

Matthew R. Lewis, Ph.D., Graphics Research Specialist

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Education

Ph.D. Computer and Information Science, Ohio State University, 2001
M.S. Computer and Information Science, Ohio State University, 1993
B.S.E. Computer Science Engineering, University of Pennsylvania, 1991
B.A. Philosophy, University of Pennsylvania, 1991

Professional Experience

Graphics Research Specialist - Ohio State University, 1993-present
Advanced Computing Center for the Arts and Design (ACCAD)
Graduate Research Assistant - Ohio State University, 1992
Advanced Computing Center for the Arts and Design (ACCAD)
Graduate Teaching Assistant - Ohio State University, 1991
Computer and Information Science Department

Publications

Lewis, Matthew. "Evolutionary Visual Art and Design", chapter to appear in *The Art of Artificial Evolution*, Penousal Machado and Juan Romero (Eds), Springer, 2007.

Bezirtzis, Boris, Matthew Lewis, and Cara Christeson. "Interactive Evolution for Industrial Design" In *Proceedings of Creativity and Cognition*, Washington, DC, June 2007.

Lewis, Matthew. "Procedural Shading for Architecture: Adoption, Fabrication, and Implications" in *Proceedings of Generative Arts 2006*, Milan, Italy, ed. Celestino Soddu, December, 2006.

Zuniga Shaw, Norah and Matthew Lewis, "Inflecting Particles: locating generative indexes for performance in the interstices of dance and computer science", *Performance Research* 11(2), pp 75-86, Taylor & Francis Ltd, 2006.

Lewis, Matthew. "Randomness, Chance, Process: The Infinity Series", in *Charles A. Csuri: Beyond Boundaries, 1963 – Present*, editor Janice Glowski, College of the Arts, The Ohio State University, 2006.

Lewis, Matthew and Keith Ruston. "Aesthetic Geometry Evolution in a Generic Interface Evolutionary Design Framework" in *New Generation Computing* 23(2005), Ohmsha, Ltd. and Springer, 2005.

Dehlinger, Hans and Matthew Lewis. "Selective Extraction of Point Sets from Photographs as Starting Events of Generative-Art Line Drawings" in *Proceedings of Generative Arts 2004*, Milan, Italy, ed. Celestino Soddu, December, 2004.

Lewis, Matthew. "Aesthetic Video Filter Evolution in an Interactive Real-time Framework" in *Applications of Evolutionary Computing, EvoWorkshops 2004*, Coimbra, Portugal, 2004.

Lewis, Matthew and Richard Parent. "Interactively Evolving Virtual Environment Maps with Continuous Layered Pattern Functions" in *Proceedings of the 15th International Conference on Computer Animation*, Geneva, Switzerland, June 19-21, 2002.

Lewis, Matthew. *Creating Continuous Design Spaces for Interactive Genetic Algorithms with Layered, Correlated, Pattern Functions*. Ph.D. Thesis. Ohio State University, 2001.

Lewis, Matthew. "Overview of Virtual Human Representation" in *Computer Animation Algorithms and Techniques*, Richard Parent, Morgan Kaufmann, 2001.

Lewis, Matthew. "Aesthetic Evolutionary Design with Data Flow Networks" in *Proceedings of Generative Arts 2000*, Milan, Italy, ed. Celestino Soddu, December, 2000.

Lewis, Matthew. "An Implicit Surface Prototype for Evolving Human Figure Geometry" OSU-ACCAD-11/ 00-TR2, Advanced Computing Center for the Arts and Design, The Ohio State University, 2000.

Lewis, Matthew. "Sanbaso: A Web Based VRML Humanoid Animation Tool" OSU-ACCAD-10/97-TR1, Advanced Computing Center for the Arts and Design, The Ohio State University, 1997.

Presentations

Lewis, Matthew. "Procedural Shading", one week workshop presented at the University of Applied Arts Vienna (Universität für Angewandte Kunst Wien) December 4-8, 2006.

Lewis, Matthew. "Designing Collaborative Interdisciplinary CG Experiences in the Curriculum", panel participant, SIGGRAPH 2006 Conference, Boston, August 2, 2006.

"Online Virtual Environment Technology for Education and Visualization" Technology Enhanced Learning and Research (TELR) Presentation, The Ohio State University, March 18, 2002.

"Creativity, Evolution, and Ethics: Concerning Artificial Life Applications for the Arts" co-presented with Carol Gigliotti. "The Artificial Life Class" Session Chair: Roy Ascott. College Art Association '97. New York, February 12-15, 1997.

Artwork

2004 Art's Birthday, Hopkins Hall, Ohio State University (with Daniel Jolliffe and Western Front)

2003 Canal Street Projection Project, New Orleans Media Experience

2003 Interactive Video Installation, Sullivant Gallery, Ohio State University

2003 Web3D Symposium Art Show, St. Malo, France

Traveling: Manchester (Cornerhouse Contemporary Art Center); London (ICA London Media Centre); Bristol (Watershed); Huddersfield, UK (Media Centre, Media Lounge); Lancaster (Folly Gallery); Adelaide, Australia (Experimental Art Foundation); Skopje, Macedonia (Center of Contemporary Art).

2003 Focus magazine, Italy

2001 Evolutionary Art and Design Competition, Congress on Evolutionary Computation, Seoul, Korea

2000 Ohm, Nexus Foundation for Today's Art, Philadelphia

1997 Art on the Net, Machida City Museum of Graphic Arts, Tokyo, Japan

1997 Fifth Annual New York Digital Salon, Visual Arts Museum, New York

1997 Leonardo (cover) Journal of the International Society for the Arts, Sciences and Technology

1997 Expanded Visions: Art & Technology, The Schumacher Gallery, Capitol University

1996 Eurographics, Poitiers, France

1996 Columbus Art League Spring Juried Exhibition, Columbus Art League Gallery, Columbus, Ohio

1996 Dream Science '96 Computer Graphics Grand Prix, STEC, Tokyo ("Special Prize")

1996 Programmed Vision, Hopkins Hall, The Ohio State University, Columbus, OH.

Grant Participation

The Story of "Jane" Multimedia Exhibit Development, 2005, \$88,076
Burpee Museum of Natural History, PI: Maria Palazzi, Matthew Lewis

Virtual Theater: Actor Blocking Interface, 2001-2002, \$20,000
TELR Continuing and Expansion Grant, PI: Maria Palazzi, Lesley Ferris

Virtual Theater Interface, 2000-2001, \$106,756
TELR Instructional Innovation Grant Program, PI: Lesley Ferris

The Construction of an Interactive Computer Program for Finger Spelling in American Sign Language, 1999-2001, \$49,285, Battelle Endowment for Technology and Human Affairs, PIs: Wayne Carlson, Brian Rotman

Educating the Growing Network Operations Work Force, 1995-1996, \$29,200
National Science Foundation, PIs: Wayne Carlson, Charles Bender

The Role of Computer Graphics Technology in the Human Perception of Reality, 1993-1995, \$51,940, Battelle Endowment for Technology and Human Affairs & The Greater Columbus Arts Council, PI: Wayne Carlson

Interactive Science Museum Installations, 1993, \$33,000
Center of Science and Industry, PI: Wayne Carlson

Reviewer

ACM SIGGRAPH Courses, 1996-present
EvoMUSART (Evolutionary Music and Art) program committee, 2003-present
IJAIT: Artificial Intelligence in Music and Art
Web3D Symposium papers committee, 2002-2003
Addison-Wesley: Computer and Engineering Publishing Group, 1998
National Cancer Institute, National Institute of Health, SBIR Phase I & II, 1994-1995

Affiliations and Committees

Association for Computing Machinery (ACM)
ACM SIGEVO
ACM SIGGRAPH
Humanoid Animation Working Group (H-Anim)
Ohio Art League
Wexner Center for the Arts, Design Committee for "The Fold" web site (1997-1999)