Computer Animation Festival
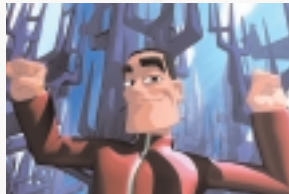
Chair
Sande Scoredos
Sony Pictures Imageworks Inc.
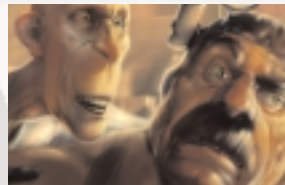
196

• Animation Theater
• Electronic Theater

Contents

197

Chair
SANDE SCOREDOS
Sony Pictures Imageworks Inc.

Committee
JILL SMOLIN
Animation Theater Director
Cinesite

JANE STEPHAN
Animation Theater Producer
Rhythm & Hues Studios

PAM HOGARTH
Outreach Director
Gnomon School of Visual Effects

PAUL DEBEVEC
Technology Director
USC Institute for Creative Technologies

MARK HALL
Volunteer Staffing Director
Sony Pictures Imageworks Inc.

LADD MCPARTLAND
Film Editor
Industrial Light + Magic

NICK BALI
Database Director
Sony Pictures Imageworks Inc.

ROB ENGLE
Pre-Show Director
Sony Pictures Imageworks Inc.

SHEENA DUGGAL
Production Designer
Sony Pictures Imageworks Inc.

JOHN MCINTOSH
SIGGRAPH 2002 Computer
Animation Festival Chair
School of Visual Arts

JACQUIE BARNBROOK
Electronic Theater Producer
Sony Pictures Imageworks Inc.

ERIC WITHEE
Festival Coordinator
Sony Pictures Imageworks Inc.

Jury
BRIAN BLAU
Discreet

JEREMY CANTOR
Sony Pictures Imageworks Inc.

RICHARD CHUANG
PDI/DreamWorks

PAUL DEBEVEC
USC Institute for
Creative Technologies

ANDREW GLASSNER
Writer/Consultant

STEVE GOLDBERG
Walt Disney Feature Animation

THOMAS HOLLIER
Sony Pictures Imageworks Inc.

LADD MCPARTLAND
Industrial Light + Magic

Alternates
JACQUELYN FORD MORIE
USC Institute for
Creative Technologies

TIM SKELLY
Design Happy

198

2001: A Digital Odyssey

The Computer Animation Festival is the world's most prestigious film and video showcase of dazzling and innovative imagery created by current artists and scientists. As we enter the new century, we see that computer graphics has evolved and matured. We have advanced the technology to a state where anything is achievable and advancement is subtle. We now view computer graphics as another tool in the larger sense of moviemaking for visual story telling, entertainment, and explanation. The work selected for this year's Computer Animation Festival takes us on a remarkable journey that combines the talent and brilliance of current and future trends in art and science with the very best imagery depicting comedy, drama, romance, action, adventure, fantasy, science fiction, and science fact.

A record-breaking number of pieces were submitted, processed, and carefully reviewed by a distinguished jury of industry experts. The outstanding quality of the 679 superb submissions presented the jury with a difficult, yet pleasurable assignment. With only a limited number of screening hours available at the festival, the jury worked very hard to view every submission and selected the finest 118 pieces that personify all the elements of the Computer Animation Festival criteria. Each submission was carefully viewed and rigorously examined for technical excellence, innovation, artistic achievement, content, creativity, originality, narrative quality, design, entertainment value, production values, cultural diversity, and a contribution to the computer graphics industry.

With so much wonderful work to jury, every piece in all four festival theaters represents the finest work produced by the best animators, artists, scientific visionaries, and visual effects magicians in the world. My colleagues and I hope you are enormously entertained and inspired by the extraordinary selections presented in this year's festival.

Acknowledgements
A festival of this size and complexity is not the work of one person. It is produced by a large team of collaborating visionaries. A dedicated team of volunteers stepped forward to help plan and implement all the phases of assembling the SIGGRAPH 2001 festival. The festival teams generated a wealth of wonderful ideas and carried them out with precision and a unified vision. I am proud to have worked with this great group of talented individuals: Jill Smolin, Jane Stephan, Pam Hogarth, Paul Debevec, Mark Hall, Ladd McPartland, Nick Bali, Rob Engle, G.G. Heitman, Robert Minsk, Jessica Westbrook, Tim Skelly, Jacki Morie, Cat Thelia, Alan Botvinick, and Teddy Kim.

The Computer Animation Festival would be nothing without the extraordinary work and accomplishments of the submitters, and I congratulate all who sent in their work. The arduous task of processing all the submissions was accomplished by the dedication, patience, and energy of Eric Withee, our Festival Coordinator, and his team of committee members and student volunteers from The Art Institute of Los Angeles and Gnomon School of Visual Effects.

I commend and congratulate the prestigious jury panel for having the diligence and aesthetic and technical sensibilities to select this amazing body of work worthy of the prestige the Computer Animation Festival: Brian Blau, Jeremy Cantor, Richard Chuang, Paul Debevec, Andrew Glassner, Steve Goldberg, Thomas Hollier, Ladd McPartland, Jacquelyn Ford Morie, and Tim Skelly. My gratitude and thanks goes to The Art Institute of Los Angeles Culinary Arts Program for their delicious gourmet creations and for keeping everyone well fed and content throughout the jury meeting. Also to Jacquie Barnbrook, our Electronic Theater Producer, for her extraordinary energy, expert production skills, and sense of humor. Jacquie's ability to keep us all on track, on time, on budget, and laughing was the key to our success, and I am forever grateful. I am in awe of the gifted artists who volunteered their time and talent to create the beautiful designs for the production: Sheena Duggal, Theo Vandernoot, Rachel Nicoll, Michael Scheffe and the team of artists and effects animators at Sony Pictures Imageworks Inc.

Every Computer Animation Festival begins with an extraordinary piece of creativity. This year, Jerome Chen and Blur Studios collaborated to produce a brillant piece of fun, beauty, and revelation to open the festival. It is destined to be an instant classic.

My deepest gratitude and thanks to the outstanding people at Sony Pictures Imageworks Inc. for their support, generosity, and contribution of talented artists, editors, and state-of-the-art facilities: Tim Sarnoff, Tom Hershey, Jenny Fulle, Debbie Denise, Stan Szymanski, Don Levy, John Nicolard, and Barry Weiss.

To my husband, John, who was always there lending his support, technical expertise, and love throughout the 18 months that I spent every moment of my spare time working on the Computer Animation Festival, I am thankful to have you by my side.

And to all the individuals who volunteered their time, energy, and enthusiasm: Without you, we could not have created this wonderful festival for our peers, friends, and community.

Sande Scoredos
Computer Animation Festival Chair

199

200

ELECTRONIC THEATER OPENING SEQUENCE
2001: A DIGITAL ODYSSEY
2:15

Director
JEROME CHEN

Produced by
BLUR STUDIO

The two-minute opening to the 2001 edition of the Electronic Theater is an homage to Stanley Kubrick's masterpiece with a slight SIGGRAPH twist.
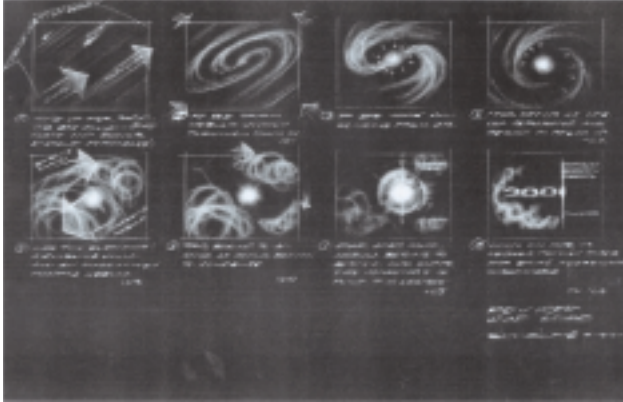
Co-Director
DAVID STINNETT

Producer
AL SHIER
Blur Studio

Lead Animator
RICHARD BLUFF

Animators
RICHARD BLUFF
BRANDON DAVIS
TOM DILLON
JUAN GRANJA
JON JORDAN
NOEL McGINN
KIRBY MILLER
MARLON NOWE
DERRON ROSS
JEFF WEISEND
BILL ZAHN

Music by:
DAVID NORLAND

Sound design by:
GARY ZACUTO
JAY REDD

Motion capture
JOHN BUNT

System Administrator
DUANE POWELL

Systems support
DAEMEON NICOLAOU

Processors donated by:
INTEL CORPORATION

Storyboard Artist
VLADIMIR TODUROV

Logo sequence
SONY PICTURES
IMAGEWORKS INC.

Logo design and supervision
SHEENA DUGGAL

Logo design
MICHAEL SCHEFFE

Particle design and animation
THEO VANDERNOOT
SIRLING DUGUID

Executive Producer
JACQUIE BARNBROOK

Coordinator
ERIC WITHEE

Logo typographic layout
RACHEL T. NICOLL

Logo concept art
MARZETTE BONAR

Logo created on:
HP LINUX WORKSTATIONS,
PROVIDED BY HEWLETT
PACKARD COMPANY

Logo created in:
HOUDINI, DONATED BY
SIDEEFFECTS SOFTWARE.

Buzz Lightyear courtesy of:
PIXAR ANIMATION
STUDIOS/DISNEY

Contact
TIM MILLER
Blur Studio
1130 Abbot Kinney Boulevard
Venice, California 90291 USA
+1.310.581.8848
+1.310.581.8850 fax
tim@blur.com

201

Title Sequences: 4D Painting with Light
6:04

Producer
Jacquie Barnbrook
Sony Pictures Imageworks Inc.

Title Design and Supervision
Sheena Duggal
Sony Pictures Imageworks Inc.

I wanted to create an environment with infinite depth, and to use this depth to represent the bounds of possibility. Usually the visual information for title design happens in one image plane. Infinite depth represents infinite possibility and with computer animation anything is possible.

The richness of color balanced with black negative space is key to the design, as is the typographic layout and the animation style.

Using particle animation to reveal the typographic elements was an obvious choice. The particle system, written by Theo Vandernoot, allowed all our animators to manipulate the motion of the particles in simple, complex, elegant, and varied ways.

In creating these titles we were free from the usual constraints of 3D feature film production. And while we still had our own in-house production deadlines to meet, as well as the deadlines for the Computer Animation Festival, it was a great opportunity for us to express ourselves creatively.

Title Sequence Design courtesy of
Sony Pictures
Imageworks Inc.,
Culver City, California

Concept Artist
Marzette Bonar

Title design
Michael Sheffe

Titles and credits typographic layout
Rachel T. Nicoll

Particle Design
Theo Vandernoot

Particle animation
Stirling Duguid
Michael Edland
Zsolt Krajasik
Steve Lavietes
Danielle Plantec
Jeff Wolverton
Dan Ziegler

Inferno artists
Sheena Duggal
Doug Forrest
David Takayama

Technical support
Ted Alexandre
Nathan Eriksen
Creola Jones
Eric Withee

202
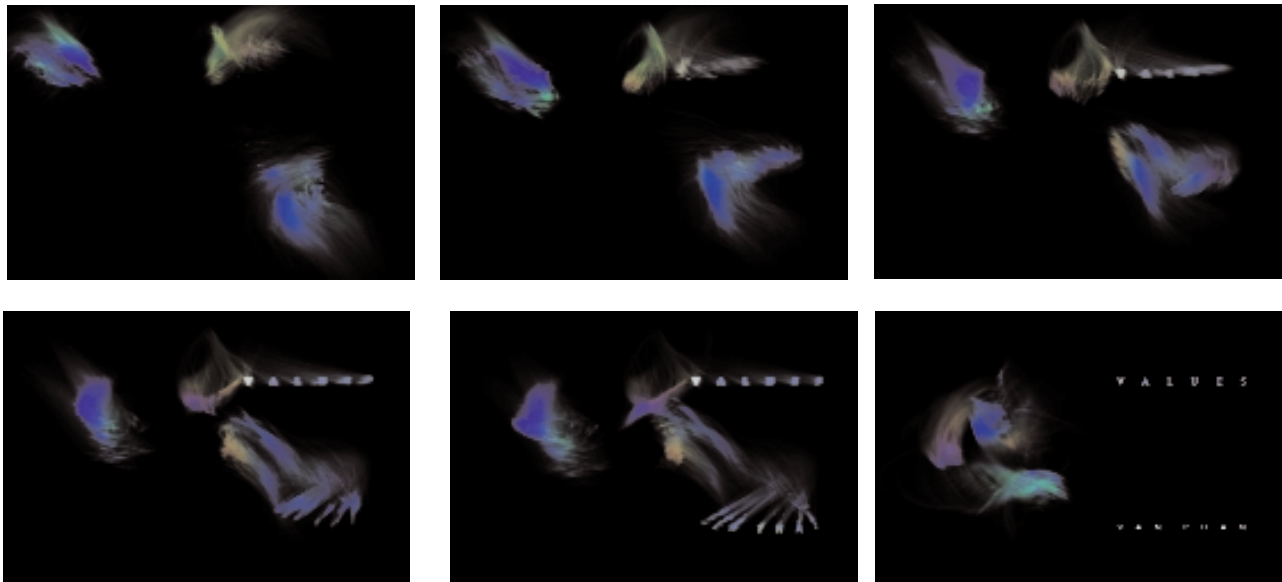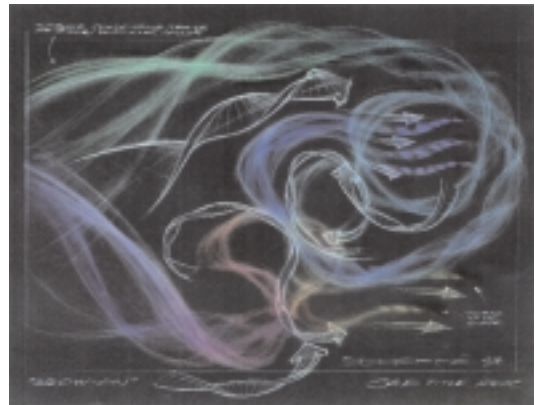
102 DALMATIANS
2:04

Director
KEVIN LIMA

Producer
EDWARD S. FELDMAN
The Secret Lab

She's back! This time, Cruella's evil scheme is undone by Oddball, the little heroine of "102 Dalmatians." The spotless Dalmatian was produced by Disney's The Secret Lab, whose original strategy was to digitally remove spots from live action puppies and create a CG character for challenging stunt shots. However, daunting spot removal required a totally believable CG puppy for extreme close ups. Painstaking attention was paid to Oddball's face and expressive eyes. Muscle and skin techniques derived from "Dinosaur" attached muscle to bone and skin for realistic motion, and a proprietary new shader was used to finesse the puppy's fur.

Visual Effects Supervisor
JIM RYGIEL

Co-Visual Effects Supervisor
DAN DeLEEUW

Visual Effects Producer
LIZ RALSTON

Digital Compositing Supervisor
BRIAN LEACH

Digital Effects Supervisor
WALLACE COLVARD

Supervising CG Animator
ROB DRESSEL

Animation Supervisor
MATT O'CALLAGHAN

Lead Animator
ATSUSHI SATO

Facial animation setup/IK
PATRICK TAYLOR

Muscle and Skin Supervisor
DAVID OLIVER

Muscle and Skin TD
JOHN MURRAH

Lighting TD
ADOLPH LUSINSKY

Groomer/Texture Painter
COLIN ECKART

Lead Modeler
ARDIE JOHNSON

Artics and Paint Supervisor
SANDY HOUSTON

3D Technical Manager
HANK DRISKILL

Fur Systems Developer
PATRICK DALTON

Contact
MARY REARDON
The Secret Lab
500 South Buena Vista Street
Burbank, California
91521-8959 USA
+1.818.526.3000
+1.818.526.3319 fax
mary.reardon@disney.com

203

AIRHEADS
0:42

Director and Producer
MIKE WHEELER
Ringling School
of Art and Design

"Airheads" depicts a relationship between creatures who are interconnected in an absurdist manner.

Student Work: Ringling School of Art and Design

Contact
MIKE WHEELER
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
mwheeler@rsad.edu

ALIEN SONG
1:00

Director and Producer
VICTOR NAVONE
Pixar Animation Studios

This animation originated as a personal hobby but has since attained global Internet celebrity. It features the original alien character Blit Wizbok lip-synching to Gloria Gaynor's disco anthem, "I Will Survive," before meeting a sudden and ironic demise. It was created on PC and Macintosh computers using off-the-shelf software and traditional animation techniques.
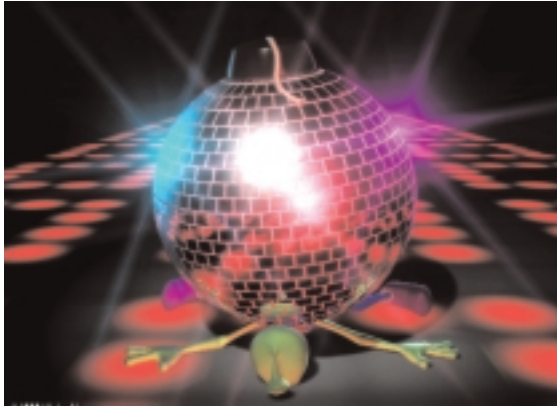
Contributors
JAMEY SCOTT
GLORIA GAYNOR

Contact
VICTOR NAVONE
c/o Pixar Animation Studios
1200 Park Avenue
Emeryville, California 94608 USA
navone@navone.corg

204

ANJYU
2:00

Director
YASUO OHBA

Producer
YASUO OHBA
Namco Ltd.

"Anjyu" refers to composited layers of calmness. It reflects its producer's feelings and emotions during creation.

Software
ORIGINAL

Hardware
SGI OCTANE

Music
TOMOKO TATSUTA

Video Engineer
NAOHIRO SAITO

Contact
YASUO OHBA
Namco Ltd.
1-1-32 Shin-Urashima-Cho
Kanagawa-ku
Yokohama 221-0031 Japan
+81.45.461.8013
+81.45.461.8014 fax
ohba@rd.namco.co.jp
www.pluto.dti.ne.jp/~ohba/

ANTARCTICA: A FLYING TOUR
OF THE FROZEN CONTINENT
4:59

Director
ALEX KEKESI

Producer
NASA/GSFC - SCIENTIFIC
VISUALIZATION STUDIO

For 18 days during the southern hemisphere spring of 1997, a NASA-launched Canadian satellite called RADARSAT collected pieces of a puzzle that will help scientists study the most remote and inaccessible area on earth: Antarctica. Scientists have now put the puzzle pieces together to form the first high-resolution radar map of the mysterious frozen continent. This new map has answered scientist's questions about Antarctica and raised new questions about strange and fascinating features never seen before. For additional information: svs.gsfc.nasa.gov/imagewall/antarctica.html
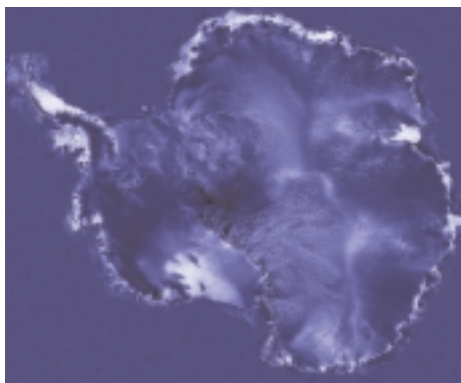
Contributors
KEN JEZEK, MARTE NEWCOMBE,
STU SNODGRASS, WADE SISLER,
MICHAEL STAROBIN, HORACE MITCHELL

Contact
ALEX KEKESI
GST
NASA/Goddard Space Flight Center
Code 935, Building 28, Room S121
Greenbelt, Maryland 20771 USA
+1.301.286.4583
+1.301.286.1634 fax
Alex.Kekesi@gsfc.nasa.gov

205

AP 2000
8:11

Directors
LOIC BAIL, AURELIEN
DELPOUX, SABASTIEN EBZANT,
BENJAMIN LAUWICK

Producer
SUPINFOCOM

What can happen on the back of a dog?

Student Work: SUPINFOCOM

Contact
BRUNO FOLLET
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

The Big One That Got Away
2:50

Director
James Torrens

Producer
Vancouver Film School

A short story of a sailor dreaming of himself underwater.
He discovers a kissing mermaid.

Student Work: Vancouver Film School

Sound
Brett Anthony

Editor
Rina Gallo

Contact
James Torrens
Vancouver Film School
420 Homer Street
Vancouver, British Columbia V6B 2V5 Canada
+1.604.685.6331 x 109
+1.604.685.6317 fax
arnault@vfs.com

206

Body Story
2:00

Directors
Daniel Percival
Leanne Klein

Producer
Dan Gluckman
The Moving Picture Company

Commissioned by Wall To Wall Television for Channel 4, the
Discovery Channel, and ITEL, "Body Story" is a series that takes
the audience on six thrilling journeys inside the human body. The
Moving Picture Company created 48 minutes of computer anima-
tion for six episodes (350 shots in 12 months). In-house software
was written to effect an efficient method of rendering such vast
amounts of geometry. Other software used: Maya, RenderMan,
Shake, propietary software, Inferno, Fire.

Post production
The Moving Picture
Company

CG Supervisors
Richard Morris, Chas
Jarrett, Jim Radford

Animators
Glen Swetez,
Lars Johansson, John
Leonti, Jon Attenborough,
Russell Appleford, Adam
Lucas, Tony Thorne,
Kevin Modeste,
Rory Marks, Martin
Heigan, Ben Sheperd

Programming
Jonathan Stroud, Peter
Grecian, William Geiger

Computer systems
James Pearson,
Stewart Anderson

Compositing
Paul O'Shea, Greg Slater,
Yelena Stojanvoic, Danny
Etherington, Mark
Stannard, Marcus Moffat

Design
Robin Shaw, Richard Morris

Art Direction
Robin Shaw, Sean Schur

Production
Asher Edwards,
Gilbert James

Contact
Dominic Buttimore
The Moving Picture Company
127 Wardour Street
London W1F 0NL
United Kingdom
+44.0.207.434.3100
+44.0.207.437.2641 fax
dominic-b@moving-picture.com

The Book of Pooh
5:00

Director
Mitchell Kriegman

Producer
Robin Seidon
Shadow Digital LLC

"The Book of Pooh" incorporates the mesmerizing look of Bunraku, a form of Japanese puppetry that dates back 300 years, combined with real-time CG virtual sets of the entire Hundred Acre Woods.

Contributors
Paul Lacombe, Cabot McMullen, Chris Renaud,
Bob Taylor, Jens Scott, Vlad Bina, Blake Holland,
Dan Klem, Lawrence Littleton, Jim Spieler,
Hans Anderson, Mark Rhodes, Erica Levin, Eli Rarey,
Josh Crane, David Vanen, Peter Dufault,
Thomas Weber, Dale Aman, Dave O'Neil,
Sharon Braaten, Alex Lampila, Brendon Taylor,
Curran Gidden, Alexander Souri, Stephen Grob

Contact
Paul Lacombe
Shadow Digital LLC
1375 Boardman Street
Sheffield, Massachusetts 01257 USA
+1.413.229.7880
placombe@shadowdigital.com

207

BUDWEISER "COME HOME"
1:08

Director
RICK SCHULTZE

Producer
PAUL HILL
Industrial Light + Magic

For the Budweiser alien "whassup" commercial, ILM's CG Commercials Department accepted the challenge of generating a CG stadium crowded with aliens and making it look real without the aid of practical references. Particles placed in the seats of the stadium were replaced by animation cycles of the aliens. Other important challenges were the high level of subtlety in the aliens' performances and the unusual design of the aliens. The proportions of their hands and the backwards articulation of their legs made it particularly tricky to create a fluid animation.

Production Supervisor
DAVID LAMBERT

Art Director
RANDY GAUL

Animation Director
PAUL GRIFFIN

Post Supervisor
DIANE CALIVA

Lead Technical Director
LEANDRO ESTEBECORENA

Technical Directors
MARY BETH HAGGERTY, DOUG SUTTON, PETER CHESLOFF, HANS UHLIG, MELVA YOUNG, TRIPP BROWN, CEDRICK CHAN, MARCUS STOKES, GRUE, MARC COOPER, ALAN TROMBLA, BRIAN GEE

Technical Director/Viewpainter
DEAN FOSTER

Animators
LINDA BEL, COLIN BRADY, MARIE-LAURE LAFFITTE, JONATHAN LYONS, TIM STEVENSON, KEVIN SCOTT, ANDREW GRANT

Modelers
ISMAIL ACAR, LARRY TAN, STEWART LEW, NEIL LIM SANG, STEVE McGRATH, STEVE APLIN, SIMON CHEUNG

Animatic Artist
JAMY WHELESS

Enveloper/Chainer
TODD KRISH

Lead Matchmover
LUC LONGIN

Matchmover
INGRID OVERGARD

Viewpainter/Rotoscoper
DREW KLAUSNER

Viewpainters
RICHARD MOORE, REBECCA HESKES, TONY HUDSON

Assistant Technical Director
MICHAEL MUIR

Senior Compositor
MARK CASEY

Compositors
CAROLE JOHNSON, KRISTEN MILLETTE, SCOTT YOUNKIN

Online Editor
MARY SERAFINI

Editor
NICK SEUSER

Technical Coordinator
MICHAEL PARKINSON

CG Resource Assistants
MICHAEL BALOG, AMY TREVOR

Video Technical Assistant
JEROME BACKUM

VP/Executive Producer
MARCIE MALOOLY

Head of Commercial Productions
PAUL GRIMSHAW

Head of CG Commercials
JOHN RA BENSON

Head of Commercial Editorial
MARK TELLEGEN

CGC Production Manager
JUSTIN HARWOOD

CGC Project Manager
ERIC SCHROEDER

CGC Production Coordinator
DAVID MAMMOLA

CGC Production Assistant
YVETTE MEMORY

Contact
YVES METRAUX
Industrial Light + Magic
3155 Kerner Boulevard
San Rafael, California
94901 USA
+1.415.448.9000
+1.415.448.3468 fax
yves@ilm.com

Capitol Zoom
1:45

Director
Gregory W. Shirah

Producer
NASA/GSFC - Scientific
Visualization Studio

"Capitol Zoom" is a seamless, cloudless, zoom from a global view to the nation's capitol. It is composed entirely of real earth-observing satellite data: IKONOS one-meter data, Landsat7 15/30-meter data, Terra/MODIS 250-meter data, and Terra/MODIS eight-kilometer data. The visualization first zooms in seamlessly, then zooms out showing where the dataset layers reside. This vizualization was created using Maya for motion control, RenderMan for rendering, IDL for pre-processing of the data, Imagine for image registration, and Photoshop for color matching.
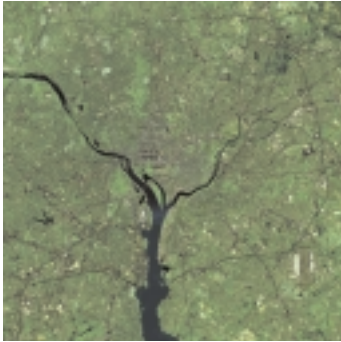
Contributors
Gregory W. Shirah, Horace G. Mitchell, Marte Newcombe, Michael Mangos, James W. Williams, Alex Kekesi, Stuart Snodgrass

Contact
Gregory Shirah
NASA-Goddard Space Flight Center
Code 935, Building 28, Room W197
Greenbelt, Maryland 20771 USA
+1.301.286.7903
+1.301.286.1776 fax
greg.shirah@gsfc.nasa.gov

209

Cartoon Network's "Quick Draw El Kabong"
1:57

Director
George Evelyn

Producer
Liz Gazzano
Wild Brain, Inc.

Quick Draw McGraw becomes El Kabong the Hero and fights El Bad Guy with his steel guitar. El Kabong and Babalooie ride into a garishly colored small town in Mexico that is inhabited by Day of the Dead skeleton townfolk. El Bad Guy and his cohorts are generally out to get the townfolk. El Kabong saves them and heroine Linda Neigh from certain disaster at the end of the piece, and El Bad Guy gets his just desserts. Hand-painted characters and backgrounds were scanned into the Mac and animated in AfterEffects. Music by: Calexico

Production Company
Wild Brain, Inc.

Executive Producer
Jeff Fino

Executive Producer/Commercials
Paul Golden

Animation Director
Jance Allen

Production Designer
Dave Gordon

Agency
Cartoon Network

Agency Creative Director
Michael Ouweleen

Agency CD/Writer
Dave Berg

Agency Producer
Lynn Slowinski

Contact
Sharon Redding
Wild Brain, Inc.
2650 18th Street
San Francisco, California 94110
USA
+1.415.216.2026
+1.415.553.8009 fax
sharonr@wildbrain.com

Cast Away
1:59

To strand Tom Hanks on a deserted island, "Cast Away" begins with a visceral plane crash sequence incorporating CG water and waves, live action and miniature photography, and numerous subtle digital effects. On the island, Hanks surveys the landscape, a combination of live-action photography filmed in a parking lot in Malibu and a completely CG-created environment.

210

*Senior Visual Effects Supervisor
(Main Titles)*
Ken Ralston

*Visual Effects Consultant
(End Credits)*
Rob Legato

Visual effects
Sony Pictures Imageworks Inc.
Culver City, California

Co-Visual Effects Supervisor
Carey Grant Villegas

Visual Effects Executive Producer
Debbie Denise

Visual Effects Producer
Crys Forsyth-Smith
Cari Thomas

Visual Effects Production Manager
Lauren Ann Littleton

*Visual Effects Digital Production
Manager*
Lindsay Burnett

CG Supervisors
David Burton, Bart
Giovannetti, Layne Friedman

VFX TDs
Steve Blakey, Doug Creel,
R. Stirling Duguid, Curtis
"NZ" Edwards, Harry
Gundersen, Eric Hanson, Matt
Hausman, Garman Herigstad,
Dan Kaufman, Raji Kodja,
Zsolt Krajcsik, Daniel La
Chapelle, David C. Lawson,
Tom Lynnes, Todd Pilger, Sam
Richards, Allen Ruilova, Jeff
Willette, Jonathan Wood,
Douglas Yoshida

Interactive Compositing Artists
Brian Battles, Christian
Boudman, Lisa Deaner, Tony
Diep, Jennifer German, Mark
Alan Loso, Jeff Olm, Rick
Shick, Dave Takayama

Bonsai Compositors
Virginia Bowman, Bonjin
Byun, Clint Colver, Colin
Drobnis, Michael "Ffish"
Hemschoot, Jep Hill, Tim
Llewellyn, Ethan A. Ormsby,
Bob Peitzman, Aaron Smith

Whale animation
David Schaub

Lead Match Move Artists
Jeff W. Smith, Joseph Thomas

Match Mover Artists
Joanie Karnowski, Rachel
T. Nicoll

Matte Painter
David Bleich

Additional paintings
Digital Backlot

Texture Painters
Donna Tracy, John McGee

Rotoscope Lead Artist
Maura N. Alvarez

Rotoscope Artists
Lea Lambert, Lanelle
Mason, Loree Perrett, John
Shourt, James Valentine

*Visual Effects Digital
Coordinators*
Jennifer Juen, Skye Lyons,
Eric Scott

*Visual Effects Production
Assistant*
Timothy Michael Cairns

Visual Effects Editor
Guy T. Wiedmann

Visual Effects Avid Editor
John Berri

Negative line-up
Dee Storm

Lead Technical Assistant
Jeff Dillinger

Technical Assistants
Rosendo Salazar, Todd
Hara, Garrick
McLaughlin, Marco
Vidaurre, Kendrick
Sutherland

*Director of Interactive
Compositing*
Dawn Guinta

HSC Production Manager
Thomas F. Ford IV

Visual Effects Accountant
Robb Miller

Digital Color Timer
John Nicolard

Assistant Digital Color Timer
Anthony Harris

Visual Effects Supervisor
Ken Ralston

Executive Producer
Debbie Denise
Sony Pictures Imageworks Inc.

*Systems Engineering
Department Manager*
Alberto Velez

Senior Systems Engineer
Dean Miya

*Senior Video/
Hardware Engineer*
Michael Trujillo

System Engineer
Nick Bali

Video Engineer
Olin Kimberly

Director of Software
Amit Agrawal

Lead Software Engineer
Manson Jones

Software engineers
Brian Hall, Bruce Navsky

Senior VFX Video Editor
Ron Vargas

Input-Output Supervsior
Dennis Webb

Lead Film Recordist
Derrick Quarles

Lead Scanning Technician
Christopher Arreola

VP of Technical Operations
Bill Villarreal

VP of Digital Productions
Stan Szymanski

*Executive VP and General
Manager*
Tim Sarnoff

Additional visual effects
Travelling Pictures: Chris
Winters, Amy Garback, Sam
Marrocco, John Willette,
Sheena Duggal

Contact
Don Levy
Sony Pictures Imageworks
9050 West Washington
Boulevard
Culver City, California
90232-2518 USA
+1.310.840.7315
+1.310.840.8100 fax
dlevy@sonypictures.com

CHAMELEON

0:25

Director
PABLO BACH
SZM Studios, GmbH

In this character animation, the challenge was to simulate the specific motion of a chameleon and create a realistic rain-forest environment.

*Creature development
and design*
SEBASTIAN FABER

Character animation
JUAN-PABLO BROCKHAUS

Animation
SEBASTIAN WEIDNER

Background design and animation, storyboarding
RÜDIGER KALTENHÜSER

Contact
PABLO BACH
SZM Studios, GmbH
Medienallee 7
München, Unterfohring 85774 Germany
+49.89.9507.6540
+49.89.9507.6227 fax
justus.engel@szm.de

211

COCA COLA "CLAY DOLLS"

0:39

Director
FRANKIE CHUNG

Producer
CHU CHU CHENG
Centro Digital Pictures Ltd

This commercial, for greater Chinese market, utilised both CGI and miniature models set in a festive Chinese environment. The goal was an Asian version of the Polar Bear, but with a distinctive Chinese feel. The miniature city was shot by motion control. The CGI magical clay dolls were given a stop-motion look and feel. The whole production, including CGI, miniatures, and motion control, required four weeks of production time.

CGI software: LightWave, AfterEffects

Contributors
LEUNG YIU FUNG, KITH NG, MILES CHENG, MARVIN CHUNG,
ALAN YEUNG, ROGER WONG, SONYA CHU, ANDREW CHEN,
LAU WING SUEN, ANNA WAN, ANSON LAM, MIKE MAK,
NG MAN LUNG, JANE WONG, VINCENT CHAN, RONALD TO,
TSE KING HO, WONG CHING YEE, TSANG MAN TSUN,
PAUL DUGGAN, CECIL CHENG, FRANCO LAM

Client
COCA COLA

Agency
McCANN-ERICKSON GUANG MING, SHANGHAI

Contact
LUI YEUNG
Centro Digital Pictures Ltd
601 HKITC
72 Tat Chee Avenue
Hong Kong
+1.852.2319.6688
+1.852.2319.2272 fax
lui@centro.com.hk

COMICS TRIP
6:04

Directors
CHRISTOPHE BARNOUIN
NATHALIE BONNIN
LUC DEGARDIN

Producer
SUPINFOCOM

A little boy goes to a birthday party…with his imagination!

Student Work: SUPINFOCOM

Contact
BRUNO FOLLET
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

212

COMPUTER RECONSTRUCTION:
TEMPLE SITE AT PHIMAI
3:22

Director and Producer
RICHARD M. LEVY
University of Calgary

Phimai, one of the most important Khmer monuments in
Thailand, is a walled complex of reconstructed temples, libraries,
and ancillary structures. Reconstruction of this United Nations
World Heritage site highlights the potential of computer visualiza-
tion as a tool in heritage resource management. Virtual worlds
offer archaeologists, historians, and museum curators a non-evasive
environment for testing reconstruction scenarios, and they allow
the public to learn about important historic monuments without
contributing to their deterioration.

Animation and video
RICHARD M. LEVY

Contact
RICHARD M. LEVY
University of Calgary
2500 University Drive NW
Calgary, Alberta T2N 1N4 Canada
+1.403.220.3633
+1.403.284.4399 fax
rmlevy@ucalgary.ca

CONSIDERING AN EXOTIC PET?

0:40

Director and Producer
SKYE CARLSON
Ringling School
of Art and Design

A predatory reptile makes a cute pet when it's young, but can it be fun to eat from a can instead of catching food on the hoof? And what if the owner gives up trying to care for it properly? Only really well-prepared people can take care of an adult exotic pet well enough to give it a pleasant life.

Student Work: Ringling School of Art and Design

Contact
SKYE CARLSON
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
afn20039@afn.org

213

COURTHOUSE WITH CURVED ELEMENTS

3:04

Director and Producer
TAKEHIKO NAGAKURA
Massachusetts Institue
of Technology

This prototype is one of a series of courthouse designs created by Mies van der Rohe in the 1930s. The computer graphics production team began with the original schematic design from a plan drawing, achieved a derivative version by adding components similar to those found in other projects designed and built by the architect, and used radiosity-based software to develop a visualization. The camera moves between and around the uniquely shaped elemental walls and reveals the pleasure of scenes full of material colors and the ambiance of sunlight.

Computer graphics
STEPHEN DUCK

Contact
TAKEHIKO NAGAKURA
Massachusetts Institute of Technology
77 Massachusetts Avenue
Room 10-472M
Cambridge, Massachusetts 02139 USA
+1.617.253.0781
+1.617.253.9407 fax
takehiko@mit.edu

CRIMSON RIVERS
1:07

Director
MATHIEU KASSOVITZ

Producer
LEGEND
ENTREPRISES/GAUMONT

This two-part sequence was entirely post-produced in 3D in order to create an avalanche with maximum realism. The avalanche is first seen from the outside and then from the inside, when the actors are buried. The sequence was composed from digital images composited with two stock-film shots.

SFX production
CHRISTIAN GUILLON
L'E.S.T.

SFX post production
KRAO
NICOLAS REY, JEAN-BAPTISTE LERE
Mikros Image

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

214

THE CROSSING GUARD
0:58

Director
JOSHUA WEST

Producer
RINGLING SCHOOL
OF ART AND DESIGN

The hero is entrusted with just one unyielding duty: to protect and preserve the lives of children. He must battle three things while endlessly fighting to perform his calling. One, he's only a crossing guard. Two, the traffic is heavy. Three, he's an armadillo.

Hardware: HP Visualize workstations
Software: Alias|Wavefront Maya 3.0, DeepPaint, Premiere

Student Work: Ringling School of Art and Design

Faculty Advisor
JIM McCAMPBELL

Contributors
VICTORY FX ANIMATION, ALEX WHITNEY, GASTON UGARTE, ALEX WANG, JENNIFER WOODBURY, JERRY BROWN, STEVE CADY, JAMIE DERUYTER, JOE SPADARO, HEATHER THOMSON, PHIL CHIOCCHIO, CLAUDIA CUMBIE-JONES, DEBORAH HEALY

Contact
JOSHUA WEST
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
jwest@rsad.edu

DAB: Interactive Haptic Painting
with 3D Virtual Brushes
5:38

Director and Producer
Vincent Scheib
University of North Carolina
at Chapel Hill

This video presents the system described in the SIGGRAPH 2001 paper by the same name. It uses the traditional tools of a painter to capture the sight, touch, and feeling of the artistic painting. This allows anyone to control a virtual brush as if it were a real brush. To achieve this, we have designed a physically based, deformable, 3D brush model and bi-directional, two-layer paint model, which allow the user to intuitively produce complex brush strokes. The haptic feedback enhances the sense of realism and provides critical tactile cues.

Student Work: University of North Carolina at Chapel Hill

Contributors
William Baxter
Vincent Scheib
Ming Lin
Dinesh Manocha

Contact
Vincent Scheib
University of North Carolina at Chapel Hill
Sitterson Hall CB 3175
Chapel Hill, North Carolina 27599-3175 USA
+1.919.962.1905
+1.919.962.1799 fax
scheib@cs.unc.edu

215

Desert H$_2$Ouse
1:58

Director
Joseph Kosinski

Producer
k+d.lab

Conceived as a critique of traditional architectural "flythroughs" and perhaps a glimpse into the future of online environments, this short film documents the investigation of an abandoned house from multiple points of view. The "handheld" camera movement was accomplished through four layers of motion-capture data via the mouse. The house was designed and modeled in form•Z, animated in 3D Studio Max, and rendered in Mental Ray. AfterEffects and Combustion were used for compositing and graphics.
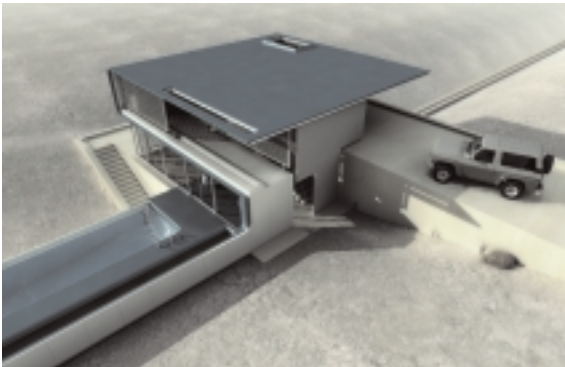
Design and animation
Joseph Kosinski

Titles and graphics
Dean DiSimone

Sound design
Jeff Kosinski

Contact
Joseph Kosinski
k+d.lab
145 Hudson Street
2nd Floor
New York, New York 10013 USA
+1.212.966.1932
+1.212.966.1937 fax
joseph@kdlab.net

DISTRUST OF ROMANTICA
1:28

Director and Producer
HITOSHI SUENAGA
Taiyo Kikaku Co., Ltd

Images of an old circus.
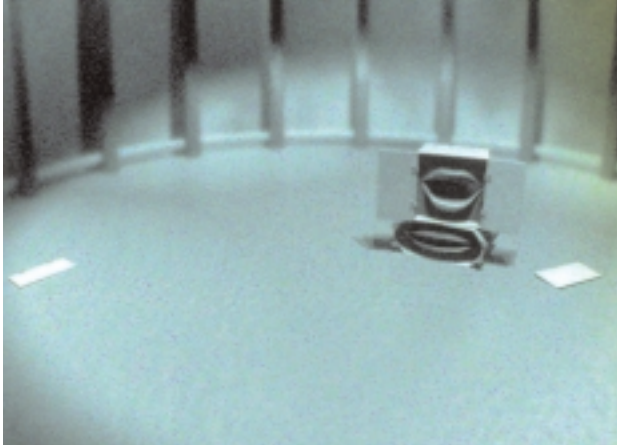
Contributors
TAIYO KIKAKU CO., LTD

Contact
HITOSHI SUENAGA
Taiyo Kikaku Co., Ltd
2-27-7 Nishishimbashi
Minato-ku
Tokyo 105-0003 Japan
+81.3.3436.4540
+81.3.3436.0175 fax
sue@v7.com

216

Dr. Seuss' How the Grinch Stole Christmas
2:09

Visual Effects Producer
Julian Levi
Digital Domain

The highly stylized "Seussian" world created for director Ron Howard's "Dr. Seuss' How The Grinch Stole Christmas" is testament to the huge strides CG has taken over the last few years. Although the film was shot entirely on stage, the winter wonderland created for the film was generated at Digital Domain. The film's visual effects challenged all the assumptions of marrying 3D CG with 2D work. This look behind the production scenes features the CG landscape and atmospherics of the film, from the opening credits to the top of Mt. Crumpit and the film's sleigh-ride finale, all created in CG.

Technical Development Lead
Dan Lemmon

Digital Shader Lead
Johnny Gibson

Technical Developers
Greg Duda
Darren Hendler
Charlotte Manning

Lead Digital Compositors
Mark M. Larranaga
David Lauer
Donovan A. Scott

Digital Compositors
Brian Begun
Kevin Bouchez
Randy Brown
Rafael Colon
Jodi Campanaro
Filippo Costanzo
Betsy Cox
Sean Devereaux
Feliciano Di Giorgio
Christina Drahos
Rachel Wyn Dunn
Jerry Hall
Claas Henke
Mary S. Lietz
Christine Lo
Dave Lockwood
Anthony Mabin
Brandon Mcnaughton
Davy Nethercutt
Lou Pecora
Kelly Port
Brennan Prevatt
Mark Dominic Rienzo
John Sasaki
Dave Stern

Digital Paint Lead
Shannan Burkley

Creative Paint Lead
Martha Snow Mack

Digital Matte Painters
Laurent Ben-Mimoun
Ronnie Bushaw
Carlin Kmetz
Brian F. Ripley

Digital Rotoscope/Paint Lead
Byron Werner

*Digital Rotoscope/
Paint Artists*
Loring Doyle
Gregory Elwood
Hilery Johnson
Sophia Lo
Michael Maloney
Stacie Manning
Bill Schaeffer
Tonia Young-Bilderbeck

Digital Imaging Supervisor
Jeffrey Kalmus

*Visual Effects
Production Coordinator*
Mary Loibl-Sobel

Digital Effects 2D Coordinator
Michelle Reiner

Digital Effects 3D Coordinator
Karen N. Sickles

Digital Effects Coordinators
Tom Clary
Siouxsie Stewart

Walk-Through Coordinator
Bernardo Jauregui

Visual Effects Editor
Debra Wolff

Visual Effects Avid Editor
Rob Doolittle

Assistant Visual Effects Editor
Val Keller

Visual Effects Accountant
Cindy LeJeune

*Visual Effects
Production Assistants*
Riccardo Anderson
Mariana Sanchez
John Casey Vanover

*Visual Effects
Executive Producer*
Nancy Bernstein

*Visual Effects
Supervisor*
Kevin Mack

Contact
Joanna Capitano
Digital Domain
300 Rose Avenue
Venice, California 90291 USA
+1.310.314.2805
+1.310.314.2921 fax
jcapitan@d2.com

217

Computer Graphics Supervisor
Matthew Butler

Compositing Supervisor
Bryan Grill

*Character Animation
Supervisor*
Randall J. Rosa

*Digital Set Extension
Supervisor*
Vernon R. Wilbert Jr.

Digital Production Manager
Suzanne Buirgy

3D Effects Animators
James Battersby
John Michael Courte
Brian C. Davis
Sean Andrew Faden
Swen Gilberg
Rusty Ippolito
Nikos Kalaitzidis
Mike O'Neal
Danielle Plantec
David Prescott
Ryo Sakaguchi
Juan-Luis Sanchez
Rob Stauffer
Zachary Tucker
Alfred Urrutia
Chris Y.Yang

Digital Sleigh Sequence Lead
Markus Kurtz

Character Animators
Bernd Angerer
Martin Costello
Dan Fowler
Andrew Hall
Keith Huggins
Giancarlo Lari
David Mclean

3D Digital Modelers
Eliot Cail-Sirota
Melanie Okamura

3D Integration Lead
Robert Andrew David Frick

3D Integration Artists
Duncan Blackman
Brian Cantwell
Anne Hermes
Kerry Lee
Eric Roth
Neil Rubenstein
Messrob Torikian

Digital Set Extension Artists
Kevin Jackson
Howie Muzika
Gaku Tada
Andrew Waisler
Dustin Zachary

EARLY LIGHT
7:35

Director and Producer
JOHN S. BANKS
Artek Images

Early Light is part two of a three-part series dealing with times of day and seasons. The idea is to create a living manuscript of the impressions and memories of different seasons and how they unfold. The work, which progresses from the end of winter through spring, was inspired by experiences of landscape as sensed internally and spiritually. These are interpretations of nature's emerging and shifting consciousness. The source scenes are constructed from multiple photographs and video footage. The stills are animated through mattes of generated light, wind, and noise.

Original soundtrack
FRITZ HEEDE

Contact
JOHN S. BANKS
Artek Images
2327 North Geneva Terrace
Chicago, Illinois 60614 USA
+1.773.296.0508
jsbanks@interaccess.com

218

Elmo's World: Digital Puppetry on Sesame Street
2:49

Director and Producer
Emre Yilmaz
SMA Video

This piece illustrates the real-time digital puppetry process that brought five furniture creatures to life for Sesame Street, and how this process fit into the production.

Contributors
SMA Video, Protozoa, Sesame Workshop

Contact
Emre Yilmaz
SMA Video
PO Box 460022
San Francisco, California 94146-0022 USA
emre@digitalpuppetry.com

219

Enemy At The Gates
1:59

Director and Producer
Jean-Jacques Annaud
Double Negative

Perhaps the greatest challenge that "Enemy at the Gates" presented to Double Negative was how to serve the film's narrative flow whilst staying as faithful as possible to history. For the opening sequence, digital matte paintings depicting Stalingrad's war-torn skyline were derived from an exhaustively researched 3D architectural library. Detailed surveys of surviving Stuka aircraft ensured an accurate portrayal of the dive-bomber attack. In the air-raid sequence, the 3D library was taken to its logical conclusion with a digital recreation of the entire ruined cityscape. Through extensive previsualisation, all visual effects work was tightly integrated with the film's dramatic structure.

Contributors
Matthew Plummer, Antony Bluff, Matthew Holben, Rudi Holzapfel, Jesper Kjolsrud, Richard Bain, Charlie Noble, Frazer Churchill, Paddy Eaton, Richard Briscoe, Adrian Banton, John Hardwick, Paul Riddle, Sarah Soulsby, John Moffatt, Jody Johnson, Chris Panton, Julian Mann, Elie Jamaa, Martin Preston, Pete Bebb, Paul Franklin, Sheila Dunn, Fredrik Sundqvist, Jake Mengers, Asa Svedberg, Annick Hartnel-Tournier, Martin Hill, Mikael Hakansson, Giuliano Vigano, Mike Ellis, Jim Bowers, Dimitri Delacovias, Ciaran Crowley, Claire Tinsley, Hannah Cassell, Dale Lewis, John Seymour, Ian Chisholm, Steve Macpherson, Simon Burley, Pete Hanson, Neil Miller, Nigel Arnold, Claire Mitchell, Kerrie Grant, Mike Pope, Mikael Hakansson

Contact
Mathew Holben
Double Negative
2nd Floor, 77 Shaftesbury Avenue
London W1V8HQ United Kingdom
+44.20.7534.4400
+44.20.7534.4452 fax
mh@dneg.com

ERICSSON "LINES"
0:43

Director
ALAIN GOURRIER

Visual Effects Producer
STEPHANIE GILGAR
Digital Domain

Beginning with a simple animated line drawing, this commercial progresses into a full human animation for Ericsson and its agency, Young & Rubicam. The spot was created principally in Maya, but the lines were rendered in Lightwave. Compositing was created in Flame.
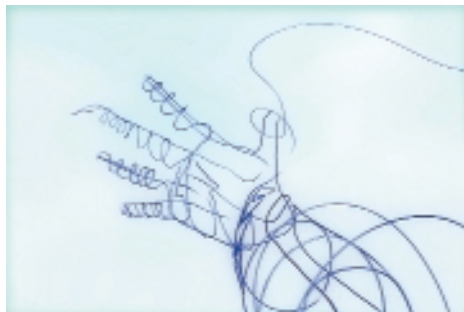
Visual Effects Supervisor
ERIC BARBA

Visual Effects Coordinator
MARK ALLEN KURTZ

Lead Character Animator
KEITH HUGGINS

Modelers
ELIOT CAIL-SIROTA
JARROD DAVIS

Character Animators
PIOTR KARWAS
DANIEL LOEB
KEITH SMITH

Color and lighting
TOM WILLIAMSON

FX Animator
BRAD HERMAN

Technical Director
MATTHEW FAIRCLOUGH

Data Integration
TIM CONWAY

Matte Painter
JOHN HART

Roto
LAURA ORMSBY

Lead Compositor
JEAN LUC AZZIS

Compositors
GAVIN MILJKOVICH
KEVIN MOSELEY
CHRIS HOWARD
ROB TRENT

Art Director
NATASHA RAND

Morph
LOU PECORA

Contact
ED ULBRICH
Digital Domain
300 Rose Avenue
Venice, California 90291 USA
+1.310.664.3920
+1.310.664.3939 fax
eulbrich@d2.com

220

Eve Solal
1:15

Director
Marc Miance

Producer
Attitude Studio

An interview with a young French virtual personality. Eve Solal has worked for French fashion magazines, as a leading model, and as a radio DJ. Animated with motioncapture (vicon). All the 3D work was done on Maya. Proprietary software was used for skinning and facial animation.

Motion Capture Director
Rémi Brun

Infographie Director
Bruce Tajtelbom
Philippe Fournier

Development Director
Laurent Martin

Contact
Marc Miance
Attitude Studio
100 avenue du Général Leclerc
Pantin Cedex 93692 France
+33.1.41.71.00.78
+33.1.41.71.01.68 fax
m.miance@attitude-studio.com

221

EVENTIM.DE "Mouse/Concerts"
0:22

Director
Peter Spans

Producer
Martinique Spans
Spans & Partner GmbH

This gentle and dancing mouse, a 3D-generated character in a photorealistic look, presents the most popular styles of music and explains the "around-the-ticket service" of EVENTIM.DE.

Software: Softimage (3D), Phoenix Tools (Geo Fur), Discreet (Flame).
Hardware: SGI, Compaq, Supermicro.

Contact
Martinique Spans
Spans & Partner GmbH
Muehlenkamp 59
Hamburg 22303 Germany
+49.40.27.81.88.0
+49.40.27.81.88.88 fax
martinique@spans.de

EVOLUTION OF THE UNIVERSE:
LARGE-SCALE STRUCTURE AND GALAXY FORMATION
1:06

Directors
DONNA COX, STUART LEVY,
ROBERT PATTERSON

Producers
TOM LUCAS (NOVA)
DONNA COX (VISUALIZATION)

A visual excerpt from the PBS HDTV production: "Runaway Universe", courtesy NOVA/WGBH, PBS, and Tom Lucas Productions. The adaptive mesh refinement simulation grid automatically refines into subgrids to develop small-scale features, generating over half a terabyte of data. We see gravitation forming nested hierarchies that vary by many orders of magnitude. Tiny fluctuations in the density of the early universe are amplified into a network of interconnected filaments. Condensing gas clouds give birth to new stars and merge into whirling galaxies that congregate, collide, and interact in a fiery cosmic dance.

Cosmological adaptive mesh refinement simulation
MICHAEL NORMAN, BRIAN O'SHEA, GREG BRYAN
(Grand Challenge Cosmology Consortium)

Contact
DONNA COX
National Center for Supercomputing Applications
605 East Springfield
Champaign, Illinois 61820 USA
+1.217.244.2005
+1.217.244.2909 fax
cox@ncsa.uiuc.edu

222

EXIT
1:51

Director
MIKE WHITE

Producer
VANCOUVER FILM SCHOOL

A boy is set free by confronting his greatest obstacle: himself.

Student Work: Vancouver Film School

Sound
BRETT ANTHONY

Editor
RINA GALLO

Contact
MIKE WHITE
Vancouver Film School
420 Homer Street
Vancouver, British Columbia V6B 2V5 Canada
+1.604.685.6331, x 109
+1.604.685.6317 fax
arnault@vfs.com

EXPLORING SEROTONIN IN THE GI TRACT
2:53

Director
ERIC ROSEMANN

Producer
PETER KORIAN
IOMedia

IOMedia, in collaboration with Intermed Media Inc, created this interactive presentation for Novartis. The presentation, geared toward physicians, explores the relationship among serotonin, an enzyme, its receptors in the gut, and irritable bowel syndrome (IBS). The purpose of the presentation is to visually convey this complex yet fundamental mechanism, in hopes of creating new therapies for treatment of IBS. Extensive knowledge of the workings of the gastrointestinal system and its neural network was required in order to accurately depict the abstracted, microscopic spaces. All visual design, animation, compositing, editing, and interactive design were performed at IOMedia.
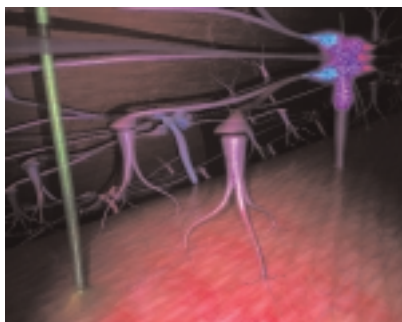
Contributors
GREGORY AMOS, DAN BURT, EUGENE CARROLL, ILDAR ISTARKI, STEVEN KORIAN, BENJAMIN KOU, MARC LAFONTANT, MICHAEL LASKER, BENJAMIN PIRT, ALLAN QUINN, ALLYSON RIEGER, KRIS RIVEL, JUNYA SEKAI, NEMU SHINZAWA, SANDOR TOLEDO, GREGORY WALLACH, STEVEN WOOD, CINDY YANG, MANCHIU YEUNG, PEIPEI YUAN

Contact
ERIC ROSEMANN
IOMedia
126 5th Avenue, Suite 804
New York, New York 10011 USA
+1.212.352.1115
+1.212.352.1117 fax
eric@io-media.com

223

---

f8
Jury Honors
12:50 Animation Theater
3:43 Electronic Theater

Director and Producer
JASON WEN
Crystalline Lens

In the distant future, an unstoppable alien power has genetically altered the entire population of a planet to serve as a labor force. The workers are bred to believe that their sole reason for being is the complete infrastructure buildup for an (as of yet) intangible supreme being. Amidst this scenario, one individual manages to break into a face vault to steal a particular identity and attempt a daring escape.

Software: Lightwave 5.6, Project: Messiah, AfterEffects, Premiere, Photoshop, Nuendo.
Hardware: 1 PIII 550, 1 PIII 600, 2 AMD Athlon 800s, KRK V8 speakers plus S12 subwoofer, Sennheiser K6 shotgun microphone, Sennheiser headphones, Tascam portable DAT recorder.

Screenplay
HOWARD WEN

Concept Artist
ANDREW JONES

Music
CASEY HESS, DON RELYEA

Contact
JASON WEN
Crystalline Lens
1801 Lakeland Park Drive
Garland, Texas 75043 USA
+1.972.240.0141
+1.972.240.0087 fax
jason_wen@hotmail.com

Final Fantasy: The Spirits Within
2:58

Director
Hironobu Sakaguchi

Producer
Jun Aida
Square USA, Inc.

Square Pictures' "Final Fantasy: The Spirits Within" defines the current state of the art in fully synthetic moviemaking. It breaks new ground by presenting a fully computer-rendered world populated not by insects, robots, or toys, but by realistic human characters who can act and directly involve the audience. Ambitious use of new modeling and procedural-animation methods, high-quality rendering, and new forms of special effects were combined with traditional character animation and innovative motion-capture technology to create a theater experience unlike anything movie audiences have seen before.

Co-Director
Motonori Sakakibara

Contact
Terri Sasaki
Square USA, Inc.
55 Merchant Street #3100
Honolulu, Hawaii 96813 USA
+1.808.535.9075
+1.808.535.9100 fax
terri@squareusa.com

224

Freeware
6:56

Director
Alex Orrelle

Producer
Mike Kaczmarek
Academy of Art

Visually stunning and action packed, "Freeware" is a 3D, CG-animated thrill ride through a futuristic world. This sci-fi short follows three cyborgs on a daring race to rescue Maia, an assistant at a powerful IT company, from the grips of its evil CEO. All animation was created using Alias|Wavefronts Maya.

Student Work: Academy of Art

Supervising Technical Director
Andres Martinez

Art Director
Jed Diffenderfer

Shading Supervisor
Tadao Mihashi
David Lipton

Animation Supervisor
Kate Cole

Lighting Supervisors
Erik Smitt
Maria Yershova

Visual Effects Supervisors
Brian McClure
Mark Manfrey

Compositing Supervisor
Dan Cayer

Sound Supervisor
Genevieve Freckelton

Music
Andrew Leung

Voice of Porter
John Rothman

Voice of Angela and Maia
Sabrina Schlumberger

Voices of corp soldiers
Mike Kantor

Animation Supervisor
Gabriel Schlumberger

Editor
Bryan Poon

Contact
Michael Kaczmarek
Academy of Art
15267 Hesperian Boulevard #310
San Leandro, California 94578
USA
+1.650.628.7686
+1.510.357.9680 fax
mikekaz@hotmail.com

Fruits of Labor
1:18

Director
Rudy Poat

Producer
Candice Alger
Giant Studios

This quirky tale centers around a small creature, Guy, and his misadventures with an apple. The action takes place in a gorgeous, park-like setting, infused with luminous tones and rich detail. Our unfortunate little star trips on a grape and lands heads-first in an apple that is on a picnic table. His ensuing struggles and the results make for a Charlie Chaplin-like comedic sketch.

Writer
Rudy Poat

Systems administration
Jeff Askew, Alex Nicassio

CG Supervisor
Sean Pollack

Producer
Kathleen Fitch

Technical Director
Blake Holland

Marketing and PR
Rand Cabus

Compositing and editing
Rich Suchevits

Audio
Dave Henshaw

Animation and modeling
Anwar Al-asmi, Kurt Judson, Santosh Kale, Michael Kennedy, Dave Peng, Mark Therrell

Special thanks
Avid, Softimage XSI, Therese Bruno, Ludovick Michaud, Boxx Nothing's Real Shake

Lighting and shading
Rudy Poat

Contact
Rand Cabus
Giant Studios
2160 Hills Avenue, Suite A
Atlanta, Georgia 30318 USA
+1.404.367.1999
+1.404.367.8485 fax
rand@giantstudios.com

Texturing
Dave Peng, Anwar Al-asmi

Pre-vis layout
Dave Peng

225

Garden of the Metal
2:00

Directors and Producers
Hitoshi Akayama
Katsuyuki Kamei
Japan Electronics College

The inorganic objects in this desolate space appear to move of their own volition. All motions are controlled by MEL (Maya Embedded Language) and Expression. This work was awarded an excellence prize in the non-interactive division of the 2000 4th. Agency for Cultural Affairs Media Arts Festival.

Software: Maya
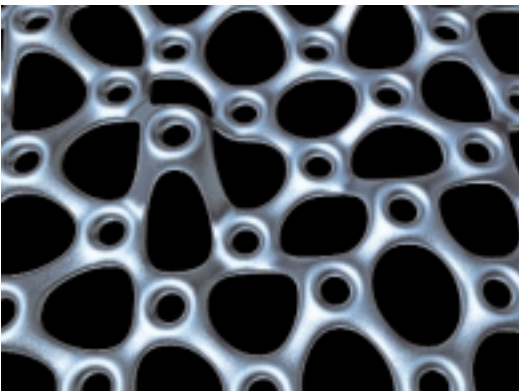
Music
Koichi Nishi

Special thanks
Japan Electronics College

Contact
Katsuyuki Kamei
Japan Electronics College
1-25-4 Hyakunin-cho
Shinjyuku-ku
Tokyo 169-8522 Japan
+81.3.3369.9333
+81.3.3363.7685 fax
kamei@ts.jec.ac.jp

GRANDMA
4:12

Director and Producer
SUNGYEON JOH
The School of the
Art Institute of Chicago

This fairy tale is based on my grandmother's experience of surviving World War II, when Japan occupied Korea. She remembers that she had to learn the Japanese language and culture, and she even had to use a Japanese name. It was like having your own body without your own spirit inside.

Software: Softimage, Media100, SGI

Student Work: The School of the Art Institute of Chicago

Contact
SUNGYEON JOH
Pixar Animation Studios
1200 Park Avenue #445
Emeryville, California 94608 USA
+1.510.752.3816
+1.510.752.3430 fax
sungy@hotmail.com

226

HARVEY
9:32

Director
PETER MCDONALD

Producers
PRISCILLA COLLINS
RACHEL ROBERTS
Australian Film, Television and
Radio School

"Harvey" combines cutting-edge digital compositing and animation techniques with a poetic metaphorical tale of loneliness and incompleteness. The main character, Harvey, has been cut brutally in half from head to groin, down the centre of his body, yet he remains very much alive. The film follows the macabre results of his obsessive relationship with his mysterious neighbour. Actors were shot with blue chroma make-up and combined with heavy Inferno matte work and 3D geometry to create fantastically surreal and macabrely horrifying images.

Student Work: Australian Film Television and Radio School

Contributors
A TEAM OF ROTOSCOPERS, 3D TRACKERS, AND COMPOSITORS FROM
AUSTRALIA, NEW ZEALAND, AND CANADA.

Contact
RACHEL ROBERTS
Australian Film, Television and Radio School
PO Box 126
North Ryde
Sydney, New South Wales 1670 Australia
+61.2.9805.6620
+61.2.9887.1030 fax
rachelr@aftrs.edu.au

HESSI JAMES
3:06

Director
JOHANNES WEILAND

Producer
MARTIN BURKERT
Filmakademie Baden-
Württemberg

In the desert of Arizona, two cowboys meet for a most unusual duel.

Software: Maya
Hardware: Dual 600-MHz Intergraph workstation
Production time: eight months

Student Work: Filmakademie Baden-Württemberg

Story
BADESALZ

Animation
JOHANNES WEILAND

Score
THOMAS MEHLHORN

Contact
JOHANNES WEILAND
Filmakademie Baden-Württemberg
Mathildenstrasse 20
Ludwigsburg 71638 Germany
+49.173.3283188
+49.714.196955235 fax
ascaland@gmx.de

HOLLOW MAN
3:22

Director
SCOTT E. ANDERSON

Producers
SUSAN MACLEOD
BRIAN KEENEY
Sony Pictures Imageworks Inc.

"Hollow Man" was an ambitious and unusual project founded on creation of a detailed and functioning digital human. We examined this human from the inside out. Our challenge was simple in description: create a synthetic digital human capable of sharing the screen and replicating the performance of his human counterpart, actor Kevin Bacon. Creating a digital Sebastian would require our synthetic human to do everything Kevin could as well as stand in during actions that were physically impossible for Kevin (like ripping off his skin) but maintaining full interaction and performance within the film.

Contributors
KEN HAHN, WAYNE KENNEDY, MICHAEL HOBBS,
THOMAS HOLLIER, JEREMY CANTOR, BRUCE NAVSKY

Contact
DON LEVY
Sony Pictures Imageworks Inc.
9050 West Washington Boulevard
Culver City, California 90232-2518 USA
+1.310.840.7315
+1.310.840.8100 fax
dlevy@sonypictures.com

Horses On Mars
6:56

Director and Producer
Eric Anderson
University of Southern California

3.6 billion years ago, a microbe blasts off its home planet propelled by a meteor impact and embarks on a journey through the inner solar system. After spending time on other worlds, it decides home is best and tries to return, only to head in the wrong direction by mistake. Unable to ever return again, it has a one last vision of home and what lies ahead for it. The imagery mimicks the look of electron microscope imagery.

Created on a Dell workstation donated by Intel. Maya and Maya Composer donated by Alias|Wavefront. RenderMan courtesy of Pixar.

Student Work: University of Southern California
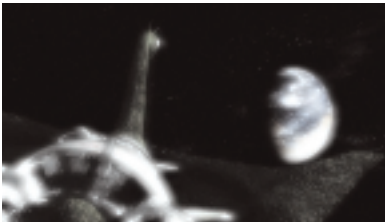
Contributors
Brett Rutland, Anuj Majumdar,
Chris Lexington, Ishu Patel

Contact
Eric Anderson
1945 Talmadge Street
Los Angeles, California 90627 USA
+1.323.644.2989
ela@usc.edu

Hubert's Brain
1:15

Director
Phil Robinson

Producer
Nina Rappaport
Wild Brain, Inc.

Cornered by a bully on a class trip to the natural history museum, Hubert Stinkler gets locked into a laboratory where he literally stumbles onto a talking brain in a jar and gets mixed up in a bizarre tale of vivisection and mayhem. "Hubert's Brain" is a twisted buddy movie about a boy and a brain. Each goes to great lengths to prove the values of friendship. The story gives new meaning to the phrase "everybody needs some...body." "Hubert's Brain" was modeled, animated, and rendered in Maya by Alias|Wavefront and composited using Shake by Nothing Real.

Contact
Nina Rappaport
Wild Brain, Inc.
2650 18th Street, 2nd Floor
San Francisco, California 94110 USA
+1.415.553.8000
+1.415.553.8009 fax
ninar@wildbrain.com

ICE AGE
3:10

Director
CHRIS WEDGE

Producers
LORI FORTE
JOHN DONKIN
Blue Sky Studios

"Ice Age" is a fully CGI-animated feature film from Blue Sky Studios and 20th Century Fox. Set against the onslaught of the Ice Age, the story revolves around three characters: a woolly mammoth, a sabre-tooth tiger, and a giant sloth. Together, this unlikely group of characters take an unexpected passenger, an abandoned human baby, on a journey home. Blue Sky's proprietary renderer, CGIstudio, is featured. Rendering is done on Compaq Alpha render servers. Alias|Wavefront's Maya was used for modeling and animation. Nothing Real's Shake software was used for compositing.

Contact
JOHN DONKIN
Blue Sky Studios
44 South Broadway, 17th floor
White Plains, New York 10601 USA
+1.914.259.6500
+1.914.259.6499 fax
jcd@blueskystudios.com

229

IMAGES OF SEASONS
1:48

Director
JYUNICHI FUJITA

Producer
KOUICHI KAI
Video Station Q Co., Ltd

A dog, a frog, fishes, and a crow sing "wonderful world."
This piece was created using Maya and Media Illusion.

Planner
SEIKO NAKAMURA

VFX
KENICHIRO TANAKA
KAZUHISA WATANABE
HIROSHI YANAI

Camera
TAKAHIRO MATSUNAGA

Lighting
KAZUYOSHI YAMAGUCHI

Contact
KENICHIRO TANAKA
Video Station Q Co., Ltd
4-20-23 Takamiya Minami-ku
Fukuoka 815-0083 Japan
+81.92.525.3914
+81.92.525.0129 fax
tanaka@vsq.co.jp

In the Body
1:26

Director and Producer
Savage Frog!

Based on an original concept and a few rough sketches by Seth Kearsley, this short piece depicts a "body factory worker" dealing with a potential crisis. All of the modeling, animation, and rendering was done using NewTek's Lightwave 3D.
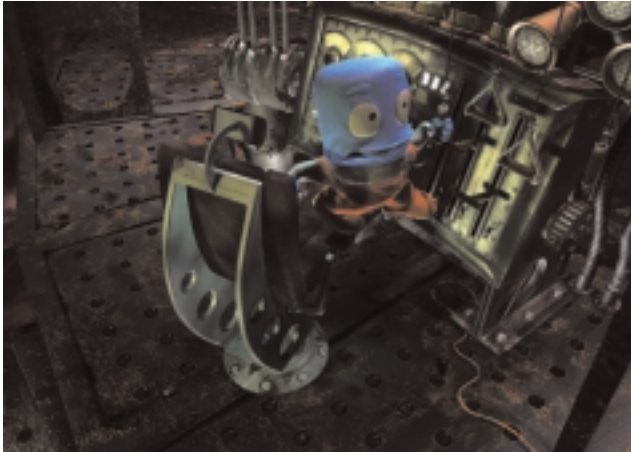
Storyboards, set modeling, texturing, lighting, camera work
Ken Sullivan

Character modeling and animation
Paul Davies

Audio
Eric Freeman

Original concept and designs
Seth Kearsley

Contact
Paul Davies
Savage Frog!
138 Mission Avenue
San Rafael, California 94901 USA
+1.415.457.5738
+1.415.256.8029 fax
pdavies@savagefrog.com

230

Industrial Light + Magic: Research and Development 2001
2:58

Produced and edited by
Colum Slevin
Brent Bowers
Industrial Light + Magic

This presentation illustrates the ILM Digital Technology Group's latest groundbreaking developments. The in-house tools were used by ILM's many digital artists in the four major summer releases of 2001: "Pearl Harbor," "The Mummy Returns," "AI," and "Jurassic Park III." The tools include: rigid body dynamics for plane crashes and advanced smoke simulation ("Pearl Harbor"); advancements in motion capture technology ("The Mummy Returns," "Pearl Harbor"); new advances in flesh simulation and creature dynamics ("Jurassic Park III"); and virtual set technology developed for real-time, on-set visualization ("AI").

R&D Department
John Anderson, David Benson, Rod Bogart, David Bullock, Brice Criswell, Joel Davis, Tim Fortenberry, John Horn, Jim Hourihan, Philip Hubbard, Zoran Kacic-Alesic, Florian Kainz, Sebastian Marino, Marcus Nordenstam, Tony Pelle, Philip Peterson, Cary Phillips, Nicolas Popravka, Vishwa Ranjan, Ari Rapkin, Eric Schafer, Steve Sullivan, Corina Wang, Jeffrey Yost

A very special thank you to all the ILM digital artists and the ILM visual effects production team for their work on: "Pearl Harbor," "The Mummy Returns," "AI," and "Jurassic Park III."

Motion capture department
Seth Rosenthal, Michael Sanders, Doug Griffin, Ann McColgan

Systems R&D department
Tom Dilligan, Andy Hendrickson

Music
George Sakellariou

Also for their great help and support:
Cliff Plumer, Yves Metraux, Vicki Dobbs Beck, Kevin Barnhill, Alan Rosenfeld, Josh Pines, and Christi Carota

Contact
Yves Metraux
Industrial Light + Magic
3155 Kerner Boulevard
San Rafael, California 94901 USA
+1.415.448.9000
+1.415.448.3468 fax
yves@ilm.com

The Instant-Animator Machine
1:38

Director and Animator
Rick May

A SIGGRAPH conference attendee stumbles across the next big use of motion capture technology.

Sound Design
Marc Schaelgen
Amir Soltani

Audio and video recording
Roberto Ziche
Discreet

Contact
Rick May
Oakland, California USA
rick@toonstruck.com

231

Iomega "Pool"
0:44

Director
Traktor

Visual Effects Producer
Richard Bjorlin
Digital Domain

This humorous spot, directed by the world-renowned Traktor (Mats Lindberg and Ulf Johansson) for Publicis and Hal Riney, features a CG animation of a pesky squid and live action of a typical American backyard in summer. Compositing was done in Flame. The spot was modeled and animated in Maya, and rendered and lit in Lightwave.

Visual Effects Supervisor
André Bustanoby

Visual Effects Coordinator
Jay Worth

Lead Character Animator
Piotr Karwas

Modeler
Melanie Okamura

Character Animator
Doug Wolf

Character Designer
David Hodgins

Texture Artist
Mark Wilson

Fx animation, color and lighting
David Lo

Roto
George Oliver

Data integration
Nancy Adams

Lead Compositor
Katie Nook

Compositer
Paul Kirsch

Contact
Ed Ulbrich
Digital Domain
300 Rose Avenue
Venice, California 90291 USA
+1.310.664.3920
+1.310.664.3939 fax
eulbrich@d2.com

KAMI
6:37

Directors
LIONEL CATRY, JULIEN
CHARLES, NICOLAS LAUNAY,
OLIVIER PAUTOT

Producer
SUPINFOCOM

A piece of paper is looking for friends…

Student Work: SUPINFOCOM

Music
PATRICK GHIENNE

Contact
BRUNO FOLLETT
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

232

KENT - TOUT EST LA
2:57

Director
FRANCOIS VOGEL

Producer
ENTROPIE

After directing the winning "Faux Plafond - Cosmic Promenade," Francois Vogel created his first music video. For Kent's "Tout Est La," he gives us a fantastic journey in the north of France. The production team used AfterEffects and Photoshop to create the set and the characters, cars, and other animations.

Post production
MIKROS IMAGE

Digital artists
FRANCOIS VOGEL, FRANCOIS COLOU

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

Knitwear Rendering

2:47

Director
Baining Guo

Producer
Heung-Yeung Shum
Microsoft Research China

Contributors
Ying-Qing Xu, Yanyun Chen, Hua Zhong,
Stephen Lin, En-Hua Wu

Contact
Baining Guo
Microsoft Research China
5F, Beijing Sigma Center
No 49, Zhichun Road, Haidian District
Beijing 100080 China
+86.1062617711
+86.1088097306 fax
bainguo@microsoft.com

Rendering knitwear presents a significant challenge because of the many detailed characteristics of the material, such as the microstructure of yarn fibers, variations in stitch patterns, and shape irregularities. In our SIGGRAPH 2001 paper, we address this rendering problem by introducing a modeling primitive called the lumislice, which represents a yarn cross-section. By propagating a lumislice over a knitwear skeleton and adding soft shadow effects, we are able to synthesize realistic images of knitwear over various levels of detail while capitalizing on transparency-blending hardware. The results of our technique are exhibited in this video and compared with real footage.

233

L'Autre Temps

6:30

Directors
Thomas Delcloy, Vanessa
Lamblet, Céline Lardet

Producer
SUPINFOCOM

Contact
Bruno Follet
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

It is always difficult to write a love letter.

Student Work: SUPINFOCOM

Le Processus
7:51

Directors
Xavier de l'Hermuziere,
Philippe Grammaticopoulos

Producer
SUPINFOCOM

In this strange city, don't lose your hat…

Student Work: SUPINFOCOM

Contact
Bruno Follet
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

234

L'Enfant de la Haute Mer
7:00

Directors
Laetitia Gabrielli, Pierre
Marteel, Mathieu Renoux,
Max Tourret

Producer
SUPINFOCOM

As she does every morning, a little girl living in the open sea opens the windows of the town.

Student Work: SUPINFOCOM

Music
René Aubry

Voice-over
Anne Frédérique Fer

Contact
Bruno Follet
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

235

Animation Theater

L'Enfant de la Haute Mer
7:00

Laetitia Gabrielli, Pierre
Marteel, Mathieu Renoux,
Max Tourret

Electronic Art and Animation Catalog
Computer Animation Festival

LITTLE MISS SPIDER
2:07

Directors
DIANA WALCZAK
JEFF KLEISER

Producers
MOLLY WINDOVER
JEREMY ROSS
Kleiser-Walczak

"Little Miss Spider" is a computer-animated short based on the best-selling book by artist and author David Kirk. For Little Miss Spider's debut as an animated character, artists at Kleiser-Walczak transformed Kirk's vibrant 2D oil paintings into a stylized 3D world. The result is a storybook brought to life by warm and inviting 3D computer-generated imagery of Kirk's magical characters. Maya was used for character and scene modeling, animation, and rendering. Composer and AfterEffects were used for compositing. This project was produced for Callaway & Kirk.

236

Scene Modeling Supervisor
STEPHEN MANN

Avid Editor
SLAVICA PANDZIC

Character Animators
JEFF GUERRERO
JEFFREY LEW
PATRICK PORTER
FABIO TOVAR
TERESA WILLIAMS

Digital Artists
GERHARD BORCHERS
SANDY DONG
BRYAN GODWIN
LISA KIM
DOUG KINGSBURY
ARMAN MATIN
KODY SABOURIN
NATALIA SAENKO

Technical Supervisor
JEFFERY A. WILLIAMS

Senior Systems Administrator
JOE HALL

Art Department Assistant
STEPHANE VERZI

Graphic Artist
VARICK NEVINS

New York Coordinator
BENNETT LIEBER

Business Affairs
JAMES STOKES HATCH

Administrative Assistant
MARIE TRUDEAU

Voice-over recording
SOUND SELLER PRODUCTIONS
BONG + DERN

Audio
KESSLER MEDIA PRODUCTIONS,
LTD.

Sound Mixer
SCOTT CRESSWELL

Callaway & Kirk Company

Author and Artist
DAVID KIRK

President
NICHOLAS CALLAWAY

Director of New Technology
JEREMY ROSS

Senior Editor
ANTOINETTE WHITE

Designer
TOSHIYA MASUDA

Production Director
GEORGE GOULD

Associate Publisher
PAULA LITZKY

Director of Contracts
LAURIE FEIGENBAUM

*Personal Assistant
to Mr. Kirk*
DEBBIE GERI

Art Assistant
RAPHAEL SHEA

With special thanks to:
MICHAEL PEYSER OF MIKE'S
MOVIES; JEAN FEIWEL,
BARBARA MARCUS, AND
JENNIFER BRAUNSTEIN AT
SCHOLASTIC PRESS; DONNA
BASCOM AND SONY KING.

RICH KEMPSTER
Kleiser-Walczak
6315 Yucca Street
Hollywood, California 90028
USA
+1.323.467.3563
+1.323.467.3583 fax
rich@kwcc.com

Written and created by
DAVID KIRK

Executive Producer
NICHOLAS CALLAWAY

Narrator
SUSAN SARANDON

Little Miss Spider
MARICHAL MACDONALD

Betty Beetle
JUDITH MCSPADDEN

Spiderus
FRED NEWMAN

Goldfinch
JUDITH MCSPADDEN

Sound Design
ROBERT KESSLER

Music
ROBERT KESSLER
AND ETHAN NEUBURG

Animation
KLEISER-WALCZAK

Executive Producer
ALISON BROWN

Animation Supervisor
MICHAEL CLAUSEN

Lighting Supervisor
LEONARDO QUILES

Facial Animation Supervisor
DERALD HUNT

LUNCH
1:25

Director
MARION GOTHIER

Producer
MARTIN MCNAMARA
De Anza College

The way to a man's heart leads through his stomach, but it can be paved with formidable roadblocks, as "Lunch"'s hero discovers to his dismay.

Software: SoftImage 3D
Hardware: Dell Dimension PC 866Mhz
Editing Station: Macintosh G4 with Final Cut Pro
Awards: Ed>Net Media Arts Award (First Prize, Computer Animation)

Student Work: De Anza College

Direction, animation, script, design, editing, sound
MARION GOTHIER

Music
ERIC MCFADDEN

Contact
MARION GOTHIER
29 A Sharon Street
San Francisco, California 94114 USA
+1.415.621.2219
gothier@pacbell.net

237

LUNCH
3:14

Director
KEITH LANGO

Producer
KEITH LANGO
Keith Lango Animation

This energetic, comical, modern-day animated parable chronicles the lunchtime adventures of a man, who is on a tragic quest for ever-tastier treats, and his dog. It features a stylized look that mixes color and greyscale tones with a strong emphasis on simplicity. Animated in Alias|Wavefront Maya, "Lunch" is the fifth animated short film created by Keith Lango Animation.

Contributors
MICHAEL COMET, MARK KOX

Contact
KEITH LANGO
Keith Lango Animation
1721 Raleigh Trail
Romeoville, Illnois 60446 USA
+1.630.652.6135
keith.lango@bigidea.com

ManHang (Ephemeral Epiphany)
4:56

Director
Hyunsuk Kim

Producer
Hyunjee Kim
School of Visual Arts

I tried to depict my own realization of the circle of life in this animation: the suffering after birth, the paralyzed salvation after death, and the void of meaning. The only way to escape from the circle of life is to see it and to realize it, although the realization evaporates in a moment. I wanted to see it to show it. In Chinese, the title means the way to reach true knowledge.

Software: Adobe AfterEffects, Phototshop, Boris FX,
Avid Xpress, Protools.
Hardware: IBM

Student Work: School of Visual Arts
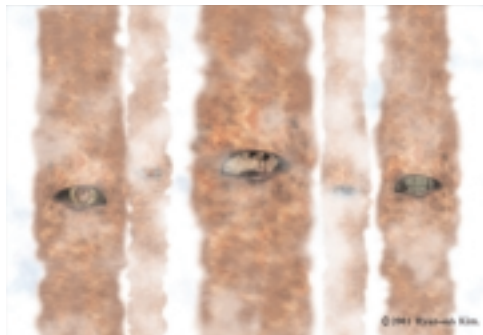
Contributors
Rick Barry, Beth Warshafsky, Kim Lee, Don Ritter, Claudia Herbst, Doug Vitarelli, Ericka Beckman, Linda Lauro-Lazin, and my parents

Special thanks to all professors at Pratt Institute.

Contact
Hyunsuk Kim
School of Visual Arts
372 Dekalb Avenue #4B
Brooklyn, New York 11205 USA
+1.718.398.8578
+1.718.789.8089 fax
hyunnat@aol.com

238

Master Q
3:30

Directors
Eddy Wong
Herman Yau

Producer
Tsui Hark
Menfond Electronic Art and
Computer Design Co. Ltd

Master Q is a legend in Chinese folk culture. Most Chinese have known this comic character since the 1960s. Now, Master Q is the subject of a 75-minute movie, the first 3D character animation in Chinese film history. The producer, Tsui Hark, said: "Master Q bought me a lot of happy and sweet memories, especially since there have been so many pressures and miseries in our society, and family problems. I would like to take this opportunity to introduce a peaceful and joyful world to the audience."

Contributors
China Star Entertainment Group, One Hundred Years of Film, Film Workshop Co. Ltd, Menfond Electronic Art and Computer Design Co. Ltd

Contact
Eddy Wong
Menfond Electronic Art and Computer Design Co. Ltd
54/F Hopewell Centre
183 Queen's Road East
WanChai, Hong Kong
+852.2802.3382
+852.2802.3386 fax
general@menfond.com.hk

Metal Gear Solid 2 Sons of Liberty
10:07

Director and Producer
Hideo Kojima
Konami Computer
Entertainment Japan

This work was created by editing in-game demo scenes of Konami's new PlayStation 2 game. Almost all of the scenes consist of materials rendered in real time on a home game console instead of an expensive, high-spec computer. It is our attempt to create "CG footage that you can touch" instead of "CG footage you watch."

Contributors
Hideo Kojima
Konami Computer Entertainment Japan

Contact
Scott Dolph
Konami Computer Entertainment Japan
Ebisu Garden Place Tower 6F
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6006 Japan
+81.3.5475.0573
+81.3.5475.0574 fax
dolph@kcej.konami.com

239

Metropopular
4:30

Director
Jonah Hall

Producers
Jason Heapy, Laura Lockwood
PDI/DreamWorks

"Metropopular" is an animated short film about what the cities of America would say to one another if they could talk. Frantic about a popularity contest, they jockey for top position while arguing among themselves about why they should be "America's favorite city."

Executive Producer
Julie Haddon

Editing
Greg Snyder, John Dorst

Sound design
Colin O'Neill

Job TD
Marty Sixkiller

Film Technician
John Hanashiro

Marketing and publicity
Kelly Brown, Amy Krider

Contact
Julie Haddon
PDI/DreamWorks
3101 Park Boulevard
Palo Alto, California 94306 USA
+1.650.846.8100
+1.650.320.2895 fax
marketing@pdi.com

Microsoft Xbox "Two to Tango"
1:36

Director
Tim Miller

Producers
Al Shier
Sherry Wallace
Blur Studio

Microsoft came to Blur Studio seeking a cutting-edge teaser that would add impact and energy to the unveiling of its Xbox gaming console. With the visceral and energetic "Two to Tango," we were able to convey the emotion, intensity, and visual splendor that video games on Xbox will possess in the very near future.

Animation team
Jeremy Cook, Tom Dillon,
Jeff Weisend, Bill Zahn

Music
David Norland

Contact
Tim Miller
Blur Studio
1130 Abbot Kinney Boulevard
Venice, California 90291 USA
+1.310.581.8848
+1.310.581.8850 fax
tim@blur.com

240

Modeling & Animation Reel
1:58

Director
Scott Dossett

Producer
Vancouver Film School

Another version of how the pyramids were created.

Student Work: Vancouver Film School

Sound
Brett Anthony

Editor
Rina Gallo

Contact
Scott Dossett
Vancouver Film School
420 Homer Street
Vancouver, British Columbia V6B 2V5 Canada
+1.604.685.6331 x109
+1.604.685.6317 fax
arnault@vfs.com

THE MOVING PYRAMID
9:38

Director
WOLF-RUDIGER BLOSS

Producer
CAMILLE EDEN

Contact
WOLF-RUDIGER BLOSS
4178 Oecarie
Montréal, Québec H4A 3K2 Canada
+1.514.484.6011
rudibloss@hotmail.com

"The Moving Pyramid" is a charming animated short that tells the story of corruption, power, and revolution. This short combines traditional, papercut, and computer animation and was completed in two years using Softimage software. The making of "The Moving Pyramid" would not have been possible without the assistance of Industrial Light + Magic and all the animators and technical directors who volunteered their valuable time.

241

New Baiyun International Airport, Guangzhou City, China

4:56

Animation Director
Jeff Coleman
URS Corporation

In 1998, URS Corporation and Parsons Aviation created a joint venture to bid for the largest new airport in China: White Cloud Airport in Guangzhou (Canton). Located in the Pearl River delta and part of a special economic zone, Guangzhou grew to 20 million people in the past 10 years. As a result, the new airport will serve passenger volumes greater than Los Angeles International Airport. Eventually, it will seve 80 million passengers per year.

The design competition began with competitors from America, England, France, and China. The winning Parsons/URS design was judged uniquely functional and beautiful, with a roadway system unlike any other airport in the world. The building flows organically and dramatically into the rolling hills and lush vegetation of Canton. Chinese see the building as a gateway into China that is at once both classical and modern. The phase-one budget is 2.5 billion dollars.

We used computer modeling and imaging during the competition and after winning the bid. Illustrating the project helped the Chinese accept and understand the design. Computer modeling enabled description of the building geometry, which curves in 3D. URS's Columbus, Ohio office executed modeling and design completely in form•Z with technical support from Parsons and URS groups in Seattle and Tampa.

Storyboard
Derong Liu

Architect
Mark Molen

Architect
April Yang

Animation staff
Michael Bogatin
Curt Coleman
Chi Tran
Jim Winborg
Charles Parsons
Alvaro Torres
Glenda Bedasie

Contact
Michael Bogatin
URS Corporation
7650 West Courtney Campbell Causeway
Tampa, Florida 33607 USA
+1.813.286.1711
+1.813.287.8591 fax
michael_bogatin@urscorp.com

242

In 2000, the Chinese needed a public relations tool to promote this completely new airport to airline customers worldwide. Derong Liu, chief architect for Parsons, and Mark Molen, design director for URS, decided that an animation would be the best promotional tool. Mark created an initial animation of the building exterior, which the client loved. Derong quickly wrote scripts in Chinese and English for the project.

The animation staff then created 3DStudio interior models and used the Columbus exterior model. The resulting seven-minute video illustrates departing passengers at curbside and arriving passengers going through baggage claim. Models were created and rendered using five-dual 933 PCs. The animation and rendering of 10,800 frames took six weeks.

New World Computing Cinematic Team
6:33

Director
John Slowsky

Producer
Mark Caldwell
New World Computing

The New World Computing Cinematic Team is dedicated to the idea that, as a species, we are either inherent storytellers or we hunger to experience the rich tapestry woven by visual artisans. So prevalent is this drive that there is room for both the industrial entertainment machines and the village storytellers. We are only seven, but each of us brings to the table one exquisite spice to mix with our diligence and passion into a feast that we humbly lay before our families, friends, and neighbors.

Contributors
Brian DeMetz, John Gibson, Todd Luallen, Adam MaCarthy, Kurt McKeever, John Slowsky, Phelan Sykes

Contact
John Slowsky
New World Computing
29800 Agoura Road
Agoura Hills, California 91301 USA
+1.818.889.5600 x255
+1.818.560.5682 fax
jslowsky@nwcomputing.com

243

Norfolk Southern "Chasm"
0:38

Director
David Dryer

Producer
Jim Shippee
Rhythm & Hues Studios

"Chasm" depicts two CG cities on either side of a rift: one represents the brick-and-mortar business world, and the other represents e-commerce, with Norfolk Southern trains effortlessly spanning the gap between. The detail and design of the worlds created a compelling hyper-realistic visual density unusual in commercial CGI, with some shots exceeding 2.5 million polygons. To aid in integrating live talent, the spot was choreographed prior to shooting and played back on set with overlaid blue-screened actors and extras.

Executive Producer
Carlton Ashley

CG Production
Rhythm & Hues Studios

CG Director
John-Mark Austin

Executive Producer
Michael Crapser

Head of CG Production
Ian Dawson

Producer
Deborah Austin

Digital Artists
Tim Everitt, Brad Hayes, Mike Johnson, Steven Rogers, Brian Tatosky, Andrew Weiler, Andy Wilkoff

City designs
Gary Montalbano

Modeling
Tex Kadanoga

Matte painting
Lopsie Chan Schwartz

Flame Artist
Colleen Brattesani

Matte and roto
Tony Barazza

Contact
Scot Byrd
Rhythm & Hues Studios
5404 Jandy Place
Los Angeles, California 90066
USA
+1.310.448.7477
+1.310.448.7600 fax
scotb@rhythm.com

NOSTALGIA
1:12

Directors and Producers
MOMOKO DAIGO
TAKASHI YAMAGUCHI
Namco Limited

One summer's day, she was visiting her old hometown, where she spent so much time as a child. The town was quiet. It was almost as if nothing had changed. Overcome by nostalgia, she began to recall fragments of her past.

The main character's facial expressions were animated and achieved with the aid of optical motion-capture technology. The background scenery, a street lined with shops and houses in a quiet country town, was created entirely using computer graphics.

Music
MINAMO TAKAHASHI
JUNICHI NAKATSURU

Motion capture and character setup support
NAMCO C-TEAM, TETSUYA TAT WAKAO

Contact
TAKASHI YAMAGUCHI
Namco Limited
1-1-32 Shin-Urashima-Cho
Kanagawa-ku, Yokohama 221-0031 Japan
+81.45.461.8003
+81.45.461-8097 fax
ymg@cg.namco.co.jp

244

O Brother, Where Art Thou?
1:56

Based on Homer's Odyssey and conceived as a humorous homage to film director Preston Sturges' "Sullivan's Travels," this cock-eyed American ode by the Coen brothers is a picaresque "convicts-on-the-run," character-driven comedy through the mid-1930s Mississippi Delta. This excerpt, entirely driven by visual effects, features a blend of live-action plates with CG water, as well as computer-generated animals, flooded landscapes, floating barns and trees, musical instruments, and multiple cans of Dapper Dan pomade.

Visual Effects Supevisor
ERIK NASH

Visual Effects Producer
JULIAN LEVI
Digital Domain

Digital Compositing Supervisor
CLAAS HENKE

Computer Graphics Superviso
DAVID PRESCOTT

Miniature Effects Supervisor
ALAN FAUCHER

Digital Imaging Supervisor
JEFFREY KALMUS

Visual Effects Editor
DEBRA WOLFF

Visual Effects Coordinators
JULIE GOLDBERG

Creative Imaging Supervisor
MICHAEL D. KANFER

*Visual Effects
Executive Producer*
NANCY BERNSTEIN

Digital Artists
LAURENT BEN-MIMOUN
DAVID BLEICH
SHANNAN BURKLEY
TIM CONWAY
JOHN COURTE
SEAN CUNNINGHAM
FELICIANO DI GIORGIO
RACHEL DUNN
GREGORY ELWOOD
JOHNNY GIBSON
ANDREW HALL
JONGWOOD HEO
GARMAN HERIGSTAD
LILLIAN JACOBS
MARK LARRANAGA
SOPHIA LO
WALTER J. MCLEAN
MELANIE OKAMURA
LOU PECORA
NEIL RUBENSTEIN
JOSH SAETA
DONOVAN A. SCOTT
DAVID EARL SMITH
MESSROB TORIKIAN
KEIJI YAMAGUCHI

Miniature effects crew
JAMES ANKA
LUPE CABRERA
TED VAN DORN
JANE KILLKINNEY
FREDERICK OLLMAN III
JAMES PETERSON
BRETT PHILLIPS
ALLAN RANDALL
BRIAN RIPLEY
BRIAN ROGERS
SCOTT SALSA
CHRIS SOJA
GEORGE STEVENS
ROY STEVENS
TAMARA WATERS

*Visual effects
photography unit*
ALLAN BRUCE
DAN BRODHEAD
TOM CONWAY
ERIC DONALDSON
JERRY GIACALONE
PAUL GIACALONE
MICHAEL KARP
BILL KENNEDY
DWAYNE LYON
JOHN MALTBIE
BILL MANNING
BRIAN MUSSETTER
BRIAN PASS
CHAD PEARCE
GREGG PRESTON
A.J. "JUICE" RAITANO
HEATHER RAE ROBERTS
LUKE SCULLY
TROY STEINMETZ
RON VETO
TOM WEST
LARRY WILLIAMS

Contact
JOANNA CAPITANO
Digital Domain
300 Rose Avenue
Venice, California 90291 USA
+1.310.314.2805
+1.310.314.2921 fax
jcapitan@d2.com

245

Oblivious
0:47

Director
ALEX WHITNEY

Producer
RINGLING SCHOOL
OF ART AND DESIGN

We are unaware of other worlds that exist and how our actions affect the inhabitants of those worlds. This piece was created using Maya, Deep Paint 3D, and Shake. Hardware: HP Visualize Workstation, SGI 320 Visual Workstation

Student Work: Ringling School of Art and Design

Contributors
JIM MCCAMPBELL, KAREN SULLIVAN,
VICTORY FX ANIMATION STUDIOS,
JOSH WEST, MATT WILSON,
LUKE ROMAN, IVA LOVELL

Contact
ALEX WHITNEY
c/o Susan Trovas
Ringling School of Art and Design
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
awhitney@ringling.edu

246

Oddworld: Munch's Oddysee
6:53

Director
LORNE LANNING

Producer, Executive Producer
SHERRY MCKENNA
Oddworld Inhabitants

How would you feel if you broke your leg in a bear trap, were abducted by soul less scientists, had an alien device implanted in your skull, and found out your race had been hunted to extinction? Meet Munch, the hero of Oddworld's oddest opus yet! Captured by sadistic Vykker neurosurgeons, Munch and his fellow lab animals must escape Vykker's Labs Pharmaceutical Corporation before they are processed into a thousand tiny pain relievers. 3D models, animation, and rendering were created using Maya and composited using Shake. Water was created using Arete Nature F/X, and Paraform was used for scanned data.

Assistant Director
CHRIS ULM

Producers
SHANE KELLER, JOSH HEEREN

Senior Production Designer
FARZAD VARAHRAMYAN

Production design
RAYMOND SWANLAND,
GAUTAM BABBAR, SILVIO
AEBISCHER

Animators
SCOTT EASLEY,
MAURICIO HOFFMAN

Technical Directors
JOHN BURK, MATT ALDRIDGE,
RYAN ELLIS, MARKE
PEDERSEN, IAIN MORTON

Sound Designer/Composer
MICHAEL BROSS

Tech Ops
ELI RODRIGUEZ, RANDY
HICKS, DAVID ROTHMAN,
ERIK TWEEDIE

Contact
JENNY SHAHEEN
Oddworld Inhabitants
869 Monterey Street
San Luis Obispo, California
93401 USA
+1.805.503.3000
+1.805.503.3030 fax
jenny@oddworld.com

Ojo Por Ojo
2:24

Director
ALEJANDRO MELUDIS

Producer
LENIN LEON
Arte y Parte

This tribute to the eye was made for the opening show of a national art festval in México. We used several kinds of eyes for which there are words in Spanish, such as the eye of a hurricane, or the eye of a needle, but not a human eye. Software: Adobe photoshop, Adobe Illustrator, Media 100. Hardware: Macintosh G4.

Contributors
PACO ZEPEDA, TITO RAMIREZ,
CARLOS MENDEZ, LORENA ROSSETE,
DAVID VALDEZ, JESUS GONZALEZ

Contact
FRANSISCO ZEPEDA
Arte y Parte
Ay Inglaterra 3089
colonia Vallarta Poniente
Guadalajara, Jalisco 44500 Mexico
+52.3.880.0000
+52.3.122.3667
fzepeda@monilife.com.mx

ALEJANDRO MELUDIS
+52.3.641.9401

247

Our Lady Peace "In Repair"
4:17

Director
OLI GOLDSMITH

Producer
NATHON GUNN
Bitcasters Inc

By innovating new production techniques to specially treat the video's live-action scenes, Oli Goldsmith has combined film footage with animated characters from his paintings in a surrealistic 2.5-dimensional world. Based on Our Lady Peace's concepts for their album "Spiritual Machines," the video explores organic and mechanical narratives inspired by Ray Kurzweil's writings.

Contact
MIKE NESBITT
Bitcasters Inc
364 Richmond Street West, 5th Floor
Toronto, Ontario M5V 1X6 Canada
+1.416.351.0889
+1.416.351.9884 fax
mike@bitcasters.com

Pasta for War
3:27

Director and Producer
Zach Schlappi

Dictator
Robert Prosky

"Pasta for War" satirizes a 1930s propaganda newsreel. It begins with fresh pasta marching towards the podium. There, the Great Dictator orates. A young recruit envisions formations of dive-bombing bow-ties flying above columns of ravioli tanks, while he wades through marinara sauce to battle against utensils at the bottom of the sink. The realization that he may die ends his fantasy, but his comrades march ever forward to their impending doom: a towering pot of boiling water.

Toni
Aaron McMasters

Rigatoni 1
Brian Garrigan

Rigatoni 2
Fleur Levitz

Rigatoni 3
Zach Schlappi

Sound
Stefan Prosky

Music performed by the Massed Bands of the British Army
Released on Beulah

Contact
Zach Schlappi
P.O. Box 1098
New York, New York 10163-1098 USA
+1.212.307.0998
zach@blueskystudios.com

248

PEARL HARBOR
2:10

Visual Effects Supervisor
ERIC BREVIG

Visual Effects Executive Producer
NED GORMAN
Industrial Light + Magic

For "Pearl Harbor," ILM created vistas of period battleships under attack and CG planes in combat. Simulation software was written for the huge billowing smoke from destroyed battleships, and new rigid-body software was developed for the destruction of planes and ships. Other developments included: new environmental lighting techniques to enhance the realism of rendered planes and ships; new crowd and sailor placement software using motion capture, including data from a daylight motion-capture solution; and new match-animation tools to deal with complex plates and set extension needs.

Visual Effects Co-Supervisor
ED HIRSH

Visual Effects Associate Supervisor
BEN SNOW

Visual Effects Producer
JANET LEWIN

Computer Graphics Supervisor
MICHAEL BAUER

Compositing Supervisor
MARSHALL KRASSER

Visual Effects Art Director
ALEX JAEGER

CG Sequence Supervisors
JOEL ARON
STEVE BRAGGS
HAYDEN LANDIS
DAVID HORSLEY

Animation Leads
SCOTT BENZA, SCOTT WIRTZ

Physical Model Supervisor
MICHAEL LYNCH

Digital Artists
MIMI ABERS, SHADI ALMASSIZADEH, AL BAILEY, JEFFREY BENEDICT, ARON BONAR, PAT BRENNAN, CATHY BURROW, BRIAN CONNOR, RYAN COOK, KATHY DAVIDSON, VINCE DE QUATTRO, EMMET DOYLE, RUSSELL EARL, RAUL ESSIG, KELLY FISCHER, JIM GREEN, CRAIG HAMMACK, JOHN HELMS, DORNE HUEBLER, PEG HUNTER, SAMSON KAO, HILMAR KOCH, MOHEN LEO, MIKE LUDLAM, CRAIG LYN, GREG MALONEY, KEN MCGAUGH, HIROMI ONO, MAX ROCCHETTI, KIM ROSS, CANDICE SCOTT, JEFF SUTHERLAND, BLAKE SWEENEY, BARBARA TOWNSEND, SUSAN WEEKS, R.D. WEGENER, DAVID WEITZBERG, RONNIE WILLIAMS, JR., RITA ZIMMERMAN

CG Animators
MAURICE BASTIAN, PAUL KAVANAGH, NEIL MICHKA, CHRIS MINOS, DOUG E. SMITH, MARK WILHITE

Lead CG Viewpainter
RON WOODALL

Lead CG Modeler
PETER BAKIC

CG Modelers
BRUCE HOLCOMB
SIMON CHEUNG
PAUL THEREN

CG Viewpainters
SCOTT BONNENFANT, TONY SUMMERS

3D Matchmove Supervisor
TERRY CHOSTNER

Technical Lead Matchmover
JEFF SALTZMAN

Location Matchmover
RANDY JONSSON

3D Matchmove Artists
DUNCAN BLACKMAN, WENDY HENDRICKSON-ELLIS, PAT TURNER

Digital Paint and Roto Supervisor
KATHARINE BAIRD

Digital Paint and Roto Artists
CHRIS BAYZ, BETH D'AMATO, NIKA DUNNE, DAWN GATES, CAMERON GRIFFIN, JIRI JACKNOWITZ, MICHELLE MOTTA, SAM STEWART

Visual Effects Editor
GREG HYMAN

Digital Timing Supervisor
KENNETH SMITH

Visual Effects Coordinators
LINDSEY CLINE
DAVID GRAY
SUSAN GREENHOW

Digital Matte Artists
RONN BROWN
DAVID SACCHERI
BOB SCIFIO

Visual Effects Directors of Photography
KIM MARKS, CARL MILLER, MARTY ROSENBERG, RAY GILBERTI

Practical Effects Supervisor
GEOFF HERON

Chief Model Makers
BRYAN DEWE, ROBERT EDWARS, BRIAN GERNAND, PEGGY HRASTAR, MITCHEL ROMANOWSKI

Production Supervisor
DAVID DRANITZKE

Model Makers
BARBARA AFFONSO, CHARLIE BAILEY, DON BIES, PHIL BROTHERTON, JEFF BREWER, FON DAVIS, THOMAS EHLINE, DAVID FOGLER, MIKE GRIVETT, AARON HAYE, MICHAEL JOBE, SCOTT MCNAMARA, WENDY NORTON, DAVID MURPHY, RANDY OTTENBERG, ALAN PETERSON, TONY PRECIADO, CHRISTOPHER REED, KIM SMITH, STEVE WALTON

Foreman
ROBERT CLOT

Pyro effects
JASON BRACKETT
TOM SINDICICH
FRANK TARANTINO

Camera crew
JOHN GAZDIK, RICK MCKAY

Stage support
BILL BARR, BURNIE DAMALSKI, CRAIG MOHAGEN, TIM MORGAN, MIKE OLAGUE

Software development
JIM HOURIHAN, VISHWA RANJAN, STEVE SULLIVAN, JEFF YOST, DOUG SUTTON

Motion Capture Technicians
ALEX FRAZAO, NEHA WICKRAMASEKARA

Plate Coordinator
MARGARET LYNCH

Production Assistant
DANIELLE HAZAN

Production Accountant
PAM KNOTT

Technical support staff
MICHAEL BALOG
JOSHUA CHAPEL
MICHAEL MUIR

Editorial
ROB BONSTIN
JESSE RUSSELL
NIC PROVENZANO
PAUL VEGA

Film scanning and recording
RANDY BEAN, GEORGE GAMBETTA, TIM GEIDEMAN

Computer systems support
KIPP ALDRICH, STEWART BIRMAN, RUSSELL DARLING, BRYAN ARNSTON, JULIE SOUCEK-MUNNIK, SEAN WHITACRE

ILM senior staff
PATTY BLAU, GAIL CURREY, CHRISSIE ENGLAND, JIM MORRIS, CLIFF PLUMER

In memory of:
EARL BEYER

Contact
YVES METRAUX
Industrial Light + Magic
3155 Kerner Boulevard
San Rafael, California 94901
USA
+1.415.448.9000
+1.415.448.3468 fax
yves@ilm.com

249

PERESTROIKA
2:22

Director and Producer
ALEXANDROVICH FRIDERICI
Evileye Animation

"Perestroika" (pur es troiku) was created as a representation of sudden change. Though its Russian political references are evident, in this piece, "perestroika," meaning restructuring, is represented in the more literal sense of the word. It is an individual's ability to change what he once believed to be something else. Aided by his aboriginal self, his actions threaten to alter the balance of current reality.

Software: Newtek Lightwave 6.5, Adobe Photoshop 6, Adobe AfterEffects 4.1, Sasquatch

Student Work: Evileye Animation

Contact
ALEXANDROVICH FRIDERICI
Evileye Animation
3031 NE 51st Street #205
Fort Lauderdale, Florida 33308 USA
+1.954.351.1419
evileye@bellsouth.net

250

PIPE DREAM
3:30

Director and Producer
WAYNE LYTLE
Animusic

In this single from a video album, all instruments are played by steel balls shot out of PVC tubing. Two years in the making, the full video album is comprised of seven pieces, each generated by a completely different instrument configuration. Proprietary animation software analyzes the music and automatically drives the movement of the instruments for highly accurate and efficient animation. Essentially no traditional keyframing is used. The DVD version of this video album is scheduled for release in late summer 2001. The album was created by the producer of the original musical fountain in "More Bells and Whistles," SIGGRAPH 90.

Contributors
WAYNE LYTLE
DAVID CROGNALE

Contact
WAYNE LYTLE
Animusic
317 Nye Road
Cortland, New York 13045 USA
+1.607.756.0190
wayne@animusic.com

THE PIT 2
1:21

Director
TIM MILLER

Producer
AL SHIER
Blur Studio

This second installment in the Pit series features an out-of-touch executive telling a clearly frustrated artist about how upper management would like to improve their product marketing.

Animation Team
TOM DILLON, JON JORDAN,
DAVID STINNETT, JEFF WEISEND,
BILL ZAHN

Contact
TIM MILLER
Blur Studio
1130 Abbot Kinney Boulevard
Venice, California 90291 USA
+1.310.581.8848
+1.310.581.8850 fax
tim@blur.com

251

PLATONIC CHAIN
4:00

Director
JUN ASAKAWA

Producers
HIROSHI KITAHARA
NANAE FUJISAWA
HIROYO OSAWA
ACiD inc.

This series of futuristic stories, written by Kozy Watanabe, narrates the life of teenage Japanese girls with broadband mobile phones. We were able to produce Japanese-style animation by using a full 3D computer-graphics approach. We used various animation software, including 3D Studio Max, Ink'n Paint (courtesy of Blur Studio), Discreet combustion, and Adobe AfterEffects, running on dual Pentium3 PCs. Optical-based motion capture systems were used to animate the CG characters.

Contributors
KOZY WATANABE
TAKESHI OKAZAKI

Contact
HIROSHI KITAHARA
ACiD inc.
3-6-6 Nishi-Azabu,Minato-ku
Tokyo 106-0031 Japan
+81.3.3445.0111
+81.3.3445.0115 fax
hk@acid-inc.com

PUPPET
2:25

Director
RAF ANZOVIN

Producer
STEVE ANZOVIN
Anzovin Studio

A puppet-master struggles with a marionette who won't be jerked around. This short was originally conceived as a technical test for new character skeleton setup, nonlinear animation, a spinning light rig, and multipass rendering techniques in Hash's Animation: Master 2000 (v8.5) software.

Animators
RAF ANZOVIN
DAVE BOUTILIER
DEB OSGOOD
BILL YOUNG

Lighting
BILL YOUNG

Music
"FUNERAL MARCH OF A MARIONETTE," BY CHARLES GOUNOD,
PERFORMED BY THE ORCHESTRA OF THE ROYAL OPERA HOUSE,
COVENT GARDEN, CONDUCTED BY ALEXANDER GIBSON. COURTESY
UCG/UMG.

Contact
RAF ANZOVIN
Anzovin Studio
534 Main Street, Suite C
Amherst, Massachusetts 01002 USA
+1.413.253.2358
raf@anzovin.com

252

RED PLANET: AMEE
1:21

Director
ANTHONY HOFFMAN

Producer
CINESITE

AMEE is the attitude-rich, computer-generated villain and star of this film. Cinesite's artists modeled, animated, textured, lit, and composited AMEE into a menacing, taunting feline successor to HAL.

CG Particle Animators
JAMES PETERSON
OSCAR CASTILLO

COO
RUTH SCOVILL

VP/Head of Production
GIL GAGNON

CG terrain
RAM SAMPATH

Executive Producer
DENNIS HOFFMAN

CG Tracking Artists
LYNN BASAS, DAN WANKETT,
MIKE RAMIREZ, ANTHONY
SERENIL, STEVE BOVAIRD,
CHAD OWEN

Production Manager
KRISTEN NIEDERHOLZER

Office Manager
KARL RUMPF

Compositors
MARCEL MARTINEZ, SARAH
MOORE, TOM ZILS, KAREN
KLEIN, KEN SJOGREN

Production Accountant
CARLA SIERRA

Digital Artists
JOE DUBS, VALERIE MCMAHON

CTO
DAN ROSEN

Rotoscope Artists
KRYSTINE KRYTTRE, SERENA
NARAMORE

Computer Services
ROBERT MANCE, MARK SARTE,
BEN FARRIS, PHILIP ROWE,
PAT MACKLE, ARKAY HUR,
VICTOR VU

Concept Department
LUBO HRISTOV, KINO
SCIALABBA

VFX Asistant Editors
JASON SULLIVAN, STEVE RHEE

Scanning and recording
PAT REPOLA, KIM COVATE,
BOB FERNLEY, ERIK
HAKANEN, LEILA RATTI, JOSH
ROBERTS, KRISTOPHER GREGG,
GLEN GUSTAFSON, KEVIN
SCHWAB, PETER MOC, FLOYD
BURKS, JAY ADAMS

Digital Asset Manager
VINCE LAVARES

3D Data Supervisor
DANTE QUINTANA

Visual effects and AMEE
character animation
CINESITE

Rotoscope Supervisor
ERIN CULLEN

3D Data Operators
RANDY BAHNSEN, WALLY
CHIN, ROBERT COQUIA

Research and development
THOMAS ASBURY, JERRY
TESENDORF, VIJOY GADDIPATI,
EDWARD LABAO, DAN WESTON,
PHIL GRAHAM, SHANKAR
CHATTERJEE VAULT, KYLE
DEVRIENDT, BILL MURPHY,
STEPHANIE ROGERS

Visual Effects Supervisor
THOMAS J. SMITH

Visual Effects Editor
KEVIN CLARK

Data Management Supervisors
TONY SGUEGLIA, PAVEL
DVORAK

Visual Effects Producer
SCOTT DOUGHERTY

CG Character Modelers
JOHN HEWITT, JONATHAN
GERBER

Animation Director
STEVE MARKOWSKI

CG Character Animators
CHRIS LENTZ, DERRICK
CARLIN, DAVE FEITEN, ETHAN
MARAK, MIKE MAKARA, DAVID
FEITEN, TOM GURNEY, JACKIE
GORDON, MINHEE CHO

Data Operators
JOHN CEBALLOS, FRED
JIMENEZ, RUTH VASQUE

Video Operators
KEVIN LANEAVE, DALE
STELLY

CG Supervisor
SERGE SRETSCHINKY

Visual Effects Coordinators
DAVID ROBINSON, CARL
MOORE

Composite Supervisors
MARK LEWIS, JERRY SELLS

Projectionist
CURTIS LINDERSMITH

CG Lighters
WAYNE VINCENZI, KATE CHOI,
QUENTIN FROST, OLUN RILEY,
DAN KESSLER, DARREN KINER

CG Tracking Supervisor
JEFF BAKSINSKI

Contact
JILL SMOLIN
Cinesite
1017 North Las Palmas
Los Angeles, California 90048
USA
+1.323.468.2102
jill@well.com

Paint Supervisor
CORINNE POOLER

CG Texture Artists
BRIAN GARDNER,
SCOTT BALLARD, RUTH
CASPARY, JOHN WALLACE

253

RENDERING TRANSLUCENT MATERIALS

2:36

Director
HENRIK WANN JENSEN

Producer
STEVE MARSCHNER
Stanford University

Translucent materials, such as marble, milk, and skin have a soft and smooth appearance that cannot be simulated with standard lighting models. This animation demonstrates a new practical model for correctly rendering translucency and shows how it can eliminate the traditional hard computer graphics look. Our model is described in detail in the SIGGRAPH 2001 paper "A Practical Model for Subsurface Light Transport."

Contributors
HENRIK WANN JENSEN
STEVE MARSCHNER
MARC LEVOY, PAT HANRAHAN

Contact
HENRIK WANN JENSEN
Stanford University
Gates 362B
Palo Alto, California 94305-4070 USA
+1.650.725.3696
+1.650.723.0033 fax
henrik@graphics.stanford.edu

254

RICKY MARTIN: "PRIVATE EMOTION"

4:00

Director
FRANCIS LAWRENCE

Producer
HEATHER HELLER
Pixel Envy, Inc.

In this music video, the entire set is CG, but it looks so real that it is impossible to tell.

Artistic design
COLIN STRAUSE

Contact
TONIA WALLANDER
Pixel Envy, Inc.
1540 7th Street, Suite 300
Santa Monica, California 90401 USA
+1.310.899.9779
+1.310.587.2745 fax
tonia@pixel-envy.com

Robbie Williams: "Let Love Be Your Energy"

6:32

Director
Olly Reid

Producers
Ed Bignell
Cara Speller
Passion Pictures

In Robbie's first animated promo, we see him running through various landscapes from seashores to cities and, in what some might call art imitating life, "brief encounters" with glamorous women. Created with Lightwave 6.5 and Messiah 1.57, the promo was composited in AfterEffects. The Lightwave Cell Shader was applied to the 3D models to achieve a two-dimensional effect. Editing was done with Matrox Digisuite using In-Sync's Speed razor and AfterEffects.

Artiste
Robbie Williams

Record company
EMI

Music management
Tim Clark, David
Enthoven, Carrie Sutton
IE Music

Executive Producer
Andrew Ruhemann

Technical Director
Mark Wilson

Animation and modelling
Mark Wilson, Phil Dale,
Geoff Suttor, Tim Kirkby,
Wesley Coman

Lighting and compositing
Stuart Hall, Tim Kirkby,
Robin Konieczny, Matt
Westrup

Editors
Kevan O'Brien, Nigel
Karikari

Inferno
Ian Richardson
Glassworks

Contact
Joanna Stevens
Passion Pictures
25-27 Riding House Street
London W1W 7DU
United Kingdom
+44.0.20.7323.9933
+44.0.20.7323.9030 fax
joanna@passion-pictures.com

255

Rule-Based Dynamic Simulation for "Wave of Death"

1:14

Director
Frederik Steiner

Producer
Jens Folger
CA Scanline Production GmbH

Production of this fully computer-generated dam-breaching sequence was achieved with a rule-based dynamic system, which differs significantly from conventional keyframe animation or pure dynamic simulation. Instead of separately animating each chunk, fragment, or element of dust, water, or mist, software was developed to combine all dynamic behavior, interactions, and dependencies in one big rule system. With rule-based dynamic simulation, control of the whole visual effect sequence was extremely simplified, which dramtically reduced the amount of work.

Contributors
Stephan Trojansky, Florian Hu,
Roland Langschwert, Fritz Beck,
Albrecht Steinmetz, Sebastian Küchenmeister,
Edwin Braun

Contact
Stephan Trojansky
CA Scanline Production GmbH
Bavariafilmplatz 7
Gebaeude 48
München 82031 Germany
+49.89.6498470
+49.89.64984711 fax
munich@scanline.de

SAE (a bird)

13:10

Director
Byung-Sue Kim

Producer
Korea National
University of Arts

A 3D animation about two miserable pure souls who live in an old woman's belly. Software: Softimage, Photoshop, and Flame.

Student Work: Korea National University of Arts
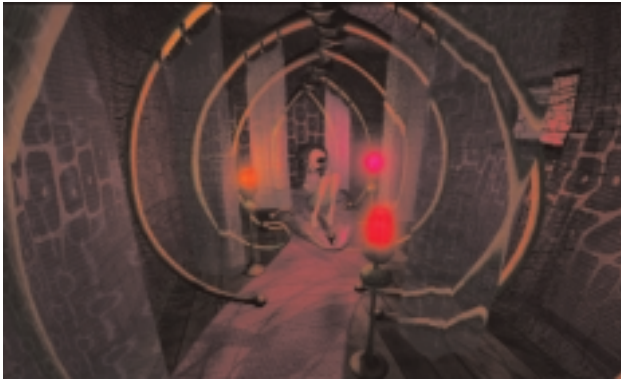
Contact
Byung-Sue Kim
469-66, Seo-Kyo-Dong, Ma-po-gu
Seoul 120-210 South Korea
+82.02.332.5580
suestdio@chollian.net

256

Say Cheese

1:35

Director
Derek Flood

Producer
Das Werk AG

In this story of greed, gluttony, and vanity, a mouse gets in trouble when he eats so much cheese that he can't move. When the cat appears, his troubles really begin. Software: Maya, Shake.

Animation and story
Derek Flood

Contact
Derek Flood
Das Werk AG
Osterwald Strasse 10
München 80805 Germany
+49.89.368148.522
+49.89.368148.111 fax
derek@muc.das-werk.de

The Search for Infinity
2:39

Director
Ron Fricke

Executive Producer
Jeffrey W. Kirsch

Producer
Camille Cellucci
Cinesite

Arthur C. Clarke narrates this extraordinary journey through a Mandelbrot set as he describes our quest for infinity. Originally produced as the opening for an Imax feature by the same name, this psychedelic voyage shows us that mathematics and art are synonymous and beautiful..
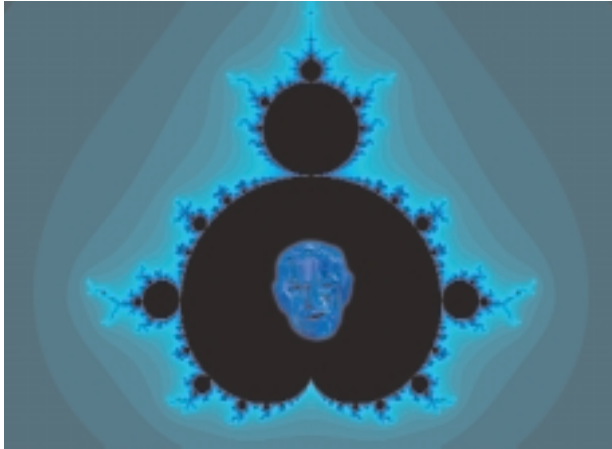

Art Director
Carlos Arguello

In-House Producer
Carole Cowley

Compositor
Timothy Gibbons

Software Engineer
Phil Graham

Digital Effects Supervisor and Compositor
Steve Wright

Composer
Michael Stearns

Contact
Jill Smolin
Cinesite
1017 North Las Palmas
Los Angeles, California 90048 USA
+1.323.468.2102
jill@well.com

Sequence from "Monsters, Inc."
3:29

Director
Pete Docter

Producer
Darla Anderson
Pixar Animation Studios

This sequence from Disney and Pixar's "Monsters, Inc." is a continuous progression starting with storyboards, through final lighting, showing our newest cloth and long fur technology. "Monsters, Inc." is the largest scare factory in the monster world. Sulley is one of its top Scarers and Mike is his Scare Assistant. Their job is to gather the kids' screams that power the monster world. When Sulley accidentally lets a little girl, Boo, into Monstropolis, life turns upside down. While trying to get Boo home, they make a discovery that changes the monster world forever.

Contact
Karen Hartquist
Pixar Animation Studios
1200 Park Avenue
Emeryville, California 94608 USA
+1.510.752.3819
+1.510.752.3800 fax
hart@pixar.com

SERENADE
2:49

Directors
JASON JUDY, PAUL DOWNS,
MIKE BERGER

Producer
RINGLING SCHOOL
OF ART AND DESIGN

Fireflies lead us into an enchanting forest, where a magnificant tree is hosting this evening's serenade. At the foot of the tree, a composer adds the final notes to his midnight symphony. Among the branches, a worker diligently carves an instrument from the wood around him. Under the moonlight, the piece intensifies as we join the conductor and his orchestra above the canopy of leaves.

Student Work: Ringling School of Art and Design
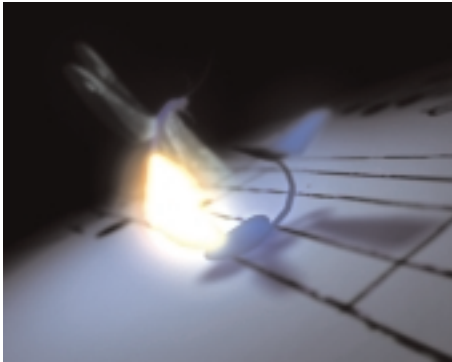
Music
ARAM KHACHATURIAN

Cello
LAUREN BAIR

Faculty Advisor
JIM MCCAMPBELL

Technical genius
KARISSA MILLER

Contact
JASON JUDY
PAUL DOWNS
MIKE BERGER
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
jjudy@Ringling.edu

258

SHREK
3:30

Directors
ANDREW ADAMSON
VICKY JENSON

Producers
ARON WARNER
JOHN H. WILLIAMS
JEFFREY KATZENBERG
PDI/DreamWorks

One of the most visually rich and technically challenging computer-animated films to date, "Shrek" was created by more than 300 artists, computer animators, software developers, and engineers at PDI/DreamWorks who spent almost three years completing the film. "Shrek" features technical breakthroughs in the areas of realistic humans (facial animation, clothing, hair, and fur), natural environments (forests, trees, and foliage), and special effects (CG liquids such as water, mud, beer, and milk along with CG fire and lava).

Editor
SIM EVAN-JONES

Production Designer
JAMES HEGEDUS

Visual Effects Supervisor
KEN BIELENBERG

Supervising Animator
RAMAN HUI

Associate Producer
JANE HARTWELL

Contact
JULIE HADDON
PDI/DreamWorks
3101 Park Boulevard
Palo Alto, California 94306 USA
+1.650.846.8100
+1.650.320.2895 fax
marketing@pdi.com

SILHOUETTE
3:03

Directors
AMBER RUDOLPH
TONYA NOERR

Producer
RINGLING SCHOOL
OF ART AND DESIGN

"Silhouette" is about a toy ballerina who comes to life when her music box opens. As she continues to dance, her imagination runs wild. Is the shadow real, or just a figment of her imagination? This is the question that the ballerina has to ask herself.

Software: Alias|Wavefront Maya 3.0, Nothing Real Shake

Student Work: Ringling School of Art and Design

Music
BEETHOVEN'S 6TH SYMPHONY IN F MAJOR, 4TH MOVEMENT.
COURTESY OF PROMUSIC.

Contact
AMBER RUDOLPH AND TONYA NOERR
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
tnoerr@Ringling.edu

259

STEAM PUNK "GO ROUND"
1:00

Director
HIROYUKI NAKAO

Producer
HIRONORI TERAI
P.I.C.S.

A steam chef visits a sushi restaurant and tries to select a plate of his favorite tuna from a revolving table.

Contact
HIRONORI TERAI
P.I.C.S.
Houraiya Building 401
5-2-1 Roppongi
Tokyo 106-8521 Japan
+81.3.5785.3400
+81.3.5785.3415 fax
terry@picsco.net

Stop-Motion Versus CG

0:44

Director
Kyle Bell

Producer
Erik Vignau
Will Vinton Studios

Contrary to its title, "Stop-Motion Versus CG" employs harmony rather than conflict. It is a collaboration of diciplines and formats: stop-motion, CG, high-definition video, and live-action film brought together for laughs.

Software: Maya, AfterEffects, Jenoptic MF
Hardware: 35mm Mitchell stop-motion camera, Eyelike digital camera

Director and Animator
Kyle Bell

FX Supervisor and Compositor
Noah Klabunde

DP
Mark Ifort

Editor
George Shubin

Stage Manager
Toby Ethridge

Camera Operator
Charlie Rewalt

Motion control
Bret Crutcher

Camera Assistant
Audrey Moore

TD
Alex Inman

Electronic Imaging Engineer
Gary McRobert

Digital image guy
Dean Koenig

Model Builder
Bill Stall

Character setup
Derick Carlin

Contact
Kyle Bell
Will Vinton Studios
1400 NW 22nd Avenue
Portland, Oregon 97210 USA
+1.503.225.1130
kyle@vinton.com

260

Synthesizing Sounds
from Physically Based Motion

1:15

This video demonstrates our technique for approximating the sounds that are generated by the motions of solid objects. As the motions of the objects are computed, their surfaces are analyzed to determine how the motion will induce acoustic pressure waves in the surrounding medium. Our technique computes the propagation of those waves to the listener and then uses the results to generate sounds corresponding to the behavior of the simulated objects. Further details are provided in our paper in the *SIGGRAPH 2001 Proceedings*.
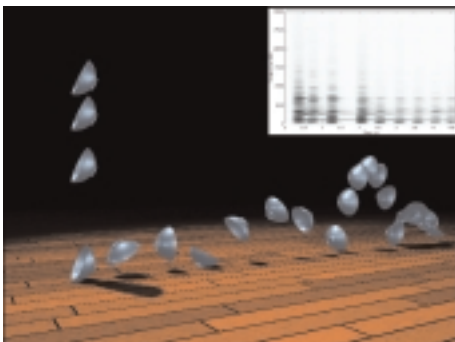
Contributors
James F. O'Brien
Perry R. Cook
Georg Essi

Contact
James O'Brien
University of California, Berkeley
633 Soda Hall, Mail Code 1776
EECS, Computer Science Division
Berkeley, California 94720-1776 USA
+1.510.642.0865
+1.510.642.5775 fax
job@eecs.berkeley.edu

Tabasco Commercials
1:10

Director
Bodo Keller

Producer
UPSTART! Filmproduktion
GmbH

Four commercials for Tabasco green pepper sauce produced in film resolution for cinema release in Europe. Character modeling and animation: 3D Studio Max with Character Studio. Compositing of various rendered layers: AfterEffects and Shake.

Contributors
UPSTART! Filmproduktion GmbH,
Maria Boeckenhoff, Bodo Keller, Michael Koch,
Arvid Landgraf, Frank Rueter

Contact
Bodo Keller
UPSTART! Filmproduktion GmbH
Frankfurterstrasse 28
Wiesbaden 65189 Germany
+49.0.611.15.797.0
+49.0.611.333.527.0 fax
bodo@upstart.de

261

Time Out
1:10

Director
John Wong

Producer
Vancouver Film School

A little boy has been given a "time out" in the corner, when he gets an idea to become a "SuperHero." He creates havoc around the house, unaware that he will encounter his greatest weakness.

Student Work: Vancouver Film School

Sound
Brett Anthony

Editor
Rina Gallo

Contact
John Wong
Vancouver Film School
420 Homer Street
Vancouver, British Columbia V6B 2V5 Canada
+1.604.685.6331 x109
+1.604.685.6317 fax
arnault@vfs.com

TRICK OR TREATS
5:18

Directors
CANDICE CLEMENCET
JEAN DOMINIQUE FIEVET

Producer
SUPINFOCOM

It is Halloween night, and kids are looking for candies.

Student Work: SUPINFOCOM

Contact
BRUNO FOLLET
p/o SUPINFOCOM
Tertia 3000
10, rue Henri Matisse
Aulnoy-Lez-Valenciennes 59300 France
+33.0.327.28.43.53
+33.0.327.28.42.41 fax
supinfocom@compuserve.com

262

THE TURING TEST
5:27

Director and Producer
MARK SAGAR
LifeFX Networks, Inc.

Artificial intelligence computer algorithms compete with each
other in a game show setting where they attempt to pass the Turing
test and gain acceptance as human. This work demonstrates new
animation techniques. The 3D digital actors have been designed to
perform and render in real time over the Internet and were record-
ed to video directly from the display of a standard PC. The
characters' dialogue was created from text using text-to-speech
engine or sychronized to real-voice audio clips. The digital actors
were "directed" using a mark-up language to describe behaviors
and expressions, with real-time interactive playback.

Software: LifeFX
Hardware: PC, graphics card

Contributors
MARK SAGAR, PAUL CHARETTE, GREG DECAMP,
BRAD KALINOSKI, JOHN WALLACE, ALEXANDER POUCHKAREV,
MAYUMI SHIMOKAWA, DIANA LYNN, JUSTINE SAGAR

Contact
MARK SAGAR
LifeFX Networks, Inc.
7080 Hollywood Boulevard, Suite 1015
Hollywood, California 90028 USA
+1.323.960.1461
+1.323.960.1454 fax
msagar@lifefx.com

Unexpected Perspectives
1:14

Director
Scott Dickey

Producer
Ringling School
of Art and Design

In a beautiful world of blue flowers, an organic character who is separated from the environment operates his harvesting machine. After an unexpected event, he must realize new insights about the outside world.

Student Work: Ringling School of Art and Design

Contact
Scott Dickey
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
sdickey@ringling.edu

263

Until Wolfy Met Helga
1:25

Director
Mookie Weisbrod

Producer
Ringling School
of Art and Design

Wolfgang and Helga are two figurines living in a brand new cuckoo clock. As the clock strikes the hour, it's time for them to meet. Both are very excited, until Wolfy meets Helga.

Student Work: Ringling School of Art and Design

Music and sound design
Mert Ihsan Balta

Contact
Mookie Weisbrod
Ringling School of Art and Design
c/o Susan Trovas
2700 North Tamiami Trail
Sarasota, Florida 34234 USA
+1.941.359.7536
+1.941.359.7517 fax
mweisbro@rsad.edu

Values
Best Animated Short
4:32

This animated film was inspired by the filmmaker's relationship with his late father. In a minimalist manner, using primitive shapes such as spheres, planes and cylinders, the filmmaker tells a story about parent-child relationships. By simplifying the character design and locking the camera to primarily a master shot, the filmmaker tells his story mainly through the acting and lighting. Because the elements are kept to the minimum, viewers can project more of their own experiences into the story. Less can sometimes be more.

Produced at the USC Cinema-Television School Division of Animation and Digital Arts, this thesis film was inspired by the filmmaker's relationship with his late father. In a minimalist manner, using primitive shapes made out of spheres, planes, and cylinders, "Values" tells a story about family relationships. Story elements are kept to a minimum. Characters are reduced to faceless icions. The camera is locked to primarily a master shot. And audio is limited to music only. It was hoped that this simple approach would draw the audience closer into the story. Less can sometimes be more.

The film was animated and modeled using Maya. Each frame was rendered using the Maya renderer at D1 resolution and resized to 2k for film exposure. Everything was textured procedurally within Maya. Alias|Wavefront Composer was used for compositing and editing. A Dell Intel Pentium III computer was used for rendering.

Student Work: University of Southern California

264

Director, Producer, and Animator
Van Phan
Cinema-Television School
University of Southern California
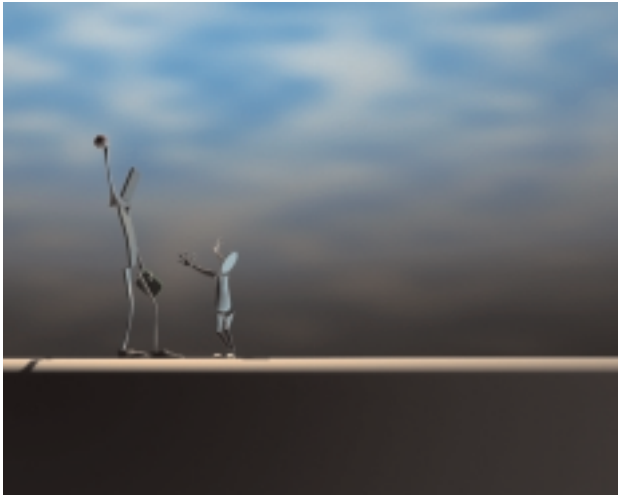
Composer
Michael Sean Colin

Production Manager
Mar Elepano

Special Thanks
My family and friends,
Khanh Phan, Alias|Wavefront,
Noel Goin, Mai Doan, Eastman Kodak,
Kathy Smith, Mitch Cockerham,
Intel, Adrian Iler, Lorette Bayle,
SPI, Ishu Patel, Barry Weiss,
Tom Sito, Christine Panushka,
Brett Rutland, Lan Phan,
Vibeke Sorensen, SGI,
Eric Armstrong, Karen Knight,
Richard Weinberg, Henry Anderson,
Sergio Ramirez, Eric Furie,
Pauline Ts'o

Dedicated to Nguyen Phan

Contact
Van Phan
Cinema-Television School
University of Southern California
4644 West 137th Street
Hawthorne, California 90250 USA
+1.310.644.3726
vanphan75@hotmail.com
anim.usc.edu/phan

VEL SATIS EN CAPITALE
5:42

Director
PIERRE QUATREFAGES

Producer
OLIVIER BOULANGER
Renault

Integrating 3D virtual cars in a real environment is a powerful and essential tool for the everyday design process at Renault. Using similar techniques, this piece integrates the new Renault car, Vel Satis, into Paris. The city is lighted with a touch of magic. This animated short was produced using Lightware 5.6 and Adobe Photoshop. It was edited with Avid's MCXpress at TVI Community College in Alburquerque, New Mexico.

Contributors
MARC PINEL, GUILLAUME SHAN,
FABRICE FORETS, THIBAUT DUREUIL,
MARC SAULODES, XAVIER DE L'HERMUZIERE,
THIERRY LECHAT, DAVID RONDELLO,
FREDERIC MADSEN, BRUNO DUQUENOY

Contact
OLIVIER BOULANGER
Renault
Technocentre Renault - TCR AVA D 03
1, avenue du Golf
Guyancourt Cedex 78288 France
+33.1.34.95.36.84
+33.1.34.95.36.80 fax
olivier.boulanger@renault.com

265

WALK
5:35

Director and Producer
JEFF DREW
Jeff Drew Pictures

Join Edgar, the man, and Gigi, the dog, on a walk through a wacky cut-and-paste world filled with drunk clowns, smoking grandmas, and sidewalk preachers. Who knows what may be down the next block, or what lies in store for Gigi at the end of the walk? This animated short was produced using Lightware 5.6 and Adobe Photoshop. It was edited with Avid's MCXpress at TVI Community College in Alburquerque, New Mexico.

Student Work: Jeff Drew Pictures

Contact
JEFF DREW
Jeff Drew Pictures
1006 Carlisle SE
Albuquerque, New Mexico 87106 USA
+1.505.265.1556
automatedrew@aol.com

The Wardrobe
2:02

Director and Producer
Maria Lee
Academy of Art College

"The Wardrobe" is a story about the meaning of love and sentiments in our post-modern world. Inspired by René Magritte's surrealistic approach to visual images, Mikhail Bakhtin's writings on Dialogism, and Jean Baudrillard's ideas on simulations, "The Wardrobe" evokes mysteries through poetic combination of ordinary objects. Its intent is to activate discussion of ideas and values of love by exploring these meanings on various levels. What is real love? "The Wardrobe" indicates that the meaning of love and sentiment is elusive and fabricated.

Student Work: Academy of Art College

Original music
Bruce Christian Bennett

Contact
Maria Lee
PO Box 191485
San Francisco, California 94119 USA
+1.415.577.8003
fanbow@yahoo.com

266

Where is Frank?
4:05

Director
Angela Jedek

Producer
Filmakademie Baden-Württemberg

Once upon a time from different perspectives, or a story of cool cowboys, a fly, and the ride of things. Hand-drawn textures (Indian ink): Maya 3.0, NT, Adobe Photoshop 4.0.

Student Work: Filmakademie Baden-Württemberg

DoP
Frank Wurster

Animators
Jens Hansen, Martin Breidt

Plug-in programing
Harald Grünbele

Music
Sebastian Müller

Contact
Angela Jedek
Filmakademie Baden-Württemberg
Mathildenstrasse 20
Ludwigsburg 71638 Germany
+49.7141.969.235
+49.7141.969.55235 fax
sven.pannicke@filmakademie.de

WILD JUNGLE - MOTION RIDE
3:45

Director
SHINJI TORIGOE

Producer
SHINGO YASUMARU
SEGA Corporation

A jungle tour filled with downhill bumps, cliff hangers, bridge-collapsing moments, the discovery of an ancient burial site, and an unpredictable ending turns this into one wacky adventure. "Wild Jungle" is a twelve-person motion ride with a 180-degree wrap-around screen seamlessly projected by three CRT projectors at 60 frames per second.

Contributors
SHINJI IEI, RYO TAKAHASHI,
TOSHINORI TAKATA, KAZUE TSUKAMOTO,
YOSHIMI SAITO, TAKAMASA NAMIKI,
YUKIKO ISOBE, YOUICHI IWATA,
HIROKI MORIKAWA, MASAHITO HONDA,
MASATO TAKAZAWA, TAKAKO OHBUCHI,
SYOZI OKADA, KENICHI HASEGAWA,
RYO MATSUBARA, JI-YOUN SONG,
MASAKI SAKAI, MAKOTO FUKUSHIMA,
KAZUHIKO NAGAI

Contact
SHINGO YASUMARU
SEGA Corporation
1-2-12, Haneda, Ohta-ku
Tokyo 144-8531 Japan
+81.3.5736.7294
+81.3.5736.7295 fax
yasumarus2@soj.sega.co.jp

267

WING 2001
1:37

Director
KEI YOSHIMIZU

Producer
YUSAKU TOYOSHIMA
Digital Frontier Corporation

A TV commercial for a new brassiere. The charactor's name is "Tsubasa."

Contributors
YASUHIRO OTSUKA, SHINYA KOHNO, MAKOTO SEKI

Contact
YUSAKU TOYOSHIMA
Digital Frontier Corporation
7F Nielsen Building
1-1-71, Nakameguro, Meguroku
Tokyo 153-0061 Japan
+81.3.3794.2476
+81.3.3794.2472 fax
toyo@dfx.co.jp

WOODROW WILSON BRIDGE PROJECT
1:52

Animation and Video Director
JEFF COLEMAN
URS Corporation

Clients
FEDERAL HIGHWAY ADMINISTRATION,
VIRGINIA DEPARTMENT OF TRANSPORTATION,
MARYLAND STATE HIGHWAY ADMINISTRATION, AND THE D.C.
DEPARTMENT OF PUBLIC WORKS

URS animation staff
JIM WINBORG
MICHAEL BOGATIN
CURT COLEMAN
CHARLES PARSONS
ALVARO TORRES
CHI TRAN
GLENDA BEDASIE
ROBERT VALENTINE

Writer, Producer, Coordinator
NORINE M. WALKER,

Contact
MICHAEL BOGATIN
URS
7650 West Courtney Campbell Causeway
Tampa, Florida 33607 USA
+1.813.286.1711
+1.813.287.8591 fax
michael_bogatin@urscorp.com
+1.813.287.8591 fax
michael_bogatin@urscorp.com

The Federal Highway Administration, the Virginia Department of Transportation, the Maryland State Highway Administration, and the District of Columbia Department of Public Works are pursuing a $2.2 billion improvement of a 7.5-mile section of the east coast's busy I-95 corridor at the mid-point across the Potomac River, which includes the Woodrow Wilson Bridge. Potomac Crossing Consultants, a joint-venture of Parsons Brinkerhoff, URS, and RKK, LLP, is the general engineering consultant that is providing project management of design and construction for the project. The setting includes a highly populated, environmentally and culturally sensitive landscape, and the project affects many businesses, local residences, and travelers, so it requires extensive public involvement.

URS, Creative Imaging Group, Tampa, created a series of 3D computer simulations showing the new bridge and roadway design. The use of the rendering products began during a bridge-design competition in which CADD files and technical information were translated into still and animated visuals. These images were used by a citizen's advisory panel and a distinguished jury to determine the competition winner. Print and television news media received the materials, which they have continued to use to track stories of the largest public works project in the mid-Atlantic region.

Subsequently, renderings were used in still and animated forms for public hearings, town hall meetings, stakeholder panel meetings, b-roll for the media, and a variety of other formats. In November 2000, a Virginia Department of Transportation public hearing debuted a 12-minute video of a split-screen fly-through from a helicopter point of view, at an altitude of approximately 300 feet, of full construction of the Virginia portion of the project. A fly-through animation of the entire project was prepared to show traffic movements. This fly-through was available on a one-hour loop for five days at the annual Transportation Research Board (TRB) meeting in Washington D.C., where 7,000 attendees had the opportunity to view the video. That video has been reformatted into other formats for various purposes and will be available for broader distribution. These are very effective ways to show building removals and how new ramps will serve travelers, and they have been very well received by those who are unable to visualize engineering drawings.

WORK IN PROGRESS
3:09

Director
TOM BERTINO

Producer
CHRISTIAN KUBSCH
Industrial Light + Magic

In a fantastic workshop hidden deep in a world of natural wonders, two peculiar inventors squabble over their latest creation. What's more important: concept or implementation? A mysterious third party intervenes and provides the elusive, missing ingredient.

FREDERICK SCHMIDT, DOUGLAS J. SMITH, JOHN WALKER, DAVID WEITZBERG, R. CHRISTOPHER WHITE

Character Modelers
ANDREW CAWRSE, FRANK GRAVATT, ALYSON MARKELL, SUNNY WEI, OMAR VELASCO

Set Modellers
PAMELA J. CHOY, LARRY TAN, PAUL THEREN, HOWIE WEED

Technical Animators
FELIX BALBAS

Layout Artist
EVAN PONTORIERO

Creature Developers
ANDY ANDERSON, MICHAEL CORCORAN, MICHELLE DEAN, D. RUDY GROSSMAN, LENNY LEE, SUNNY LEE, MARC WILHITE

Viewpainters
DONNA BEARD, BRIDGET GOODMAN, REBECCA HESKES, JEAN-CLAUDE LANGER, DAVID SACCHERI, DAVID TOMURA

Digital Matte Artists
JONATHAN HARB, JETT, BILL MATHER

Compositors
KATHLEEN BEELER, BARBARA BRENNAN, TAMMY CARTER, CAITLIN CONTENT, BILL GILMAN, STEPHEN KENNEDY, AMY SHEPARD, CATHERINE TATE, PAT TUBACH, KEN ZIEGLER

Software Engineers
SEBASTIAN MARINO, DAVID BULLOCK, JOEL DAVIS, ARI RAPKIN

Production Coordinators
CATE LATCHFORD
PAULA NEDERMAN

Production Suport
ADRIENNE ANDERSON, ANTHONY BUTLER, MARY HANNAN, KELLY HAWKINS, TRIPP HUDSON, KAREN LANDSBERRY, JANE LOPEZ, ERIC RADLEY, STACY ROBISON PRICE

First Assistant Editor
ANTHONY LUCERO

Digital Timing Supervisor
BRUCE VECCHITTO

Scanning Operators
EARL BEYER
TODD MITCHELL

Negative Cutter
ANGELA CHOU

"Vesti la Giubba: Aria"
Performed by
TODD GEER

Post production services
SKYWALKER SOUND

Sound Design Assistant
CHRISTOPHER BARRICK

Foley Artists
DENNIE THORPE, JANA VANCE

Foley Mixer
TONY ECKERT

Foley Recordist
FRANK "PEPE" MEREL

Mix Technician
BRANDON PROCTOR

Recordist
STEVE ROMANKO

Dolby Sound Consultant
DAN SPERRY

Technical support
MICHAEL BALOG, JEROME BACKUM, JOSHUA CHAPEL, MICHAEL CORDOVA, BRICE CRISWELL, NATALEE DJOKOVIC, MATT EDWARDS, RYAN GALLOWAY, ANTHONY GREENBERG, JEFF HATCHELL, SHANNON HENRY, IAN JENKINS, YVES METRAUX, MICHELLE MOTTA, MICHAEL MUIR, KIM ORLA-BUCKOWSKI, VICTOR SCHUTZ, ANGIE TAYLOR, MEGHAN THORNTON, DAVID WEATHERLY

Production engineering
STEVE BESSELMA, TOM HOUSE, MARY HINMAN, SEAN WHITACRE

269

Video engineering
KIPP ALDRICH
CRAIG MIRKIN

Special thanks to:
MICHAEL BIBER, GAIL CURREY, VICKI DOBBS BECK, BRIAN BRECHT, CHRISSIE ENGLAND, PAM KAYE, ALAN KEITH, NANCY LUCKOFF, JEFF MANN, JOB MARTIN, ELLEN PASTERNACK, MARTHA RICHTER, DAWN YAMADA

Contact
YVES METRAUX
Industrial Light + Magic
3155 Kerner Boulevard
San Rafael, California 94901
USA
+1.415.448.9000
+1.415.448.3468 fax
yves@ilm.com

Story Supervisor
ANTHONY F. STACCHI

Visual Effects Supervisor
ERIK MATTSON

Co-Producer
JILL BROOKS

Layout Supervisor
SCOTT FARRAR

Executive Producers
PATRICIA BLAU, JIM MORRIS

Cast
TONY HAYGARTH
RICHARD WILSON

Music
JIMMIE HASKELL

Production Designer
ERIK TIEMENS

Character Designer
CARLOS HUANTE

Sound Designer
TOM MYERS

Editor
STEVE BLOOM

Character Animation Supervisors
CHRIS ARNSTRONG, SEAN CURRAN, TIM HARRINGTON

Creature and Set Model Supervisor
PAUL GIACOPPO

Creature and Set Viewpaint Supervisor
SUSAN ROSS

CG Sequence Supervisors
JOEL ARON, AMELIA CHENOWETH, PATRICK CONRAN, INDIRA GUERRIERI, GERALD GUTHSCHMIDT

Story Artists
JAMIE BAKER, DAVID GOSMAN, BOSCO NG, BRIAN O'CONNELL, STEVE PURCELL, GARRET SHELDREW

CG Lead Development Artists
BARRY ARMOUR
TOMMY BURNETTE
DAVID MENY

CG Lead Environment Artist
KEN WESLEY

Lead Creature Developer
AARON PFAU

Key Conceptual Artist
RYAN CHURCH

Production Manager
BARBARA DAWSON

Concept Artists
ROBERT MACKENZIE, LARISSA MARTIN, CLAUDIA MULLALY

Character Animators
PATRICK BONNEAU, SUE CAMPBELL, ANDREW DOUCETTE, JENN EMBERLY, KEN KING, DAVID LATOUR, MARTIN L'HEUREUX, NEIL MICHKA, SPANKY, KIM THOMPSON, MARJOLAINE, CHI CHUNG TSE

CG Technical Directors
MICHAEL BALTAZAR, JEAN-PAUL BEAULIEU, LEILA BEN-JOSEPH, JEFFREY BENEDICT, MATT BLACKWELL, LINDY DE QUATTRO, NATASHA DEVAUD, GONZALO ESCUDERO, CHRISTIAN FOUCHER, TODD FULFORD, BRIAN GEE, JEREMY GOLDMAN, PEG HUNTER, POLLY ING, RUSSELL KOONCE, GREGOR LAKNER, VIHN LEE, MOHEN LEO, DAN LOBL, MICHAEL MIN, PATRICK NEARY, KHATSHO ORFALI, BRUCE POWELL, BOB POWELL, SCOTT PRIOR, PHILIPPE REBOURS, KEVIN REUTER, MASSIMILLIANO ROCHETTI, KIM ROSS, JASON ROSSON,

X-Men "Morphology"
2:07

For director Bryan Singer's "X-Men," Digital Domain created a photoreal CG Senator Kelly as he convulsed into a liquid death. CG supervisor David Prescott and his team, led by technical developer Sean Cunningham, used passes of a reflection sphere to create a global illumination environment for the CG elements. Ninety percent of the final shot was CG, originating with a brief plate shot of actor Bruce Davison. This provided more freedom to manipulate and exaggerate his breathing and final gasps as he turned to water, essentially adding to and enhancing the actor's performance.

270

Visual Effects Producer
Amy Hollywood Wixson
Digital Domain

Computer Graphics Supervisor
David Prescott

Digital Compositing Supervisor
Jonathan Egstad

Miniature Effects Supervisor
Alan Faucher

Digital Imaging Supervisor
Jeffrey Kalmus

Digital Production Manager
Lisa Harriman Scott

Digital Team Leads
Sean C. Cunningham
Swen Gillberg
Douglas J. Seiden
Branden Smith
Zachary Tucker
Andy Wilkoff
Keiji Yamaguchi

3D Effects Animators
Garman Herigstad
Brad Herman
Rusty Ippolito
Michael Johnson
Alan Kapler
Andy Lesniak
Dan Mellitz
Ryo Sakaguchi
Rob Stauffer
Richard Wardlow
Chris Y. Yang

Character Animators
Piotr Karwas
Giancarlo Lari
Melanie Okamura
Dustin Zachary

Technical Developers
Greg Duda
Babak Forutanpour
Matthew Lamb

Lead Digital Compositor
Claas Henke

Digital Compositors
Chris Ciampa
Filippo Costanzo
Betsy Cox
Feliciano Di Giorgio
Christina Drahos
Mark M. Larranaga
Mary S. Leitz
Dave Lockwood
Anthony Mabin
Joe Mandia
Brandon McNaughton
Robert Nederhorst
Davy Nethercutt
John Rauh
Cesar Romero
Andrea Sholer
Rob Trent

Digital Matte Painters
John Hart
Carlin Kmetz

3D Track Artists
Nancy Adams
Jay Banks
Allen Blaisdell
Steven Bovaird
Tim Conway
Eric Gambini
Michael Karp
Mohannad Khamra
Jim Mclean

Digital Rotoscope Artists
Paul Carlos
Stacie Manning
George Edwin Oliver, Jr.
Robert Schultz
Tonia Young-Bilderbeck

Visual Effects Editors
Gus Duron
Rebecca Lilienfeld

Visual Effects Coordinator
Julie Goldberg

Digital Effects Coordinators
Tom Clary
Sean Devereaux
Margie Stubbs

Walk-Through Coordinator
Ricardo Anderson-Jaco

Visual Effects Accountant
Rebecca Misiorowski

*Visual Effects Production
Assistant*
Bryan Rogers

Scanning and recording
Chad E. Collier
Christopher Holsey
Bopo

Projectionist
Jim Smith

Digital Development Producer
Denise Ballantyne

Creative Imaging Supervisor
Michael D. Kanfer

*Visual Effects Executive
Producer*
Nancy Bernstein

Contact
Joanna Capitano
Digital Domain
300 Rose Avenue
Venice, California 90291 USA
+1.310.314.2805
+1.310.314.2921 fax
jcapitan@d2.com

X-Men: Mystique Transformations
1:24

Director
Bryan Singer

Producers
Lauren Shuler Donner
Ralph Winter
Kleiser-Walczak

For "X-Men," Kleiser-Walczak artists developed a 3D-morphing technique for transforming various live-action characters into the evil metamorph: Mystique. CG keyframe animation and procedural animation formed the basis of visual effects that were integrated with Rebecca Romijn-Stamos" performance and Gordon Smith's practical make-up.

To produce Mystique's transformations, Kleiser-Walczak used polygonal 3D body scans by InSpeck and Cyber FX, 3D modeling software by Paraform, Alias|Wavefront's Maya for procedural animation, and 3D tracking solutions by Yannix Technology. Chalice was used for compositing, and WAM!NET provided rendering resources.

*Kleiser-Walczak
Visual Effects Team*

Visual Effects Supervisor
Frank E. Vitz

Visual Effects Producer
Erika Walczak

Lead Animators
Scott Palleiko
Kody Sabourin

Animators
Derald Hunt
Beau Janzen
Alisa Loren Klein
Jeffrey A.W. Lew
Rickard Söderstrom

Compositors
G.G. Heitmann Demers
Douglas Aiken

Modeler
Stephen Mann

2D Artist
Kseniya Hoppe

Render Manager
Tom Hendrickson

Film Manager
Martha Small

Production Coordinator
Santo Ragno

Software Developer
Daniel Roizman

Technical Advisor
Jeffery A. Williams

System Administrator
Scott Lord

Senior System Administrator
Joe Hall

Visual Effects Advisor
Jeff Kleiser

Special thanks to:
Bryan Singer
Lauren Shuler Donner
Ralph Winter
Rich Thorne
Michael Fink
Denise Davis
Twentieth Century Fox

Mystique "Making Of" by:
Beau Janzen

Contact
Rich Kempster
Kleiser-Walczak
6315 Yucca Street (at Vine)
Hollywood, California 90028
USA
+1.323.467.3563
+1.323.467.3583 fax
rich@kwcc.com

271

ZOIDS
4:00

Director
TAKAO KATO

Producer
TOSHIHIRO NAKAZAWA
Shogakukan Music & Digital
Entertainment Co., Ltd.

The TV cartoon series "Zoids" was made with the toon shader
14of SoftImage 3D. 2D cel animations were blended without any
oddness. First, each 3D CG model's basic actions (walking, run-
ning, jumping) were established. Then, using the "animation
sequencer" function of SoftImage 3D, an autofilling "motion
blend" was performed on the changing parts to produce many
cuts. Finally, RETAS! PRO and AfterEffects were used for the
cel drawings that combined 2D characters, hanging smoke, rock,
and natural objects. These made it possible to fine-tune the
arrangement, and any oddness between the two was eliminated.

Contributors
YOSHIHIKO MARUTANI, MASAKAZU KUBO,
NORIYUKI YOSHIDA, HIROSHI MOROTOMI

Contact
ATSUSHI FUJII
Shogakukan Music & Digital Entertainment Co., Ltd.
2-4-5, Kanda Ogawamachi
Chiyoda-Ku
Tokyo 101-0052 Japan
+81.35281.6600
+81.35281.5666 fax
fujii@smde.co.jp

272