ABOUT THE AUTHORS

DAVID S. EBERT is an associate professor in the School of Electrical and Computer Engineering at Purdue University. He received his Ph.D. in computer and information science from The Ohio State University in 1991. His research interests are scientific, medical, and information visualization; computer graphics; animation; and procedural techniques. Dr. Ebert performs research in volume rendering, nonphotorealistic visualization, minimally immersive visualization, realistic rendering, modeling natural phenomena, procedural texturing, modeling, animation, and volumetric display software. He has also been very active in the graphics community, teaching courses, presenting papers, chairing the ACM SIGGRAPH '97 Sketches program, co-chairing the IEEE Visualization '98 and '99 Papers program, serving on the ACM SIGGRAPH Executive Committee and serving as editor in chief for *IEEE Transactions on Visualization and Computer Graphics.*

F. KENTON MUSGRAVE, also known as "Doc Mojo," Musgrave is a computer artist and computer graphics researcher with a worldwide reputation. Dr. Musgrave lectures internationally on fractals, computer graphics and the visual arts, and his own computer graphics research. He has developed digital effects for such films as *Titanic* and *Apollo 13*. His images have been widely published and exhibited at international venues, including the Lincoln Center and the Guggenheim Museum in New York City. Dr. Musgrave spent six years in the mathematics department at Yale University working with Benoit Mandelbrot, the inventor of fractal geometry, who credited Musgrave with being "the first true fractal-based artist." He is a founding member of the Algorist school of algorithmic artists and CEO/CTO of Pandromeda, Inc., whose planet-building software product, *MojoWorld,* is the pinnacle of his research. Musgrave has served as director of advanced 3D research at MetaCreations, principal software engineer at Digital Domain, senior scientist at Bethesda Softworks, and assistant professor at George Washington University. Musgrave received his Ph.D. in computer science from Yale University and his M.S. and B.A. in computer science from the University of California at Santa Cruz.

DARWYN PEACHEY is vice president of technology at Pixar Animation Studios in Emeryville, California. He has worked at Pixar since 1988 as a developer of rendering and animation software, as a member of the technical crew on *Toy Story,* and as a technology manager.

Peachey studied at the University of Saskatchewan in Canada, where he received bachelor's and master's degrees in computer science. He later worked as a member of the research staff in the computer science department, where he began his work in computer graphics. Peachey is a member of the Visual Effects Society and the ACM. He has served on several SIGGRAPH and Graphics Interface technical program committees and on the editorial board of the *Journal of Graphics Tools*. His published papers include work in computer graphics and artificial intelligence, and he was one of the recipients of a 1993 Academy Award for the *RenderMan* renderer.

KEN PERLIN is a professor in the computer science department and the director of the Media Research Laboratory and Center for Advanced Technology at New York University. Dr. Perlin's research interests include graphics, animation, and multimedia. In 2002 he received the New York City Mayor's Award for Excellence in Science and Technology and the Sokol Award for Outstanding Science Faculty at NYU. In 1997 he won an Academy Award for Technical Achievement from the Academy of Motion Picture Arts and Sciences for his *noise* and *turbulence* procedural texturing techniques, which are widely used in feature films and television. In 1991 he received a Presidential Young Investigator Award from the National Science Foundation. Dr. Perlin received his Ph.D. in computer science from New York University in 1986, and a B.A. in theoretical mathematics from Harvard University in 1979. He was head of software development at R/GREENBERG Associates in New York, from 1984 to 1987. Prior to that he was the system architect for computer-generated animation at Mathematical Applications Group, Inc. *TRON* was the first movie in which Ken Perlin's name appeared in the credits. He has served on the board of directors of the New York chapter of ACM/SIGGRAPH and currently serves on the board of directors of the New York Software Industry Association.

STEVEN WORLEY has focused his research in computer graphics on appearance and rendering models. His early work on algorithmic textures led to new antialiasing and efficiency adaptations to classical algorithms. In 1996, he introduced the concept of the cellular texturing basis function, which has been widely adopted by most commercial rendering packages. His extensive collaboration with many professional studios has led to the creation of a wide variety of 3D tools. Most recently, his tools for rendering hair and fur have been widely adopted and used in film, TV, and

game development. His company, Worley Laboratories (*www.worley.com*), publishes plug-in tools for various 3D packages.

CONTRIBUTORS

WILLIAM R. MARK was the technical leader of the team at NVIDIA that co-designed the Cg language (with Microsoft) and developed the first release of the NVIDIA Cg compiler. Prior to that, he worked as a research associate at Stanford University, where he co-led the Stanford Real-Time Shading Project with Pat Hanrahan. Starting in January 2003, Bill will join the faculty of the University of Texas at Austin as an assistant professor of computer science. His research interests focus on systems and hardware architectures for real-time computer graphics. Dr. Mark received his Ph.D. from the University of North Carolina at Chapel Hill in 1999.

JOHN C. HART is an associate professor in the computer science department at the University of Illinois at Urbana-Champaign. His research area is procedural methods in computer graphics, including implicit surfaces, texturing, modeling, and animation. He has worked on a variety of procedural modeling and shading projects for Intel, IBM, AT&T, Evans & Sutherland, Kleiser-Walczak, and Blue Sky/VIFX. He received his B.S. in computer science from Aurora University in 1987 and his M.S. (1989) and Ph.D. (1991) in computer science from the Electronic Visualization Laboratory at the University of Illinois at Chicago. He is currently an associate editor for *ACM Transactions on Graphics* and also served on the ACM SIGGRAPH Executive Committee from 1994 to 1999, where he was an executive producer for the feature-length documentary *The Story of Computer Graphics*.