

From Here to Infinity



"If the doors of perception were cleansed,
everything would appear to man as it is - infinite."
William Blake



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.



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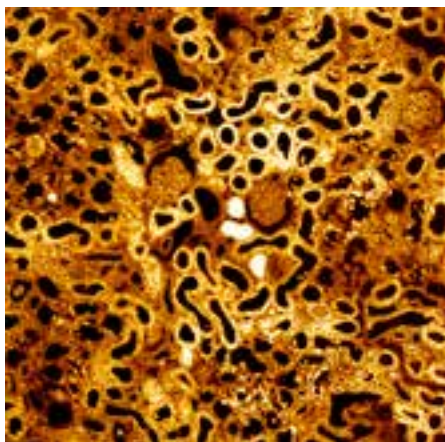
SUE VAN DER EB GREENE

JEFFREY KENT

MEDICAL IMAGING - PROFESSOR YU CHEN

Sarah Tanguy, Guest Curator
23 October 2012–19 April 2013
Reception 23 October 2012
5:30 - 7:30 pm
Gallery Talk 6:15 pm

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



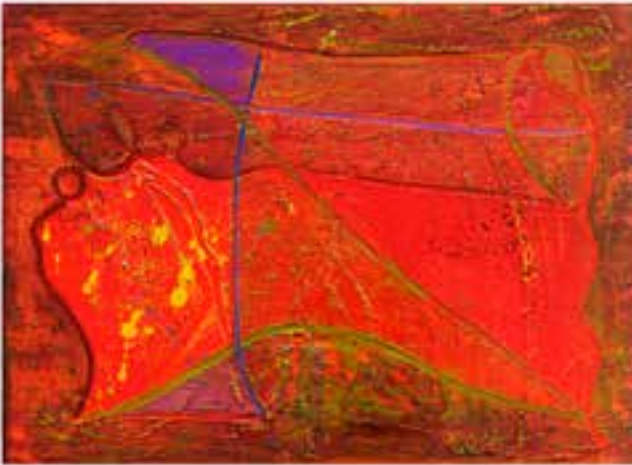
ABOVE TOP: Susan Van der Eb Greene, *Glide*, 2012, exotic veneers, 4 x 11 x 7"; courtesy of the artist.

ABOVE: Rat kidney, Dr. Hengchang Guo and Prof. Yu Chen.

COVER: Jeffrey Kent, *Hela #34*, 2011, acrylic on canvas, 84 x 50"; courtesy of the artist and Galerie Myrtis.

In an era where the virtual and the real are increasingly interchangeable, has our understanding of infinity and immortality kept pace? Jeffrey Kent, Professor Yu Chen and Susan Van der Eb Greene unlock fresh approaches to this question. At first glance, their bodies of work—Kent’s paintings based on Henrietta Lacks’ HeLa cells, Chen’s biomedical images of tissues and organs, and Greene’s sculptures informed by math and science—seem vastly apart. Yet, all three seek to harness energy and exploit the dynamic relationship between abstraction and representation. Like the receding reflection of an infinity mirror that begins with an actual object and place, their art suggests movement, real or imagined, exploring transition over time and immortality within change.

In his series *Henrietta Lacks: Transparent See*, Jeffrey Kent draws on phase-contrast microscopic imagery and the technique of cell staining. An African-American tobacco farmer who moved to Baltimore from southern Virginia in 1941, Lacks died of cervical cancer at the age of 30. The legacy of her cells, now dubbed the first “immortal” cell line,

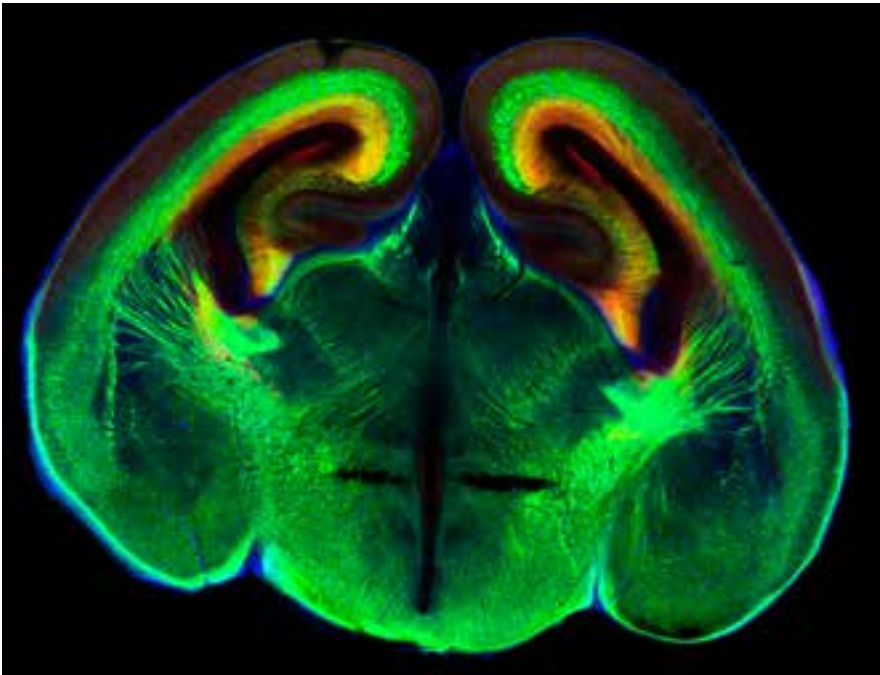


Jeffrey Kent, *Bring on the Dancing Horses*, 2011, acrylic and oil bar on canvas, 30 x 40”; courtesy of the artist and Galerie Myrtis.

lives on, however, with initial research by Dr. George Gey, a scientist at Johns Hopkins. HeLa cells have since helped in developing the polio vaccine and more recently cancer and AIDS treatments, among other medical advances. Reflecting passion and vigor, the

results of Kent's visual improvisations are stunning: richly textured surfaces and glowing, colored shapes interact with visceral, calligraphic gestures as the eye moves around the composition and uncovers layer upon layer of built-up activity.

In *HeLa No. 34*, a yellow, cellular-like unit floats above a larger green structure that gives way to a receding purple space. Up close, a shower of red dots filters downward and connects the two forms into the symbol for infinity; clusters of tiny craters emerge from a frenzy of scraped, dripped and brushed passages where the artist’s hands and colors mix directly on the canvas; and a thick, glossy finish reinforces the work’s materiality even as its transparency encourages penetration. A constellation of yellow dots furthers an imaginative journey into space. By contrast, in the blood red *Bring on the Dancing Horses*, the surface is crustier and the grooves deeper. Like its namesake, a song by Echo & the Bunnymen, the painting evokes



Mouse brain neuron, Prof. Jian Zhong and Dr. Hengchang Guo.

an apocalyptic alchemy of essential breaking down and rebuilding, an energy that is at once contained and in flux. Here as elsewhere, the micro and the macro conjoin allowing a primeval quality akin to cave art to flow seamlessly into a futuristic vision.

A physicist by training and currently Assistant Professor of the Fischell Department of Bioengineering at the University of Maryland, College Park, Dr. Yu Chen presents a collection of biomedical images from tissues and organs, using various biomedical physics imaging technologies including confocal microscopy, two-photo microscopy (TPM), optical coherence tomography (OCT), and magnetic resonance imaging (MRI). The resulting psychedelic renditions pulse in and out of a velvety black background. Dr. Hengchang Guo, Visiting Research Assistant Professor at Dr. Chen’s laboratory, provides a fluorescence image of a mouse brain taken with a confocal microscope—fluorescence is a special way to harness light, by absorbing one color and emitting another.

The mouse model was provided by Dr. Jian Zhong from the Burke Medical Research Institute. In the study of central nerve system development, Dr. Guo and Jian Zhong stained the target genes with tagging molecules that fluoresce. After preparing a coronal brain section with a microtome, Tbr1 was labeled with Alex Fluor 488 (green color) expressing in brain cortex neurons. L1 was labeled with Alex Fluor 647 (red color) expressing in brain Corpus callosum. For label-free optical imaging, Dr. Chen’s lab also developed OCT and TPM systems for the diagnosis of kidney function. The TPM image of a rat kidney shows high-resolution renal microanatomy such as tubules and glomeruli.

When Susan Van der Eb Greene retired as a research chemist with a specialty in liquid chromatography, she rekindled her childhood interest in art. In making sculptures and furniture, she found parallels between the two practices: problem solving, hands-on work, 3-D visualization, and above all, seeing underlying patterns and relationships. Fractals and topological surfaces, as well as affinities with Eastern philosophy, have provided inspiration. Rather than write logarithms as a foundation for her work, she seeks “to present the essence of a form found in nature and remind the viewer of those shapes found in the cosmos.” Early wood carvings, including the mahogany *Genus 2 Manifold* and the bass wood *Mobius 1*, reveal a topological form inside a single block of wood and encourage hyperseeing, an all-round viewing from multiple, non-preferential perspectives.

Virtual movement actualizes in *Dance of Life*, a sculpture that responds to wind current. To suggest the Hindu God Shiva’s cosmic dance in a ring of fire, Greene turned the spiral of a DNA strand into three segments of aluminum flashing, which she folded origami-style and attached to a cherry frame. She then mounted the frame onto a base with a ball bearing. Her more recent work explores exotic veneers and lamination, yielding unforeseen developments. *Glide* makes use of vacuum veneering, a technique that guarantees a uniform bond, and a compound curve, a curve composed of two or more circular arcs of successively shorter or longer radii, joined tangentially without reversal of curvature. The smooth transitions and fluid appearance of the sculpture’s interconnected sections belie intensive labor. Visually

enigmatic, the work achieves a dynamic tension between balance and motion.



Susan Van der Eb Greene, *Dance of Life*, 2004, cherry and aluminum, 11 x 9 x 3”; courtesy of the artist.

As *From Here to Infinity* attests, Ascientists and artists alike can now take part in interpreting images made possible by new technologies. Even the general public has online access to electron micrographs and images of outer space, making them familiar and commonplace. Though their applications differ, Kent, Chen and Greene share a thrill of discovery and a quest to channel energy. By probing the structural beauty hidden in plain sight, they reveal as Greene points out, “an awareness

of the infinite and eternal in the finite.”