ACM SIGGRAPH VIDEO REVIEW
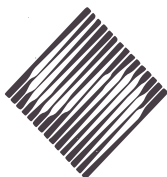## ISSUE 134

SIGGRAPH 2000
ELECTRONIC THEATER PROGRAM
TABLE OF CONTENTS

01 Today's Science Tomorrow's Art

Producer: Aaron Otstott

Summary:

   Two programs were created in Open GL/C++ to generate images, along with my own animatable font. The first program handles streaming text background, increasing the rate at which letters are typed, motion-blurring fast images. The second program generates the running man. Random letters are drawn (according to animation parameters specified) and their color intensity is determined by the pixels covered in the Muybridge images. A sequence of images are read and animation parameters are applied to the animatable font.

   Software: Adobe Photoshop; Alias|Wavefront Composer
   Hardware: SGI O2

Contributors:
Edward Muybridge, Karen Hillier

Contact:
Aaron Otstott
Texas A&M University
A216 Langford Center
College Station TX 77840
USA
+1.409.845.6716
+1.409.845.4491 fax
aarono@viz.tamu.edu

02 Faux Plafond - Cosmic Promenade

Producer: Mikros Image

Summary:

   On a night with a full moon, a couple who could not find sleep keep busy in their apartment. A domestic distraction and fantastic journey under a vault of stars....

Contributors:
Direction: François Vogel
Production: Mikros Image
Post-Production: Mikros Image
Operator: Pascal Laurent
Music: Jerùme Coulet
Project Manager: Michel Bultè
Digital Artists: François Vogel,
Anna Paula Pizzocaro

Contact:
Maryle Capmas
Mikros Image
120, rue Danton
Levallois Perret 92300
France
+33.1.55.63.11.00
+33.1.55.63.11.01 fax
maryle.capmas@mikrosimage.fr

03 Young at Heart

Producer: Mark Sagar, Lol Creme

Summary:

An old actress reminisces in her dressing room as she prepares to go on stage. All seems normal until she dramatically transforms into a young woman. How can she possibly do this? She is the world's first digital actress, so she can change into any form she likes! The film shows close-ups of an actress who never existed now performing in a standard dramatic context, demonstrating the Life F/X facial modeling, animation and performance capture system. Life F/X enables the creation of photorealistic facial animation of humans and creatures, and simulates complex skin deformation that allows digital makeup effects such as aging or youthening.

Contributors:

Directors of Life F/X Development: Dr. Mark Sagar, Dr. Paul Charette

Visual Effects Supervisor: David Altenau

CG Artists: Chris Waegner, Rudy Grossman, Olivier Sarda, Kevin Smith, David Altenau, Justine Sagar

Software Development: Shane Blackett, Stuart Norris, Dr. Richard Christie, Dr. David Bullivant, Dr. Paul Neilsen, Dr. Peter Hunter

Digital Tracking: Kieran Waegner, David Kalinoski, Brad Kalinoski, James Shephard

The Jester: Jessica Vallot

Old Age Makeup Consultant: Todd Masters

Director of Photography: Gale Tattersall

Editor: Greg DeCamp

Music: Lol Creme

Contact:
Mark Sagar
Life F/X Inc.
2918 3rd Street, #3
Santa Monica CA 90405
USA
+1.323.769.3700
+1.323.769.3701 fax
msagar@lifefx.com

04 Protest

Producer: Russ Dube

Summary:
"Protest" is a dream like meditation on the plight of the elephant, whose natural habitat shrinks each year.

Software: Kinetix 3D Studio MAX; Adobe Photoshop; After Effects

Contributors:
Chris Gilligan, Josselin Mahot, John Payne

Contact:
Josselin Mahot pitchtv
304 Hudson Street 6th Floor
New York NY 10013
USA
+1.212.584.5840
+1.212.584.5845 fax
josselin@pitchinc.com

05 Cosmic Clock

Producer: Andrew J. Hanson

Summary:
We on earth see the night sky as a single image filled with points of light. Yet, each beam of light that reaches our eyes at this moment has a different history. This animation depicts the fantastic story of these traveling light rays, as they reveal snapshots of the cosmos reaching back towards the beginning of time itself.

Contributors:
Philip C. W. Fu

Contact:
Andrew Hanson
Indiana University
Computer Science Department
Lindley Hall 215
150 South Woodlawn Avenue
Bloomington IN 47405
USA
+1.812.855.5855
+1.812.855.4829 fax
hansona@indiana.edu

06 Image-Based Lighting

Producer: Paul Debevec

Summary:

"Image-Based Lighting" is a new graphics technique that lets us illuminate synthetic renderings with light from the real world. Originally applied to computer-generated objects, it has been extended to real objects and people's faces in a paper to be presented at SIGGRAPH 2000. In this technique, a custom lighting stage illuminates the subject from all possible directions, and these images are recombined to accurately render the subject's appearance in any form of natural or synthetic illumination. These techniques have attracted interest in the visual effects industry for their potential applications to realistic rendering and compositing.

Contributors:

Tim Hawkins, Chris Tchou, H.P. Duiker, Westley Sarokin

Contact:
Paul Debevec
University of California at Berkeley
Computer Science Division
387 Soda Hall, #1776
Berkeley CA 94720-1776
USA
+1.510.642.9940
+1.510.642.5775 fax
debevec@cs.berkeley.edu

07 Avenue Amy

Producer: Sally Norvell

Summary:

"Avenue Amy" follows the life of its star as she searches for love in New York City's East Village. The actors were shot against green screens to achieve both a stylized look and to ensure that their gestures and facial expressions would remain evident in the final animation. 3D environments were created from still photographs of New York locations and the footage was treated in After Effects. After the actors' skin tones and clothing shapes were pulled, a traditional cel animator painted the characters. Finally, using 3D Studio MAX, lighting was added to give scenes depth and realness.

Contributors:

Technical Directors: Lewis Kofsky, Birgit Rathsmann
3D Modeler: Jeeyun Sung
Cel Animation: Vanessa Vanderbaan, Grace Liu
2D Compositor, Web Design: Marcos Zevallos
Production Manager: Phil Higgs
Writer: Amy Sohn

Contact:
Boo Wong
Curious Pictures
440 Lafayette Street
6th Floor
New York NY 10003
USA
+1.212.674.1400
+1.212.674.0081 fax
boo@curiouspictures.com

08 1

Producer: Yoshifumi Sadahara

Summary:

With the motif of 'Multiplication,' 'Self-Fertilization' and 'Birth,' this piece is the expression of Sadamune Takenaka's world of art. Although these three words have a rather grotesque nature when expressed in images, this project holds its originality in trying to create a clean and clear impression.

Contributors:

Gentaro Yamamoto, Kenji Sakoda, Yasuo Koga, Shingo Sato, Shunichiro Tsumori, Rokurota Shimizu, Mayumi Senoue

Contact:
Sadamune Takenaka
Omnibus Japan, Inc.
4-6-8 Todoroki
Setagaya-ku
Tokyo 158-0082
Japan
+81.3.5706.8357
+81.3.5706.8437 fax
takenaka@omni.co.jp

09 Tekken Tag Tournament Opening Sequence

Producer: NAMCO Limited

Summary:

This is the opening movie for the PlayStation game "Tekken Tag Tournament." It leads players into the world of Tekken through use of realistic computer graphics. We were able to bring life to the game characters with use of dramatic movement and heightened emotion.

Contributors:

Yukiharu Taniguchi, Akiko Nakazawa, Shinnichiro Yoda, Tomohiro Yonemichi

Contact:
Satoru Yamada
NAMCO Limited
1-1-31 Shinurashima
Kanagawaku
Yokohama 221-0031
Japan
+81.45.461.8074
+81.45.461.8077 fax
satoru@vs.namco.co.jp

10 Hello, Dolly!

Producer: Mariko Hoshi

Summary:

"Hello, Dolly!" is a satirical story about cloning that starts in a bed room. One night, an insomniac tries to fall asleep by counting sheep. But he can't. No matter how hard he tries, his count of sheep doesn't increase. Is this just a nightmare... or not?!

A final graduate school project at Academy of Art College, "Hello Dolly!" was made entirely on SGI machines with Softimage for animation and modeling. Composer and Pandemonium were used for editing, compositing, and some visual effects. Sound was put together in ProTools on Macintosh.

Contributors:
Music: Carlos Baena
Sound Edit: Atsuko Yamagishi
Sound Design: Mariko Hoshi,
Atsuko Yamagishi
Voice: Fred Cabral

Contact:
Mariko Hoshi
500 West Middlefield Road, #115
Mountain View CA 94043-3427
USA
+1.650.962.0266
marikoholics@yahoo.com

11 Pensive

Producer: Tim Best

Summary:

Working in Maya, complex shading networks render the layered cross-hatching effects in a single pass. Shots feature variations of a 'toon' shader which combines hand drawn textures and watercolor paintings with ray traced reflections and lighting effects for an unconventional look. The fire animation uses a single hatch-mark as a sprite in a particle system and was composited in Composer. This animation was produced after-hours at Imaging Research Center, UMBC.

Contributors:
Heather Bowen

Contact:
Tim Best
Imaging Research Center, UMBC
Fine Arts Building, Room 111
1000 Hilltop Circle
Baltimore MD 21250
USA
+1.410.455.3373
tbest1@irc.umbc.edu

12 Geijutsuden

Producer: Yusaku Toyoshima

Summary:

"Geijutsuden" is a decorative game combining Japanese traditional art and modern style. We use special techniques such as showing three dimensions as two and composing traditional Japanese pictures.

Contributors:

Animation: Youichi Mouri, Kazue Kishino, Masayuki Abe, Hideaki Maekawa, Saiko Tada

3D Models: Kazuyuki Endo, Hiroshi Yagishita, Yukiko Nagai

Texture Mapping: Jituhisa Shibata

Sound Producer: Shigemitsu Goto

Sound Design: Kenji Hikita, Ryoue Takagi

Office Administrator: Ai Kikuchi

Contact:
Yukiko Kanatsuka
TYO Productions Inc. Digital
Frontier Department 7F
Nielsen Building 1-1-71
Meguroku Nakameguro
Tokyo 153-0061
Japan
+81.3.3794.2476
+81.3.3794.2472 fax
yukoki@tyo.co.jp

13 Syokyoan

Producer: Koji Yamamoto

Summary:

This is the legend of two rough fellows who lived in a violent age...

Contributors:

Makiko Fujita

Contact:
Koji Yamamoto
Digital Hollywood Masters Capital
3-205 3-9-11 Kamisinozaki
Edogawa-ku
Tokyo 133-0054
Japan
+81.3.5281.9221
+81.3.5281.9229 fax
kj@ma3.justnet.ne.jp

14 Synchronicity

Producer: Tony Hurd

Summary:
"Synchronicity" is an entirely computer generated dance allegory. The passage of time, including the evolution of the characters, is augmented by a progression of stylistic looks. The complex choreography was captured using the Vicon 370 optical motion capture system. Nearly 100 markers were used to capture all of the subtleties of the performance. Vicon, Filmbox, Softimage, and ILM software were used to reconstruct and apply the motion capture data to the CG dancers. The CG environment was constructed in Softimage, surfaced with RenderMan, lit with ILM proprietary software, and ultimately demolished using a Maya rigid body simulation.

Contributors:
Computer Graphics Supervisors: Tim Alexander, Jeremy Goldman, Hayden Landis, Sean Schur
Camera: Stefen Fangmeier
Digital Lighting Setup, Ending Sequence: Christian Foucher
Computer Graphics Artists: Mario Capellari, Paul Churchill, Mike Conte, Lindy De Quattro, Vince De Quattro, Jeff Ertl, Todd Fulford, Peg Hunter, Dan Lobl, Jennifer McKnew, Patrick Neary, Ricardo Ramos, Frederic Schmidt, Jeff Shank, Douglas James Smith, Ken Wesley
Digital Paint Artist: Patrick Jarvis
Digital Model Development and Construction Artists: Dugan Beach, Andrew Cawrse, Jim Doherty, Michael Easton, Aaron Ferguson, Paul Giacoppo, Rick Grandy, Paul Kavanagh, Corey Rosen, Susan Ross, Tony Sommers, James Tooley
Motion Capture Producer: Sandra Scott
Motion Capture Supervisors: Jeff Light, Mike Min
Film Recording Supervisor: Joshua Pines
Editor: Carey Burens
Negative Cutter: Doug Jones
Choreography: Paula Telander, Phyllis Cagnolatti
Dancers: Tanyce Alaga, Sheri Spellwomen
Original Musical Score: Jim Gardiner
Vocalist: Valerie Matthews
Production and Technical Support: Michael Cordova, Tim Greenwood, Ian McCamey, Janine McGraw, Jim Milton, Mike Peters, Seth Rosenthal, Mike Sanders Special Thanks: Industrial Light + Magic

Contact:
Hans Uhlig
Bay Vista Productions
7 Sky Road
Mill Valley CA 94941
USA
+1.415.448.2871
+1415.448.4768 fax
hansu@ilm.com

15 Volume Visualization of the Orion Nebula

Producer: Jon D. Genetti

Summary:

In this visualization, viewers are transported 1500 light years to the heart of the Orion Nebula. The nebula is derived from a 3D polygonal model based on radio and visible light observations from the Hubble Space Telescope and ground-based observations. A custom toolkit converts this polygonal model to 3D volume data with accurate and controllable nebulosity rendition of the various depicted forms. Eighty-four additional volumes were modeled and placed into the scene with 883 stars that use Gaussian footprints for star brightness. The animation was created with custom volume rendering software that renders multiple, multi-resolution volumes using perspective viewing transformations.

Contributors:

David R. Nadeau, Erik Wesselak

Contact:
Jon Genetti
San Diego Supercomputer Center
University of California San Diego
9500 Gilman Drive, MC0505
La Jolla CA 92093-0505
USA
+1.858.534.5144
+1.858.534.5152 fax
genetti@sdsc.edu

16 Alaris

Producer: Daiquiri Digital Pictures/Lee Films

Summary:

Two aliens, picking up samples of terrestrial life on earth, get confused by the new train between Madrid and Valencia and mistake the train for their own spacecraft.

Contributors:

Spainbox

Contact:
Juan Tomicic
Daiquiri
calle Javier Ferrero, 12
Madrid 28002
Spain
+34.91.413.99.40
+34.91.413.40.06 fax
spainbox@retemail.es

17 Dimension

Producer: Ringling School of Art & Design

Summary:
Life presents a puzzle for us everyday. As soon as one obstacle is overcome, another takes its place. It is what one makes out of these confinements that makes a person feel free, no matter what the last obstacles are.

Contributors:
Jim McCampbell, Bob Melville, Ed Cheetham, Phil Chiocchio, Claudia Cumbie-Jones, Julie Goldstien, Steve Miller, Jeff Boddy, Amber Rudolph

Contact:
George Schermer
Ringling School of Art & Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota FL 34234
USA
+1.941.359.7536
+1.941.359.7517 fax
gscherme@ringling.edu

18 Tekken Tag Tournament

Producer: NAMCO Limited

Summary:
"Tekken Tag Tournament" is a fighting game for PlayStation employing high-quality real-time 3D graphics. Each playable game character has been constructed using complex skeletal structures with at least 100 bones in order to fully express their realism. We have been able to achieve very smooth muscle movement on each part of the human body, and convey aspects of each characters personality using a variety of gestures and facial expressions. The game plays at a constant rate of 60 frames per 1-second, using real-time animation throughout.

Contributors:
Takuji Kawano, Masashi Kubo

Contact:
Satoru Yamada
NAMCO Limited
1-31 Shinurashima
Kanagawaku Yokohama
221-0031 Japan
+81.45.461.8074
+81.45.461.8077 fax
satoru@vs.namco.co.jp

19 Stationen

Producer: Christian Sawade-Meyer, FH-Hannover

Summary:

Analogous to the odyssey of life, "Stationen" can be likened to losing yourself through a monotonous, hardly-fertile world with its misleading influences.

Contact:
Christian Sawade-Meyer
Jagdweg 7
Petershagen 32469
Germany
+49.5702.83.00.23
+49.5702.500 fax
contact@wired-illusions.de

20 Firelight: Graphic and Archaeology

Producer: Alan Chalmers

Summary:

The cave art at the Cap Blanc site in Bordeaux is a remarkable record of the earliest artistic expression. However, as is often the case that these carvings and paintings are studied by archaeologists using modern light sources, such as floodlights, rather than fire light. The aim of this research is to examine the art accurately under illumination provided by reconstructions of ancient sources, without the need to take burning torches into these fragile sites. To create this animation, we have used laser scanned data rendered using the Radiance lighting visualization.

Contact :
Alan Chalmers
University of Bristol
Merchant Venturers Building
Woodland Road
Bristol BS8 1UB
UK
+44.117.954.5150
alan@cs.bris.ac.uk

21 Hot Spot

Producer: Andrew Ruhemann

Summary:

Set in a club with a pounding '80s disco beat, Ray and his friend Dave compete for the attention of the elegant Imogen by attempting to outdo each other on the dance floor.

Contributors:

Produced in association with
Aardman Animations
Editors: Stuart Hutcheson, Kevin
O'Brien
Music: Mark Brierley

Contact:
Joanna Stevens
Passion Pictures
25-27 Riding House Street
London WIP 7PB
UK
+44.207.323.9933
+44.207.323.9030 fax
joanna@passion-pictures.com

22 Headless

Producer: Rima Schmidt

Summary:

A man loses his head and buys a red balloon. Then he meets a sad little girl who wants the balloon, too! "Headless" was rendered with rough pencil drawings in combination with 3D animation, using Softimage.

Contributors:

Music: Stephan Ziehten
Sound Design: Ruediger Fleck
Second Animation: Heidi
Wittlinger

Contact:
Sven Pannicke
Filmakademie Baden-Wuerttemberg
Mathildenstrasse 20
Ludwigsburg 71638
Germany
+49.7141.969.235
+49.7141.969.297 fax
sven.pannicke@filmakademie.de

23 The Light of Mies van der Rohe

Producer: Henrik Wann Jensen

Summary:

This animation demonstrates how global illumination using photon mapping can be used to explore the light flow in a complex architectural model, the unbuilt 'Courtyard House with Curved Elements' by Mies van der Rohe. The animation was rendered on a Linux based renderfarm using global illumination software.

Contributors:
Stephen Duck (MIT)

Contact:
Henrik Jensen
Stanford University
Gates Computer Science 362B
Palo Alto CA 94305-4070 USA
+1.650.725.3696
+1.650.723.0033 fax
henrik@graphics.stanford.edu

24 Pump-Action

Producer: Phil "Captain 3D" McNally

Summary:

"Pump-Action" is an independent four minute CG animation that follows the conflict between inflatable characters of differing materials in a workshop setting. A solo effort by Phil "Captain 3D" McNally, this project is his first short film. It took 14 months to complete using Apple Macintosh G3 and Cinema 4D XL.

Contact:
Phil "Captain 3D" McNally t3D
Special Projects
142b Grosvenor Terrace
Camberwell
London SE50NL
UK
+44.20.7708.5091
+44.20.7708.5091 fax
captain3d@pump-action.co.uk

25 Tekken Tag Tournament Ending Sequence

Producer: NAMCO Limited

Summary:

This movie is the ending sequence for "Tekken Tag Tournament" on the PlayStation. It depicts the plight of a girl who's long been possessed by an evil spirit and is struggling with the evil force controlling her. After defeating all opponents in the tournament, the girl gains enough strength to overcome the wolf's spirit...

Contributors:

Shinichiro Yoda, Tatsuya Matsue, Tomoyuki Tsuru, Yoshihito Yano

Contact:
Satoru Yamada NAMCO Limited
1-1-31 Shinurashima
Kanagawaku Yokohama
221-0031 Japan
+81.45.461.8074
+81.45.461.8077 fax
satoru@vs.namco.co.jp

26 The Last Drawing of Canaletto

Summary:

This film is a 3D computer re-creation of an 18th century drawing by the Venetian artist Canaletto. The viewer is able to enter the space of the 2D drawing and look around, while the moving light of the sun animates the otherwise motionless setting. An effort was made to combine the visual qualities of claymation, model photography and time-lapse photography with the unique possibilities offered by computer animation.

Contributors:

Models: Shane Acker
Digitizing: Doren Garcia, Jim Gayed
Animation: David Hutchins
Editing: Gareth Smith
Clay Models: Jackie Stewart

Contact:
Cameron McNall
UCLA
Department of Design / Media Arts
12034 Navy Street
Los Angeles CA 90066
USA
+1.310.390.9936
+1.310.206.6676 fax
cmcnall@ucla.edu

Most of the pieces in this SIGGRAPH Video Review are copyrighted. Therefore, they are not to be duplicated, broadcast, photographed, nor edited without the express written permission of the individual copyright holder.

For information regarding the purchase of SIGGRAPH Video Review tapes, contact:

SIGGRAPH Video Review
c/o ACM
PO Box 12114
Church Street Station
New York NY 10257

USA/Canada: 1.800.342.6626
Overseas: 1.212.626.0500
Fax: 1.212.944.1318 Email:
svrorders@siggraph.org