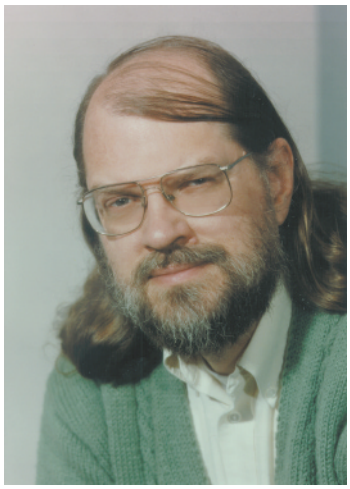
1999 ACM SIGGRAPH Awards

Steven A. Coons Award for Outstanding Creative Contributions to Computer Graphics

James F. Blinn



Dr. James F. Blinn is an artist of picture, word, and science. In SIGGRAPH's twenty-six year history, he has made our community richer and more interesting with his wit, technical discoveries, animated productions of math and physics, and many graphics columns. His writing has a personal style and clarity that have made them a joy to read.

While working on his Ph.D. at the University of Utah he developed bump mapping and, along with Martin Newell, reflection mapping - techniques that are still widely used today. During the same period he consulted with the New York Institute of Technology and with Information International Inc, where he participated in foundational work for computer graphics in feature films.

In 1977 Jim moved to the Jet Propulsion Laboratory and the California Institute of Technology, where he made, along with his collaborators, a series of educational and scientific films. These included the Voyager Fly-by Animations, computer graphics animations for COSMOS (Carl Sagan's PBS series), The Mechanical Universe (animated sequences for a Caltech college-level physics telecourse), and Project Mathematics! (a series of video tapes to teach high school mathematics). Excerpts of these animations, awaited with great anticipation, were shown annually at SIGGRAPH.

In 1987, Jim began to write "Jim Blinn's Corner," a regular column for IEEE Computer Society's Computer Graphics and Applications. While his primary motivation was to share his bag of computer graphics tricks, his articles were personal, humorous, and above all, models of clear exposition. They have since been collected in two books, A Trip Down the Graphics Pipeline and Dirty Pixels.

Through the years Jim has also taught courses in computer graphics at institutions as diverse as the Universities of Michigan, Utah, and California (Berkeley), Caltech, West Coast College and the Pasadena Art Center's College of Design.

Jim has been recognized numerous times for his contributions. He was the first recipient of the SIGGRAPH Computer Graphics Achievement Award for his work in lighting and surface modeling. He was awarded a MacArthur Fellowship to support his work in educational animation. NASA gave him the Exceptional Service medal for the Voyager Fly-By animations, the IEEE gave him the Outstanding Contribution Award for his column, and he received an Honorary Doctor of Fine Arts from the Parsons School of Design.

In accepting his honorary Doctorate, Jim stated: "I think that the most import result of the computer graphics revolution is that it has helped heal the gulf between art and science." One cannot talk of the revolution or of the diminishing gulf without thinking of Jim. He has used his vision and deep understanding of the creative process in art and science to dramatically and permanently improve both disciplines.

SIGGRAPH now awards the Steven Anson Coons Award in recognition of his long-term contributions to Computer Graphics.

Major Publications

Blinn, J. F. and Newell, M. E., Texture and Reflection in Computer Generated Images, CACM, 19(10), October 1976, pp. 542-547. (The original teapot paper. Introduces reflection mapping.)

Blinn, J. F., Models of Light Reflection for Computer Synthesized Pictures, Proceedings of SIGGRAPH 77, pp. 192-198. (Introduces the Torrance-Sparrow highlight model.)

Blinn, J. F., Simulation of Wrinkled Surfaces, Proceedings of SIGGRAPH 78, pp. 286-292. (Introduces bump mapping.)

Blinn, J. F., A Generalization of Algebraic Surface Drawing, ACM Transactions on Graphics, 1(3), July 1982, pp. 235-256. (Introduces blobby modeling.)

Blinn, J. F., Light Reflection Functions for the Simulation of Clouds and Dusty Surfaces, Proceedings of SIGGRAPH 82, pp. 21-29.(Lighting model for rings of Saturn.)

Smith, A. R. and Blinn, J. F., Blue Screen Matting. Proceedings of SIGGRAPH 96, pp. 259-268. (Mathematical model of blue screen matte extraction.)

Books

Jim Blinn's Corner: A Trip Down The Graphics Pipeline, Morgan Kauffman Publishers Inc., San Francisco CA, 214 pp., 1996.

Bloomenthal, J., Bajaj, C., Blinn, J., Cani-Gascuel, M., Rockwood, A., Wyvill, B., and Wyvill, G., Introduction to Implicit Surfaces, Morgan Kauffman Publishers Inc, San Francisco CA, 323 pp., 1997.

Jim Blinn's Corner: Dirty Pixels, Morgan Kauffman Publishers Inc., San Francisco, CA, 247 pp., 1998.

Previous Award Recipients

1997	James Foley
1995	Jose Luis Encarnação
1993	Ed Catmull
1991	Andries van Dam
1989	David C. Evans
1987	Donald P. Greenberg
1985	Pierre Bézier
1983	Ivan E. Sutherland