



Worlds Within Worlds

ANDREW ILACHINSKI
CYNTHIA PADGETT
JULIAN VOSS-ANDREAE



Sarah Tanguy, Guest Curator
October 21, 2009 – April 16, 2010
Reception November 16, 2009
5:30 - 7:30 pm
Gallery Talk & Presentations 6:00 pm

The American Center for Physics
One Physics Ellipse
College Park, MD 20740
For viewing information,
call Eva Adams at 301.209.3125

ABOVE TOP: Andrew Ilachinski, *Mystic Flame #15*, 2009, digital photograph, 18 x 24"; courtesy of the artist.
ABOVE: Cynthia Padgett, *New Birth II*, 2008, oil on canvas, 24 x 24"; courtesy of the artist; source: N180B in the Large Magellanic Cloud.
COVER: Julian Voss-Andraea, *The Cellular Structure of Space-Time*, 2009, bronze, diameter 8"; courtesy of the artist.

DIRECTIONS
To reach ACP from the Capital Beltway: Take Exit #23-MD 201 southbound (Kenilworth Ave.); follow MD 201 for about 3 miles; turn right onto River Road at light; follow signs on River Road to ACP and Physics Ellipse; will see building on left.
To reach ACP from D.C.: Follow Rhode Island Avenue northbound; turn right onto MD 410 (East-West Highway); turn left onto MD 201 (Kenilworth Ave.); turn left onto River Road at 2nd light; follow signs on River Road to ACP and Physics Ellipse; will see building on left.
Metro: College Park - U. of Md stop on the Green Line.



THE AMERICAN CENTER FOR PHYSICS
One Physics Ellipse
College Park, Maryland 20740



Worlds Within Worlds

“Where the world ceases to be the stage for personal hopes and desires, where we, as free beings, behold it in wonder, to question and to contemplate, there we enter the realm of art and science. If we trace out what we behold and experience through the language of logic, we are doing science; if we show it in forms whose interrelationships are not accessible to our conscious thought but are intuitively recognized as meaningful, we are doing art. Common to both is the devotion to something beyond the personal, removed from the arbitrary.” — Albert Einstein

The intricate play between art and science fuels the work of Andrew Ilachinski, Cynthia Padgett, and Julian Voss-Andreae. Whether zooming in on earthly matter or out to celestial bodies, they seek to interpret what lies beyond the naked eye, turning observation and research into palpable creations. Over time, the more the eye sees as details emerge and coalesce into larger wholes.



Julian Voss-Andreae, *Dad from Spin Family (Bosons and Fermions)*, 2009, series of five objects, steel and silk, largest object 7 x 6 x 6"; courtesy of the artist.

A quantum physicist and artist by training, Voss-Andreae is fascinated by the mechanisms of sub-surface reality, and how differences between classical and quantum physics affect our understanding of the universe. To reflect the particulars of an inquiry, his geometric sculptures vary in material. He often designs a virtual model on the computer, usually by writing computer algorithms that compute elements of the sculptures. During assembly, unforeseen adjustments tend to disrupt absolute accuracy adding poetry to the completed work. *The Cellular Structure of Space-Time* imagines a non-crystalline structure of space-time

using the geometry of foam, a ubiquitous natural system that comprises irregular single cells with well-defined global properties. After squeezing a group of water-filled balloons, or "foam bubbles," into a mold, he fills the gaps in between the balloons with hot wax and then pops them to produce an open network of deformed spheres. Then he makes a bronze cast, gold-plating the interior and applying a dark patina to the exterior.

Spin Family (Bosons and Fermions) playfully equates the two fundamental kinds of matter in the universe with the two human genders. Due to their difference in a quantum physical property called spin, fermions have a tendency to stay isolated whereas bosons tend to attract each other. *Spin Family* is a series of objects displaying the three-dimensional structure of the spin as it follows from the quantum mechanical description. A continuous silk thread representing the spin is woven in and out of tiny circular metal frames giving a diaphanous quality to the overall forms. The single, well-defined direction of the spin in classical physics expands in quantum physics into a continuum of possibilities.



Andrew Ilachinski, *Micro Worlds #13*, 2009, digital photograph, 18 x 24"; courtesy of the artist.

Like Voss-Andreae, Ilachinski draws analogies to Buddhism, which also supports the interconnectedness of all things with no defined beginning or end. A theoretical physicist by training, he picked up the camera at ten, and started by photographing the underside of his big toe. Over the years, his passion for photography has deepened, his aesthetic vision becoming inextricably linked to his knowledge of physics. Whether color or black and white, his photographs uncover abstract similarities in the patterns of water, fire and the landscape, though the underlying dynamics remain hidden. Often magnifying the small, his lyrical images capture the paradoxical tension between timelessness and evidence of temporal change. A sense of serene immediacy ensues, as the viewer experiences what he calls "moments of sudden stillness."

In the *Micro Worlds* portfolio, Ilachinski focuses on something as "ordinary" as trapped air bubbles in an acrylic candleholder, and in the *Mystic Flame* portfolio, the ethereal undulations of a flame. Once blown up, these isolated views suggest a wealth of metaphors, from aqueous to cosmic vistas. Parallels between the natural and the man-made animate the *Melodic Entropies* portfolio, which explores the recurring cycle of growth and decay in trees and architecture. The movement of a stream invites a striking comparison in two images from the *Tao* and *Still Life* portfolios — in one, a patch of swaying grasses seems to hover over a receding beachfront, while in the other, gentle ripples break up the reflection of branches overhead. Here as elsewhere, the effects of light and tonality are paramount to the work's emotional charge.

In Cynthia Padgett's *Nightscapes*, a complex choreography offers glimpses into the deepest reaches of the unknown. The series evolved out of her fascination with astronomy and exposure to telescopic imagery via her son's studies as a physicist.

How to interpret the wonder of infinite space continues to intrigue her. As a springboard, she edits and translates space photographs. Then guided by intuition, she crops and enlarges details, whimsically improvising on colors. She further experiments with media and supports, including oils, pastels, canvas, and handmade paper, to render the breadth of her inner musings. When looking at the finished works, the original locations, while still recognizable, have become memory carriers and metaphoric touchstones.

New Birth I, II, and III celebrate the formation of stars as they emerge from dense, gaseous clouds. In the *Milky Way* paintings, Padgett introduces mica to give sparkle to her textural build-ups. *Iris Fantasy* subtly incorporates her love of flow-ers, the subject of another body of work. Here, a flora-shaped formation occupies the lower right. Following her usual practice, she starts with a dark background and gradually adds lighter layers. In this painting, violets and purples dominate a field of swirling patterns. An overlay of pulsing white stars comes last. Throughout the series, contrasting brushstrokes lead the eye around spatial intricacies. Close up, the compositions dissolve into webs of abstract rhythms that from afar, transform once again into cohesive scenes that viewers can adapt according to their imagination.

All three artists discover sublime beauty in the mysterious realities unifying our lived experience. Their works create liminal spaces that lift the veil between here and there, and between self and others. As Ilachinski argues, the common goal is a "language of the transcendental," a reminder that we are more than independent bodies and are bound instead in a cosmic dance.



Cynthia Padgett, *Iris Fantasy*, 2007, oil on canvas, 50 x 72"; courtesy of the artist; source: Iris Nebula after astrophoto by Thomas V. Davis permission of the artist.