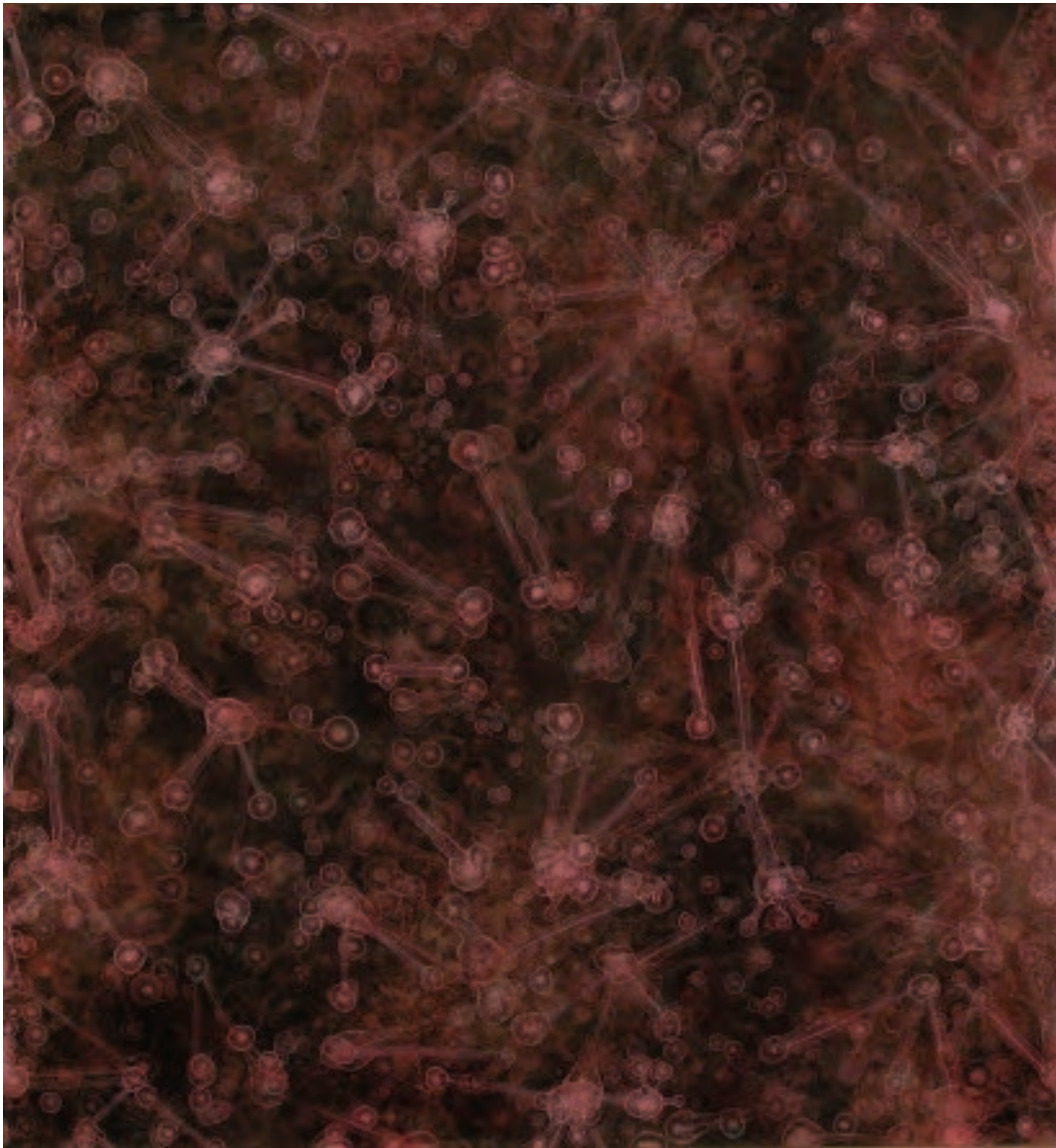
DR. HO
2010
Acrylic on canvas
41 x 27 inches

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

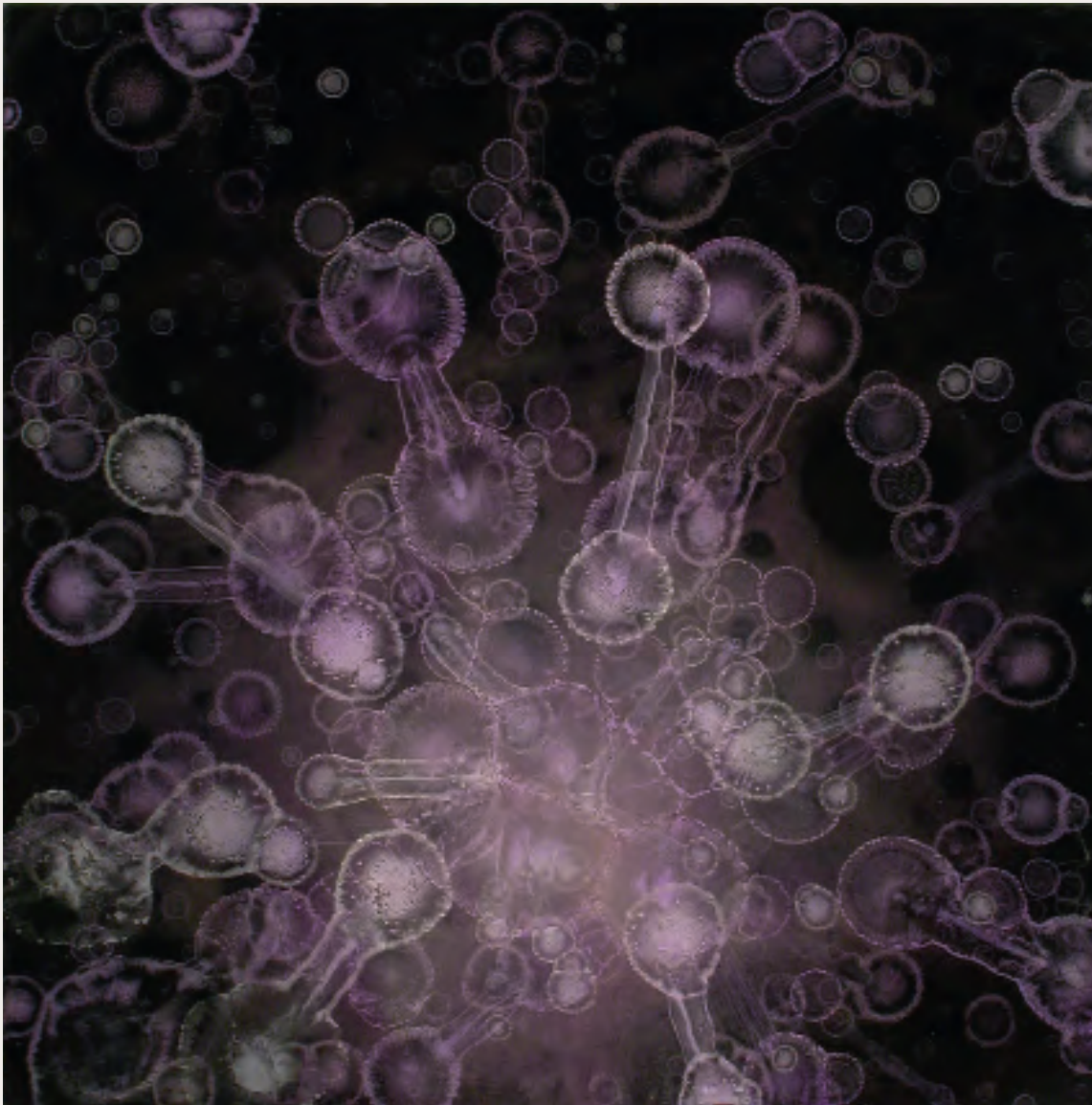
DAVID ROW

OWEN SCHUH

BARBARA TAKENAGA

JIM TOIA

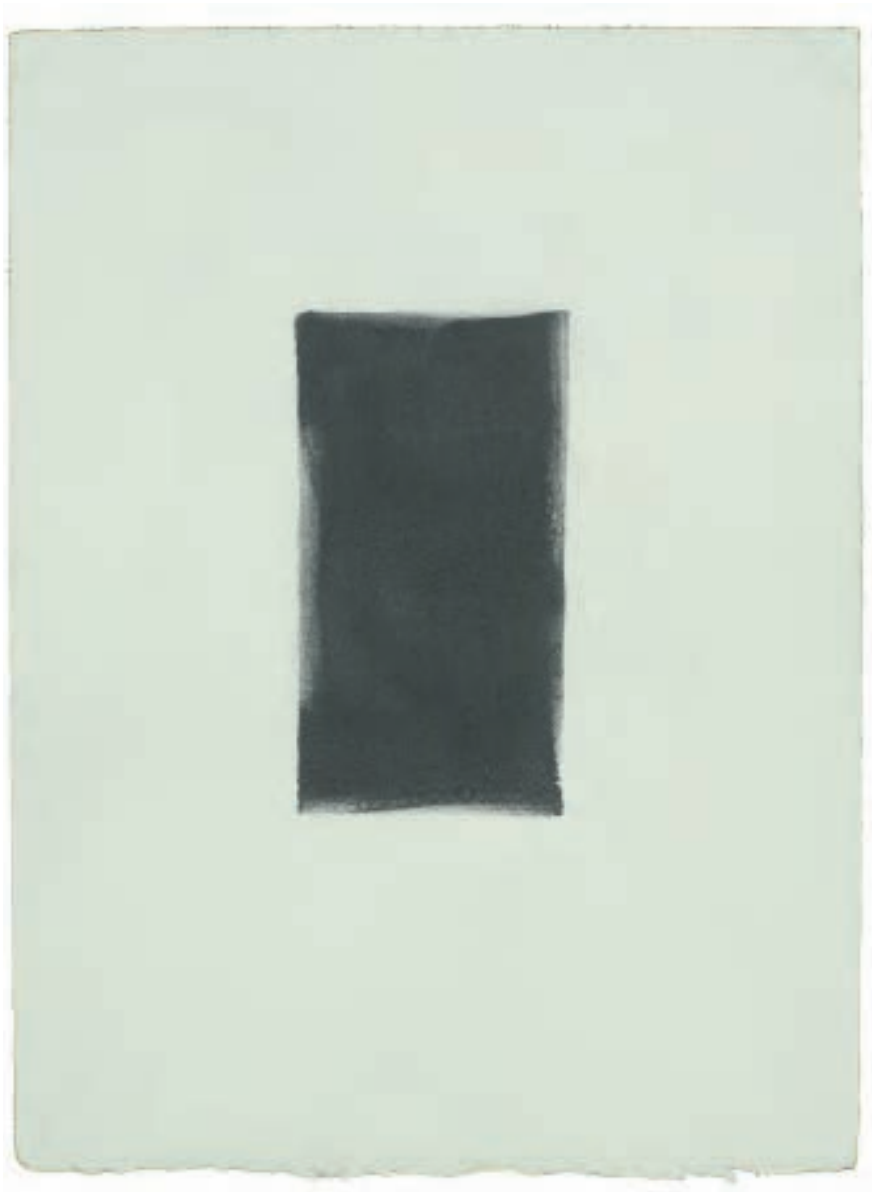
ROBERT YASUDA

**ATTRACTORS**

2012

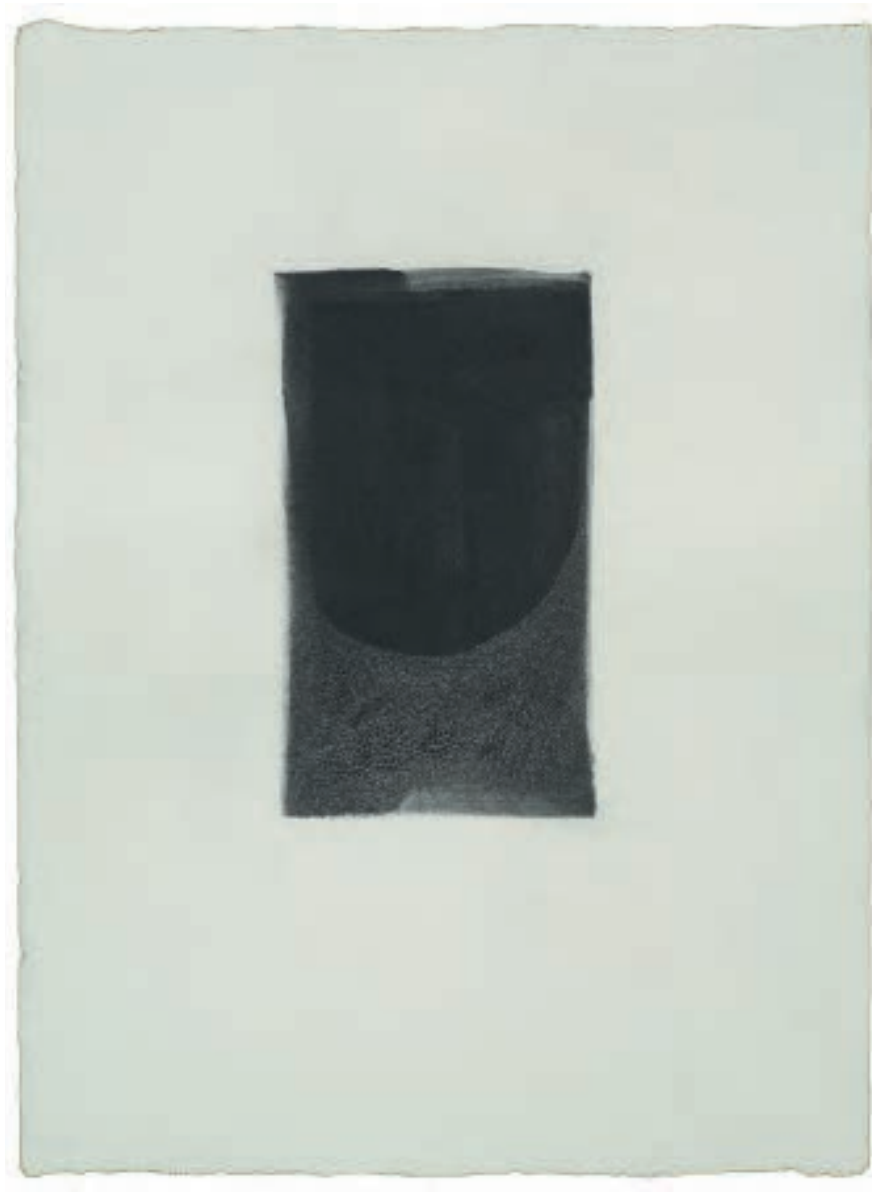
Acrylic and oil on canvas stretched over board

12 x 12 inches



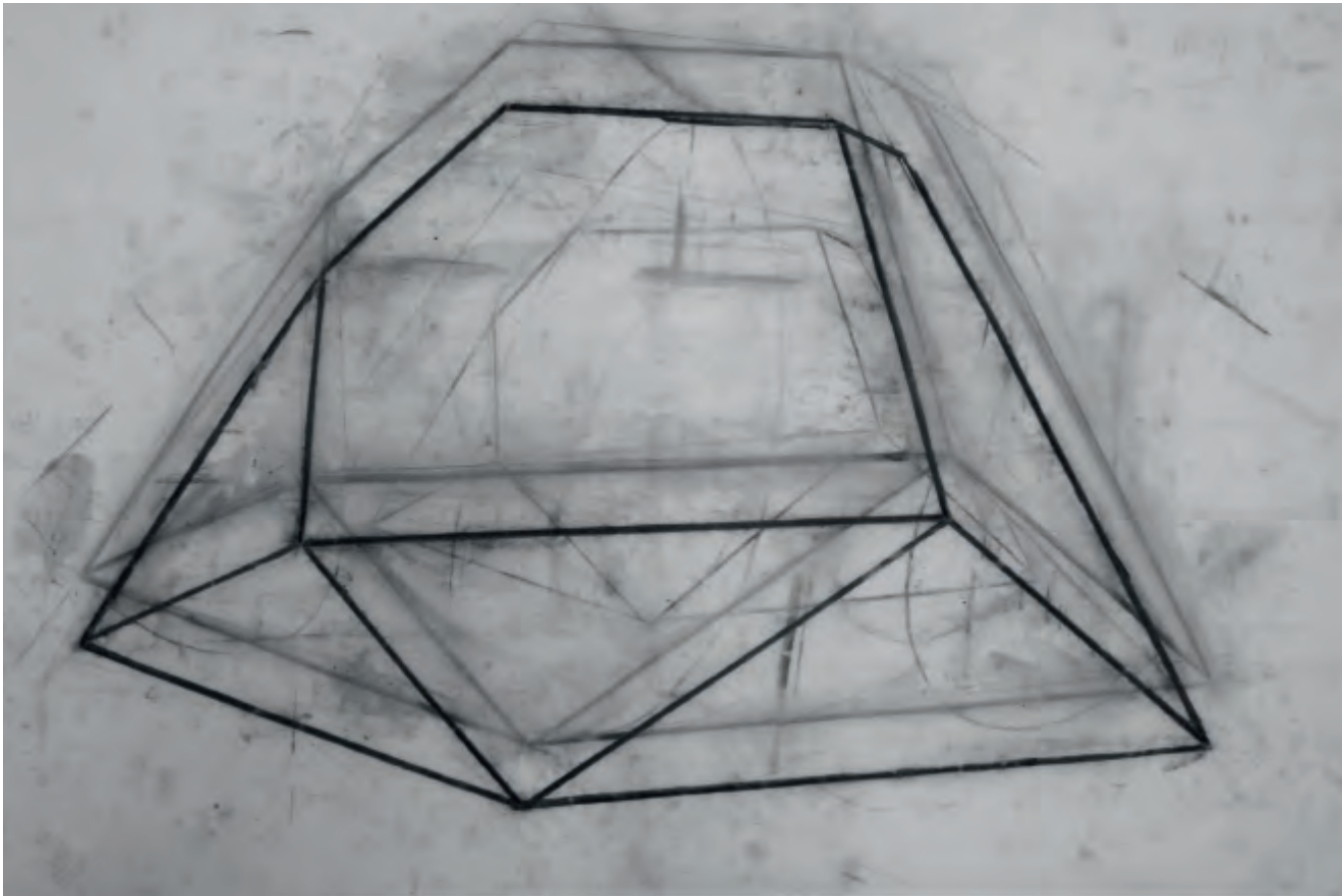
SCALED 2
2009
Graphite on paper
10 x 8 inches

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



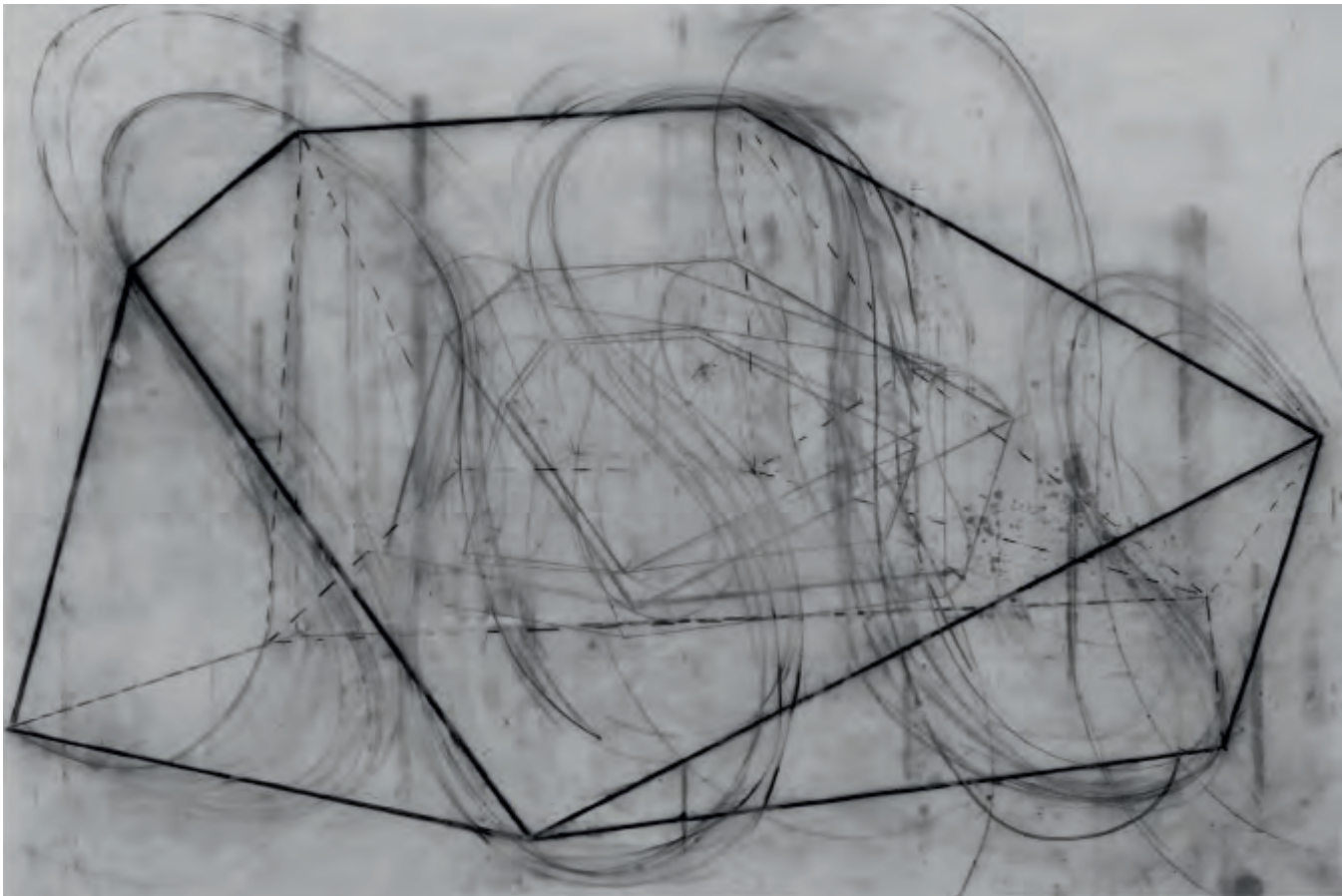
JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

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

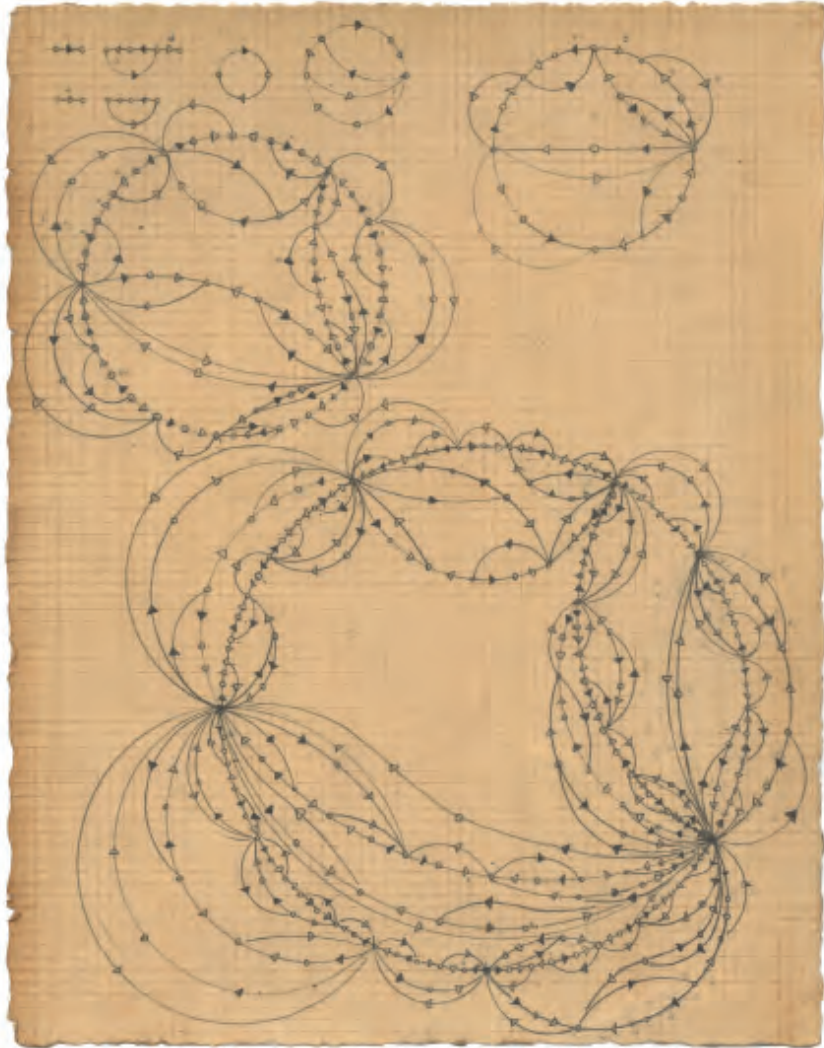




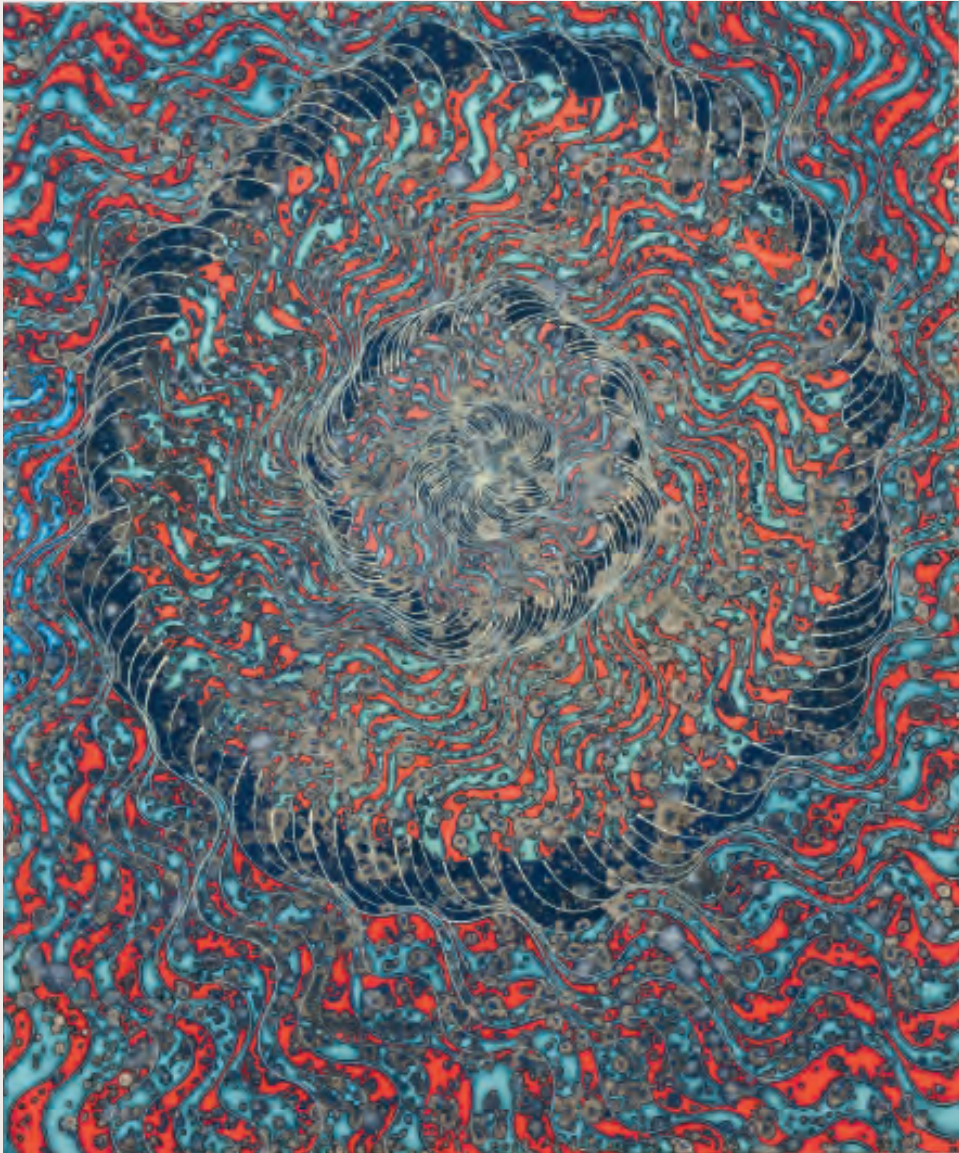
BRAMBLE
2011
Graphite and tea on paper
11 x 14 inches

JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RONJANOWICH
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

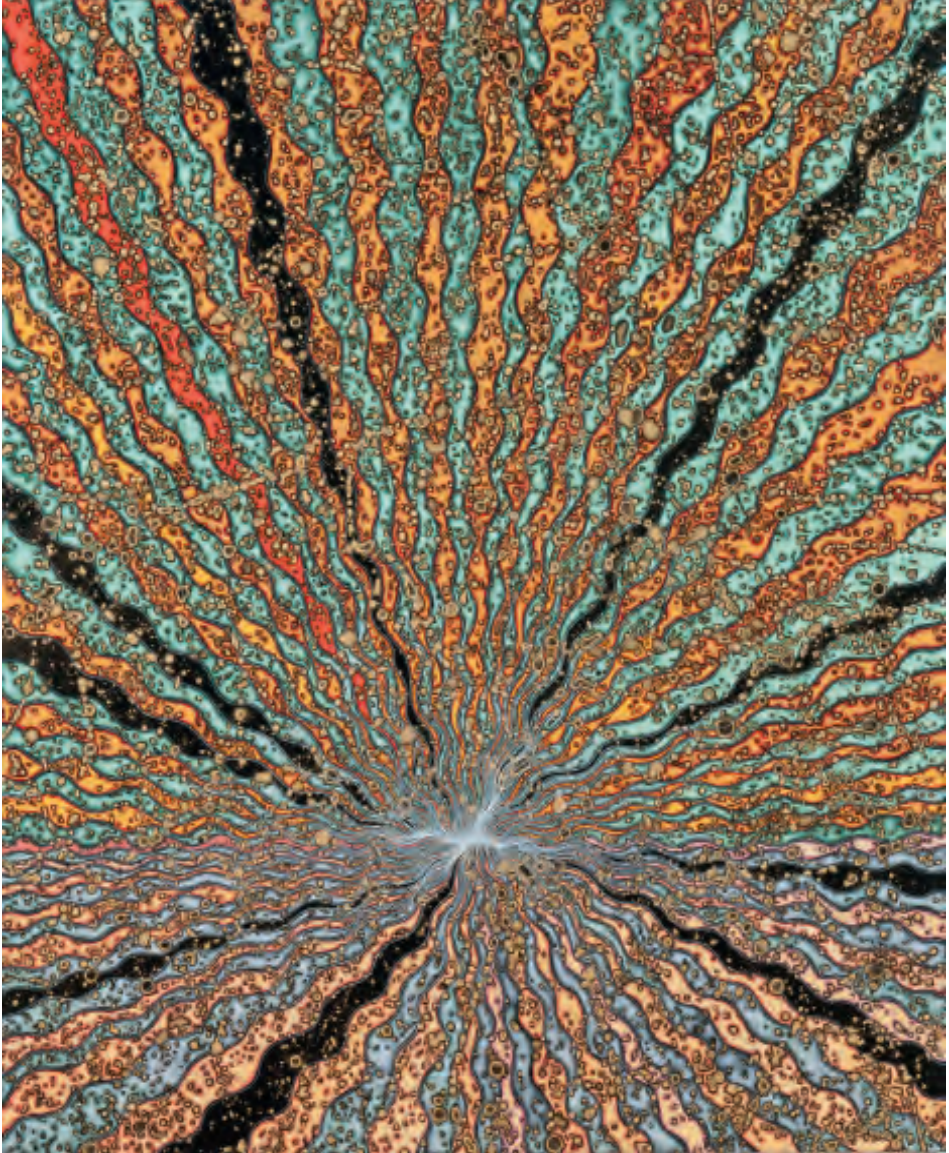
JOHN ASLANIDIS
ANGIE DRAKOPOULOS
MARY HAMBLETON
DANIEL HILL
ROBIN HILL
NENE HUMPHREY
RON JANOWICH
MARY JUDGE

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
RONJANOWICH
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.

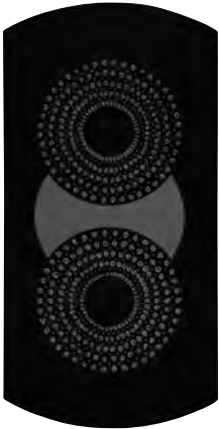
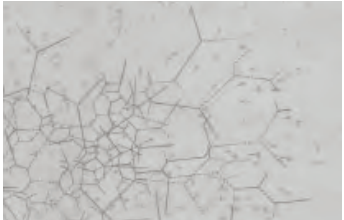
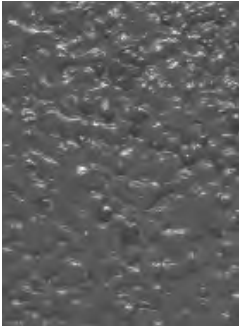
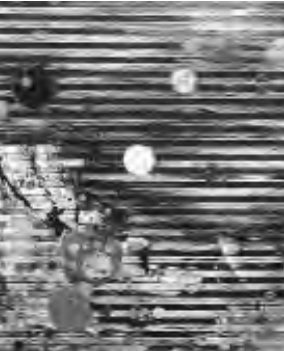
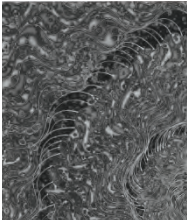
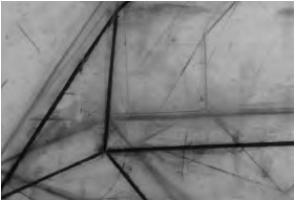
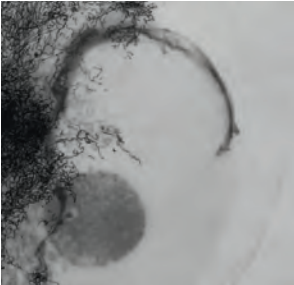
This publication is generously supported with funds from Lafayette College, MDC Freedom Tower Gallery at Miami Dade College, and University Gallery at the University of Florida in Gainesville. We thank gallery directors, Jeremy Mikolajczak, Michiko Okaya, and Amy Vigilante for their enthusiastic support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

DANIEL HILL
RON JANOWICH

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.





JOHN ASLANIDIS	www.johnaslanidis.com dr. julius (www.dr-julius.de)
ANGIE DRAKOPOULOS	www.angiedrakopoulos.com
MARY HAMBLETON	Lesley Heller Workspace (www.lesleyheller.com)
DANIEL HILL	www.danielhill.net McKenzie Fine Art (www.mckenziefineart.com)
ROBIN HILL	http://robinhill.ucdavis.edu Lennon Weinberg Inc. (www.lennonweinberg.com)
NENE HUMPHREY	www.nenehumphrey.com Lesley Heller Workspace (www.lesleyheller.com)
RON JANOWICH	www.RonJanowich.com www.Rjanowich.com Howard Scott Gallery (www.howardscottgallery.com)
MARY JUDGE	www.maryjudge.com Gallery Joe (www.galleryjoe.com) www.dieudonne.org
ED KERNS	www.lafayette.edu/about/profiles/ed-kerns/ Seraphin Galley (www.seraphin.squarespace.com/ed-kerns)
DAVID MANN	www.davidmannstudio.com McKenzie Fine Art (www.mckenziefineart.com)
KATE NICHOLS	www.katenicholsstudio.com www.tedfellows.posterous.com/this-weeks-ted-fellows-talk-kate-nichols
DAVID ROW	McClain Gallery (www.mcclaingallery.com/featured/Row.html) Von Bartha Gallery (www.vonbartha.com/artists/david-row/)
OWEN SCHUH	www.owenschuh.com
BARBARA TAKENAGA	www.barbaratakenaga.com DC Moore Gallery (www.dcmooregallery.com)
JIM TOIA	www.jimtoia.com Kim Foster Gallery (www.kimfostergallery.com)
ROBERT YASUDA	www.robertyasuda.com Sundaram Tagore Gallery (www.sundaramtagore.com)

credits

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.

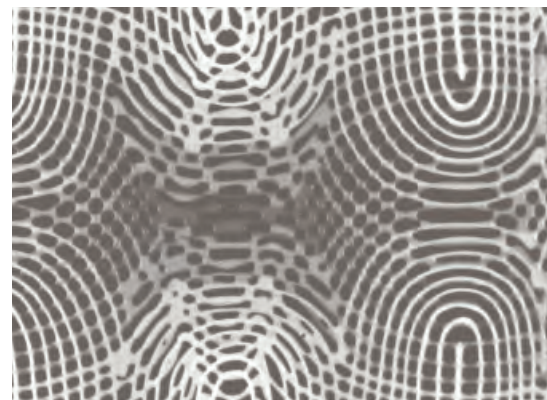
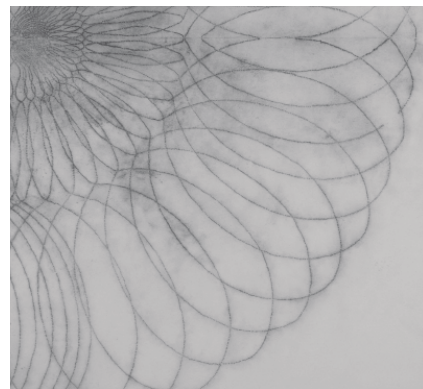
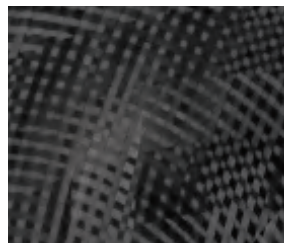
Designed by Connie Hwang Design, San Francisco
Printed by Toppan Printing, Co.

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

LAFAYETTE
ART GALLERIES

M
Miami Dade
College

UF
UNIVERSITY OF
FLORIDA





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