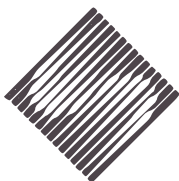


# ACM SIGGRAPH VIDEO REVIEW



ISSUE 72

## SIGGRAPH '91 Electronic Theatre *part 2 of 2*

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**ACM SIGGRAPH  
Video Review  
Issue 72**

**SIGGRAPH '91  
Electronic Theatre**  
*part 2 of 2*

**Electronic Theatre Chair**  
Sally N. Rosenthal

**Electronic Theatre Director**  
Johnnie Hugh Horn

**Special thanks to:**

Susan Amkraut, Mike Bailey, Maxine Brown, Carol Byram, Loren Carpenter, Huguette Chesnais, Donald Gaubatz, William & Deborah Gibson, Robin Hathaway, Jeffrey Lane, Ian McDowall, Molly Morgan-Kuhns, Ladd McPartland, Lucy Petrovich, Stuart Pettigrew, Sylvie Rueff, Dan Sadowski, Lance Scott, Karl Sims, Kathy Tanaka, MacroMind Director, Ars Electronica, big Research, Breene Kerr Productions, Digital Equipment Corporation, Editel SF and Chicago, HD/CG New York, Kubota Pacific Computer, Inc., Opcode Systems, Sony Corporation

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**27. On The Run**

*Time 2:00*

**Contact:**

Marc Raibert  
MIT Leg Laboratory  
545 Technology Square  
Cambridge, MA 02139  
USA  
tel 617-253-2478  
fax 617-258-8682

**Summary:**

Control algorithms and physical models are used to create computer animations of legged locomotion.

**Produced:**

Leg Laboratory, MIT

**Hardware:**

Silicon Graphics IRIS, IBM RS/6000

## 28. The Key is Light

*Time 2:55*

**Contact:**

Becky K. Naqvi  
Hewlett-Packard Company  
MS 74  
3404 East Harmony Road  
Fort Collins, CO 80525  
USA  
tel 303-229-4503  
fax 303-229-6649

**Summary:**

LeCorbusier's famous Chapel at Ronchamp is recreated using radiosity and ray-tracing techniques. A slow walk from a side chapel, through the nave, and ending behind the main altar reveals the forms of light used by Le Corbusier.

**Produced by:**

Hewlett-Packard Company T.V.

**Hardware:**

Hewlett-Packard Apollo DN 10000, Hewlett-Packard Apollo Series 9000 Model 720

**Software:**

HP Advanced Rendering Technology and proprietary software, Hewlett-Packard ME30

## 29. Not Knot

*Time 3:55*

**Contact:**

Charlie Gunn  
The Geometry  
Supercomputer Project  
1300 South 2nd Street  
Minneapolis, MN 55454  
USA  
tel 612-624-5058  
fax 612-626-7131

**Summary:**

An introduction to the fascinating world of knots as seen from a mathematician's perspective. Relying on visual imagery rather than technical language, it takes the viewer to the edge of current research, culminating in a pioneering fly-through of hyperbolic space.

**Produced by:**

The Geometry Supercomputer Project

**Hardware:**

Silicon Graphics 4D Workstations

**Software:**

Softimage, Renderman, Mathematica, Rayshade

## 30. Into the 4th Dimension

*Time 7:00*

**Contacts:**

*Executive Producer*  
Gary Goddard  
Landmark Entertain't. Group  
5200 Lankershim Blvd.  
North Hollywood, CA 91601  
USA  
tel 818-753-6700  
fax 818-753-6767

**Producer/Director**  
Rick Harper  
Harper Films, Inc.  
2027 Montrose Avenue  
Montrose, CA 91020 USA  
tel 818-249-2630  
fax 818-790-3305

**Hardware:**  
Silicon Graphics Iris 4D  
workstations

**Software:**  
In house, Photorealistic  
RenderMan

**Summary:**

Produced as a theme park attraction involving motion-based seats, 12-channel stereo sound, twin 70-mm projection, and in-theater lasers.

**Produced by:**

Harper Films Inc. and Landmark Entertainment Group for Sanrio Co., Ltd.

**Hardware:**

Celco, SGI 4D series,  
Symbolics 36XX series,  
Solitaire

**Software:**

deGraf/Wahrman,  
PIXAR RenderMan  
& Symbolics

## 31. Reaction-Diffusion Textures

*Time 1:05*

**Contact:**

Andrew Witkin  
School of Computer Science  
Carnegie Mellon University  
Pittsburgh, PA 15213  
USA  
tel 412-268-6244  
fax 412-681-5739

**Produced by:**

Andrew Witkin and Michael Kass

**Summary:**

Reaction-diffusion equations are used to synthesize and animate textures.

## 32. The Works of a Landscape Painter

*Time 1:00*

**Contact:**

Eihachiro Nakamae  
Faculty of Engineering  
Hiroshima University  
4-1, Kagamiyama 1 Chome  
Higashi-Hiroshima 724  
Japan  
tel 81-8-2422-7111 (#3445)  
fax 81-8-2422-7195

**Summary:**

Diffraction effects, atmospheric scattering models, solar penumbra, and water color simulation are used to render photorealistic landscape images.

**Produced by:**

Electric Machinery Laboratory,  
Hiroshima University

**Hardware:**

Sequent S81,  
Silicon Graphics IRIS 4D

**Software:**

In-house

## 33. Fire Beast

*Time 0:45*

**Contact:**

Ryoichiro Debuchi  
High Tech Laboratory Japan  
Court-Setagaya-101  
1-15-11, Mishyuku  
Setagaya-ku

Tokyo 154  
Japan  
tel 81-3-3711-5111  
fax 81-3-3711-5110

**Summary:**

Inspired by the Japanese tale "Kaguya-hime," this piece enhances the tale's fire beast with iridescent fur. The fur renderer is an application of Digital Differential Analyzer, (DDA).

**Produced by:**

Ryoichiro Debuchi, High Tech Laboratory Japan Inc.

**Hardware:**

IRIS-4D 70GT,  
IBM Power Station 540

**Software:**

Limage, Digital Dynamation System, Wavefront

## 34. Wanting for Bridge

*Time 5:15*

**Contact:**

Joan I. Staveley  
OSU/ACCAD  
1224 Kinnear Road  
Columbus, OH 43212  
USA  
tel 614-292-3274  
fax 614-292-7168

**Produced by:**

Joan I. Staveley

**Summary:**

A requiem for those who have died at the hands of others.

**Hardware:**

Sun Microsystems Sparcstation

**Software:**

John C. Donkin—motion control and animation software  
D. Scott Dyer—rendering

## 35. Les Xons "Crac-Crac"

*Time 0:40*

**Contact:**

Mac Guff Ligne  
4 Passage de la Main d'Or  
75011 Paris  
France  
tel 33-1-4338-4455  
fax 33-1-4700-1014

**Produced by:**

Ex Nihilo—Mac Guff Ligne

**Summary:**

Les Xons, the tribe of little monstrous skeletons, dance and play tricks on each other on their hell planet.

**Hardware:**

Silicon Graphics

**Software:**

Explore TDI

## 36. Lost Animals

*Time 4:00*

**Contact:**

Jean H. Kim  
NHK HD/CG New York  
34-12 36th Street  
Astoria, NY 11106  
USA  
tel 718-361-1118  
fax 718-361-1758

**Summary:**

High-definition computer graphics recreate animals that have become extinct.

**Produced by:**

HD/CG New York for ENCOM

**Hardware:**

Silicon Graphics 4D/25  
Power Series 380

**Software:**

TDI

## 37. The Listener

*Time 1:25*

### **Contact:**

Christopher Landreth  
North Carolina  
Supercomputing Center  
P.O. Box 12889  
Research Triangle Park, NC  
27709  
USA  
tel 919-248-1141  
fax 919-248-1101

### **Summary:**

Parameterized facial animation and sound mapping techniques are used to tell a fable of frustration, realization, and self discovery.

### **Produced by:**

Christopher Landreth & Robin Bargar

### **Hardware:**

SGL 4D/240 GTX Server,  
Personal Iris Workstations

### **Software:**

Wavefront and proprietary software

## 38. Maxwell's Demon

*Time 7:09*

### **Contact:**

James Duesing  
ML #16  
University of Cincinnati  
Cincinnati, OH 45219  
USA  
tel 513-556-0288  
fax 513-556-3288

### **Produced by:**

James Duesing

### **Summary:**

When the world shifts to being information and service-based, tourists visit polluted sites to

reminisce about their heritage. This is the story of a fish suicide and a large-scale chemical fire.

### **Hardware:**

IBM PC/AT with Cubicomp

### **Software:**

True Color Animation

## 39. Invisible Site

*Time 12:00*

### **Contact:**

Beau Takahara  
George Coates  
Performance Works  
110 McAllister Street  
San Francisco, CA 94102  
USA  
tel 415-863-8520  
fax 415-863-7939

### **Summary:**

A live multimedia performance with projected stereoscopic and real-time computer imaging.

### **Produced by:**

George Coates Performance Works

### **Hardware:**

Mac II, RasterOps board, Iris VGX 4D/210, PC, NeXT, DecStation 5000/125 PXGT Turbo, Opcode Systems Studio 3

### **Software:**

Opcode Vision, MacroMind Director, Swivel 3D, Screenplay, Custom software developed by NASA Ames Research Center, SGI, and Digital Equipment Corp.

## Additional Issues Available:

### ISSUE 66

ACM SIGGRAPH '90  
Film & Video Theater  
(part 1 of 2)

• Opening Animation

1. *This is not Frank's Planet*
2. *McDonald's "Save the Universe"*
3. *ABC's World of Discovery*
4. *AMC "Feature Presentation"*
5. *Total Recall*
6. *1990 SIGGRAPH Demo*
7. *Gas Pipe*
8. *Dirty Power*
9. *Nissan "Time Machine"*
10. *7-UP "Saxophone"*
11. *A Passing Shower*
12. *Lava Jr.*
13. *Trillo's Adventures*
14. *The Audition*
15. *Pigment Promenade*
16. *Styro*
17. *The Hole*
18. *I Have Never Seen, But I Know...*
19. *Under the Puddle*
20. *The Nature*

### ISSUE 67

ACM SIGGRAPH '90  
Film & Video Theater  
(part 2 of 2)  
Animation Screening Room  
(part 1 of 3)

1. *Prebirth*
2. *Blue Sky Productions Demo Reel*
3. *The Great "Blue Ouah Ouah"*
4. *Grimming Evil Death*
  - Closing Animation
5. *Screen Play*
6. *The Robe of an Angel*
7. *Sity Savvy*
8. *Le Pantin*
9. *IAD*
10. *Flashback*
11. *The Adventures of Chromie  
"On the Rocks"*
12. *Reveil (Alarm Clock)*
13. *Occam's Razor*
14. *Interstitial Dreamin'*
15. *Thought Grid*
16. *Camera Work*
17. *Acolytes*
18. *Vision d'une Schizophrene*
19. *Top tHat*
20. *Luke Le Block's Daring Escape*

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### **ISSUE 68**

*ACM SIGGRAPH '90  
Animation Screening Room  
(part 2 of 3)*

1. *Hadrosaurus*
2. *Stegosaurus: The Roof Lizard*
3. *Magma Tours*
4. *In Search of the Fingerprints of God*
5. *Edo*
6. *The Dream of Mr. M*
7. *Hubble Space Telescope*
8. *S.S. Freedom -The Ultimate Challenge*
9. *An Afternoon with John Whitney*

### **ISSUE 69**

*ACM SIGGRAPH '90  
Animation Screening Room (part 3 of 3)*

1. *Pacific Data Images*
2. *Special Effects*
3. *Rush Hour*
4. *Paris Dakar 90*
5. *Earthtecture Sub-I*
6. *The Effects of Forces, Masses & Springs on Airborne Typography*
7. *Tribune Broadcasting Group Christmas ID*
8. *Scenes from CPUAX, GaAs INFO*
9. *One Night*
10. *Open Road*
11. *Kiddipick Television Commercial*
12. *Pepsi Power Hour*
13. *CGI Demo #4*
14. *Face*
15. *Calibre Digital Design Compilation Reel*
16. *1990 Namco*
17. *sfpq-Selected Graphics*
18. *Very Few Pixels*
19. *ACM SIGGRAPH "Exploring the Limits"*

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### ISSUE 73

ACM SIGGRAPH '91  
Computer Graphics Screening Room  
(part 1 of 2)

1. *Mutations, Work in Progress*
2. *Kalos & Eidos*
3. *Endogenesis*
4. *Welcome to My Living Room*
5. *Lost in Thought*
6. *Crunchy Peach Pie (Apple Pie)*
7. *Memory of Moholy-Nagy*
8. *Discours du 1er avril*
9. *Immersion*
10. *Moon*
11. *Endless Wave*
12. *Curtain Call*
13. *The Making of "Don Quichotte"*
14. *Les Xons-Baston*

### ISSUE 74

ACM SIGGRAPH '91  
Computer Graphics Screening Room  
(part 2 of 2)

15. *Computer Home*
16. *Rose from the Dead*
17. *Venus & Milo*
18. *Garbage*
19. *Cronicas Urbanas*
20. *Numerical Simulation of the Flow through the Penn State Artificial Heart*
21. *A Molecular Dynamics Simulation of Atomic Force Microscope*
22. *Subsurface Geology of a Soviet Nuclear Test Site*
23. *El Nino Satellite Observations and Downburst Simulation*
24. *Robotics in Space*
25. *EVA Development Flight Experiment - STS 37*
26. *R. Aquarii*
27. *Using Sound to Extract Meaning from Complex Data*
28. *Visibility Analysis Through the Animation of a Backhoe Work Cycle*
29. *The House That Radiosity Built: An Introduction to the Radiosity Method*
30. *Unfortunate Kid*
31. *Still Walking*
32. *Realistic Rendering of Lace Victoria's Dress Shop*

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