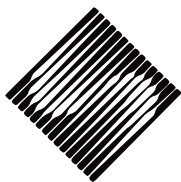


# ACM SIGGRAPH VIDEO REVIEW



ISSUE 38

**SIGGRAPH '88 Film & Video Show - part 1**

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## **ACM SIGGRAPH Video Review**

**Issue 38**

SIGGRAPH '88  
Film & Video Show - *part 1*

# **1. Technological Threat**

### **Contact:**

Expanded Entertainment  
2222 S. Barrington Ave.  
Los Angeles, CA 90064  
(213) 473-6701

### **Summary:**

A visual poem created for HDTV. The original work on HDTV can be seen at the Symbolics booth on the Exhibition Floor.

### **Hardware:**

Two of the characters, and all the backgrounds, were encoded, animated and rendered as hidden line drawings on an IRIS workstation, then output to a plotter. The 1300 CG drawings were then painted and photographed using traditional cartoon production techniques.

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# **2. Key Change**

### **Contact:**

Rod G. Bogart  
University of Utah  
3190 MEB  
Salt Lake City, UT 84112  
(801) 581-5642

**Summary:**

Key Change demonstrates a method of combining CG objects with photographic backgrounds. Models representing objects in the photo were created. Shadows were created using ray tracing. The various elements were then optically composited on film.

**Hardware:**

This piece was created as part of the Alpha-1 research project at the University of Utah. The final motion blurred frames were generated on 40 HP 320 workstations.

### 3. Mickey Mouth

**Contact:**

Harold Harris  
Topix  
19 Mercer St  
Toronto, Ontario  
M5V 1H2 Canada  
(416) 463-2382

**Summary:**

Mickey Mouth was inspired by the designs of Rube Goldberg. It was produced at Sheridan College during the summer of 1987.

**Hardware:**

A Microvax II, a Vax 11/750 and a Raster One frame buffer hardware was used.

**Software:**

The software used was Neo-Visuals Vishad and Images II+. Sound was synchronized using

Sheridan's MIDI-based digital sound synthesis, sampling and recording technology that uses SMPTE time-code.

### 4. VH1 Demo

**Contact:**

Scott Miller  
Scott Miller & Assoc.  
232 Madison Ave.  
New York, NY 10016  
(212) 779-1860

**Summary:**

Forty animated graphics were produced for VH1 using a combination of 2-D and 3-D techniques. Five different facilities with their own combinations of equipment were used to create the various pieces. Thus, a major challenge was to maintain design consistency.

### 5. Mathematica - The Theorem of Pythagoras

**Contact:**

Jim Blinn  
Caltech  
Project Mathematica  
305 S. Hill  
Pasadena, CA 91106  
(818) 356-3758

**Summary:**

Mathematica is the pilot episode for a series of video tools to teach high-school mathematics. This excerpt demonstrates sev-

eral proofs of the Pythagorean Theorem.

**Hardware:**

Vax 11/780, Gould IP8500, E&S PS-2, and Sony BVH2500 hardware was used.

**Software:**

The software was developed in-house at The Computer Graphics Lab/JPL.

## 6. "Flying Logos, Inc."

**Contact:**

Peter Conn  
Homer & Assoc.  
1420 N. Beachwood Ct.  
Hollywood, CA 90028  
(213) 462-4710

**Hardware:**

All animations were created and rendered on a PC/AT with a Definicon Accelerator Board and Targa frame buffer.

**Software:**

Digital Arts DGS 1.0 and 2.0 software.

## 7. NCSA Scientific Visualization 1988

**Contact:**

Stefan Fangmeier  
NCSA,  
Scientific Visualization  
Prog.  
605 E. Springfield Ave.  
152 Computing Appl. Build.

Champaign, IL 61820  
(217) 244-2003

**Summary:**

This tape presents the aesthetic highlights of the Scientific Visualization projects created at the National Center for Supercomputer Applications.

**Hardware:**

All CGimages were created on Wavefront and in-house modeling and imaging software on the Sun 3/60, SGI IRIS 3130 and Raster Technologies hardware. Rendering was performed on an Alliant F/X-80, with images recorded on 3/4" videotape via an Abekas A-62.

## 8. Jumpin' Jacques Splash

**Contact:**

Xavier Nicolas  
Sogitech  
32 Boulevard de la Republique  
92100 Boulogne  
France  
33 (1) 46 08 13 13

**Summary:**

This short is intended to narrate a humorous story in the style of French popular theatre, and to show that numerous possibilities

using CG are still to be explored in creative advertising. Created on SGI hardware using proprietary software.

## 9. CT6 Automobile

### Contact:

John A. Briggs  
Evans and Sutherland  
PO Box 8700  
580 Arapeen Dr.  
Salt Lake City, UT 84108  
(801) 582-5847

### Hardware:

The car dynamics were computed using E&S proprietary real-time dynamics software. The computer model included full vehicle, drive train and tire dynamics. All imagery was generated in real-time on an E&S CT6 visual image generator and recorded directly as NTSC video.

## 10. Broken Heart

### Contact:

Joan I. Staveley  
Ohio State University  
ACCAD  
1224 Kinnear Rd.  
Columbus, OH 43212  
(614) 486-6805

### Summary:

Broken Heart makes use of psychological and physical cultural structures to express notions about isolation, fear and violence.

### Hardware:

The water-like rippling sheet is a dynamic simulation created on a Symbolics Lisp machine. All other motion was "key-framed"

using an E&S PS300. The video was calculated on a Convex C-1 and Vax 11/780 and rendered on a Raster Tech frame buffer.

## 11. Digital Pictures Ads

### Contact:

Julian Woodfield  
Digital Pictures  
32 Marshall Street  
London, W1V 1LL  
England  
44 (1) 439 1727

### Hardware:

The Digital Pictures Software Package was developed in house. The renderer is a scan-line/a buffer/raytrace amalgum, running under UNIX on Silicon Graphics hardware and the Data General MV range, amongst others. It includes an implementation of free form deformation (FFDs), featured in these pieces.

## 12. The Art Dream

### Contact:

David Haxton  
William Paterson College  
Center for Computer Art  
and Animation  
300 Pompton Rd.  
Wayne, NJ 07470  
(201) 595-2722

**Hardware:**

The Art Dream was produced with Alias I software on Silicon Graphics IRIS computers.

french pay television, Canal Plus. Over a period of five months, ten 10-second and one 30-second Krypto spots were created. Diana Ross and the Supremes were created for M6, French music TV.

## 13. Great Train Rubbery

**Contact:**

Brian Wyvill  
University of Calgary  
Dept. of Computer Science  
2500 University Drive NW  
Calgary, Alberta  
Canada  
(403) 220-6316

**Hardware:**

Modeling was done on a PC-AT using a french graphics card and hierarchical methods. Images were calculated on a IRIS 3130.

## 15. Burning Love

**Hardware:**

The University of Calgary Graphicsland Computer Animation System was used to create this piece, utilizing innovative modeling techniques ("Soft Objects") to create the "rubber" train and landscape. Sophisticated motion control methods allow the train to bend, stretch and squash its way across the desert terrain.

**Contact:**

Nancy St. John  
Pacific Data Images  
1111 Karlstad Dr.  
Sunnyvale, CA 94089  
(408) 745-6755

## 14. Krypto and the Supremes

**Contact:**

Henri Seydoux  
BSCA  
8 rue Edouard Lockroy  
75011 Paris France  
33 (1) 43 55 87 87

**Summary:**

Burning Love is the story of how Wendell comes to realize that he can't stop Laura, the woman he loves, from leaving him. The piece was created as a developmental, in-house project by PDI.

**Hardware:**

Burning Love was created using PDI's in-house software. The characters' faces were sculpted in clay and digitized using a 3-Space digitizer. Ridge 3200 computers, Raster Tech frame buffers, an Abekas A-64 and Sony BVH 2000 video recorders were used.

**Summary:**

Krypto is a 3-D presenter for the

## 16. Organic Architecture

### Contact:

Ned Greene  
NYIT Computer Graphics  
Lab  
Box 170  
Old Westbury, NY 11568  
(516) 686-7644

### Hardware:

A 300 x 300 x 300 voxel space was tiled with a crude polygonal model of an architectural framework; the program selected among several sets of growth rules depending on which region of the underlying model was in closest proximity, and controlling the character of different regions of the model.

## 17. Sextone for President

### Contact:

Jeff Kleiser/Diana Walczak  
Kleiser-Walczak  
Construction Co.  
6105 Mulholland Hwy  
Hollywood, CA 90068  
(213) 467-3563

### Summary:

This political spot was produced by Kleiser-Walczak Construction Co. to debut their synthetic actor, Nestor Sextone.

### Hardware:

Custom software was written to interpret interpolation scripts, and to digitize objects on a Polhemus 3-Space digitizer. Wave-

front software running on SGI IRIS 2400 Turbo was used in production.

## 18. Stuff We Did

### Contact:

Nancy St. John  
Pacific Data Images  
1111 Karlstad Drive  
Sunnyvale, CA 94089  
(408) 745-6755

### Hardware:

Animation was created using PDI's in-house proprietary animation software. Hardware used includes 20 Ridge 32 and 3200 computers, 16 Raster Technology frame buffers, 4 Suns, an Abekas A-64 and Sony BVH 2000 video recorders.

## 19. Links Corporation Demo Reel for SIGGRAPH '88

### Contact:

Kinji Odaka  
Links Corp.,  
An Imagica  
Company  
3-13-5 Higashi-shinagawa  
Shinagawa-ku, Tokyo Ja-  
pan  
81 (3) 450-8181

### Hardware:

Texture mapping for all the Folon Tokyo Gas sequences was

done using the Scan Line system and the Meta-ball Ray Tracing system. Equipment used includes the Links-1 system with original CG multi-processor; SUN 4/280's used as rendering stations; NEWS-831s used as design stations; IRIS 4D/70's, an IRIS 3020 and IMI-500 for animation; Sony BVH 2000 VTRs, and an ESS-II digital still store.

## 20. Embryo (Excerpt)

### Contact:

Yoichiro Kawaguchi  
Kawaguchi - Nippon  
Electronics College  
Arts and Sciences Lab  
1-25-4, Hyakunin-cho  
Shinjuku-ky, Tokyo 160  
Japan  
81 (3) 369-1995

### Summary:

This piece presents flexible, transparent textures objects which are concerned with birth and growth from the artist's point of view.

### Hardware:

Equipment used included Links-1, parallel processing multi-micro computer system using Meta-ball, which combines ray-tracing transparency effects with dynamic bump mapping.

## 21. Going Bananas

### Contact:

Al Barr  
California Institute of  
Technology  
Caltech Graphics Group  
Computer Science  
Dept. MS 256-80  
Pasadena, CA 91125  
(818) 356-6430

### Summary:

CalTech's physically based modeling techniques, such as dynamic constraints, goal-oriented modeling and constrained flexible models, allows the application of geometric constraints to rigid and flexible bodies.

### Hardware:

The scenes were composed of static ray traced images and animated depth-buffered models, creating diffuse ray-traced and depth-buffer projection shadows. Equipment included HP9000 SFX Series 300 workstations, Symbolics 3600 and a VPR3.

## 22. Tin Toy (excerpt)

### Contact:

Ralph Guggenheim  
Pixar  
3240 Kerner Blvd  
San Rafael, CA 94901  
(415) 258-8100

### Summary:

He's six inches tall. He's out of his box. Someone's left him alone with the baby. This is an excerpt from a work in progress.



### Other Available Issues:

#### **SIGGRAPH '89 Animation Screening Room Highlights Issue 54**

1. Viomechawars/Debuchi
2. Lorelei/Casey et. al.
3. Once a Pawn a Foggy Knight... /Ebert et al., OSU
4. Esmerelda/Kantor, SVA
5. Let It Rain/Wilson
6. Birdbrainstorm/Voci, NYIT
7. PDI "Selected Cuts"/ Gaeta, PDI
8. Honey, I Shrunk the Kids (Opening Titles)/Kroyer
9. Philomene/Fant\kome
10. Fish/Bock
11. Karkador/Callas
12. Revolve Evolve/Hirata
13. A View of a Room/Gerth
14. Gallia/Stenger
15. Rednose Rabbit/ Hulsbergen, Dig. Art Prod.
16. Coredump/Fujii, OSU
17. The Universe Within/NHK
18. Pygmalion/Nahas, Univer-  
site Paris
19. Faux Pas/Davies et al.

#### **SIGGRAPH '89 Animation Screening Room Highlights Issue 53**

1. Random House/Johnson, SVA
2. Trouble in the Basement/ Johnson, SVA
3. Galaxy Sweetheart/ Thalmann, Swiss Fed. I.T.
4. Columbus On the Edge/ Haxton, Wm Paterson Col.
5. Ziggraf/Banchero, Jr.
6. Vegetables/Lehn, Lamb & Company
7. Tempest/Litwinowicz, Wil-  
liams, et. al., Apple

8. Soft Landing/RGB Com-  
puter Graphics Service
9. First Contact/Wolff, Apple
10. Crack Fish/Ray, Byte by  
Byte Corp.
11. Autodesk Animator/  
Bennett, Autodesk
12. Kawasaki Safety Intelligent  
Plaza/Howe & Kasahara
13. Scenes at a Street Corner/  
Nakamae, Hiroshima Univ.
14. Pool/Volny
15. A Journey Into Sound/  
CMP GmbH & Co. KG
16. Multivisual's 1989 Demo  
Reel/Lowe & Mellenhorst
17. Demon Reel/Berenguer,  
ANIMATICA
18. In Time ... It Happens/  
Banchero, Jr.
19. Lamb & Company Charac-  
ter Demo Reel/Lehn
20. Music for the Eyes/  
Conahan & Amour
21. 1989 PPS Selected Ani-  
mations/Polk, P. P. S.
22. New Explorers Opening/  
Cully, Post Effects
23. Metrolight Studios Show  
Reel/DiNoble, MetroLight
24. McEwan's L.A. "Walk In A  
Straight Line"/Forrest et al.
25. Pepsi Presents: Wired/  
Forrest, et. al., Snapper
26. Digital Pictures Animation/  
Woodfield, Digital Pictures
27. Stuff We Did/Seydoux,  
BSCA
28. The Sound of One Hand  
Clapping/Stroukoff

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