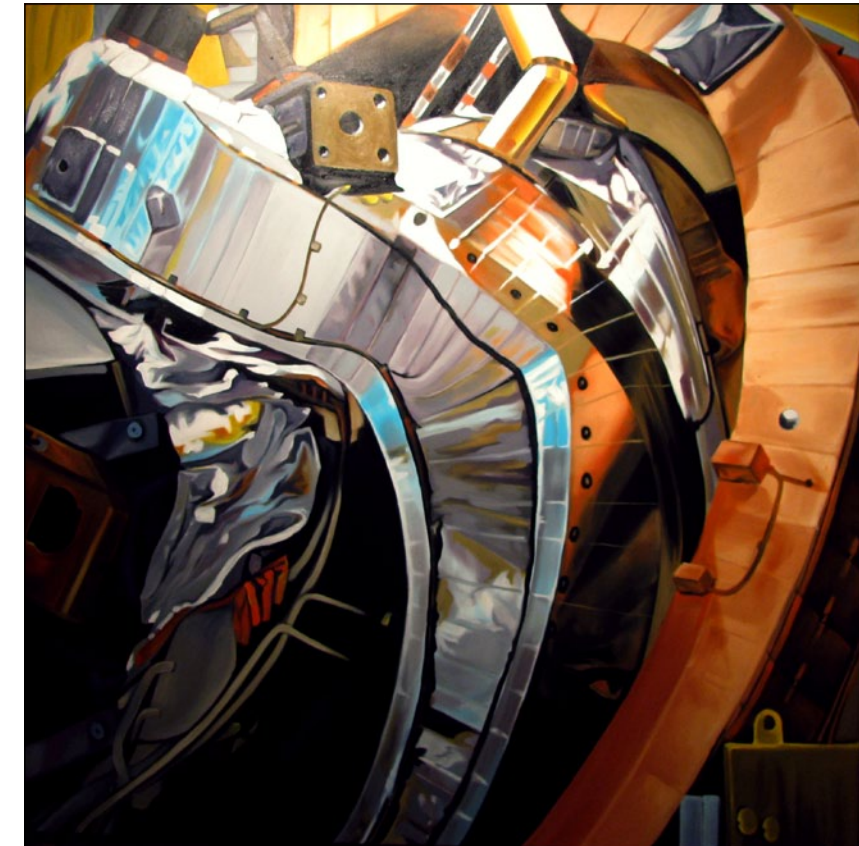


Visionary Distillations



"Imagination is more important than knowledge."
Albert Einstein



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

DIRECTIONS

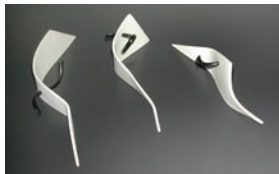
To reach ACP from the Capital Beltway: Take Exit #23-MD 201 southbound (Kenilworth Ave.); follow MD 201 for about 3 miles; turn right onto River Road at light; follow signs on River Road to ACP and Physics Ellipse; will see building on left.

To reach ACP from D.C.: Follow Rhode Island Avenue north-bound; 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.



Visionary Distillations



ROBERT CASSANOVA

KIM DYLLA

MINNA NEWMAN NATHANSON

Sarah Tanguy, Guest Curator
8 November 2010 – 29 April 2011
5:30 - 7:30 pm
Reception 8 November 2010
Gallery Talk 6:30 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: Robert Cassanova, St. Augustine Lighthouse Staircase, 1995, silver gelatin print: 16.5 x 13.5", courtesy of the artist.
ABOVE: Minna Newman Nathanson, Triplet, 2008, porcelain, plastic tubing with wire, each approx 2 x 8 x 1.5", courtesy of the artist.
COVER: Kim Dylla, Stellarator I, 2010, oil on canvas, 48 x 48", courtesy of the artist.

In the landmark book *Art & Physics*, retired surgeon and noted author, Leonard Slain argued that in hindsight, artists, with little or no cognizance of current developments in physics, often foreshadow “thought patterns of a scientific age not yet born” through their imagery and style. The reverse is equally rich in possibility—that findings of scientists and mathematicians can inspire aesthetic trends and individual practice. *Visionary Distillations* brings together the photographs of Robert Cassanova, the paintings of Kim Dylla and the sculptures of Minna Newman Nathanson. While their mediums differ, they each seek out the unexpected, and using their imagination, essentialize form to reveal fundamental patterns and connections.



Robert Cassanova, *View of Valley from Bowl*, 1996, silver gelatin print: 13.5 x 17.5", courtesy of the artist.

For Robert Cassanova, the interaction between art and science is key to transformational thinking, “the ability to leap vast intellectual distances to set a course for others to follow.” As Director of the NASA Institute for Advanced Concepts (NIAC) from 1998-2007, he spearheaded the advancement of revolutionary systems and architecture in the fields of aeronautics and space. While his love of

photography goes back to childhood, it was in graduate school that he started applying it to picturing aerodynamic principles, a potential that grew during his tenure at NIAC and is now a primary pursuit. The basic tenets of his exquisite, black-and-white photographs are order, symmetry and the flow of light and form. Taken with a medium or a large format film camera, the images are printed on silver paper in a traditional darkroom.

One arrangement focuses on natural and architectural expressions of logarithmic spirals. Otherwise known as “marvelous or miraculous,” these spirals expand geometrically and are self-similar (meaning, the size of the spiral increases but its shape is constant with each successive curve). Both *Nautilus Shell Reflection* and *St. Augustine Lighthouse Stairway* display a graceful spiraling of compartments. The latter exploits an ascending view and implies continuous expansion. A second set features sweeping vistas of sandstone stratification, including *View of Valley from Bowl*. Here a darkened sky and pronounced chiaroscuro add drama and majesty. A third grouping draws parallels between architecture and nature to underscore the phenomena of order and symmetry. In *UVA Walkway*, the narrowing colonnade echoes the receding arcs of a tree-lined lane in *Wormsloe Plantation Path*.

In Kim Dylla’s art, physics and technology go hand in hand with a sophisticated



Kim Dylla, *W-50K Shield* (detail), 2007, oil on canvas, 36 x 36", courtesy of the artist.

understanding of computer graphics and a hyperrealistic style. Having a physicist as a father predisposed her to seeing the inherent beauty in laboratory equipment and machinery and to exploring space, light, and time. With college degrees in art and computer science, she honed her artistic skills by copying old masters. Her current “machine” paintings, though void of people and narrative, celebrate human creativity and the pursuit of knowledge. Existing shapes of high-energy physics equipment and laboratories are pared down to their essential forms evoking French master Paul Cezanne’s famous idiom: “Everything in nature adheres to the cone, the cylinder, and the cube.” Any suggestion of her subjects’ intended use surrenders to the seductive interplay of light and form. Silent, cool and forceful, the machines assume new identities and suggest a layered, enigmatic reality of their own.

Dylla generates her compositions by cropping passages of zoomed-out photographs. These in turn serve as observational references to the final paintings. Up close, the exacting photorealism loosens into painterly abstraction. Reflected surfaces coalesce into blobs of color, and edges soften, becoming permeable upon occasion. In works such as *W-50K Shield*, which depicts a section of a helium refrigerator at Jefferson Lab in Newport News, Virginia, her love of graphics comes through in the incorporation of

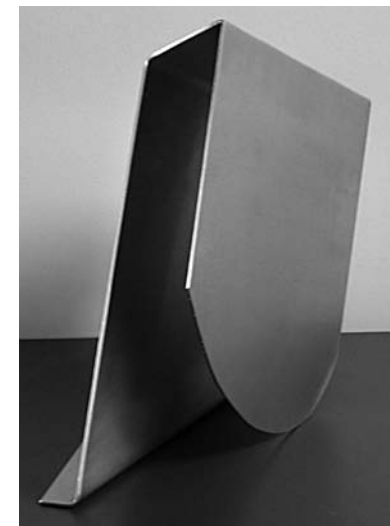
found text that drives the eye in all directions. Elsewhere, rivets punctuate at rhythmic intervals, the whole compressed within a shallow space. By contrast, *Aerodynamic*, based on an historic wind tunnel at NASA’s Langley Research Center in Hampton, Virginia, is set outdoors and offers a somewhat deeper perspective. An intricate nexus of cast shadows, repeated cylinders and verticals creates a mesmerizing arrangement. Meanwhile, a strip of azure sky strategically offsets a cool palette of pale blue, grey, and brown.

A predilection for minimalism and line characterizes Minna Newman Nathanson’s sculpture. Depending on the work, lines can be created by a fold, a reflection, or the course of wire or tubing. Regardless, they immediately bring to mind the flow of energy in its myriad manifestations, and by extension, neural pathways and those of subatomic particles. Her background in art history, museum education and graphic design have enriched her approach to making art and her search for innate beauty in essential forms and compositions. Like Cassanova and Dylla, Nathanson uses reflections, and in her plastic works, transparencies, to engender shifting perceptions as viewers move around and take in different angles. She explains: “I manipulate materials to counter viewers’ expectations of them and to evoke a fresh look at the forms and the shaping of the space in which they sit.”

Nathanson begins her metal pieces by cutting or folding paper and board into maquettes. In the grouping *Journey*, the evolving geometry and rusted surface perfectly convey the passage of time elicited by the title. When creating *Triplet*, she engaged the properties of a rolled slab of white porcelain and ended up with three curved, rather than bent shapes. A black line pierces each component, activating and shaping the intervening space. *Positive/Negative* features a pair of two clear acrylic tubes, one nesting a clear and the other, a black tubular arabesque that have been modeled by hand. Here the opposition evokes the Yin-Yang dynamic of Taoism. Her more whimsical pieces fashioned from found objects morph into creatures with distinct personalities. Though suggestive of hidden messages and human analogies, Nathanson deftly keeps the emphasis on a varied and lively visual experience.

With eloquence and grace, *Visionary Distillations* confirms the importance of staying open and the potential of imaginative thinking. Balancing reality with abstraction, the artists explore underlying form to reach a universal expression that transcends individual aesthetics and bridges cross-disciplinary interests.

“If we do not expect the unexpected, we will never find it.” - Heraclitus



Minna Newman Nathanson, *Amendment*, 2006, stainless steel, 13.5 x 14 x 6", courtesy of the artist.