Department of Art, UCSB
Spring 2009 Symposium

MAT PhD Students Presentation
"The Aesthetics of Code"

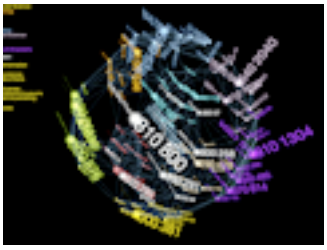
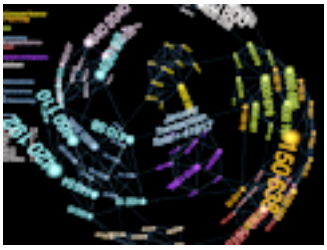
June 2, Tuesday, 5~7pm
1610 Broida Hall, UCSB

Organizer: George Legrady
Coordinator: Haru Ji

MAT Graduate Students:

Reza Ali
Rama Hoetzlein
Lance Putnam
Wesley Smith
Graham Wakefield
Haru Ji

Reza Ali
3D Dewey Visualization, Java & OpenGL & SPL Library Data, 2009

3D Dewey explores the use of 3D Space, particle systems, OpenGL and java, alpha blending, bill boarding, user interactivity, self-organizing algorithms (Kohonen), and electromagnetic attractions and repulsion. The end result is a real time particle based visualization system. One year of transaction data (books, DVDs, etc) from the Seattle Public Library was used to drive the visualization. The visualization is interactive; it allows the user to manipulate how they see the data and the properties of the system.

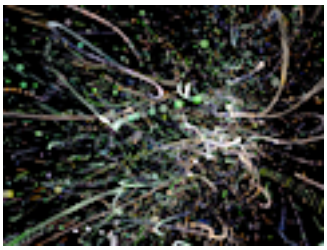
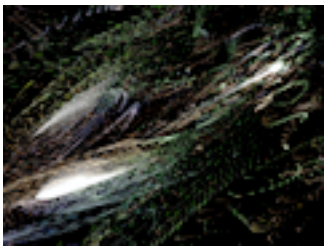
Reza Ali is a master's student in Media Arts and Technology at UC Santa Barbara. Reza studied Electrical and Mechanical Engineering at Rensselaer, where he also studied product design and electronic art. Reza has spent the last year at MAT creating media ranging from scripted animated 3D forms to interactive data visualizations. Reza's work has been featured on site like FFFFOUND!, VisualComplexity, Infosthetics, Vizworld, CreativeApplications, Technews, Businessweek, Designcorner. Moreover, he has freelanced for clients such as BBH, Carsey-Wolf, George Legrady Studios, and has worked at a Fortune 500 Company in New York City. http://www.syedrezaali.com/blog

Rama Hoetzlein
Social Evolution, 2009

Social Evolution is an experiment in simulated societies. As we become increasingly attracted to scientific theories and philosophies about social dynamics, Social Evolution asks: What are the consequences of accepting the idea of competition, a biological process normally occurring over millions of years, and applying it to dynamic, living societies? Social Evolution is a dynamic simulation of individuals genetically evolved to maximize their resources. Characters walk, run, eat, sleep, kill, mate, and harvest in proportions that are adapted and transfered to their offspring. Due to its evolutionary nature, Social Evolution shows unique behaviors not preprogrammed which mimic really life societies such as clustering into towns to conserve energy, and caste systems based on wealth.

Rama Hoetzlein (b. 1975), is a media artist and computer scientist working in the areas of knowledge visualization, computer graphics, and creativity in new media. He completed a BFA in Fine Arts and a BA in Computer Science at Cornell University in 2001, with thesis works on robotic and mechanical sculpture. In 2007, Rama completed his master's thesis on Quanta, a knowledge organization and visualization system, with the Media Arts & Technology Program at the University of California Santa Barbara. He has shown work at the 2nd International Beijing Arts & Science Exhibit at Tsinghua University, at Verson Beta at the Geneve Centre pour l'Image Contemporain, and collaborated with George Legrady on the Seattle Library Visualization Project. Rama's current research interests at the Univ. of California Santa Barbara focus on imagination and the role of technology in creative freedom for new media artists. http://www.rchoetzlein.com/

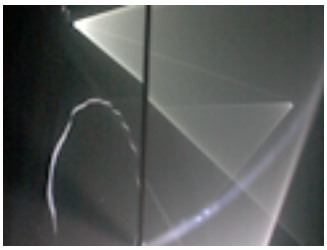
Lance Putnam
Nonconnectivity: Secret Channels, Computer-generated, audiovisual, 2009

In *Nonconnectivity: Secret Channels,* groups, individuals, and transitions are expressed through a navigable, visual and sonic space that emerges from a simple non-linear dynamical system. A large collection of points exhibit an immanent tendency to go from an organized state to a more entropic, diffuse state due to sensitivity of initial conditions. Groups form and persist because of the underlying concurrencies and symmetries of the system's laws, but will often spontaneously break apart or become static for no apparent reason.

Lance Putnam is a composer and researcher of visual and sonic representation of form. He is a Ph.D. candidate in the Media Arts and Technology Program at UCSB and holds a B.S. in Electrical and Computer Engineering from the University of Wisconsin, Madison and an M.A. in Electronic Music and Sound Design from UCSB. He was selected as one of eight international students to present his research at the 2007 Emerging Leaders in Multimedia Workshop at the IBM T. J. Watson Research Center in New York. His audiovisual work, S Phase, was shown at the 2008 International Computer Music Conference in Belfast, Northern Ireland. http://www.mat.ucsb.edu/l.putnam

Wesley Smith
Modalities of Space, Volumetric Light Projections and Sound, 2009

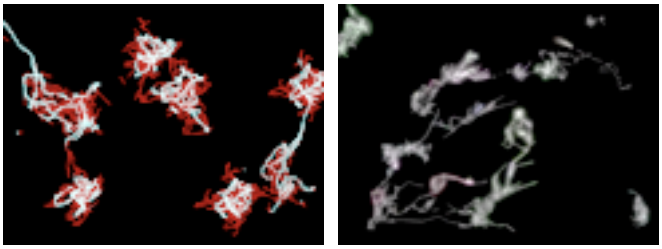



The work *Modalities of Space* is a diagramming machine. It exists as an ongoing investigation into the phenomenon of light as a volumetric experience, and its potential as a form of phenomenological diagramming. The perceptual experiences of the materiality of light filter and resist the projection of the diagram into a volume.
Complex detail collapses into a flat haze. Quick movements defy our evolved proprioceptive conditioning and capacity to inhabit a space. Modality of Space implicates

an understanding of such phenomena in an act of diagramming that is derived from the projective nature of light.

Wesley Smith is an artist and developer of software for audiovisual composition and performance living. His work examines the interstices of informatics and spatiality with a focus on the nature of knowledge and meaning as they acquire spatial extension within a computational context. Wesley is currently pursuing a Ph.D. at UC Santa Barbara's Media Arts and Technology Program where he received a masters degree in 2008. He received undergraduate degrees in Electrical Engineering and French from Johns Hopkins University in 2002. He is also a developer of Max/MSP/Jitter at Cycling '74 in San Francisco, California. http://www.moniker.name

Graham Wakefield
Makeshift, Computational composition, 2009

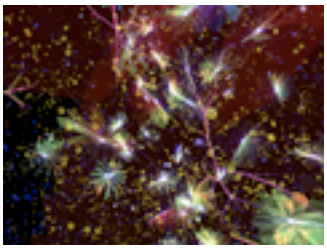
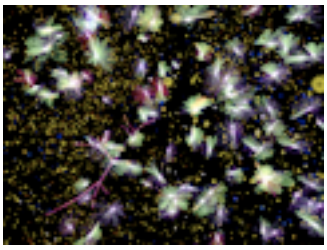


Computation need not be purely utilitarian or anthropocentric: I see a role as a composer to engender engagement through creative modes of poesis and resistance. I am thus concerned with the engagement of the composer with the creative potential of computation conceived as a medium in itself.
Makeshift is a work that emerged from explorations of this potential within open-ended, generative and emergent systems as material and environment. I draw upon discrete mathematical graph theories of evolving networks and flows as a pre-linguistic form of creative becoming, as much immanent to computer science as inspired by genetic regulatory networks of biology.

Graham Wakefield is currently exploring the creation of digital music and art through the computational embodiment of emergent complexity, systems biology and bio-inspired philosophy. He is currently a Ph.D. candidate in Media Arts and Technology at UCSB, and employed as a graduate researcher for the CNSI Allosphere and as a software developer by Cycling ’74 (Max/MSP.) Graham has a number of publications in fields of digital art and music, and has exhibited, performed or presented at numerous international galleries, events and venues. http://www.grahamwakefield.net

Haru Ji

Artificial Nature, Trans-disciplinary multimodal interactive art installation, 2009
(Collaboration with Graham Wakefield)

Artificial Nature is a trans-disciplinary multimodal interactive art installation immersing the viewer within an embodied complex ecosystem. The ecosystem applies bio-inspired system theories, from evo-devo to agent-based modeling, to the production of engaging aesthetic artificial life worlds. In actual space, the viewer can witness, control and discover beautiful, generative and abstract spatio-temporal patterns evolving from the behaviors of organisms in the virtual space, exploring and questioning beauty and creativity through nature and culture.

Haru Ji is a 3D sculptor, media & trans-artist researching the conjunction between biology and art, including evo-devo, growth rules, creativity in nature and culture, and computational sculpture. She is currently a Ph.D. candidate of Media Arts and Technology at the University of California, Santa Barbara. Haru attained a MFA and a BFA in Sculpture from Seoul National University and studied Image Engineering, computer graphics and 3D animation at Chung-Ang University, both in Seoul, Korea. Recently, she is working on the project “Artificial Nature,” to explore realization of A-Life world making.
http://www.haru.name