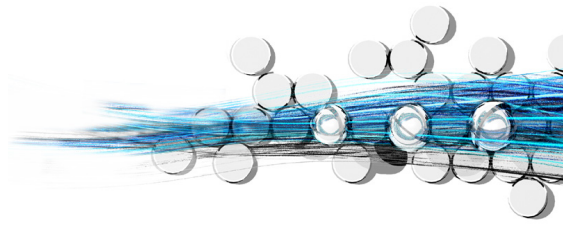


RAMA C. HOETZLEIN

<http://www.rchoetzlein.com>

Media Arts and Technology Program
University of California Santa Barbara
rch @ uemail.ucsb.edu, 805-714-3534



SHORT BIOGRAPHY

Rama Hoetzlein (b. 1975) is a media artist and computer scientist working in the areas of surrealism, artificial intelligence and computer graphics. I seek to develop the theoretical foundations of new media art, to extend its conceptual and technical limits, and to develop a curricula and context for its education. My research and artwork extends beyond fundamental science in media arts (physics, bio, nano, organic, etc.), to explore human-level topics such as emotion, psychology, intelligence, and society.

EDUCATION

- Fall 2010 Ph.D, Media Arts and Technology, University of California Santa Barbara
Imagination in Media Arts: Technical Constraints and Creative Freedom
- 2004-
2007 MS, Media Arts and Technology, University of California Santa Barbara
The Organization of Human Knowledge: Systems for Interdisciplinary Research
- 1995-
2001 BA, Computer Science, Cornell University - Computer Graphics
 BFA, Fine Arts, Cornell University - Robotic Sculpture

PROFESSIONAL EXPERIENCE

- 2009 **DreamWorks Animation**, *R&D Rendering Intern*
Contact: Andrew Kunz (Rendering Manager), Bruce Tartaglia (Senior Eng.)
Worked with the rendering team on improved material surfacing using MetaSL.
Developed new shaders and render testing in collaboration with Mental Images.
- 2008-
2009 **Transliterations**, Dept. of English, *Project and Team Lead*
Contact: Prof. Alan Liu, ayliu@english.ucsb.edu, U. of California Santa Barbara.
Project Lead for a digital humanities collaboration between Media Arts, English (UCSB) and the Univ. of Victoria INKE Project (Ray Siemens), developing a novel social networking site for historic persons and literature.
- 2007 **Interactive Digital Multimedia**, NSF IGERT, *Research Fellow*
Contact: Prof. Tobias Hollerer, holl@cs.ucsb.edu, U. of California Santa Barbara
Developed graphics solutions for real-time cluster rendering on tiled displays for the Allosphere, a 30 ft. immersive display at UC Santa Barbara.
- 2005 **George Legrady Studio**, Seattle Library Visualization Project, *Production Lead*
Contact: Prof. George Legrady, legrady@arts.ucsb.edu
Ten year project for real-time visualization of library circulation materials, displayed on six, 42" networked plasma displays using custom software.

- 2001-2004 **Game Design Initiative at Cornell University**
Co-founder, Lecturer and Outreach Coordinator
 Contact: Prof. David Schwartz, dis@mail.rit.edu, (Rochester Inst. Tech)
 Developed GameX, an instructional game engine, and taught intermediate and advanced courses with students from both arts and engineering.
- 1998-2000 **Mediartspace**, Digital Media Lab, *Co-founder & Lecturer*
 Dept. of Fine Arts. Cornell University, with Prof. Marcia Lyons
 Worked with Prof. Lyons to develop curricula and research for new media arts lab in the Dept. of Fine Arts.

PUBLICATIONS

- 2009 July Hoetzlein. "Subjective Media: A Historic Context for New Media in Art", *Fourth International Conference on the Arts in Society*. Venice, Italy. 2009
- 2009 Oct Hoetzlein. "Alternatives to Author-centric Knowledge Organization", *Implementing New Knowledge Environments (INKE 2009)*. Victoria, Canada.
- 2009 Feb Hoetzlein and T. Höllerer, "Interactive Water Streams with Sphere Scan Conversion". *ACM Interactive Graphics and Games (i3D) 2009*. Boston.
- 2009 Mar Hoetzlein, "Real-Time Water Dynamics: Practical Rendering of Fluids" *Game Developers Conference (GDC) 2009*. San Francisco, CA.
- 2009 Jan Hoetzlein and D. Adderton, "MINT/VXF: A High-Performance Computing Framework for Interactive Multimedia." *Future of Media Arts, Science and Technology Workshop (MAST) 2009*. UCSB
- 2008 M. Turk, T.Höllerer, S.Arisona, J.Kuchera-Morin, C. Coffin, R. Hoetzlein, et al "Creative Collaborative Exploration in Multiple Environments" *Association for the Advancement of Artificial Intelligence, 2008 Symposium*
- 2007 Hoetzlein. "The Organization of Human Knowledge: Systems for Interdisciplinary Research". *Master's Thesis*. U. of California Santa Barbara
- 2005 Hoetzlein and D. Schwartz, "GameX: A Platform for Incremental Instruction in Computer Graphics and Game Design." *ACM SIGGRAPH Educators Program 2005*. Los Angeles, CA.
- 2003 Hoetzlein and D. Schwartz, "Computer Game Design as a Tool for Interdisciplinary Education", *American Society for Engineering Education*

ART EXHIBITIONS

- 2010 *The Bones of Maria*. Generative organic art.
The Cultor (online exhibit), <http://www.cultor.it/Pinacoteca2.html>. Torino, Italy.
- 2009 *Presence*. Interactive, 6-screen, 360° panoramic photographs of remote locations.
UCSB Davidson Central Library, University of California Santa Barbara
- 2008 Oct *Social Evolution*. Experiments in evolutionary crowd simulation.
Version Bêta. Genève, Switzerland.
- 2007 *Lifecycles*. An interactive, natural water cycle between living and virtual objects.
2nd International Arts and Science Exhibition. Beijing, China.
- 2007 *Intelligent Things*.
Machine Project, DorkBot So. Cal. Los Angeles, CA.
- 2004 *Collective Morphology*. Collaborative interaction with generative forms.
Gallery 1434, University of California Santa Barbara.
- 2001 *Creatures: Mechanical and Robotic Sculptures*. Tjaden Gallery, Cornell Univ.
Outstanding Student Achievement Award in Contemporary Sculpture. ISC

SELECTED SOFTWARE PROJECTS

LUNA: A Puzzle Metaphor for Interactive, Creative Exploration of Media Arts
RoSE: Research-oriented Social Environment. (Ruby on Rails, Flex/Flash)
3D Multi-touch Tabletop. (Color LEDs, DirectShow of Video input, OpenGL)
Cluster Rendering on Tiled Display. (C++, Winsock, OpenGL and DirectX)
Parallel Smoothed Particle Hydrodynamics. (NVIDIA CUDA for GPGPU)
Deferred Rendering for Multiple Real-Time Shadows. (OpenGL, NVIDIA Cg)
Quanta: Hypergraph Database and Visualization system. (C++, OpenGL)

TEACHING EXPERIENCE

- 2008 Intro. to Computer Graphics. CS 280. *Teaching Assistant & Lecturer*, UCSB
- 2006 Mechanical Engineering, ME 10. *Teaching Assistant*, UCSB. (Casey Hare)
- 2005 Visual Art Literacy, Art 1A. *Teaching Assistant*. UCSB. (Helen Taschian)
- 2005 Media Interface Technology, MAT 5900. *Guest Lecturer*. UCSB (Overholt)
- 2004 Advanced Sculpture, Art 106. *Guest Lecturer*. UCSB. (Jane Mulfinger)
- 2004 Digital Art Strategies, Art 22. *Teaching Assistant*. UCSB. (George Legrady)
- 2004 Computer Game Design, CIS 290. *Instructor*, First official game course. Cornell.
- 2003 Advanced Topics in Game Design, CS 490. *Lecturer*. Cornell Univ.
- 2002 History of Video Games, CS 490. *Guest Lecturer*. Cornell Univ.
- 1999 Media Art Studio. *Teaching Assistant*. Cornell Univ. (Art, Comp. Sci, Arch.)
- 1998 Introduction to Digital Art. *Teaching Assistant*. Cornell Univ. (M. Lyons)