



The Healing Pools exhibition will open at Expressions on February 18.

A new interactive exhibit at Expressions, all the way from America, is set to stun visitors.

Healing Pools will be opening on February 18 and is an interactive floor projection. When gallery visitors walk across the floor, the projected light reacts, creating patterns that last long after the person has stepped away.

The installation comes from Bostonbased digital artist Brian Knep.

"This project serves as a type of memorial, a constantly evolving record of change that honours the minuscule ways in which the slightest interactions no matter how small or unintentional have some impact. It is also an examination of how each person is, like the pool, a manifestation of everything that came before," he said.

Every person who walks across the floor leaves their mark, creating a history of the interactions people have had.

The installation uses custom algorithms created by Knep to make the patterns. The equations used in the algorithm came from biological and chemical models of molecular interactions.

Essentially, they are the chemical interactions at the core of living beings.

Inspiration for Healing Pools also came from public reflecting pools and historic spaces, such as the Duomo in Florence, Italy.

Knep is a Boston native and was the first artistinresidence at Harvard Medical School. He was also a computer graphics software developer for the film Jurassic Park.

Expressions director Leanne Wickham was pleased to have the installation at the gallery.

"This is exciting, new, responsive technology that combines art, maths, technology and health. This interactive experience will provide both an immersive and contemplative experience for all generations," she said.

Healing Pools opens at Expressions on February 18. Entry is free due to support from the Upper Hutt Health Centre.

Myers, William. *Bio Art: Altered Realities*.
New York, NY: Thames & Hudson, 2015.
pp. 188-89.

William Myers

BioArt

Altered Realities



Thames & Hudson

Brian Knep

Knep is an artist who is at ease working closely with scientists, while also engineering original and interactive installations. His experience and training range from work as a software designer with the world-renowned Industrial Light and Magic company, to study in glassblowing and ceramics, all of which supports a body of work including microscopic sculpture, video, and digital prints. Often these works illuminate an aspect of biological process over time, or use it as the starting point for designing a responsive installation piece. The results are original forms and experiences that stand on their own aesthetically but also communicate techniques and achievements of the life sciences.

The series *Aging/Frogs* (2007–14) began with painstaking work while in residence at Harvard Medical School in the United States photographing frogs, *Xenopus tropicalis*, in their development from tadpole to juvenile. These became the basis of several videos and prints depicting the intricate cycle of morphogenesis. Among them is *Chunky Frog Time* (2014), installed at the Boston Harbor Islands Welcome Center, which presents a constantly changing and moving specimen. In this work the movement and maturing of the frog can be read as a reflection of evolutionary change in general, or tide and weather flows, or even the cycles of growth and endless toil that characterize everyday life. In this and other parts of the series—*Frog Time*, *Frog Triplets*, *Rapture*, *Butoh Frog*—color and motion are often brought to the fore, with entrancing effect.

Traces/Worms (2009) focuses on a workhorse of biological research, the worm *Caenorhabditis elegans*. As with his frogs study, the artist worked intimately with these creatures, learning about their behaviors and life cycles, even providing them with microbes and fungi from his own body. The resulting images, microscopic sculptures, and video have an unexpected visual quality, seemingly ancient and worn in their form and color, like



ancient Sanskrit on parchment. This feature of the work serves to underline an element of the studies in which the artist participated: how the worms age. Recent research has demonstrated how the lifespan of the worm can be multiplied through genetic manipulation. Among the artworks that stem from Knep's study of the worms are: *Dependence*, *Worm Constructs*, *Avatar*, and *Namaste (Male & Female)*. This last work features tiny sculpted human figures which replicate those that were etched on plaques added to the Pioneer 10 and 11 spacecraft launched from Earth in 1972 and 1973 respectively, and intended to represent a greeting from humanity. The worms crawl about these tiny figures, oblivious to the artist's friendly intentions.

Healing Series (2004) includes several interactive floor installations that change form as visitors move across them: the human movement "wounds" the pattern projection, which subsequently grows anew, slightly changed. The work stems from research on artificial intelligence and attempts to create human-like or biologically driven behavior in designed systems. What is most fascinating about the installation is how people respond: their curiosity and experimentation initiates an unusual and virtually instant small community, as the work subtly encourages participants to learn from and interact with one another.

6 *Frog Time* • 2007

Non-repeating video installation:
video projector, computer, custom software

7-8 *Namaste (Male & Female)* • 2009

Digital prints mounted in lightboxes.
Images of *Caenorhabditis elegans*, agar,
polydimethylsiloxane, numerous bacteria,
archaea, fungi, and worm detritus

9 *Healing 2* from *Healing Series* • 2004

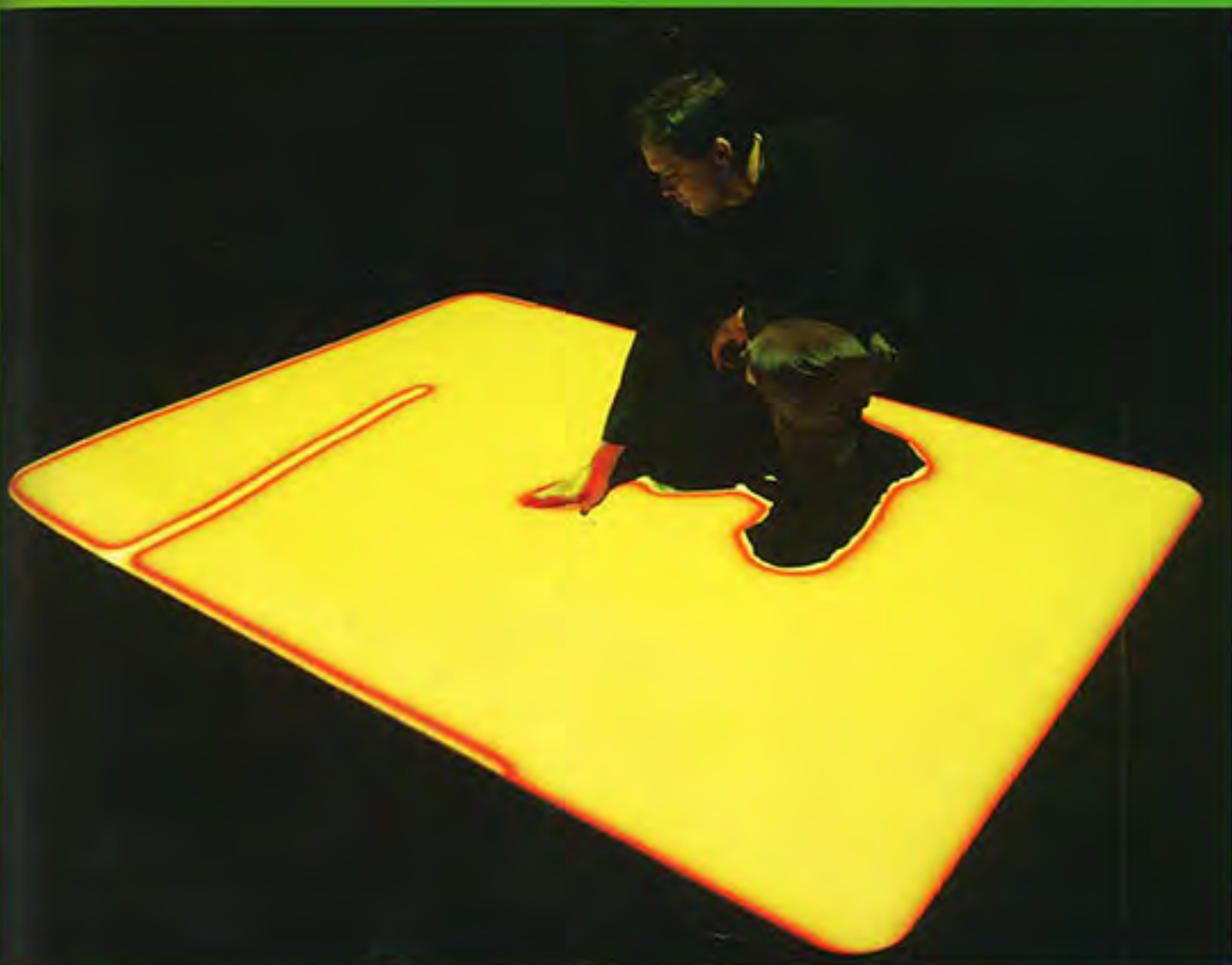
Interactive video installation: video projector,
video camera, computer, custom software, foam mat



7



8



9

The Brown Daily Herald

At the RISD Museum, you control the show

Emma Wohl

A family with three small children enters a room at the Rhode Island School of Design Museum. The youngest child, Karis, 3, sees a bright red button on the wall and squeals, "Can I touch it?"

The children amuse themselves for several minutes running from one wall to another, seeing how they can make the pictures on the walls move faster, grow larger or spin in circles.

In this particular exhibit, Brian Knep's '90 GS'92 "Exempla," such behavior is encouraged. The exhibit is made up of four installations projected onto the walls of the Anne, Michael and Amelia Spalter New Media Gallery. It is interactive — by pressing a button, stepping down on a pedal or turning a dial, guests can make the images come to life. The drawings themselves are strikingly simple, childish stick figure cartoons.

Knep's work "is not like anything else I've seen," said Judith Tannenbaum, Richard Brown Baker curator of contemporary art at the RISD Museum. That may be because Knep's background is in science and technology, and he was "a science guy" before he ever considered pursuing a career in visual art, she added.

In "Escape," the most surprising and dynamic of Knep's installations, two big red buttons activate the drawings within two separate pools of light, causing them to explode out and invade each other's space. "Escape" packs Knep's signature egg-shaped stick figures so tightly together that they are hard to identify individually. Rather, they resemble the contents of a giant Petri dish.

In "Embark," composed of two cylinders of light filled with figures, the movement of the drawings is more leisurely and depends on the length of time the viewer presses the button. Every viewer's experience is unique.

"Excel" speeds up gradually when guests step on a pedal embedded in the floor. The images simply spin faster within a circle of light, constantly drawn towards the center of a vortex.

"Expand" may not look like much when left to its own devices, but when the viewers turn the dial below the installation, the stick figures swarm and scatter as excitedly as the rest.

But the dial looks more like a device to control the room's temperature than a part of the piece — the only technical difficulty with this work. Guests can be forgiven for leaving the piece alone, or staring in confusion while wondering what their role should be.

While influenced by Knep's scientific background and including digital technology in its execution, "Exempla" is by no means inaccessible to the casual viewer. "The great thing about this exhibition is that it can appeal to an adult or a child," Donna Desrochers, the museum's director of marketing, wrote in an e-mail to The Herald.

"We didn't market it that way, it's the nature of the artist's work. You can look at it, ponder it, interact with it," she added.

"We can tell when children are down here. Even from upstairs, we can hear them squealing," said Francine Ferrante, assistant supervisor in security for the museum.

Knep's pieces are thought-provoking, but they also have a sense of whimsy. "Identifying with and laughing at the creatures' behaviors allows me to accept and laugh at my own, similar, behaviors, which can lead to change and a more mindful experience of life," Knep said in the museum's press release.

The pieces are simple, joyful fun for children or the older viewer's inner child.

This exhibit is definitely worth checking out if you are already at the museum, but it's too small to make the trek for just one room. Exempla will be at the RISD Museum through March 6.

What is art? At the VU Brauer Museum it's all about variety

By Amy Lavalley

VALPARAISO — The Brauer Museum of Art has on display four diverse exhibits that tackle a wide array of media, from paintings that touch on science fiction and social commentary, to an interactive, pulsating light display.

"It's really just about circumstance and the way things worked out, but really, the theme becomes variety," said Gregg Hertzlieb, the museum's art director. He curated or helped curate two of the four exhibits now at the museum. "As you go through, we're just trying to give you a varied perspective of what art is."

A rundown of the exhibits, which are on display until March 18:

"Mindless Mayhem: The Art of Ron Villani" features about 80 of Villani's works, mostly paintings. "There's some social commentary in there but it's also fun," Hertzlieb said. He said the science fiction aspect of Villani's work is new for the museum. That exhibit is in the Wehling and McGill Galleries.

"Healing Pool: An Installation by Brian Knep" occupies the West Gallery, and uses custom algorithms to create shifting, organic light patterns on the floor, which break apart when a person walks across them. "It's really unusual. I've not seen anything like that before," Hertzlieb said.

"The Art of Jeanette Pasin Sloan" occupies the Ferguson Galleries. All of the pieces on exhibit are part of the museum's permanent collection, because she donated her complete archives to the museum.

Her detailed, brightly colored lithographs are startlingly true to life. "People do refer to her as a photo realist," Hertzlieb said.

"Other State: Claudette Roper Video Installation" is in the Education Room. The video installation examines racism through filmed interviews with 40 African-Americans of various ages. "It's all mouths, talking about what it's like to be black," Hertzlieb said.



Van Siclen, Bill. "Review: Humor at the RISD Museum; sparkle at the Wheeler school." *ProJo.com*, February 10, 2011.
http://www.projo.com/art/content/Go_In_The_Galleries0210_02-10-11_QPMCI7P_v12.137969.html

Reviews: Humor at the RISD Museum; sparkle at the Wheeler school



"Escape" by artist Brian Knap is part of an interactive exhibit at the RISD Museum.

It isn't often that you find the words "fun" and "futility" inhabiting the same sentence. After all, how much fun can you have pondering the futility of your own existence and the absurdity of life in general? (That is, of course, unless your name is Jean-Paul Sartre.)

Still, as fans of “The Simpsons” can attest, it is possible to laugh — and laugh heartily — in the face of life’s absurdities.

While not quite as laugh-out-loud funny as a Simpson’s episode, the antics of the strange little creatures that inhabit “Exempla,” an interactive exhibit at the RISD Museum, can be just as amusing. The work of Brian Knep, a Brown University graduate who’s currently based in Boston, “Exempla” consists of four small video works, each featuring the same cast of crudely drawn animated figures.

In a piece called “Excel,” a parade of these bobble-headed humanoids slowly makes its way toward a circle of light. Depending on your frame of reference, they could be fame-seekers drawn toward the klieg lights of celebrity or virtual pilgrims striving for intellectual or religious enlightenment.

In the end, it doesn’t matter: as soon as they arrive at the light, each figure instantly disappears from view, as though yanked away by an unseen hand.

Things initially look more promising in “Expand,” a work in which another series of amoeba-shaped figures slowly inflate like helium-filled balloons, then drifts toward another circle of light. Ultimately, though, their fate is the same: as soon as the light hits them, they shrivel, sink and have to start over again. (Then again, at least they’re not zapped into nothingness like the figures in “Excel.”)

In the remaining two works, “Escape” and “Embark,” viewers can play the role of digital gatekeeper, allowing individual figures to pass from crowded, claustrophobic spaces into spaces that are less crowded. Eventually, though the two spaces switch roles, with the once unpopulated area becoming crowded and the densely populated area becoming nearly empty.

Interestingly, while Knep’s amoeba-like figures rarely meet with success, they don’t seem to begrudge the absurd (or at least doomed-to-fail) universe in which they find themselves. As many times as they fail at whatever it is they’re doing — and Knep wisely allows us to attach as many different meanings and motivations to his figures as we like — they inevitably pick themselves up and start all over again.

In the end, they’re funny precisely because they’re so deeply human.

“Brian Knep: Exempla” runs through Feb. 28 at the RISD Museum, 224 Benefit St. in Providence. For information, including hours and admission, call (401) 454-6500 or visit www.risdmuseum.org.

There’s a distinct seasonal vibe — somewhere between late winter and early spring — emanating from the current two-person show at the Wheeler’s School’s Chazan Gallery.

Allison Paschke, a Providence artist whose background is in ceramics (she studied at the famed Cranbrook Academy of Art), supplies the winter weather.

Her shimmery mixed-media pieces, made from a combination of clear acrylic and epoxy framed against mirrored backgrounds, evoke a wintry mix of rain (“Penfield: Falling”), snow (“Penfield: Collection”) and sleet (“Penfield: Blue Sanaa”).

The same materials also turn up in a series of larger works in which clusters of letters are outlined against gleaming blue backgrounds. The results suggest swirling galaxies composed of intergalactic ABCs.

Diane Hoffman, meanwhile, supplies some warmth with a series of boldly colored abstract paintings. By patiently layering color upon color and shape upon shape, Hoffman creates complex compositions that constantly shift and sparkle even as you look at them.

Ends Thursday, Feb. 10, at the Chazan Gallery@Wheeler, 228 Angell St. in Providence. Hours: 11-4. For more information, call (401) 421-9230 or visit www.chazangallery.org.

Microcosms jiggle and make us giggle

Light-generated 'interactive cyberart' moves in random ways that speak to us about science and humanity.

BY LINDA LUISE BROWN
Special to the Observer

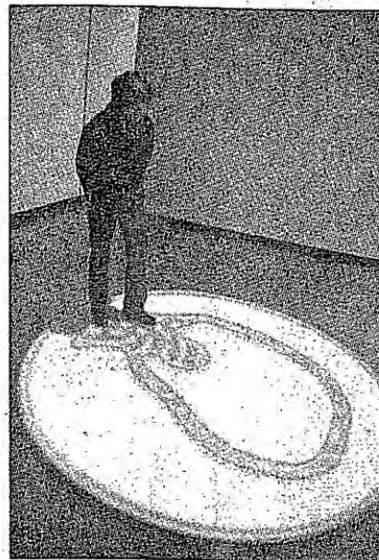
In an intriguing blend of art and technology, the light-generated microcosms of Brian Knep charm the viewer into play. One is apt to laugh or smile when engaging with "Per (MUTATIONS)," Knep's spectrum of "interactive cyberart" at McColl Center for Visual Art.

A modest level of hilarity hovers throughout this group of motion-driven installations.

Dancing within circles of projected light, one series of what appear to be tiny organisms undulate sporadically upon the gallery walls, their cartoon-like humanoid shapes skittering like microbes in a modern dance.

Originally modeled after the gestural drawings of a child, these light-projected animated life forms move in random patterns, resembling wriggling bacteria in a petri dish or office workers in their cubicles.

"These are playful parables about humanity," Knep said. He references the Greek myth of Sisyphus in one piece, "Erect," in which masses attempt to erect a tower, only to have it fall down again and again. Exploring the vanity and illusions that push human beings to achieve, the artist

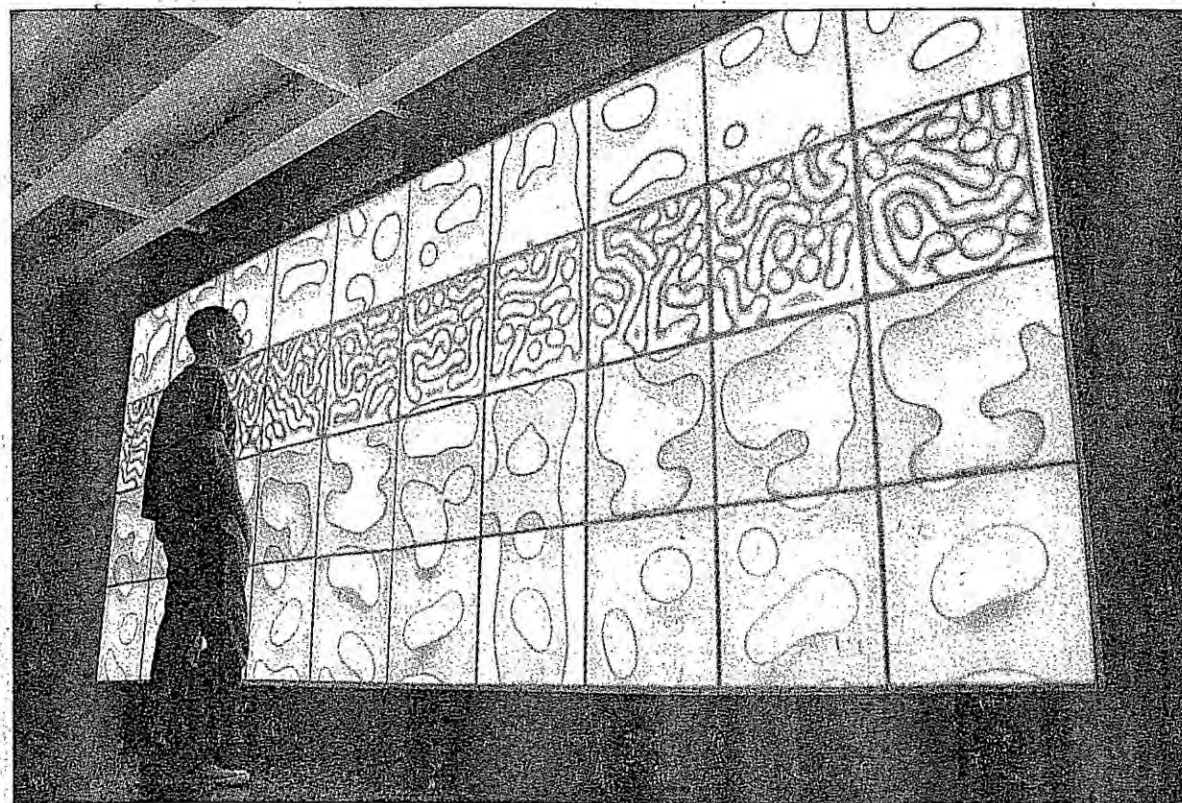


An overhead camera projects images on the floor in "Flower Umbilicus."

makes futility funny.

Viewers play with the knob or button beneath the circle of light, then stand back and watch as chaos moves to order, and back again, much like the flight of birds, the swimming motion of a school of fish ...or the chorus of frogs by a pond. These biological references enhance a strangely inverted anthropomorphism.

Knep of Boston works alongside scientists in Harvard Medical School biology labs, and his motion-direct-



PHOTOS COURTESY OF BRIAN KNEP

The shapes in each column of "Drift Wall" drift upward, changing their look as they cross the panels.

VISUAL ART REVIEW

Per (MUTATIONS)

You can interact with Brian Knep's exhibit, sharing the floor, for example, as it changes form or color.

Where: McColl Center for Visual Art, 721 N. Tryon St.

When: 11 a.m.-4 p.m. Monday-Saturday; through March 7.

Details: www.mccollcenter.org; 704-332-5535.

ed works simulate a version of "emergent behavior." The interac-

tive button in "Emerge" activates tiny wriggling figures that are programmed to move in simple patterns, toward light, like moths, and we don't know whether we are looking at an enlargement or a miniaturization.

More involvement and greater fun is part of "Flower Umbilicus" and "Flower Revealed," a synergistic pair of projected images on the gallery floor that come to life with human interaction. We step upon each circular pad of light and it becomes a stage where our movement leaves behind fleeting patterns.

"Drift Wall," an illuminated black-and-white rectangle, is as calm and mesmerizing as the first jittery figures are frenetic. More massive than other works in "Per (MUTATIONS)," this mural-sized piece has a convincing physicality for something that is actually made of light.

Though in large part science-based (the artist's bio reveals his background in math and computer technology,) Knep's proficient work is also defined by serendipity and spontaneity; and a dexterous use of chance reflects his ability to maintain a light touch.



Art

"SOME SORT OF UNCERTAINTY"

AXIOM GALLERY, 141 GREEN ST., JAMAICA PLAIN |
THROUGH FEBRUARY 17

BY GREG COOK

➤ "Some Sort of Uncertainty," now at Axiom Gallery in collaboration with Art Interactive, makes the gallery appear empty, but that's a tease. Eight artists brought together by guest curator Adriana Ross have hidden stuff all over the place, and they've provided a map and a list to create a scavenger hunt.

Liz Nofziger of Jamaica Plain hides teeny plastic figurines around the gallery. Malden's Doug Weathersby sweeps a bunch of gallery dirt onto a shelf. Brookline's Nathalie Miebach sticks little labels along the bottom of the walls that list places, dates, and cryptic symbols that I imagine relate to her title, *Recent Meteorological Anomalies*. Jamaica Plain artist Lina Maria Giraldo's *Anti-personnel* (2008) startles visitors with the sounds of explosions triggered by a motion

sensor hidden in the ceiling. But all this stuff feels underdeveloped.

Still, it's worth the trip to see what Cantabrigian Brian Knep is up to. Peek around a corner into a little inaccessible room and you'll see a dim circle of light projected on the wall opposite. Flip a nearby switch and an oval of brighter light shines on the wall. Cell-like things (actually a child's drawings of balloon-head people with stick limbs) swarm to the top of the oval, leaving a gap where the dim circle of light had been. Now and again, one of the cell people enters the circle, inflates, and sinks to the bottom. Then the bright light goes out and the critters drift down, until you switch the light back on and the cycle begins again. Knep's interactive video installation is a digital cross between watching sea monkeys and playing those '80s Tomy water pinball games.

Artwork by artwork, Knep has been developing computer programs that produce ever more complex action and dazzling special effects. I'm looking forward to seeing all the incremental advances coalesce into something awesome — here the cycle of action is too simple to sustain significant contemplation. Perhaps if Knep puts a few of these together (a variation of this piece was exhibited at CASP in 2006), the cumulative effect will be meatier. Or maybe some additional incidents could complicate the action, making it less an equation and more a developing narrative. ☉

Arts & Reviews

THURSDAY, APRIL 26, 2007

GALLERIES

An unfinished look at the cycle of life

By Cate McQuaid

GLOBE CORRESPONDENT

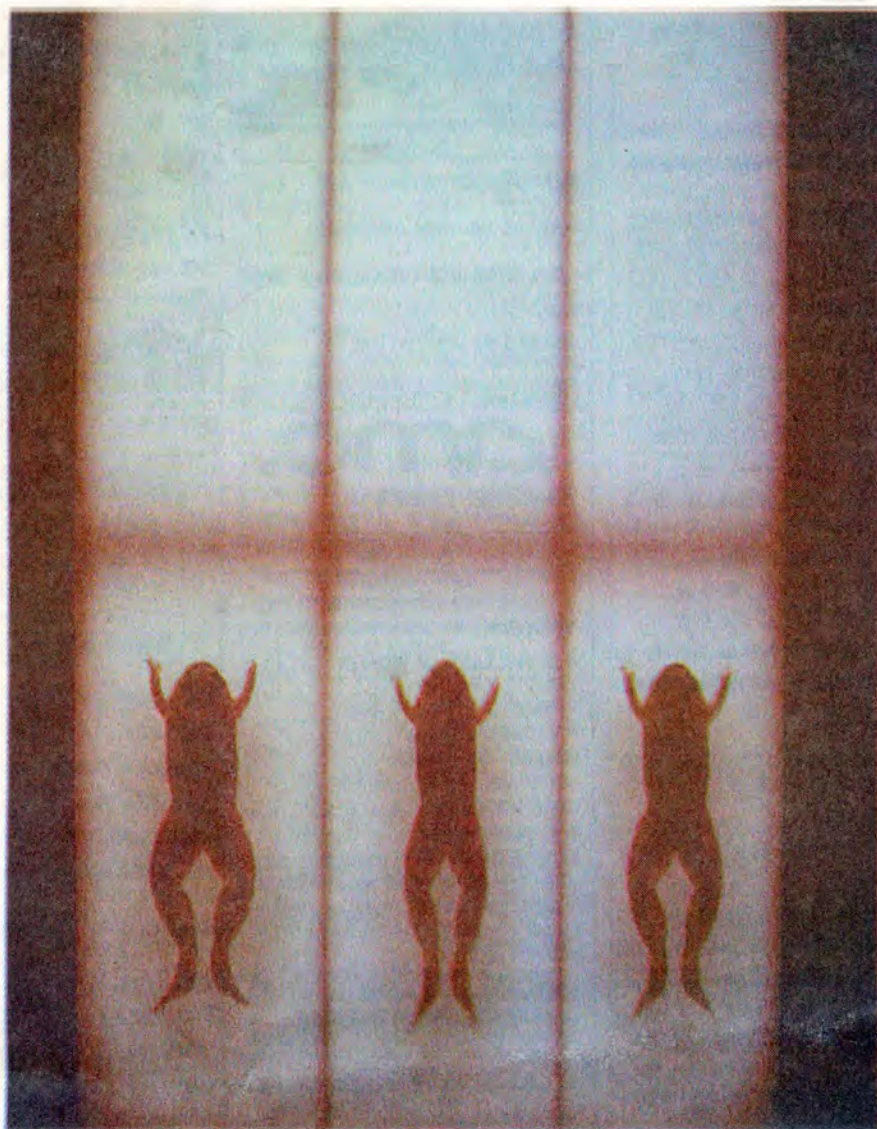
"Aging," Brian Knep's beautiful if unfinished show at the Judi Rotenberg Gallery, doesn't really address growing old, mortality, or physical decline. Instead he turns the wheel of the life cycle into visual poetry; there's no end and no beginning. The new-media artist has been developing this work during a two-year residence at Harvard Medical School, making videos of the life cycles of frogs.

His videos are run by computers, which subtly alter the image so you never see the same thing twice. "Frog Time" shows the little fellow morphing from giant-headed tadpole to frog and back as he ceaselessly swims across a grid. It's absorbing and frustrating to watch; the rush from infancy to adulthood and back fascinates, but the constant swimming through the grid is tedious, like the frog's version of a rat race. "Frog Path," a series of photos, has a stronger narrative arc — actually, two — but our intrepid hero is still as hapless as the rest of us.

Knep is known for his interactive work, and nothing in this show is yet interactive. The video "Frog Triplets," in which three morphing frogs appear side by side, as in the lanes of a swimming pool, is a work in progress that he hopes to make interactive; that would be intriguing. As it is, the constant evolution and devolution of his frogs is bittersweet as they race for the finish line.

Brian Knep: Aging and Carmin Karasic: Handheld Histories as Hyper-Monuments

At: Judi Rotenberg Gallery, 130 Newbury St., through Saturday. 617-437-1518, judirotenberg.com



During a two-year residence at Harvard Medical School, Brian Knep shot videos of frogs that morph from tadpole to maturity and back in a kind of evolution and devolution. Above: "Frog Triplets."

Action, Reaction, and Phenomenon

By Nathaniel Stern on Wednesday, October 15th, 2008 at 11:55 am.

In his book, *Parables for the Virtual*, Brian Massumi calls for "movement, sensation, and qualities of experience" to be put back into our understandings of embodiment. He says that contemporary society comprehends bodies, and by extension the world, almost exclusively through linguistic and visual apprehension. They are defined by their images, their symbols, what they look like and how we write and talk about them. Massumi wants to instead "engage with continuity," to encourage a processual and active approach to embodied experience. In essence, Massumi proposes that our theories "feel" again. "Act/React," curator George Fifiield's "dream exhibition" that opened at the Milwaukee Art Museum on October 4th, picks up on these phenomenologist principles. He and his selected artists invite viewer-participants to physically explore their embodied and continuous relationships to each other, the screen, space, biology, art history and perhaps more.

Fifiield is quick to point out that all the works on show are unhindered by traditional interface objects such as the mouse and keyboard. Most of them instead employ computer vision technologies, more commonly known as interactive video. Here, the combined use of digital video cameras and custom computer software allows each artwork to "see," and respond to, bodies, colors and/or motion in the space of the museum. The few works not using cameras in this fashion employ similar technologies towards the same end. While this homogeneity means that the works might at first seem too similar in their interactions, their one-to-one responsiveness, and their lack of other new media-specific explorations -- such as networked art or dynamic appropriation and re-mixing systems -- it also accomplishes something most museum-based "state of the digital art" shows don't. It uses just one avenue of interest by contemporary media artists in order to dig much deeper into what their practice means, and why it's important. "Act/React" encourages an extremely varied and nuanced investigation of our embodied experiences in our own surroundings. As the curator himself notes in the Museum's press release, "If in the last century the crisis of representation was resolved by new ways of seeing, then in the twenty-first century the challenge is for artists to suggest new ways of experiencing...This is contemporary art about contemporary existence." This exhibition, in other words, implores us to look at action and reaction, at our embodied relationships, as critical experience. It is a contemporary investigation of phenomenology.

Near the entrance of the show, Scott Snibbe's *Boundary Functions* (1998) begins by literalizing the fine line between publicly constructed and personally constituted space, between "you (plural)" and "me." As his audience members cross the threshold onto the interactive platform, the work draws and projects a real-time Voronoi diagram around them. No matter how many people are present (and moving) in the installation, each gets a continual partitioning of exactly the same size: lines that separate them. Snibbe says his initial inspiration for the work came out of a desire to reveal how we relate to one another, how we define ourselves and the physical space of our bodies through, and with, those around us. When he turned it on, however, his revelation wound up changing that relationship itself: we immediately want to use our bodies to trap or destroy or trick the piece and what it re-presents. It was after seeing his own creation in action that Snibbe began referring to himself as a "social artist" -- given that he doesn't just reveal, but actually affects, social behavior.

Further into the exhibition space, this is followed by Snibbe's *Deep Walls* (2003), where viewers' shadows are recorded and played back in a grid of sixteen cinematic squares. Participants dance and shake and explore with their shadows between the projection and screen, and every active performance snippet is stored as a silhouetted animation in one of its comic book-like boxes. Each video sequence replaces one that was there before. Here, we are creating embodied and dynamic signs within a greater, collaborative structure; we continuously find and make our own language and meaning with and through our bodies. We tell and re-tell and co-tell embodied stories, through movement.

Echo Evolution (1999) is the next work on show, produced by Liz Phillips, an artist effectively working with interactivity for 40 some-odd years. It asks for viewers to navigate through a large dark room, and responds with real-time noise and neon lights. Where you move, how quickly you do so, and where others are in relation to you and the space, all direct

the piece's output. Although potentially the richest piece in its complexity, the non-transparency of the interaction and its rules unfortunately made this work the weakest on the exhibition. Most viewers were trying to understand how it worked, rather than exploring their bodies in relation to that interaction. I've seen far better installations by Phillips, and think this one was an ineffectual choice in the context of the greater show.



Image: Brian Knepp, *Healing Pool*, 2008. Computer, custom software, video projectors, video cameras, vinyl flooring. Dimensions variable. (Photo by Nathaniel Stern)

Brian Knepp's premiering *Healing Pool* (2008) continues his explorations of biologically inspired generative algorithms. This room-sized petri dish features a floor that is covered in projected "cells" that active participants walk through/over, leaving tears and empty space in their wake. The installation then "heals" itself by growing new cells as seams and scars, never again to repeat any of its previous patterns. Knepp's work pushes at the conceptual boundaries of how we understand growth, healing, organic structures and temporal inter-activity. It's a work that is mostly playful on its surface, and extremely subtle in its visual difference over time. So subtle, in fact, that it's very easy to miss its doubled gesture towards emergence theory: both how simple systems can create complexity, and how our embodied interactions, which seemingly change little, have lasting and forever-changing effects.

Daniel Rozin's two pieces were admittedly the most surprising for those already familiar with his work. His investigation of material mirror metaphors began in 1999 with *Wooden Mirror*, where over 700 individual wood chips in a grid point up and down on servo motors, towards and away from lights above, in order to create a real-time video image, a live woodcut. In the preview images of "Act/React," his *Peg Mirror* (2007) and *Snow Mirror* (2006) looked like minor variations on this original theme: the former in lower resolution and with rotating and slanted wooden pegs, the latter a video software projection which slowly reveals our images in what looks like falling snow. But the subtle temporal difference in Rozin's new work opens up the possibility for more contemplative embodied investigation. In *Peg Mirror*, for example, the slow rotation of each individual pixel means that there is a lovely and material lag that trails off behind everything we do. It is less of a direct response, and more of a call and response with our reduced, or distilled, image. Our engagement is continuous. *Snow Mirror*, then, also breaks direct mirroring by building an image over time, with "external" forces -- the snow. Its movements define our movements, and vice versa. These beautiful pieces are the strongest I've seen from Rozin yet.

Next, Janet Cardiff's *To Touch* (1994) adds a wonderful counterpoint to Snibbe's *Deep Walls*. Instead of her visitors constituting new narratives with their bodies, they elicit and construct two lovers' stories with their physical touch. Each participant is invited to draw out and feel monologues and aural moments, her main characters revealing history when we glide over the surface of a well-lived carpenter's table. As our hands caress the grain, marks and dents of the wood,

her multi-channel sound installation proffers tidbits of story to contemplate. Cardiff is a master at creating physiological responses to minimal sonic and/or visual information, and this piece is no exception.

And finally, Camille Utterback's *External Measures* (2003), *Untitled 5* (2004) and *Untitled 6* (2005) summarize the entire show by inviting an embodied investigation of art, art history and art-making itself. Here, visitors' movements under a birds-eye view camera can create, smudge or magnetically and magically attract scores of painterly marks across her screen-as-canvas. These stunning software paintings each encourage explorations of material and presence, with varying styles and application methods to their surface. The complexity of Utterback's software, which is crafted to respond to stillness as well as movement, to continuously shift with every new interaction, is matched only by the simplicity of her interface: the body. This is art about art and artists, images and image production, signs and bodies; it asks us to engage with how we express and represent, and how we relate to each of these embodied processes. It is a beautiful series of works about the art of embodiment, and the embodiment of art.

For as Massumi points out, "When a body is in motion, it does not coincide with itself. It coincides with its own transition: its own variation... In motion, a body is in an immediate, unfolding relation to its own... potential to vary." The body, like art and the bodies and dialogues that surround it, is "an accumulation of relative perspectives and the passages between them... retaining and combining past movements," continuously "infolded" with "coding and codification." Fifield and his selected artists invite us to engage, enact and explore all of the above.

"Act/React" runs through January 11, 2009 at the Milwaukee Art Museum, and includes a full-color printed and DVD catalogue, in collaboration with Aspect Magazine. Remaining events include a lecture by Steve Dietz on 16 October, an artist talk by Amy Granat on 13 November, and gallery talks throughout the rest of the year. <http://mam.org/>

Edgers, Geoff. "Is there an Artist in the House?" *The Boston Globe*, April 7, 2006.



"Things that go unhealed in our own lives, which we cover over superficially, need to be opened up, cleaned out, and then the real healing can begin," says artists Brian Knep whose recent work was inspired by time spent at Harvard Medical School. (Globe Staff Photo / Suzanne Kreiter)

Is there an artist in the house?

At Harvard Medical School, the answer is yes. Now Brian Knep is about to reveal 'Deep Wounds,' the work he created during a yearlong residency.

By Geoff Edgers, Globe Staff | April 7, 2006

Think of an abstract, ever-changing rug.

Each time you step on it, a pattern is created. Each movement produces another wormlike wiggle.

Brian Knep is a trained computer scientist turned artist who uses technology to make such pieces. The organisms Knep creates try to squirm back into place -- that's human nature -- but they never quite fit. The scar remains.

"The point is really to take something finite -- like a computer, like a mathematical equation -- and pull something organic out of it," says Knep. "How do I make an interaction more soulful?"

The search has taken him to Harvard Medical School, where, since September, Knep (pronounced as you would "knish") has served as its first artist-in-residence. He's always been inspired by science and fascinated by the way living things move, change, and, eventually, die. That's why Knep chose a desk in the Department of Systems Biology, so he could pick the brains of some of the school's leading research scientists.

Now he's presenting the residency's crowning achievement: "Deep Wounds," a public work that will be up in Harvard's Memorial Hall through April 23. With each step through the hallway, a visitor will strip away a virtual skin projected underfoot to reveal a series of words and dates.

On a literal level, this text is meant to reference the Harvard-educated Confederate soldiers who died in the Civil War. (Memorial Hall was built to honor Harvard's Union dead.) The message, though, is meant to highlight one of Knep's constant themes -- unfinished healing.

"Things that go unhealed in our own lives, which we cover over superficially, need to be opened up, cleaned out, and

then the real healing can begin," he explains in his fourth-floor studio on Harrison Avenue in SoWa.

A lot of what Knep gathered during his time at Harvard was inspiration. He spent four hours one afternoon with Tim Mitchinson, who showed him how cells split. He learned more about how a parasite operates from Bill Brieher. The science didn't influence his work in a literal sense. But the discussions, he says, have helped him consider many philosophical questions about how living things behave.

"Take apoptosis, which is when a cell kills itself," Knep says. "It happens when DNA is damaged. There are just some incredible metaphors for people who are mentally ill and try to kill themselves, but not even to that extreme. Just how we live our daily lives."

On the Cambridge campus, Knep made another important discovery. He learned that the Union dead had their names listed in Memorial Hall. The Confederate dead did not. "To me, it just talked about this idea of unfinished healing, and even the conflict we're having right now between the red and the blue states," Knep says.

The art of chance

Knep's gig at Harvard happened largely by chance.

The school's Office for the Arts, Knep's cosponsor, has had a resident artist for each of the last 31 years. The Harvard Medical School, though, had never had one. But one night, Becky Ward, the executive director of Harvard's Systems Biology Department, came to visit an artist in a neighboring South End gallery.

She strolled into Knep's space and, after striking up a conversation, discovered that he was using equations in his art that had similar applications in biology. They kept talking.

Not everyone was so welcoming. Some of the scientists grumbled when they heard of the artist's residency.

"The way I saw it, bringing an artist into this environment wasn't going to have any impact whatsoever," remembers Brieher, a biologist. "Why were we doing this?"

But he went one day last fall to see Knep make a presentation. Standing in front of the biologists, the artist, who had traded his typical jeans for slacks, showed how he uses computer-generated equations to create something that behaves like a living organism. He played video of his "Healing Series," which was exhibited at the DeCordova Museum and Sculpture Park in 2004.

Brieher was impressed. He even asked a question about the programming. "In the end, it took me about 30 minutes to change my mind," he said.

Healing arts

Still, Knep admits the idea of doing such a public work was daunting. Though he's one of the area's most promising young artists -- in February, Knep and Jane Marsching were the only locals awarded grants from the Creative Capital Foundation, a New York organization whose members include Laurie Anderson and director Richard Linklater -- Knep had never done a public work before.

He also only recently felt comfortable calling himself an artist. After graduating from Brown University in 1991, Knep headed to California for a job as a software engineer at Industrial Light & Magic. Over three years at the company founded by "Star Wars" creator George Lucas, Knep developed technologies that led to a pair of Academy Awards for technical excellence and scientific work.

He got restless, though, and felt he was no longer creating his own work. Knep quit ILM to follow his then-girlfriend to Ann Arbor, Mich., where she enrolled in law school. Once there, he barely logged onto his computer. He did register for a community pottery class. The experience was liberating, he says, and so different from his programming work.

"To make good pots, you have to work with the clay. You can't fight it," says Knep. "You have to get into this mindful state. It's so different from computers, where it's abstract in your head. I'd finish on my pottery and feel energized and powerful. When I worked on my computer for four hours, I'd feel dead."

Re-energized, Knep headed back east in 1997 with his girl-friend, who had been hired at a Boston law firm. With a colleague, he did design work for the Science Museum and Boston Computer Museum. He also started to show a few friends the work that he would later call his art. He created his "Healing Series," which remains a model for his work.

With an overhead camera, Knep projected on a rubber mat images that resembled bacteria seen under a microscope. A second camera detected the figures walking across the mat. With each step, the pattern would change. Sometimes, it parted like a stretch of beach sand being stepped on near the waterline. The patterns would try to repair themselves, but never to their original states.

Emboldened by the positive response to his work at an open studios event at SoWa, Knep invited over George Fifield, the founder of Boston CyberArts and the new media curator at the DeCordova Museum and Sculpture Park.

"I was blown away," said Fifield, of his visit to the studio. Knep's piece would be included in the 2004 DeCordova annual.

To develop his Harvard piece, Knep walked around campus. He settled on Memorial Hall after learning about the building's history. Originally, Knep planned to put the names of the dead Confederate soldiers into the piece. They would be revealed when somebody walked through the hall. Cathy McCormick, director of programs at the Office for the Arts, was unsure.

"The fact that he wanted to use typography, at all, was fascinating," says McCormick. "This is an artist who had worked abstractly, whose work is usually about blobs."

But, she asked, did he really want to list those names? Was his project about wounds and scars and healing, or about pushing to get the Confederate dead listed alongside the Union soldiers? Knep began to question the implications. Was he somehow making a statement about race relations at the university, or even the school's conflict with departed professor Cornel West? Or was the university interfering?

For a moment, Knep almost gave up. He decided after a few days that McCormick might have a point. Knep's artistic statement had a lot more to do with philosophical questions than a campaign for the Confederates. Still, making a decision so late in the process made him nervous.

"What I needed was some café time," he says.

Knep took his blue notebook to the B-Side Lounge in Cambridge. Over a pizza and beer, he sketched and dismissed a handful of ideas. Then inspiration hit. He thought of his own reaction to war.

"When you hear about a missile going off target and killing people in a house, it's just a statistic," he says. "You feel it when you actually think of the people. That it was somebody's friend or brother or mother."

That was the answer. Instead of names, he would list the relationship a dead soldier had with another person -- father, brother, son -- along with where the graduate was born and the date he died.

"I didn't want it to be a compromise piece, but once I came to the final solution, I felt pretty good about it," says Knep.

"I'm not sure how to explain it other than it felt right."

Geoff Edgers can be reached at gedgers@globe.com. ■

Nash, Matthew. "Seven Questions with Brian Knep." *Big Red & Shiny*, no. 15, December 15, 2004.

**BIG
RED &
SHINY**

SEVEN QUESTIONS WITH BRIAN KNEP

by MATTHEW NASH

In the last issue of Big RED, I reviewed the exhibition Intimachine at Art Interactive. During the opening, I was introduced to the artist Brian Knep, whose work is included in the show, as well as the exhibition FEED at MassArt. After talking with Brian, and experiencing his work and the other pieces in the show, it became clear that the role of interactive media is very much in the air and unresolved. I asked Brian to talk about his views regarding interactive media, his "Healing Series" body of work, and the general state of new media.

BRS: Regarding your "Healing Series", you frequently refer to the interaction with these pieces as 'wounding' the work, and the piece then 'heals' itself. But I've also read that you want the experience to be 'playful'. I was wondering how you reconcile the idea of wounding, which we generally consider to be something negative, with playfulness?

Knep: That's a good question. There's a couple of answers to that. First, I think that the meaning of the piece has evolved for me. When I first got interested in this kind of work, it was really about healing. And not so much physical healing, but more psychological. There was some physical healing but the metaphor was very strong for me and resonated very deeply, but after I made the pieces they became more about change and more about the healing than about the wounding: the idea that the pieces do heal themselves.

This idea that you and I are having an interaction right now and both of us are changing on some level from that interaction, and we're both integrating those changes into our personalities and our view of the world. That's more of what the pieces are about.

So with each piece I'm trying to distill some way people try to integrate particular changes into their lives, or different ways of doing that.

So, I still use the language of 'healing', and that is kind of a problem. But part of the reason I use it



Interacting with Healing #1



Interacting with Healing #1



is that people get it right away, and it's much easier to say 'It's healing' or 'It's wounding' than to talk about these ideas of world view. Often when I talk with people about the work, like this interview or artists talks, that's when I delve a bit deeper into it.

Playfulness to me is fine, because it's like you are playing with this organism that is then changed and modified by your actions, then healing itself and integrating your actions into itself. I see that the pieces have different levels of entry, and I'm okay with that. One level is that it's totally playful; you come, you have a good time, then you leave. But, the level I'm more interested in is

when people have a moment to sit and watch it, watch the interaction, and watch it actually heal itself. Particularly in this piece, "Healing #2" (this is my favorite of the three pieces), when you step off it, and you watch how it forms these patterns, I think that's the piece, really, when you watch it heal itself.



Interacting with Flower (Umbilicus)

So, it's something I'm struggling with a bit. The piece does allow people to come and immediately grok something about it, and if they walk away with only that it's somewhat sad to me, but on the other hand it's okay, at least they had some experience.

BRS: *Some of the pieces are changed forever by the interaction, while others are ultimately left unaffected. "Healing #2" ultimately goes back to whole eventually, while some of the others are visually permanently changed. Do you see this as a metaphor for cultural and social experience, where it is possible to meet people or groups of people that ultimately leave us unchanged? Or, do you believe that every single interaction, no matter how small, affects a person?*

Knep: I honestly believe that every single thing affects you. But, "Healing #2" is a bit about this ideal, perhaps it's a Buddhist ideal (and I'm probably completely distorting Buddhism), but I see that piece as very accepting of the interactions and the changes you have made to it. You wound it, er - you have a change (see I'm still using that language) - you wound it and it's okay with that. Then it slowly goes back to the way it was before, to this meditative state. That's kind of what that piece is about. I don't think it's really attainable.

The pieces really work together as a series, to see these different ways of dealing with changes. Personally, I think that every change does affect a person permanently, but this second piece I still find intriguing.

BRS: *Are you looking to give your technology a 'soul'? Do you see technology as a way to look at the human 'soul' (or lack thereof)?*

Knep: I think both of those are true, and this comes back to when I first started bringing my creative side to the forefront I started doing more crafts. I did pottery for a while, and I found with pottery that there are a lot of things that are great about it: it's very process oriented; you are working with physical materials. But, there's this part of it that I find particularly lacking in computers, which is that I can look at a piece made by a potter and feel that a little bit of that potter is in the piece. I find a lot of technology is very soulless in that way. I'm using the word 'soul' from your question. But it's this idea that somehow a bit of the person has rubbed off on their creation. I think a lot of technology lacks that. We find that particularly in new media art. I don't know if I'm solving it, but that's certainly an overall goal of the kind of work I want to do. I want some of myself to be in the piece.

One of the ways that I can do that, or try to do that, is to make sure that the pieces have a deeper meaning to me. That's the problem with technology art in general, and technology in general, is that there is a fetishism of it: people really are just attracted to it because of the 'coolness' of it, and they don't go a level beyond that. For the work to be satisfying to me, and in order to get a little bit more of this idea of 'soul' I'm talking about, we have to dig a little bit deeper and wonder 'Why does it have this feeling for me?' or 'Why is this so cool?'

When I first saw these reaction-diffusion systems that I use in my work, immediately I saw it made beautiful graphics and I said 'Oh, this looks so neat. They look organic.' But it wasn't until I saw a piece that felt like it resonated on a deeper level, with these concepts of wounding and healing, that I felt that there was something worthwhile to explore.

BRS: *Continuing with that, there's something about 'soul', which is the word we've been using, or even less than soul. Perhaps just 'personality,' which is another layer of interaction. There seems to be, on that level, always an element of 'judgment' – 'I approve of this, or I disapprove of this' – and "Healing #2" seems to be the one that passes the least 'judgment', whereas some of the other pieces in the series, that have more pronounced scarring, almost seem to pass 'judgment' on the viewer and their choice of interaction. Do you feel that it's relevant to the piece that the viewer feels that the work itself has an opinion about what they've done?*

Knep: That's interesting. Let me think on that for a minute.

It's not so important that the user feel that the work has an opinion about them, but I like that the user feels that the piece has a goal, which is 'To Grow' or 'To Live' or 'To Heal Itself Completely.' But, I actually write my pieces to have a sort of sense that they don't really want to be interacted with, that they exist even if nobody were around. It's sort of like the question 'If a tree falls in the forest...', but I feel like these pieces are kind of organisms, I'm not trying to make artificial life but they have a sense of organism and they're happy the way they are. When you walk across them you disturb them, and now they have to sort of regroup. The first piece ("Healing #1") is perhaps the most playful, so if we're talking about judgment then I guess it's okay with your interacting with it. The other pieces I think a little different: the second piece doesn't really care too much and the third piece is actually really aggressive.

There is another piece I've done, when I was really trying to get to the essence of this idea, and I made a piece called "Big Smile". It's a smiley-face that only smiles when no one is looking at it. What I was trying to get at there was the idea that the piece doesn't really want you to even look at it, when of course it's an art piece and it doesn't really exist unless you're there, but I wanted to play with that idea.

BRS: *Many of the elements in your pieces resemble simple organic life, like protozoa and jellyfish. How much of this is due to technology and algorithms you are using, and how much of this is metaphor? Is interacting with your work the equivalent of kicking over an anthill?*

Knep: For a lot of people, the first time they interact with it, particularly kids, it is definitely kicking over the anthill. People spend a lot of time trying to destroy the whole thing. Hopefully, after that, they will go to a deeper place and watch it heal, or step back and watch other people interact with it.

That's a problem with a lot of interactive art. It's hard to get away from the video game mentality. People try to understand the rules and then manipulate them toward some kind of goal. These pieces are much more experiential, rather than narrative, and while you can create that goal of destroying the piece but it's not really the main thing. Although, I will say that all the pieces do come back even after you destroy them, which is an important part of the pieces – that you can't actually destroy them. Eventually they will heal.

The first part of the question was about organisms, and I think that it's just part of my general aesthetic. I just like those organic shapes. I'm really intrigued by the idea of how to create complexity out of simplicity, how to create infinite out of finite. Part of this is wondering about what types of things make us think that something is alive or organic. What kinds of visual aesthetics please us?

A lot of these pieces deliberately use these algorithms and these behaviors that we interpret as organic. It's a cycle, it's not as if I say I want to create a piece that's about artificial life and healing, then go out and look for the technology. And it's not that I see the technology and immediately the piece comes out of that. It really is a back and forth.

BRS: *After my review of the show Intimachine here at Art Interactive, there was a lot of discussion in our Forum about what interactive art is, or can be, and how best to frame that work in terms of*

exhibition, explanation, etc. It seems as if there is a shifting 'point of entry' for interactive works, and often audiences don't understand the work because they cannot find the way in. What, for you, is an important and fundamental element of making interactive work in terms of conveying your ideas to an audience and having that audience experience the work as art, but also as an interactive experience? How does the technology factor in?

Knep: On one level, interactivity is a great way to engage people, an easy entry point like you said. On another level, I think a lot of pieces are about interaction on some level, so it's very natural to make them interactive. With "Healing #2" I'm talking about what happens when two entities interact and how they're both changed. Another way to make that work is to illustrate that metaphor though, say, painting in some static way. Or helping people enter into an interaction with each other, which is another great method. To me it seems very natural to do it with interactive technology.

It's also something I'm very interested in exploring from a media point of view. This is getting to the second part of the question, how does new media fit into it? I don't think new media is tied to interactivity at all, I don't think it's required at all. It's just that we now have this power and these tools to do so many things. We can be aware of where people are in the space, what they're looking at, how many people are there, how loud they're talking, and then use that to change the art. That's what technology is really good for.

BRS: *Can you expand on what you said about how interaction isn't mandatory?*

Knep: Well, it depends what you're trying to do. I've identified myself as an interactive artist, I've talked about myself that way, but recently I had a piece at MassArt that's not interactive. I really like the piece, but it took me a while to be okay with that. I don't think it needs interactivity, I could certainly force interactivity into it, but the piece that I made doesn't need it and I think it's alright without it.

There's definitely a push in the new media world to make everything interactive, and sometimes I really don't think it fits. In fact, in relationship to your bigger question about new media, I have a love-hate relationship with technology. I tend to hate a lot of it, but it's my media, it's what I use. I don't think it's necessary to have some great experience with an art piece, interactive or not, but I think it's a great tool and we can use technology to make art that is dynamic. It can be very powerful.

BRS: *My last question is about the 'big picture.' Essentially, a lot of the history of the arts is the history of technology. At one point a lithograph was cutting-edge, or even bronzes and metal work, or stone-work if you go back to the caves. Each of these things has represented the cutting-edge of technology, but eventually they just get folded into the lexicon, standardized, and our expectations and our readings and points of entry become fixed. Can you address that concept in terms of where you see that we are now with new media?*

Knep: In some ways, to kind of put down myself, I think that a lot of the new media we are seeing is just picking the low-lying fruit. It's so new, and there's so much amazing stuff out there, there are a lot of things you can do that seem cool. We were talking before about that level, about how something can sometimes just be cool as a technology, and that's okay. Sometimes it's really simple like the "Mona Lisa" piece (by Shawn Lawson, also in the *Intimachine* show), taking a portrait and animating it. It's a simple idea, but you have to do it and maybe push it a little bit.

My hope is that we can use technology to dig a little bit deeper. That's what it comes down to. We should make things that really have a depth to them that the painters of yesteryear had.

In terms of where I hope things are going, the one thing that has been great lately is the reduction in prices. I can buy these projectors for far less than I could just a few years ago. The computers I am using for this piece allow me to do stuff I could not have done five years ago. No way. But now I can afford all this on a relatively modest budget. Hopefully that will get even cheaper and cheaper.

That's one thing. Another is the making of the tools to be even easier and easier. In a way, that's not something I care about as much, because I am a tool-builder, and for me much of the art of

this is the craft of writing the software. That's part of what I do, but I consider myself a craftsman as well. That's writing the software, creating the rigs, doing the hardware and the technology.

BRS: *Is part of what is appealing about new media the 'brave new world' element, the possibility to carve out something new that isn't staid, and expected and established?*

Knep: Exactly. There is a lot of that. There's pressure on a number of levels. There is fetishism of technology, there is pressure from the art world. People keep talking about the death of painting, which I think is bullshit. I think many paintings are incredible, and they still speak to me on a deep level.

As an artist, like I said I have done pottery for a while, but I could study pottery for the next twenty years and never be great. I just happen to be in the right place right now where my skill-set and what I'm interested in sort of sync up in an interesting way with this new media world. This is what I'm doing, and I think I can make a much bigger mark doing this stuff. That's a lot of why I'm doing it, and it is very much the 'brave new world' stuff.

One of the things I'm finding I'm up against is that there is a sort of ghetto of new media art. This is probably not your audience, but certainly other people when they think about Art Interactive and interactive art, they are often thinking about games and fun things, entertainment. I've mostly shown in shows that are new media shows, and when I don't I find that the context is really nice because people approach the piece in a different way. They approach it as an art piece, and are a bit more open to having a transforming experience or seeing it in the way that I want them to. Whereas, if it's only in an interactive gallery, I think that people often come with the mentality that I'm going to play and have fun and that's it.

In fact you see that a lot when I show this piece ("Healing #2"). If there are kids around, playing on the piece then the adults stay back. It becomes a kid piece. If there are no kids there the adults are much more likely to play on it. It sets the tone.

BRS: *Thanks for talking with me.*

Links:

Brian Knep's website

Art Interactive

Big RED & Shiny review of *Intimachine* at Art Interactive

Big RED & Shiny review of *FEED* at MassArt

"Intimachine" is on view through January 30, 2005 at Art Interactive.

"FEED" is on view through December 8, 2004 at MassArt.

All images are courtesy of the artist.

Matthew Nash is the publisher of *Big, Red & Shiny*.

All content © copyright 2004 Big, Red & Shiny and Mr. Nash Productions.
All rights reserved.