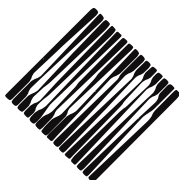


# ACM SIGGRAPH VIDEO REVIEW



## ISSUE 39

### SIGGRAPH '88 Film & Video Show - *part 2*

#### Table of Contents

23. **Soaron & Blastarr Animations** - *Stephen Price, ARCCA*
24. **Dinosaur Stuff** - *John C. Donkin, Ohio State University*
25. **Space Station** - *Thomas Casey, Production Masters Inc.*
26. **Voyager: Journey to the Outer Planets** - *J P L, C. G. Lab*
27. **Smarties "Blue Print"** - *Gareth Edwards, Robinson Lambie-Nairn*
28. **Scrubbing Bubbles** - *Ruedy W. Leeman, CCP*
29. **Footsteps** - *Craig Zerouni, Computer FX Ltd.*
30. **Beat Dedication** - *Bob Sabiston, Anne Russell, MIT Media Lab*
31. **A Close Encounter in the Fourth Dimension** - *Alan Norton & Evelyn Melton, IBM Thomas J. Watson Research Center*
32. **Polly Gone** - *Shelley Lake*
33. **Pencil Test** - *Galyn Susman, Apple Computer, Inc.*
34. **Function of the Brain Cells** - *Jules Bister, Atelier Bister*
35. **Rhythm & Hues SIGGRAPH Show Reel** - *Kathryn Riccio, Rick Ross, Rhythm & Hues, Inc.*
36. **Stylo** - *Georges Pansu, Eurocitel*
37. **Space-Time Constraints** - *Andrew Witkin, Carnegie Mellon*
38. **Formation of Venus Plasma Clouds and Streams** - *Robert S. Wolff, Apple Computer*
39. **Oh Atsimenu Nameli** - *Leslie L. Wilson*
40. **Natural Phenomena** - *Gavin Miller, Alias Research, Inc.*
41. **Sio Benbor** - *Renato/Georges, Lacroix Fantome*
42. **Particle Dreams** - *Karl Sims, Optomystic*

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## **ACM SIGGRAPH Video Review**

### **Issue 39**

SIGGRAPH '88  
Film & Video Show - part 12

## **23. Soaron and Blastarr Character Animations**

### **Contact:**

Stephen Price  
ARCCA Animation Inc.  
800 Islington Ave.  
Toronto, Ontario  
M8Z 4N7 Canada  
(416) 251-9532

### **Summary:**

From August '87 - February '88, ARCCA delivered 55 minutes of rendered and composited computer Soaron™ and Blastarr™ character animation for the 22 program episodes.

### **Hardware:**

Animation was developed on Silicon Graphics 3130 system and Wavefront. Rendering was done on 14 Sun 3's under a proprietary job control system. Compositing with miniatures and live-action was done using an Abekas A-62.

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

**SIGGRAPH Video Review  
c/o 1st Priority  
P.O. Box 576  
Itasca, Illinois 60143-0576**

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**Within USA: 800-523-5503  
Outside USA: 708-250-9292  
FAX: 708-250-0038**

## **24. Dinosaur Stuff**

**Contact:**

John C. Donkin  
Ohio State University  
ACCAD  
1224 Kinnear Rd.  
Columbus, OH 43212  
(614) 292-3416

**Summary:**

Dinosaur Stuff is a joint venture of the Advanced Computing Center for the Arts and Design and the Fernbank Museum of Natural History in Atlanta, GA. Designed to be an interpretive tool for both visitors and scientists.

**Hardware:**

Produced and previewed on a Sun 3 using software developed at OSU, frames are rendered on a Convex C-1 Minisuper-computer and the State of Ohio Cray X/MP, and recorded via ethernet to an Abekas digital still store.

## 25. Space Station

**Contact:**

Thomas Casey  
Production Masters, Inc.  
321 First Avenue  
Pittsburgh, PA 15222  
(412) 281-8500

**Summary:**

Space Station was an experiment to test the texture mapping capabilities of Alias software.

**Hardware:**

The models, texture maps and

final motion, were designed on an IRIS 2400T, and rendered on two Silicon Graphics 4D's.

## 26. Smarties"Blue Print"

**Contact:**

Gareth Edwards  
Robinson Lambie-Nairn  
Ltd.  
8a Shelton St.  
London WC2H 9SS  
England  
44 (1) 240-9741

## 27. Scrubbing Bubbles

**Contact:**

Ruedy W. Leeman  
CCP  
7349 Worthington-  
Galena Rd.  
Columbus, OH 43085  
(614) 888-4160

**Summary:**

Scrubbing Bubbles is a 30 second commercial created by Cranston Csuri Productions to be a character animation show-piece.

## 28. Footsteps

**Contact:**

Craig Zerouni

Computer FX Ltd.  
14/15 D'Arblay Street  
London W1V 3FP  
England  
44 (1) 734-3155

**Hardware:**

These four sequences were modeled and animated on two Silicon Graphics IRIS's, rendered on two MIPS M1000's using software written in C under UNIX. Hardware included an Abekas A-60, a Sony BVH 200, IMI-500's and CFX framebuffers.

## 29. Beat Dedication

**Contact:**

Bob Sabiston, Anne Russell  
MIT Media Lab  
Visible Language Workshop  
20 Ames St. Rm E15-443  
Cambridge, MA 02139  
(617) 253-4416

**Summary:**

This piece began as a Christmas present, a personalized rock video, for Bob Sabiston's 10-year-old brother who had just received a new drum set.

**Hardware:**

For Beat Dedication, a soundtrack interpreter was written to read MIDI information from a synthesizer. It is used to generate animation keyframes; hence, the drummer's movements are automatically synchronized to the music.

## 30. A Close Encounter in the Fourth Dimension

**Contact:**

Alan Norton & Evelyn Melton  
IBM Thomas J. Watson  
Research Center  
PO Box 708  
Yorktown Heights, NY  
10598  
(914) 789-7195

**Hardware:**

This animation illustrates the Julia set of the formula  $(1.475 + .906i) \times (1-x)$ . A 3-D slice of the Julia set is illustrated emerging from a planar slice.

## 31. Polly Gone

**Contact:**

Shelley Lake  
967 Hammond St. # 4  
West Hollywood, CA 90069  
(213) 550-1950

**Hardware:**

Personal project created at Digital Productions on the Cray XMP making a statement about people's reactions to technological advancements.

## 32. Pencil Test

**Contact:**

Galyn Susman

Apple Computer, Inc.  
20525 Mariani Ave.  
Cupertertino, CA 95014  
(408) 973-4856

**Hardware:**

Pencil Test was created entirely using Apple equipment. A version of Twixt was used for motion. A Macintosh rendering network was built, running in-house code. The sound effects and score were composed, arranged and synchro-nized on the Mac using MIDI.

## 33. Function of the Brain Cells

**Contact:**

Jules Bister  
Atelier Bister  
Animation Art Gmbh  
Ludolfstrasse 42  
2000 Hamburg 20  
Germany  
040/ 46 18 58

**Summary:**

The primary goal of Function of the Brain Cells was to give a scientifically correct view of the inner brain activity and the functions of brain cells, yet be understandable to the layman.

## 34. Rhythm & Hues SIGGRAPH Show Reel

**Contact:**

Kathryn Riccio, Rick Ross  
Rhythm & Hues, Inc.  
10312 Culver Blvd.  
Culver City, CA 90230  
(213) 559-3031

**Hardware:**

New software, allowing easy animation of soft-objects was created for the Sunbeam spot.

## 35. Stylo

**Contact:**

Georges Pansu  
Eurocitel  
1 Quai Gabriel Peri  
94340 Joinville le Pont  
France  
33 (1) 43 97 25 25

**Summary:**

This film tells the story of a pen trying to pay tribute to Fred Astaire. Thirty thousand time steps were computed for a total of 30 GB of data.

**Hardware:**

Hardware used was a IRIS 4D/70 from SGI and a Matrix 6000.

**Software:**

TDI Explore software

## 36. Space-Time Constraints

**Contact:**

Andrew Witkin  
Carnegie Mellon University

Dept. of Computer Science  
Pittsburg, PA

**Summary:**

In Spacetime Constraints , optimal motion and corresponding time-varying muscle forces for the object are computed using standard numerical methods.

**Hardware:**

Computed and rendered on Symbolics 3600's.

**Software:**

in house software

## 37. Formation of Venus Plasma Clouds and Streams

**Contact:**

Robert S. Wolff  
Apple Computer, Inc.  
MS22 - C  
20600 Mariani Ave.  
Cupertino, CA 95014  
(818) 952-2082

**Summary:**

This is a visualization of a numerical simulation of the solar wind excavating the ionosphere of Venus.

**Hardware:**

The simulation employs the 2-D ZEUS magnetohydro-dynamic code developed at NCSA. It is on a 300 x 300 grid with 5 km uniformly spaced grid points and took about 10 hours on the Cray X-MP. Thirty thousand time steps were computed for a total of 30 GB of data.

## 38. Pencil Polka

**Contact:**

Michael McMahon  
Electric Picture Works  
24 W 40th St.  
New York, NY 10018  
(212) 869-2500

**Hardware:**

Pencil Polka was created with Intelligent Light software running on an Apollo DN-4000. The animation was done on a Quantel Paintbox and combined with the 3-D frames using an Abekas A-62.

## 39. Oh Atsimenu Nameli

**Contact:**

Leslie L. Wilson  
Box 3005  
Chico, CA 95927  
(916) 345-1758

**Summary:**

For Oh Atsimenu Nameli, over 150 images were digitized by filming from a video monitor with the video player on pause. Each frame was re-painted, some treated as stills, others as frames in animation sequences. Electronic paint work was done on a Lumena 8.

**Hardware:**

Lumena 8

## 40. Natural Phenomena

### Contact:

Gavin Miller  
Alias Research, Inc.  
110 Richmond SE E  
Toronto, Ontario  
M5C 1P1 Canada  
(416) 362-9181

### Summary:

My First Tree demonstrates a fir tree growth model. Upwardly Mobile illustrates the use of "globular dynamics", an extension of particle systems and blobby molecules allowing the simulation of viscous liquids and rubbery breakable solids. The Fall or Eric the Dynamic Worm was created using an adaptation of elastically deformable solids animation as a function of time taking frictional interaction into account.

### Software:

Created using Alias Research Natural Phenomena applications software.

## 41. Sio Benbor

### Contact:

Renato/Georges Lacroix  
Fantome  
33, rue du Fbg St. Antoine  
75011 Paris France  
33 (1) 43 45 45 43

### Summary:

Sio Benbor was created as a homage to Takashi Fukumoto

and Toyo Links Corporation's CG classic Bio Sensor.

## 42. Particle Dreams

### Contact:

Karl Sims  
Optomystic  
300 Corporate Pointe  
Suite 100  
Culver City, CA 90230  
(213) 649-6400

### Summary:

These animations use particles of varying width, length, color and transparency. Each data type is parallelized for the Connection Machine's 64,000 processors: one virtual processor was allocated per particle, one per pixel size particle fragment and one per pixel. The number of particles varies between several hundred and 64,000. Dynamics simulation operations such as gravity, damping forces, spiral motions, bouncing, vortex motions, random accelerations, changing color and replication have been applied to selected particle sets.

« End of Issue 39 »