

Untold HERstories: an Homage to SIGGRAPH

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1 INTRODUCTION

This Special Session lightning round features 12 dynamic trailblazers from SIGGRAPH history who are continually empowered by innovation into present day explorations. These women interweave stories across time that transformed digital media and shaped SIGGRAPH; while at the same time these women personally benefited from the interdisciplinary graphics community.

They illustrate how professional networking, collaboration, and unconventional thinking make groundbreaking technologies possible. Presenters recover oral histories as veterans who helped build the foundations of computer art and the computer graphics industry from the early 80's. They share recent innovations and contributions to present day social trends in digital and social media. These stories serve to enlighten and inspire young attendees, reinvigorate conference veterans, and elucidate the seminal period that transformed analogue games into a digital entertainment powerhouse, that gave birth to the internet and social media, that witnessed transformative innovations and that helped solidify SIGGRAPH as the ultimate computer graphics community.

They reveal untold stories of the women who designed Mosaic, the first visual browser; organized the first official SIGGRAPH art show; developed the first CAVE Virtual Reality system; developed the SIGGRAPH Video Review; curated the Touchware Gallery; patented the first digital PHSColograms; pioneered VROOM; developed ground-breaking scientific visualizations for the Electronic Theater; and organized special reception extravaganzas that included a dedicated AT&T satellite link to give SIGGRAPH audiences the future "look and feel" of image-data streaming that was not possible on the then-emerging Internet. SIGGRAPH gave early innovators a resounding voice when the "established art world" excluded emerging digital media and neglected creative works that are now are collectors' items. This homage to SIGGRAPH's impact on digital media history to the present day is a rare opportunity to

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assemble 12 history-making women who will present a fast-moving, trendy retrospective and visually demonstrate the powerful and evolving digital arts scene that launched new fields and careers across the globe.

The non-standard panel format features twelve 7-minute presenters who highlight Midwestern women's contributions to the history of computing and graphics that may have gone overlooked. These women represent a subset of pioneers who are highlighted in a recently published volume, *New Media Futures: The Rise of Women in the Digital Arts* (University of Illinois Press, 2018). This is a unique opportunity to gather these historical figures in one room to present their diverse perspectives. The lightning rounds focus on emerging technologies, personal adventures, and digital creative endeavors spanning their careers to date and their contributions to SIGGRAPH as part of that effort.

2 BRIEF BIOGRAPHIES

Donna J. Cox, MFA, PhD, Aiken Chair, is professor Art and Design, Director of Advanced Visualization Laboratory, National Center for Supercomputing Applications, University of Illinois. She's an internationally acclaimed pioneer in the art of scientific data visualization. She and her collaborators thrill millions with stunning cinematic presentations of data for giant-screen productions including full-dome Solar Superstorms (Benedict Cumberbatch) and Hubble3D IMAX (Leonardo DiCaprio). Chicago Museum of Science and Industry named her among 40 modern-day DaVinci's. IMERSA awarded her the 2017 lifetime achievement for lasting contributions to the big-screen community. She's served as SIGGRAPH Director, Panels and Experimental Technologies Chairs. ACM SIGGRAPH honored her with the 2019 lifetime achievement award.

Ellen Sandor is a new media artist and the founding Director (art)n. She received MFA School of the Art Institute of Chicago, 1975. In early 80's, she integrated photography, sculpture, and video with other art forms including computer graphics, a process leading to the invention of PHSColograms. (art)n exhibits' include Galeria Arteconsult, DAM[Berlin], Musée Carnavalet[Paris]; her permanent collections include Victoria&Albert Museum, Santa Barbara Museum of Art, International Center of Photography. Commissions include Museum of Jewish Heritage-A Living Memorial to the Holocaust; co-authored U.S. and international patents for the PHSCologram process. Published in Computers & Graphics, IEEE, and SPIE. Chairs Advisory Boards including Gene Siskel Film Center. Awards include Leavens Award for Distinguished Service to the Arts and Honorary Doctorate of Fine Arts SAIC.

Maxine Brown is Director of Electronic Visualization Laboratory at University of Illinois, Chicago. Research interests include computer graphics, scientific visualization, and international network infrastructure. She's principal investigator of the US National

Science Foundation grant for "COMPaaS," an advanced computer system for deep learning. She was co-principal investigator of EVL's "CAVE2 virtual-reality environment," introduced in 2012. Brown has been active in the ACM SIGGRAPH organization and in SIGGRAPH. Brown is a recipient of the 1998 SIGGRAPH Outstanding Service Award. "Chicago Matters: Beyond Burnham" designated Brown as one of 15 Global Visionaries for co-developing the StarLight exchange.

Carolina Cruz-Neira is the co-inventor of CAVE and original developer of CAVELibs. She spearheaded open-source VR API movement with the development of VR Juggler and has been an advocate of best practices on how to build and run VR facilities and applications. She is known for conceiving and operating large-scale VR research centers at Iowa State University and University of Arkansas—Little Rock. Former students lead VR at Unity Labs, Intel, Microsoft Research, Google, DreamWorks, Sony Pictures Imageworks. Business Week named her "rising research star" among new generation CS pioneers. She's received many honors including the Boeing Welliver Award, VR Technical Achievement IEEE Society, Career Achievement Award International Digital Media & Arts, CG Pioneer ACM SIGGRAPH.

Janine Fron is a new media artist, educator and independent game designer; member of the Chicago-based (art)n collective. She contributed to experimental, interactive media arts initiatives at Columbia College Chicago and University of Southern California. Fron cofounded and contributed to the Ludica game art collective in LA. "Play Belongs to Everyone" to encourage women to make games and support alternative forms of play. She co-presented workshops/papers with Ludica at Digital Arts Community, Digital Games Research Association, SIGGRAPH, and the International Society of Experimental Artists.

Copper Frances Giloth organized the first international ACM SIGGRAPH Art Show competitions (1982, 1983). She was the first graduate of the MFA program in Electronic Visualization, University of Illinois Chicago. Her earliest work was among the pioneering efforts in the then nascent field of computer art and computer graphics. Professor Art at University of Massachusetts Amherst and formerly directed Academic Computing. Giloth's creative projects including animations, videos, and installations, have been exhibited in U.S., Japan, Canada, Europe. "Alphabet Gestures" was exhibited Odetta Gallery, New York.

Claudia Hart emerged in the 1990s intermedia artists. Her work is about issues of the body, and perception. Everything is fluid, including gender, and interfaces between real and unreal. She developed early virtual imaging, using 3D animation to make media installations and projections, then later invented, other forms of VR, AR, and objects using computer-driven production machines. At the School of the Art Institute of Chicago, she developed the first art-school pedagogic program and curriculum teaching simulations technologies and taking a feminist position in a world without women when she started 20 years ago. She lives in both New York and Chicago.

Tiffany Holmes, Vice Provost for Undergraduate Studies at the Maryland Institute, College of Art. Was professor, Department Chair, and Dean at School of the Art Institute Chicago. "Eco-visualization: Combining art and technology to reduce energy consumption," earned a Best Paper award at Creativity and Cognition

2007. Has lectured/exhibited worldwide: J. Paul Getty Museum LZ, 01SJ Biennial, SIGGRAPH 2000, Interaction in Japan, ISEA Nagoya. Received Michigan Society of Fellows research fellowship, Illinois Arts Council individual grant, and Artists-in-Labs residency award in Switzerland, Rhizome Commission.

Dana Plepys began electronic art in 1977 while at the School of the Art Institute of Chicago. She worked in experimental video and computer graphics research at the Electronic Visualization Laboratory University of Illinois Chicago, (MFA). Her professional career began as a videographer and editor programs and commercials. Was computer graphics designer for first interactive television and now associate director EVL/UIC. Former director/curator of CineGrid Exchange. Since 1993, she's editor of SIGGRAPH Video Review, one of the most widely circulated/comprehensive video-based publications producing over 190 issues; contributes to SIGGRAPH historical archive.

Barbara Sykes is one of Chicago's pioneer New Media artists whose multi-media installations and interactive computer and performances have received international acclaim. Her precedents include 1988-1989 tour with her work "Retrospective" and curated exhibition, "Video and Computer Art: Chicago Style," was shown in Japan, Australia, Spain. She was the first woman video artist to present in China. As Columbia College Professor of Television, she created pivotal cross-institutional collaborations to showcase new media theorists/artists. Groundbreaking work includes performances of "The Poem," 1975, and "Circle 9 Sunrise," 1976, with Tom DeFanti and Drew Browning. She's a featured artist in the Museum of Contemporary Art in the fifty-year retrospective in Chicago, "Art in Chicago: 1945 to 1995." Her bibliography and works are included in the companion book.

Joan Truckenbrod's artwork mediates the digital and nature. Developing algorithms and FORTRAN programs, she created series of plotter drawings and digital textiles. The Whitney Museum, Art Institute of Chicago, Block Museum of Art, IBM Gallery New York City, Smithsonian, Museu de Arte Moderna Rio de Janeiro, Musee d'Art Modern de la ville de Paris, Les Cite des Arts et des Nouvelles Technologies de Montreal, and Villa Chianni Lugano, Switzerland have collected or shown her works. One person exhibits include Paris, London, Wiesbaden and Berlin, Chicago. Authored The Paradoxical Object: Video Film Sculpture, (2012). She's Professor Emeritus at School of the Art Institute Chicago and was SIGGRAPH Art Show Chair.

Margaret Dolinsky, Associate Professor of Digital Art and Senior Research Scientist with the Pervasive Technology Institute. Member of the Cognitive Science Program Faculty and a Fellow with the Institute for Digital Arts and Humanities. She co-chairs the IS&T conference, The Engineering Reality of Virtual Reality. Research includes digital art and interactive technologies for museums, VR theaters, operas and stage productions. Shown at SIGGRAPH, Ars Electronica, NCC's InterCommunication Center Tokyo. Published articles include Leonardo, Intelligent Agent, U.S. World&News. Received Techpoint's Leading Light award for Outstanding Educator in Science, Technology or Engineering.