Mitosis: Formation of Daughter Cells
A.M. Hoch

January 6 - February 14

This new work, commissioned by the Beall Center for Art and Technology, continues our series of innovative and provocative mergers of technology and artistic creation. New York artist A.M. Hoch, working with renowned actors Wallace Shawn and Deborah Eisenberg, and digital media architects dotsperinch, has created a habitable cinema – an installation linking images, objects, sound and space to create a deeply personal interactive environment.

Step inside and enter a surreal bedroom where a family drama unfolds. Scattered everywhere are the contents of the room, all seemingly suspended in the midst of activity. Move a little closer and the intimate domestic setting comes to life. Digital images and sounds are embedded in the furnishings, including three talking dresser drawers that offer a revealing family conversation, where intense dynamics and struggles for individuality are exposed.

What is a biological family?
What is memory?
How does the brain process the body’s experience?
How does the body experience the presence of our spirit?
How do the intellect and emotions influence our interpretation of reality?
Why is memory so illusive?
What is the relationship of “illness” to behavior and to the interpretation of that behavior by others?

These are only some of the questions raised by Mitosis: Formation of Daughter Cells. This piece takes on some of the most progressive concepts in the study of both the brain and family development, and imbues it with a visceral and mysterious aura. “Mitosis” reveals itself in stages, like an archeological dig, requiring us to observe, to question, and to speculate.

Eleanore Stewart
Director, Beall Center
Artist's note about the installation:
The dialogue expressed by the three talking drawers was adapted from a transcript of an actual family therapy session in R.D. Laing’s *Sanity, Madness, and the Family*. The adapted script (approximately 12 minutes in length) was interpreted and performed by three actors in three different ways, though the words remain identical each time.

Motion sensors have been discretely placed in three different places within the space. When you unknowingly approach one of them, you trigger a different version of the script to be heard. The transition is seamless in that the character speaking when you trip the sensor will finish speaking their passage without any change occurring. However, the next voice that speaks will reflect the change—a different tone of voice and emotion, as well as a difference in background acoustic sounds—revealing an entirely different family dynamic and emotional truth.

CREDITS
Original audio and video compositions and designs by Mark Shepard. Technology concept, design and implementation by Mark Shepard, Fiona Murphy and Carlos Tejada of the New York based digital media cooperative dotsperinch. dotsperinch recently received a Peabody Award for their work on the Sonic Memorial Project, an online narrative tribute to the World Trade Center.
Voices performed by: Wallace Shawn, Deborah Eisenberg, Andrea Schell, Wendy Walker, Amo Gulinello
Video performances by: Francine Dreyfus, Brigid McInnes Connelly
Sound recording by primal digital, LLC
Thanks to Sealed Air Corporation for their generous contribution of materials.
Special thanks to: David Aeppli and display, Robbie Miller and the Santa Ana Seven, and Peter Codella.
Very special thanks to Sarah Kornfeld, for her unflagging support and passionate commitment to innovation in art and technology.
10-10
Cross section of the tip of an onion root. This is the area of the root where cells increase in number, and several shown here are in mitosis.
A Conversation on the Creation of Mitosis
by A.M. Hoch and Mark Shepard (dotsperinch)

A.M.: “Though I wrote the script and outline for the basic structure of this installation a number of years ago, I knew that many of the details of its construction and technology could not be determined until a specific site was found. When, to my great joy, I learned that the Beall Center was interested in exhibiting the piece, I realized suddenly all kinds of questions and specifics had to be addressed. It became essential for me to find technology experts with whom I could easily communicate and who were willing to create a technology that supported the emotional core of the piece, rather than just wanting to use technology for technology’s sake.

As I consider myself first and foremost a painter, I wanted to be sure that the visceral, mysterious power of paint and the other physical materials used in this installation would in no way become secondary to the audio and video elements. It was crucial to me that this piece begins and ends as a painting: albeit, a talking painting.

When I first approached Mark Shepard of dotsperinch to collaborate with me on the digital aspects of Mitosis, I was immediately struck by the intuitive way he responded to the concept. Here was an architect and technologist who seemed to think and feel like a painter, no translation was necessary. Our mutual desire to explore and develop a new kind of relationship between film, architecture, and painting, in which the viewer plays an active rather than passive role was thrilling to discover. Ultimately, the life and heart with which dotsperinch imbued the technical components of Mitosis is as fascinating and compelling to me as I hope it is for the viewer.

The idea of using motion sensors to trigger three different versions of the same family conversation grew out of the central notion of the piece: a meditation on the multitude of perspectives, often conflicting, of a single family’s history. The viewer’s unwitting interaction with the family’s dynamic—the viewer’s possible doubts and questions about what they are hearing—concretizes the ultimate mystery of human memory. Though I wasn’t aware of it until the piece was finished, the other audio elements I had chosen to interweave with the family’s dialogue—the whispering undercurrent of the Rumi text and the female narration of the mitotic process—concretize the ever-presence of spiritual truth and the immutable laws of nature in the midst of human discord, doubt, and deceit.

My decision to keep the video components of the installation hidden and “marginal” (e.g., running along the outer baseboard of the scenerio) was initially a visual one, in order to avoid a visual cacophony with the painterly and sculptural aspects. But later I realized that the video components function as portals into the unconscious—that is, much-needed escape hatches—from the dissonance of this family’s struggle.”

M.S.: “When Amy first came to me speaking of drawers talking, and expressing the conflict a family relates to its memory, I was immediately intrigued. I thought that her vision of creating a world that explored the mind, body and spirit of a family, which was to be manifested in sculpture, video, digital technologies, and audio was a wonderful challenge to create. Collaborating with an artist like Amy involves getting the various elements of the work to flow together: to build into the work an infrastructure that enables the piece to live. As we continued to work together, I found my role to be that of creating a habitable cinema of sorts – to support the experience of this “family” through simple and complex uses of technology. In this work the technology is threaded across multiple physical and virtual domains: midi sequencing software controlling embedded microchips that open and close the drawers embedded within the wall, proximity sensors providing real-time feedback from the physical space modulating the tone and character of the speaking voices. The challenge was to create a hidden electronic infrastructure that rendered the narrative arc of the work through a seamless experience of its disparate parts. For me, this piece is successful because it renders a complex story in very palpable terms, through the careful and considered integration of elements of painting, sculpture and digital technologies.”
The Beall Center for Art and Technology, Irvine, California
presents

MITOSIS: FORMATION OF DAUGHTER CELLS
Amy Hotch, Artist

A multimedia installation in collaboration with
Wallace Shawn, Deborah Eisenberg and Mark Shepard

Mitosis:
The series of changes in cell division by which the chromatin of the nucleus is modified into a double set of chromosomes that splits longitudinally, one set going to each nuclear pole of the spindle before final division into two fully mature daughter cells.

Family:
A succession of persons connected by blood, name, etc.; a house.*
* Source: Webster's Dictionary

PROJECT DESCRIPTION

Using digital technology, sculpture and painting, New York artist A.M. Hotch will create a habitable cinema, linking images, sound and space to an intimate sense of place. Mitosis: Formation of Daughter Cells uses the coded, cellular memory of a family to explore the hidden mechanisms — both biological and social — that shape us. Mitosis, the process by which the chromosomes in the cell’s nucleus divide and replicate, provides a vivid metaphor for the elemental struggle for individuation within the nuclear family. Working with Wallace Shawn, one of America’s most original playwrights and performers; Deborah Eisenberg, writer and winner of four O’Henry awards; and Peabody Award–winning digital media architects dotsperinch, A.M. Hotch creates a new theatre of memory—a multimedia environment where biology, personal history and genetics converge.

- The characters in this piece appear in the form of drawers, which open and close automatically; each drawer, representing one of the three family members, conceals a small speaker. When a drawer is opened, a voice emanates; when it is closed, it is silenced. The dialogue—adapted from R.D. Laing’s, Sanity, Madness and the Family, biology textbooks and the poetry of the thirteenth-century Sufi poet Rumi—will be composed rhythmically: certain passages will be repeated, some voices may occur on top of one another, and a simple melody or percussion is woven in and out.

- The drawers are digitally programmed to open and shut in a specific order, triggered by sensors responding to the presence of viewers in the room—a dramatic enactment of the relativity of all living systems, be they
psychological, biological, or mathematical. The perception of reality is a mutable, mysterious phenomenon, entirely dependent on whomever is in the room.

- Around the parameter of the 43 x 59 ft. space, like a kind of living baseboard, is a video projection of human cells in culture under a microscope in the process of mitosis—creating a biological subtext or subtitles for the drama occurring in the center of the room. For this aspect of the piece, we will be using video production software, display software and digital projectors.

- In the center of the cavernous space, under a bright circle of light—as if under a microscope—the contents of a bedroom are in a jumble. Something has just happened, though we don’t know what. A bed—frame, box spring, mattress—have been splayed open and tossed about. The layers of the box spring have been cut open, revealing layers and textures that are remarkably cellular in appearance: one of the stages of cellular mitosis is painted on the compressed-fiber ticking. Tiny monitors embedded within the bed posts and pillow display video loops of cellular mitosis; a hand writing; a girl primping in a mirror, etc. The entire chaotic scene is framed by three free-standing sculptural walls.

**Biographies:**

**A. M. Hotch**

A.M. Hotch has had numerous solo shows in the United States and Europe, including multimedia installations at the Alice Austen House Museum, Staten Island, NY and the Kunsthaus Tacheles, Berlin, Germany; solo painting exhibitions at Deutsches Haus, Columbia University, NYC, and LaMama Gallery, New York City.

Holland Cotter of the New York Times praised her 2002 installation at The Alice Austen House: “Best of all, though, is Amy Hotch’s indoor work at the Alice Austen House….Ms. Hotch’s tender, spirit-summoning work consist[s] mostly of nearly inconspicuous video installations. Look through a keyhole and you see figures climbing stairs or moving about a room; at the bottom of a sugar bowl two women in 18th-century gowns sip tea….In the parlor, waves of harbor water splash across the walls, turning Austen’s house…into a piece of living sculpture where outside and inside are one.”

Ms. Hotch has received various grants throughout her career, including an artist-in-residency from Altos De Chavon, in the Dominican Republic in 1987; a project grant for a multimedia installation at Tacheles from the State Senate in Berlin, Germany in 1995; and a Gottlieb Grant in 1999. She was an artist in residence at the Newhouse Center for Contemporary Art, Snug Harbor Museum, New York in June 2001.
Wallace Shawn
Known as one of America’s most original playwrights, whose plays have been performed in the most distinguished theatres in Europe, Wallace Shawn may be best known for his acting work in numerous films, including *The Princess Bride, My Dinner with André* and several Woody Allen pictures. Educated at Harvard, Shawn then spent a year teaching in India before going to study at Oxford, where he wrote his first play, *Four Meals in May*, for a local dramatic competition. He has written four major plays since 1980, including *Marie and Bruce, Aunt Dan and Lemon, The Designated Mourner* and *The Fever*, which was praised by the *New York Times Book Review* for its “fine sense of comedy and lyrically precise prose.”

Deborah Eisenberg
Deborah Eisenberg has been described by the Washington Post as “a writer of considerable talent—she has wit, deftness and grace and is a zany hybrid, equal parts of Jean Rhys and Dorothy Parker.” Her fiercely funny prose distinguishes her two previous short story collections, *Transactions in a Foreign Currency* and *Under the 82nd Airborne*, as well as her play *Pastorale* and the numerous pieces she has contributed to the *New Yorker* and the *Yale Review*. Her stories most often use first-person narratives to satirically re-chart the mundane movements of daily life and to respond to a host of timely social issues with an edgy brand of humor. Eisenberg, currently a professor of creative writing at the University of Virginia, has received a Whiting Writer’s Award, a Guggenheim Fellowship and two O’Henry Awards.

Mark Shepard
Mark Shepard is an artist, architect and researcher whose post-disciplinary practice addresses new social spaces and signifying structures of contemporary network cultures. Mark received an MS in Advanced Architectural Design from Columbia University; an MFA in Combined Media from Hunter College, City University of New York; and a BArch from Cornell University. He is an Associate Professor at the University at Buffalo, State University of New York, where he holds a joint appointment in the departments of Architecture and Media Study and directs the Media Arts and Architecture Program (MAAP). He was a visiting researcher with the Network Architecture Lab at Studio-X, a studio for experimental design and research run by the Graduate School of Architecture, Planning and Preservation of Columbia University, and a fellow at Eyebeam Art + Technology Center in New York.
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BEDROOMS TALK, CELLS DIVIDE AND ART EMERGES
IN NEW UCI COMMISSIONED INSTALLATION

Beall Center Debuts Experimental Work by Established New York Artist

Irvine, Calif., Dec. 19, 2003 — Step inside UC Irvine's Beall Center for Art and Technology and you may feel right at home. At first glance the exhibition space has all the trappings of a dreamy, domestic interior. But move a little closer and the intimate bedroom setting literally springs to life.

Digital images and sounds are imbedded in the room's furnishings including three talking dresser drawers that reveal a private family conversation.

By combining traditional and experimental media, New York artist A.M. Hoch links images, sound and space to create "Mitosis: Formation of Daughter Cells." The electronic art is termed "habitable cinema," where bedposts, mirrors and pillows become the "animated" characters offering visual context to the piece. In this new work commissioned by the Beall Center, sensors detect the movement of viewers triggering various exchanges between a father, mother and daughter revealing the family dynamics and struggle for individuality.

"We commissioned 'Mitosis' because A.M. Hoch is an established painter and sculptor who has begun to experiment with technology in a way that we felt had great potential," said Eleanore Stewart, director of the Beall Center. "We anticipate an exceptional experience for the viewer - one that will enhance the role of technology in expanding artistic expression."

Mitosis - the biological process by which the cell's nucleus divides and replicates itself - has been the subject of Hoch's work for many years. The forms and gestures of mitosis appear in her paintings on canvas, as well as on mattresses and other media. The process of cell division serves as a vivid metaphor for the elemental drama of merging, separation and transformation.

Hoch's introduction to the concept dates back to a particularly impressionable and often difficult time in life - junior high school.

"I was just doing my homework and wham! I started seeing the most beautiful truths conveyed in that cellular process - the gestures, the forms are so primal and passionate - for me it was a visualization of love on the deepest level," said Hoch.
Hoch isn't alone in creating her vision. Writers and actors Wallace Shawn and Deborah Eisenberg developed the Mitosis script and lend their narrative talents by performing the family dialogues. Shawn, who may be best known for his roles in the movies "The Princess Bride" and "My Dinner with Andre," has written several plays including "Aunt Dan and Lemon" and "The Designated Mourner." Eisenberg writes an edgy, topical brand of humor that has earned her four O'Henry awards.

Technical expertise is provided by digital media architects dotsperinch who recently received a Peabody Award for their work on the Sonic Memorial Project, an on-line narrative tribute to the World Trade Center.

Hoch and her collaborators have created a "time-less" installation given there is no beginning and end to the presentation. The taped loops are continuous. While the script has a dramatic arch, each participant's overall experience will vary depending on who is where in the room. The sequence and emotional tone of the family's conversations depend on how and when the various hidden sensors are engaged.

"In this piece - and in my understanding of the world in general - there is no such thing as objectivity," adds Hoch. "There are only a myriad of subjective perspectives. Technologies or media that evoke that mystery - mirrors, paintings, cameras, sensor-triggered audio loops - are infinitely fascinating to me like Narcissus with his reflection. At heart, this installation is a meditation on the nature of subjectivity and how love is basically one's only guide out of the house of mirrors we live in."

The artist’s opening reception is Tuesday, Jan. 6, from 6-9 p.m. The public is invited. "Mitosis: Formation of Daughter Cells" runs through Feb. 15 at the Beall Center which is open noon to 5 p.m., Monday through Saturday, and Friday until 8 p.m. Admission is free. For more information visit http://beallcenter.uci.edu or call 949-824-4339.

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