

# Dr. Andrew S. Glassner

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## Fields of Expertise

Computer Graphics: Rendering, modeling, signal processing, texturing, shading, shape grammars  
Interactive Storytelling: Participatory fiction, multiplayer games  
Fiction: Novels, screenplays  
Non-fiction: Computer graphics, interactive story technique  
Directing: Live action and animation  
Game Design: Creating and developing fun, participatory social games and entertainments

## Education

Ph.D., Computer Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, July, 1988  
M.S., Computer Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, 1987  
B.S., Computer Engineering, Case Western Reserve University, Cleveland, OH, 1984

## Employment

**Novelist, Screenwriter-Director, Consultant**, Coyote Wind, LLC  
May 2000 – Present

**Researcher**, Microsoft Corporation, Microsoft Research, Redmond, WA  
July 1997 – May 2000  
Research in 3D computer graphics and new media

**Writer-Director**, The Microsoft Network, Redmond, WA  
October 1996 - July 1997  
Created and developed *Dead Air*, an interactive web-based mystery show for The Microsoft Network.  
Wrote and directed the pilot episode.

**Researcher**, Microsoft Corporation, Microsoft Research, Redmond, WA  
December 1994 - October 1996  
Research in 3D computer graphics and media theory

**Member of the Research Staff**, Xerox Corporation, Palo Alto Research Center (PARC), Palo Alto, CA  
September 1988 - September 1994  
Research in computer graphics

**Visiting Scientist**, Delft University of Technology, Delft, The Netherlands  
May 1987 - December 1987  
Organized and taught advanced computer graphics course. Research in multidimensional ray tracing.

**Research Assistant**  
University of North Carolina at Chapel Hill, Chapel Hill, NC  
September 1984 - May 1988  
Research in computer graphics, assisted Dr. Frederick P. Brooks

**Summer Intern**, Xerox Palo Alto Research Center (PARC), Palo Alto, CA  
Summer 1986  
Investigated the structure and shape of leaves and built a leaf modeling system

**Consultant**, Bell Communications Research, Piscataway, NJ  
 December 1983  
 Designed and implemented a high-speed 2D rendering library for the *Blit* graphics terminal

**Summer Engineer**, Bell Communications Research, Piscataway, NJ  
 Summer 1984  
 Created and programmed graphics utilities for the *Blit* graphics terminal

**Consultant**, IBM T.J. Watson Research Laboratory, Yorktown Heights, NY  
 December 1983  
 Consulted for Benoit Mandelbrot on the simulation of physical processing with fractal models

**Summer Engineer**, IBM T.J. Watson Research Laboratory, Yorktown Heights, NY  
 Summer 1983  
 Designed and implemented a graphics library for the *Yoda* graphics board

### **Software Engineer**

New York Institute of Technology (NYIT) Computer Graphics Laboratory  
 New York Institute of Technology (NYIT) Digital Sound Laboratory  
 Old Westbury, NY  
 September 1980 - August 1981  
 Designed and implemented one of the first interactive digital sound editing systems, a variety of sound synthesis algorithms, and a real-time image processing library. Modeled and animated 3D polygonal and quadric objects.

## **Books (Non-Fiction)**

- “Morphs, Mallards & Montages: Computer-aided Imagination”, AK Peters, Natick, 2004
- “Interactive Storytelling: Techniques for 21<sup>st</sup> Century Fiction”, AK Peters, Natick, 2004
- “Andrew Glassner’s Other Notebook: Further Recreations in Computer Graphics”, AK Peters, Natick, 2002
- “Andrew Glassner’s Notebook: Recreational Computer Graphics”, Morgan-Kaufmann Publishers, San Francisco, 1999
- “Principles of Digital Image Synthesis”, (two-volume textbook), Morgan-Kaufmann Publishers, San Francisco, 1995
- “Graphics Gems” Series Creator and Series Editor, volumes I through V, Academic Press, Cambridge, 1990-1995
- “Graphics Gems I”, Editor and Multiple Contributor, Academic Press, Cambridge, 1990  
 Japanese translation by Harcourt Brace Jovanovich, Japan.  
 Chinese translation by The National Institute for Compilation & Translation, China.
- “3D Computer Graphics: A Handbook for Artists and Designers”, Design Press, New York, 1989  
 Japanese translation 1990 by ASCII Press, Japan
- “An Introduction to Ray Tracing”, Editor and Contributor, Academic Press, London, 1989
- “Computer Graphics User’s Guide”, Howard W. Sams & Co., Indianapolis, 1984  
 Japanese translation 1987 by ASCII Press, Japan

## **Films**

- “Making Memories,” Writer-Director, 3 minutes 16mm live action, Spring 2003
- “Flow Interface”, Writer-Director, 6 minutes, live action/stills, Microsoft 1998
- “Red Green Blues”, Director, Composer, and Lyricist, August 1998
- “Chicken Crossing”, Writer-Director and Producer, 3.5 minutes, animated 3D short  
 Siggraph '96 Electronic Theatre, Lucy Saenger Theatre, New Orleans, August 1996  
 Visual Fantasy 1997, Tokyo, February 1997  
 Computer Graphics Grand Prix '97, Tokyo, Japan, March 1997  
 British Broadcasting Corporation, January-December 1997  
 ACM 97 Screening Room, March 1997  
 Le Festival Du Dessin Anime et du Film D'animation, Brussels, April 1997

Fujita Vente Theatre, Japan, 1997-1998 program  
 10th Computer Animation Film Festival, Geneva, August 1997  
 "Space Dog", Writer (unproduced animated short)  
 "Shiela's Diner", Writer (unproduced animated short)  
 "Shackleton", Writer (unproduced feature)

## Primary Technical Publications

Glassner, A., "Interactive Storytelling: People, Stories, and Games," Virtual Storytelling, Olivier Balet, Gerard Subsol, Patrice Torguet, Eds., Springer-Verlag, LNCS 2197, 2001, pp. 51-60  
 Glassner, A., "A Shape Synthesizer," IEEE Computer Graphics & Applications, May-June 1997, 17(3), pp. 40-51  
 Glassner, A., Marimont, D., Fishkin, K., and Stone, M., "Device Directed Rendering", ACM Transactions on Graphics, 14(1), January 1995, pp. 58-76  
 Glassner, A., "Dynamic Stratification", Proc. 4th Eurographics Workshop on Rendering, Michael Cohen, Claude Puech and Francois Sillion, ed., Paris, June 1993, pp. 5-14  
 Glassner, A., "A Dataflow Architecture for Shape Synthesis" Graphicon '92, Keldysh Institute of Applied Mathematics, Moscow, Russia. September 1992  
 Glassner, A., "A Tutorial on Geometric Replacements", IEEE Computer Graphics & Applications, 12(1), January 1992  
 Glassner, A., "Growing Complex Shapes From Simple Forms (extended abstract)", Proceedings Eurographics '91, September 1991  
 Glassner, A., "Ray Tracing for Image Synthesis", Academic Press Encyclopedia of Physical Science and Technology, 1991 Yearbook, Academic Press, New York, pp. 485-492, December 1990  
 Glassner, A., "Geometric Substitutions", Proc. Ausgraph '90, September 1990  
 Glassner, A., "A 2D View Controller", ACM Transactions on Graphics, 9(1), January 1990  
 Glassner, A., "How to Derive a Spectrum From an RGB Triplet", IEEE Computer Graphics & Applications, 9(4), July 1989  
 Glassner, A., "Spacetime Ray Tracing for Animation", IEEE Computer Graphics & Applications, 8(2), March 1988  
 Glassner, A., "Supporting Animation in Rendering Systems", Proceedings CHI+GI '87 Workshop on Rendering Algorithms and Systems, Canadian Information Processing Society, Toronto, April 1987  
 Glassner, A., "Adaptive Precision in Texture Mapping", Computer Graphics, 20(4), Siggraph '86, August 1986  
 Glassner, A., and Fuchs, H., "Hardware Enhancements for Raster Graphics", Proceedings NATO Advanced Study Institute on Fundamental Algorithms for Computer Graphics, Fall 1985  
 Glassner, A., "Space Subdivision for Fast Ray Tracing", IEEE Computer Graphics & Applications, 4(10), October 1984 (reprinted in Computer Graphics: Image Synthesis, K. Joy, C. Grant, N. Max, L. Hatfield, Ed., IEEE Computer Society, 1988)  
 Glassner, A., "Musicbox in C: An Interactive, Graphics, Digital Sound Editor", Proceedings of the 1980 International Computer Music Conference, Fall 1980  
 Glassner, A., and Kowalski, M., (January 1981), "The NYIT Digital Sound Editor", The Computer Music Journal, 6(1)

## Major Invited Presentations

"Stories and Graphics", Human Interface Technology Lab, Canterbury, New Zealand, January 2007  
 "Recreational Computer Graphics", Adobe Systems, September 2006  
 "Creating First-Person Interactive Narratives", Research Colloquium, SFU School of Interactive Arts and Technology, September 2006  
 "Computer Graphics and Storytelling", Keynote Talk, Graphite 2005, New Zealand, December 2005  
 "Interactive Storytelling," Keynote Talk, International Digital Media and Arts Conference, Florida, March 2005  
 "Stories, Games, and People", Invited Talk, Cartoon Master, La Corona, Spain, April 2004  
 "Participatory Narrative", University of Washington Animation Lecture Series, January 2002  
 "Do You See What I See?" Conference Keynote, IEEE Visualization 2001, San Diego, CA, October 2001  
 "Online Storytelling: People, Stories, and Games", Keynote Talk, International Conference on Virtual Storytelling, Avignon, France, September 2001

- “Storytelling for a Wired World”, Plenary Talk, AT&T Visualization Days, AT&T Shannon Laboratory, New Jersey, June 2001
- “Graphics, Stories, and Games”, 2001 Symposium on Interactive 3D Graphics, North Carolina, March 2001
- “Free Will, Structure, and Narrative: Designing Large Scale Storied Environments for Animation and Participation”, University of Washington Animation Production Series, Seattle, WA, January 2001
- “Digital Storytelling for A Wired World”, Simon Fraser University Distinguished Lecture Series, Burnaby, British Columbia, November 2000
- “Stories and Computers”, Microsoft Research Lecture Series, Beijing, China, April 2000
- “Fiction: Audiences and Computers”, Conference keynote, Eurographics UK, Swansea UK, March 2000
- “Stories and Structures”, Conference keynote, Eurographics 99, Milan, Italy, September 1999
- “Active Storytelling”, Conference keynote, CGI 99, Canmore, Alberta, June 1999
- “How to Render the World”, Programmer’s Keynote, Game Developer’s Conference, March 1999
- “Is There Hope for New Media?”, CGIX 98, Amsterdam, February 1998
- “Computer Graphics and Cultural Change”, Graphics Interface '97, Kelowna, BC, June 1997
- “Art and Animation”, Computer Graphics Grand Prix '97, Tokyo, Japan, March 1997
- “Networked Shape Synthesis”, Graphicon '92, Moscow, Russia, October 1992
- “The Grammar of Geometric Substitutions”, 1st International Conference on Scientific Visualization, Caracas, Venezuela, October 1991
- “Growing Complex Shapes From Simple Forms”, plenary talk, Eurographics '91, Austria, September 1991
- “The Theory and Practice of Ray Tracing”, full-day tutorial at Eurographics '91, Austria, September 1991
- “Ray Tracing”, full-day tutorial at Ausgraph '90, Melbourne, Australia, September 1990
- “Geometric Substitutions”, Ausgraph '90, Melbourne, Australia, September 1990
- “Ray Tracing: From Algorithms to Programs”, full-day course at Graphics Interface '89, 1989

## Shows and Games

- Creator, “Dead Air”, Multiplayer murder-mystery game for The Microsoft Network, 1999
- Writer and Director, “Classical Trio”, the pilot episode for Dead Air, 1999
- Creator, “That’s Bull”, Game for The Microsoft Network, 1999 (unproduced)
- Game Designer, “Demolition Construction Kit”, Software toy, Dreamworks, 1999 (unproduced)
- Creator, “Spaceship Mars”, Massively-multiplayer real-time online strategy and relationships game, The Microsoft Network, 1998 (unproduced)
- Creator, “Island Paradise”, Multiplayer online game, The Microsoft Network, 1998 (unproduced)

## Other Technical Publications

- Glassner, A., “Clipping a Concave Polygon”, in Graphics Gems V, A. Paeth, ed., Academic Press, Cambridge, 1995
- Glassner, A., “Building Vertex Normals From An Unstructured Polygon List”, in Graphics Gems IV, P. Heckbert, ed., Academic Press, Cambridge, 1994
- Glassner, A., “Darklights”, in Graphics Gems III, D. Kirk, ed., Academic Press, Cambridge, 1992
- Glassner, A., “Anti-Aliasing in Triangular Pixels”, in Graphics Gems III, D. Kirk, ed., Academic Press, Cambridge, 1992
- Glassner, A., “Adaptive Run-Length Encoding”, in Graphics Gems II, J. Arvo, ed., Academic Press, Cambridge, 1991
- Glassner, A., “Maintaining Winged-Edge Models”, in Graphics Gems II, J. Arvo, ed., Academic Press, Cambridge, 1991
- Glassner, A., “A Simple Viewing Geometry” in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990
- Glassner, A., “Useful 2D Geometry” in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990 (also in Gems II, III, and IV)
- Glassner, A., “Useful 3D Geometry” in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990 (also in Gems II, III, and IV)
- Glassner, A., “Frame Buffers and Color Maps” in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990
- Glassner, A., “Normal Coding” in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990

- Glassner, A., "Intepretation of Texture Map Indices" in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990
- Glassner, A., "Multidimensional Sum Tables" in Graphics Gems, A. Glassner, ed., Academic Press, Cambridge, 1990
- Glassner, A., "An Overview of Ray Tracing" (book chapter in "An Introduction to Ray Tracing", A. Glassner, ed., Academic Press, London, 1989
- Glassner, A., "Surface Physics for Ray Tracing" (book chapter) in "An Introduction to Ray Tracing", A. Glassner, ed., Academic Press, London, 1989
- Glassner, A., "A Ray Tracing Glossary" (book chapter in "An Introduction to Ray Tracing", A. Glassner, ed., Academic Press, London, 1989

## Popular Articles

- Glassner, A., "Ray Tracing in Computer Graphics", Computers in Science, September/October 1987, 1(2), pp. 18-25
- Glassner, A., "Ray Tracing for Realism", Byte Magazine, December 1990, 15(2), pp. 263-271

## Journal Columns

- Columns in "Andrew Glassner's Notebook" in IEEE Computer Graphics & Applications:
- "Speed Limit 55", vol. 26, no. 1, January 2005
- "Crop Circles, Part 2", vol. 25, no. 6, November 2004
- "Crop Circles, Part 1", vol. 25, no. 5, September 2004
- "Digital Cubism, Part 2", vol. 25, no. 4, July 2004
- "Digital Cubism, Part 1", vol. 25, no. 3, May 2004
- "Around and Around", vol. 25, no. 2, March 2004
- "About Face", vol. 25, no. 1, January 2004
- "Everyday Visualization", vol. 24, no. 6, November 2003
- "DMorph", vol. 23, no. 5, September 2003
- "Venn and Now", vol. 23, no. 4, July 2003
- "Image Search and Replace", vol. 23, no. 3, May 2003
- "Digital Weaving, Part 3", vol. 23, no. 2, March 2003
- "Digital Weaving, Part 2", vol. 23, no. 1, January 2003
- "Digital Weaving, Part 1", vol. 22, no. 6, November 2002
- "Getting the Picture," vol. 22, no. 5, September 2002
- "Duck!", vol. 22, no. 4, July 2002
- "Putting the Pieces Together", vol. 22, no. 3, May 2002
- "Interactive Pop-up Card Design, Part 2", vol. 22, no. 2, March 2002
- "Interactive Pop-up Card Design, Part 1", vol. 22, no. 1, January 2002
- "Quantum Computing, Part 3", vol. 21, no. 6, November 2001
- "Quantum Computing, Part 2", vol. 21, no. 5, September 2001
- "Quantum Computing, Part 1", vol. 21, no. 4, July 2001
- "A Change of Scene", vol. 21, no. 3, May 2001
- "Tricks of the Trade", vol. 21, no. 2, March 2001
- "Fill 'Er Up", vol. 21, no. 1, January 2001
- "Soap Bubbles, Part 2", vol. 20, no. 6, November 2000
- "Soap Bubbles, Part 1", vol. 20, no. 5, September 2000
- "Texturing with Symmetry", vol. 20, no. 4, July 2000
- "The Digital Ceraunoscope: Synthetic Thunder and Lightning, Part 2", vol. 20, no. 3, May 2000
- "The Digital Ceraunoscope: Synthetic Thunder and Lightning, Part 1", vol. 20, no. 2, March 2000
- "Celtic Knotwork, Part 3", vol. 20, no. 1, January 2000
- "Celtic Knotwork, Part 2", vol. 19, no. 6, November 1999
- "Celtic Knotwork, Part 1", vol. 19, no. 5, September 1999
- "O Say, Can You See?", vol. 19, no. 4, July 1999
- "An Open and Shut Case", vol. 19, no. 3, May 1999
- "String Crossings", vol. 19, no. 2, March 1999
- "Fourier Polygons", vol. 19, no. 1, January 1999
- "The Triangular Manuscripts", vol. 18, no. 6, November 1998
- "Know When to Fold", vol. 18, no. 5, September 1998

- “Aperiodic Tiles, Part 2”, vol. 18, no. 4, July 1998
- “Aperiodic Tiling”, vol. 18, no. 3, May 1998, pp. 83-90
- “Circular Reasoning”, vol. 18, no. 2, March 1998, pp. 104-108
- “Upon Reflection”, vol. 18, no. 1, January 1998, pp. 86-92
- “Inside Moire Patterns”, vol. 17, no. 6, November 1997, pp. 97-101
- “The Perils of Problematic Parameterization”, vol. 17, no. 5, September 1997, pp. 78-83
- “Net Results”, vol. 17, no. 4, July 1997, pp. 85-89
- “Signs of Significance”, vol. 17, no. 3, May 1997, pp. 79-82
- “Situation Normal”, vol. 17, no. 2, March 1997, pp. 83-87
- “Going the Distance”, vol. 17, no. 1, January 1997, pp. 78-84
- “Hey, Buddy, How Do I Get Into the Siggraph Electronic Theatre?”, co-authored with Jim Blinn, vol. 16, no. 6, November 1996, pp. 72-75
- “More Origami Solids”, vol. 16, no. 5, September 1996, pp. 85-91
- “Origami Platonic Solids”, vol. 16, no. 4, July 1996, pp. 85-91
- “Frieze Groups”, vol. 16, no. 3, May 1996, pp. 78-83
- “Computer Generated Solar Halos and Sun Dogs”, vol. 16, no. 2, Mar. 1996, pp. 77-81
- “Solar Halos and Sun Dogs”, vol. 16, no. 1, Jan. 1996, pp. 83-87

## Professional Course Notes & Presentations

- “Modeling, Rendering, and Animation”, invited course, Siggraph 2008
- “Introductory Computer Graphics”, Siggraph 2007
- “Recreational Computer Graphics”, Siggraph 2006, July 2006
- “An Introduction to Modeling”, Siggraph 1994-2005
- “An Introduction to Animation”, Siggraph 1994-2005
- “An Introduction to Rendering”, Siggraph 1994-2005
- “How to Give A Great Talk”, Siggraph 2001, July 2001
- “Fiction 2001: The Future of Storytelling”, Siggraph 2000, July 2000
- “Fiction 2000: Interactive Fiction”, Siggraph 1999, July 1999
- “Logo Design”, Art for Computer Graphicists, Siggraph 1998
- “The Myth of Online Community”, Computer-Human Interaction 1998, Los Angeles
- “The Dishonesty of Visual Culture”, Panel presentation, Siggraph 1996
- “Spectrum: An Architecture for Image Synthesis, Research, Education, and Practice”, in “Developing Large-Scale Graphics Software Toolkits”, Siggraph 1994
- “Ray Tracing Principles” in First International Conference on Scientific Visualization, Caracas, Venezuela, 1991
- “Spectrum: A Proposed Image Synthesis Architecture”, in “Frontiers in Rendering”, Siggraph 1991
- “Current Trends in Ray Tracing”, in “Advanced Topics in Ray Tracing”, Siggraph 1990
- “Implementation Notes for Ray Tracers”, in “Advanced Topics in Ray Tracing”, Siggraph 1990
- “Some Ideas for Future Work”, in “Advanced Topics in Ray Tracing”, Siggraph 1990
- “An Overview of Ray Tracing”, in “Introduction to Ray Tracing”, Siggraph 1987-89
- “Surface Physics for Ray Tracing”, in “Introduction to Ray Tracing” Siggraph 1987-89
- “A Ray Tracing Glossary”, in “Introduction to Ray Tracing” Siggraph 1987-89

## Professional Teaching

- “Computer Graphics for Animation”, Walt Disney Feature Animation, Burbank, CA, May 2000
- “Modern Computer Graphics”, Disney Feature Animation, Burbank, CA, June 1999
- “Art for Computer Graphicists”, Course Organizer, Chair, and Speaker, Siggraph '98
- “Introduction to Computer Graphics”, Speaker, Siggraph 1995 through 2002
- “Fundamentals and Overview of Computer Graphics”, Speaker, Siggraph '93, '94
- “Developing Large-Scale Graphics Software Toolkits”, Speaker, Siggraph '93
- “Frontiers in Rendering”, Course Organizer, Chair, and Speaker, Siggraph '92.
- “Advanced Topics in Ray Tracing”, Course Organizer, Chair, and Speaker, Siggraph '91.
- “State of the Art in Ray Tracing”, Eurographics '91
- “Ray Tracing Fundamentals”, Ausgraph '90, Melbourne, Australia
- “Introduction to Ray Tracing”, Course Organizer, Chair, and Speaker, Siggraph '89.
- “Theory and Practice of Ray Tracing”, Graphics Interface '89.
- “Introduction to Ray Tracing”, Course Organizer, Chair, and Speaker, Siggraph '88.

“Introduction to Ray Tracing”, Course Organizer, Chair, and Speaker, Siggraph '87.

## Colloquia and Workshops

“3D and Narrative”, University of Otago, New Zealand, January 2007  
 “Interactive Storytelling”, Writer’s Guild of Canada, Toronto, November 2002  
 “Participatory Storytelling”, The Institute for Simulation and Training, University of Central Florida, April 2002  
 “Interactive Storytelling: People, Stories, and Games”, Florida State University, April 2002  
 “Stories, Teaching, and the Future”, ThinkQuest Imagine the Future National Lecture Series, February 2002  
 “The Future of Narrative”, University of Washington Animation Lecture Series, January 2002  
 “Games, Stories, Computers, and People”, Naval Postgraduate School, April 2001  
 “Modern Story Structure”, Electronic Arts, March 2001  
 “Story Structure and Interaction”, UC Berkeley, March 2001  
 “Stories and Computers”, Stanford University, March 2001  
 “Short Story Structure”, University of Washington, February 2001  
 “Joe’s Garage: An Interactive Digital Storytelling Workshop”, University of Central Florida, January 2001  
 “Digital Storytelling”, Electronic Arts Canada, December 2000  
 “Story Structure”, Electronic Arts, December 2000  
 “Participative Storytelling” Digital Domain, Los Angeles, CA, October 2000  
 “Participatory Stories” Sony Pictures Imageworks, Los Angeles, CA, September 2000  
 “Active Storytelling” Detroit New Media Association, Ann Arbor, MI, June 1999  
 “Active Storytelling” Interactive Multimedia Arts & Technologies, Toronto, ON, June 1999  
 “The Future of Media” University of Washington, Seattle, WA, November 1997  
 “Producing A Short Film: The Making of Chicken Crossing” Seattle Siggraph, Redmond, WA July, 1996  
 “New Ideas in Modeling” Pratt Institute of Art and Design, Brooklyn, NY November, 1993  
 “Device-Directed Rendering” Delft University of Technology, Delft, The Netherlands. June, 1993  
 “Color Gamut Projection for Synthetic Images” University of California at Santa Cruz, Santa Cruz, CA. March, 1993  
 “Device-Directed Rendering” Indiana University, Bloomington, IN. March, 1993  
 “Rendering Within Constraints” Stanford University Graphics Lunch, Stanford, CA. March, 1993  
 “Two Cool New Techniques for 3D Modeling”, Bay Area Siggraph, San Francisco, CA. April 1992  
 “Geometric Substitutions and Shape Synthesis for 3D Modeling”, Fry's Lecture Series, Palo Alto, CA. November, 1992  
 “Dancing Raisins in Your Refrigerator: Computer Graphics and Ubiquitous Computing” IBM T.J. Watson Research Center, Yorktown Heights, NY. June 1991  
 “Growing Complex Shapes from Simple Forms” Sun Microsystems Graphics Forum, Mountain View, CA. November 1991  
 “Modern Rendering Techniques”, Mitsubishi Corp, Sunnyvale, CA. 1992  
 “Shape Synthesis”, Apple Computer, Sunnyvale, CA. April 1991  
 “A Survey of Modern Image Synthesis”, Santa Clara University, Santa Clara, CA. November 1992  
 “Survival Unix”, 4-part course, Palo Alto, CA. May 1990

## Technical Notes

Glassner, A., “Cubism and Cameras: Free-form Optics for Computer Graphics”, Technical Report MSR-TR-2000-05, Microsoft Research, Redmond, WA, January 2000  
 Glassner, A., “Interactive Pop-Up Card Design”, Technical Report MSR-TR-98-03, Microsoft Research, Redmond, WA, January 1988  
 Glassner, A., “Efficient Ray Tracing in Subdivided Space”, The Ray Tracing News, 2(1), pp. 11-12, February 1988  
 Glassner, A., “Efficient Boolean Evaluation of CSG Models for Ray Tracing”, The Ray Tracing News, 1(1), pp. 3-7, September 1987  
 Glassner, A., “The RSRT Template for Pose Interpolation”, Technical Memo #87-4, Faculty of Mathematics and Informatics, Technical University of Delft, Delft. December 1987

- Glassner, A., and Post, F., “Two Derivations of the Angular Interpolation Formula”, Technical Memo \#87-3, Faculty of Mathematics and Informatics, Technical University of Delft, Delft, The Netherlands. December 1987
- Glassner, A., “How to Derive a Spectrum From an RGB Triple”, Technical Memo \#87-2, Faculty of Mathematics and Informatics, Technical University of Delft, Delft, The Netherlands. October 1987
- Glassner, A., and Post, F., “On the Transformation of Surface Normals”, Technical Memo \#87-1, Faculty of Mathematics and Informatics, Technical University of Delft, Delft, October 1987
- Glassner, A., “idb: An Ikonas Symbolic Debugger”, University of North Carolina, Chapel Hill, NC. July 1985
- Glassner, A., “libgik: An Ikonas Library”, University of North Carolina, Chapel Hill, NC. July 1985

## Journal Activities

- Member, Editorial Board, Journal of Graphics, Games and GPU Tools, September 2008 - present
- Co-Guest Editor (with Turner Whitted), Special Issue on Rendering, IEEE Computer Graphics & Applications, Volume 18, Number 2, March 1998
- Member, Editorial Board, Journal of Graphics Tools, July 1995 – September 2008
- Editor-in-Chief, ACM Transactions on Graphics, June 1995 - January 1997
- Founding Editor, Journal of Graphics Tools, July 1995
- Member, Editorial Board, IEEE Computer Graphics and Applications, Nov 1989 - 1995
- Letters and Short Notes Editor, IEEE Computer Graphics & Applications, January 1990 - January 1991
- Book Reviews Editor, IEEE Computer Graphics & Applications, January 1990 - January 1991
- Editor, The Ray Tracing News, September 1987 - May 1989

## Conference Activities

- Member, Board of Directors, Siggraph 2008
- Member, Late-Breaking Contributions Jury, Siggraph 2007
- Member, Unified Program Jury, Siggraph 2007
- Member, International Program Committee, First International Conference on Computer Graphics Theory and Applications, Lisboa, Portugal, 2006
- Member, Program Committee, International Conference on Entertainment Computing, 2004
- Member, Emerging Technologies Jury, Siggraph 2004
- Member, Program Committee, International Conference on Computer Graphics and Interactive Techniques in Australasia and South East Asia, 2003
- Member, ETech Advisory Committee, Siggraph 2002
- Member, Computer Animation Festival Committee, Siggraph 2001
- Member, Emerging Technologies Jury, Siggraph 2001
- Member, Papers Committee, Siggraph 2000
- Member, Art Show Jury, Siggraph 2000
- Member, Emerging Technologies Jury, Siggraph 2000
- Member, Papers Committee, 1999 Eurographics Rendering Workshop
- Member, Panels Jury, Siggraph '99
- Member, Technical Sketches Committee, Siggraph '99
- Member, Program Committee, International Conference on Visual Computing, Goa, India, 1999
- Member, Papers Committee, 1998 Eurographics Rendering Workshop
- Member, International Program Committee, 1998 Spring Conference on Computer Graphics
- Member, Enhanced Realities Jury, Siggraph '98
- Member, Technical Sketches Committee Jury, Siggraph '98
- Member, Ongoing (Fine Art Show) Jury, Siggraph '97
- Member, Electric Garden Jury, Siggraph '97
- Member, Technical Sketches Committee Jury, Siggraph '97
- Member, Papers Committee, Spring Computer Graphics Conference '97
- Member, Papers Committee, Eurographics Rendering Workshop '97
- Member, Electronic Theatre Jury, Siggraph '96
- Member, Technical Sketches Committee, Siggraph '96
- Member, Papers Committee, Graphics Interface '96
- Member, Papers Committee, Spring Computer Graphics Conference '96
- Member, Papers Committee, 1995 Eurographics Rendering Workshop

Session Chair, Texture Synthesis, Siggraph '95  
 Member, Papers Committee, Graphics Interface '95  
 Member, Papers Committee, Siggraph '95  
 Member, International Programme Committee, Eurographics '95  
 Chairman, Papers Committee, Siggraph '94  
 Chairman, Technical Sketches Committee, Siggraph '94  
 Member, International Programme Committee, Eurographics '94  
 Member, International Technical Committee, Compugraphics '93  
 Member, International Technical Committee, Graphicon '93, St. Petersburg, Russia  
 Session Chair, Techniques For Animation, Siggraph '93  
 Member, Papers Committee, Siggraph '93  
 Member, International Programme Committee, Eurographics '92  
 Member, International Programme Committee, Eurographics '91  
 Member, Gunther Enderle Awards Committee, Eurographics '91  
 Session Chair, Animation and Illustration Systems, Siggraph '91  
 Member, Papers Committee, Siggraph '91

## Academic Teaching

Guest lecture on Structure for Short Stories and Films, University of Washington, Seattle, WA, Fall '97, '98, '99, '00, '01  
 "Advanced Computer Graphics" (a one-semester class) class organizer and teacher, Faculty of Mathematics and Informatics, Delft University of Technology, Delft, The Netherlands. Fall 1987  
 "Ray Tracing and Radiosity: Fundamental Algorithms of Photorealistic Image Synthesis", Course organizer and lecturer, 3-day short course offered in The Berkeley Series in Visual Computing, University of California Berkeley, Berkeley, CA. April 1991. Co-instructor, Peter Shirley.  
 "The Theory and Practice of Ray Tracing", Course organizer and primary lecturer, 3-day short course offered in The Berkeley Series in Visual Computing, University of California Berkeley, Berkeley, CA. October 1989. Co-instructor, Jim Arvo.  
 Guest lecture, Stanford University, Stanford, CA. February 1991  
 Guest lectures and Teaching Assistant, University of North Carolina, Chapel Hill, NC. April 1988

## Patents

Glassner, A., "A Method for Constructing and Folding Pop-up Cards," patent 6,311,142.  
 Glassner, A., "Image Rendering System with Local, Adaptive Estimation of Incident Diffuse Energy", Patent 5,488,700.  
 Glassner, A., D. Marimont and M. Stone, "Method of Rendering a Color Image for an Output Medium From Symbolic Image Data", Patent 5,384,901  
 Glassner, A., D. Marimont and M. Stone, "Rendering a Color Image for an Output Medium from Symbolic Image Data", European Patent 93308229.9  
 Glassner, A., "Methods for Converting Concave Polyhedra to Their Convex Hulls", Patent 5,428,717  
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## **Professional Affiliations**

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## **Consultation Clients**

(partial list due to confidentiality agreements)

The Walt Disney Studios  
Electronic Arts  
Maxis  
Radical Entertainment  
Electronic Arts Canada  
Macromedia  
IBM  
AT&T Shannon Labs

## **Logo Designs**

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