Expressive 2016

Joint Symposium of

Computational Aesthetics (CAe)
Non-Photorealistic Animation and Rendering (NPAR)
Sketch-Based Interfaces and Modeling (SBIM)

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Table of Contents

Table of Contents iii

Keynotes v

International Program Committee Expressive 2016 vii

Author Index viii

Working with Images

Painted Stained Glass 1
Lars Doyle and David Mould

A Benchmark Image Set for Evaluating Stylization 11
David Mould and Paul L. Rosin

Automatic Texture Guided Color Transfer and Colorization 21
Benoit Arbelot, Romain Vergne, Thomas Hurtut, and Joëlle Thollot

Parameterized Skin for Rendering Flushing Due to Exertion 33
Teresa Vieira

Stylization

Barycentric Shaders: Art Directed Shading Using Control Images 39
Ergun Akleman, S. Liu, and Donald House

Art-directed Watercolor Rendered Animation 51
Santiago E. Montesdeoca, Hock-Soon Seah, and Hans-Martin Rall

Map Style Formalization: Rendering Techniques Extension for Cartography 59
Sidonie Christophe, Bertrand Duménieu, Jérémie Turbet, Charlotte Hoarau, Nicolas Mellado, Jérémie Ory, Hugo Loi, Antoine Masse, Benoit Arbelot, Romain Vergne, Mathieu Brédif, Thomas Hurtut, Joëlle Thollot, and David Vanderhaeghe

Interaction

EasySketch^2: A Novel Sketch-based Interface for Improving Children's Fine Motor Skills and School Readiness 69
Honghoe Kim, Paul Taele, Jinsil Seo, Jeffrey Liew, and Tracy Hammond

Patternista: Learning Element Style Compatibility and Spatial Composition for Ring-based Layout Decoration 79
Huy Quoc Phan, Jingwan Lu, Paul Asente, Antoni B. Chan, and Hongbo Fu

Interactive NPAR: What Type of Tools Should We Create? 89
Tobias Isenberg

Table of Contents

StandUp: Understanding Body-Part and Gestural Preferences for First-Person 3D Modeling 97
Kapil Dev, Nicolas Villar, and Manfred Lau

Synthesis

Daisy Visualization for Graphs 103
Katayoon Etemad, Faramarz Samavati, Sheelagh Carpendale

Data-Driven Iconification 113
Yiming Liu, Aseem Agarwala, Jingwan Lu, and Szymon Rusinkiewicz

Stippling with Aerial Robots 125
Brendan Galea, Ehsan Kia, Nicholas Aird, and Paul G. Kry

Quantum Art 135
Alain Lioret

Keynote

Computational Photography: Going Forward from an Historical Perspective

Brian A. Barsky
Computer Science Division
School of Optometry
Berkeley Center for New Media
Berkeley Institute of Design
Arts Research Center
University of California, Berkeley

Abstract
Computational photography is a nascent field that is rapidly gaining interest in various scientific and engineering research communities. This research is occurring in a context of a democratization of photography where the capability to take photographs is reaching more broadly than ever before. Historically, this is reminiscent of George Eastman's invention of the first camera for the general public in 1888 which was launched with the advertising slogan "You press the button, we do the rest." This talk will present some of the history of photography, including some of the important artistic movements that fueled its evolution.

Short Biography
Brian A. Barsky is Professor of Computer Science and Vision Science, and Affiliate Professor of Optometry, at the University of California at Berkeley, USA. He is also a member of the Joint Graduate Group in Bioengineering, an interdisciplinary and inter-campus program, between UC Berkeley and UC San Francisco, and a Fellow of the American Academy of Optometry (F.A.A.O.). Professor Barsky has co-authored technical articles in the broad areas of computer aided geometric design and modeling, interactive three-dimensional computer graphics, visualization in scientific computing, computer aided cornea modeling and visualization, medical imaging, and virtual environments for surgical simulation. He is also a co-author of the book An Introduction to Splines for Use in Computer Graphics and Geometric Modeling, co-editor of the book Making Them Move: Mechanics, Control, and Animation of Articulated Figures, and author of the book Computer Graphics and Geometric Modeling Using Beta-splines. Professor Barsky also held visiting positions in numerous universities of European and Asian countries. He is also a speaker at many international meetings, an editor for technical journal and book series in computer graphics and geometric modelling, and a recipient of an IBM Faculty Development Award and a National Science Foundation Presidential Young Investigator Award. Further information about Professor Barsky can be found at `http://www.cs.berkeley.edu/~barsky/biog.html`. Photography has been a lifelong passion of Professor Barsky. His photographs have won awards, been exhibited internationally, and have been published. Some of his photographs form the permanent collection of the Musée des beaux-arts du Canada/National Gallery of Canada. While he was an architecture student, he worked in architectural photography. He has photographed widely in China for more than 30 years. He has worked in small, medium, and large format film photography as well as in digital photography. He has taught numerous photography courses internationally.

Keynote

Unknowing, Undeciding, Unbeing: Art and Science at the Limits of Knowledge

Paul Hertz
School of the Art Institute of Chicago

Abstract
As a category of thought, "the unknowable" informs not just poetry and art but science and mathematics. Mathematical and scientific limits on knowability discovered in the 20th century have laid to rest the desire of 19th century scientific positivism to occupy a fully revealed universe. This same period marks the birth and collapse of the artistic avant-garde, from the Romantic Rebellion–which was in part a response to positivism–to the postmodern critique of authority, progress, and formal invention that arguably has led to our current situation, awash in art but empty of manifestos or direction. Yet, in the process of science "coming around" to a formulation of the unknowable that strangely recalls and resonates with poetic evocations of ambiguity, mystery, and primordial emptiness, we have also discovered new sources of formal invention, both through artists interpreting science and through the arrival of a mathematics capable of describing systems that previously were the province of artists. I wish to suggest that the "death of form" associated with the demise of the avant-garde has been greatly exaggerated. New forms emerge still at the intersection of mathematics, art and science. Considering this "resuscitation" of form, I will discuss the work of pioneers of algorithmic art and that of a latter generation whose work dwells in noise, glitch and indeterminacy. I see my own work as a bridge between these two tendencies, and will take up the invitation from Expressive 2016 to discuss my own trajectory in the context of new media art history and the history of the limits of knowledge.

Short Biography
Paul Hertz is an independent artist and curator who teaches art history and studio courses in new media at the School of the Art Institute of Chicago (SAIC). He has worked with computers for over thirty years, producing an extensive and varied body of algorithmic and conceptual art. In Spain from 1971 to 1983, he collaborated with musicians and theatrical groups and developed an intermedia generative system, "IgnoTheory." Since 1979, he has presented performances as Ignotus the Mage, a dysfunctional fortuneteller with a deck of binary punch cards, who can only see the present. He learned to program computers as a Fellow of the Center for Art and Technology at SAIC, where he earned his MFA in Time Arts in 1985. From 1992 to 2009, Hertz worked at Northwestern University, where he developed software for the Collaboratory Project and taught new media and virtual reality courses. His free software "GlitchSort" application and his Processing library "IgnoCodeLib" have been used by many artists. His curatorial work includes "all.go.rhythm" at the Ukrainian Institute of Modern Art (UIMA), Chicago, 2015; "glitChicago" UIMA, Chicago, 2014; "Imaging by Numbers" at the Mary and Leigh Block Museum, Northwestern University, 2008; "Second Nature," UIMA, 1999; and "La Finca: The Homestead," Universidad Politécnica de Valencia, Spain, 1995. As an artist, he delights in faux symbolism, intermedia, code sourcery, glitching and social interfaces. His work has been exhibited in many international media festivals and symposia, most recently in the Wrong Bienniale, an international online exhibition. He is currently working on a large scale mural commissioned for the new National Science Foundation headquarters in Washington, DC.

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Author Index

Agarwala, Aseem 113
Aird, Nicholas 125
Akleman, Ergun 39
Arbelot, Benoit 21, 59
Asente, Paul 79
Brédif, Mathieu 59
Carpendale, Sheelagh 103
Chan, Antoni B. 79
Christophe, Sidonie 59
Dev, Kapil 97
Doyle, Lars 1
Duménieu, Bertrand 59
Etemad, Katayoon 103
Fu, Hongbo 79
Galea, Brendan 125
Hammond, Tracy 69
Hoarau, Charlotte 59
House, Donald 39
Hurtut, Thomas 21, 59
Isenberg, Tobias 89
Kia, Ehsan 125
Kim, Honghoe 69
Kry, Paul G. 125
Lau, Manfred 97
Liew, Jeffrey 69
Lioret, Alain 135
Liu, S. 39
Liu, Yiming 113
Loi, Hugo 59
Lu, Jingwan 79, 113
Masse, Antoine 59
Mellado, Nicolas 59
Montesdeoca, Santiago E. 51
Mould, David 1, 11
Ory, Jérémie 59
Phan, Huy Quoc 79
Rall, Hans-Martin 51
Rosin, Paul L. 11
Rusinkiewicz, Szymon 113
Samavati, Faramarz 103
Seah, Hock-Soon 51
Seo, Jinsil 69
Taele, Paul 69
Thollot, Joëlle 21, 59
Turbet, Jérémie 59
Vanderhaeghe, David 59
Vergne, Romain 21, 59
Vieira, Teresa 33
Villar, Nicolas 97