**Siggraph 2005 - Review**

**David Ball - Media Representative - Rocky Mountain Siggraph Chapter**

### what is the siggraph conference?

An annual gathering organized by ACM SIGGRAPH, a leading professional society of people involved with computer graphics and interactive techniques. The annual conference is a mecca for anyone involved in the many forms and various uses of computer graphics.

### how many Siggraph Conferences have i attended?

TWO - san diego in 2003 and los angeles in 2005

2005 was the 32nd gathering. So for this year - the 32nd - 2 to the 5th (= 32) logos were all around.

the first conference was a 3 day gathering "1st annual conference on computer graphics and interactive techniques" in boulder, colorado in July of 1974.  (about an hour and a half from colorado springs - home of rocky mountain siggraph)

### who attends ?

this year 29,122 attendees from 81 countries attended.
people from around the world who are passionate, knowledgeable, interested in and currently using computer graphics -
researchers, artists, students, exhibitors, capitalists, film director, enthusiasts, scientists, educators, etc.

Siggraph is a collaborative, open, sharing environment that includes a wide variety of experience, talent and interests - you have a sense that people in the audience in one session might be in the panel in another or taking a break from their booth on the exhibit floor.
From production sessions with legendary animators from Disney, Dreamworks, and Sony Pictures to the emerging technologies exhibits by students from distant universities to up and coming artists in the animation festival or Cyber Fashion show - the mix is impressive.

*students -* come to network and learn from the conference and presentations *companies -* show off new products, meet with clients, generate and re-establish business relationships.  *for those employed in the field -*  it's a great place to see what's new in the industry

### was it a success?

James L. Mohler, SIGGRAPH 2005 Conference Chair  -  "SIGGRAPH 2005 exceeded all our expectations both in terms of attendance and the pervasive spirit of collaboration that was rampant in every venue of the conference,"  "The level of attendance and exhibitor representation is a clear indicator of the strength of SIGGRAPH and the importance of computer graphics in today's society."

### three states of computer graphics technology

see my visual essay about the relationship of
*research becoming commercial product becoming creative process -*

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### some highlights from the conference

The X-Wing Starfighter in the Lobby of the Convention Center.

### The George Lucas Keynote

*"Many people make movies, but George Lucas has changed them forever."*
Lucas, who is lauded as the father of digital cinema and internationally known for visionary cinematic feats such as "Star Wars" and "Indiana Jones," Beyond being a great filmmaker George Lucas was involved in the early development of the nonlinear editing system that became Avid, and the early development of Photoshop! (Which I use everyday and then some.)

### Lucas Quotes

*"I am a storyteller at heart."*

*"Anyone who works in art eventually faces running into a technological ceiling. Whether you're producing cave paintings on a wall or painting the ceiling of the Sistine Chapel, you're constantly pushing that technological envelope. Art is technology. You need to know how to use the technology."*

*"Whatever has happened in my quest for innovation has been part of my quest for immaculate reality."*

*"People who are making films on the internet are doing a great job, with very little money. That's going to expand, as the technology is accepted by the world at large."*

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### Wait!

The Conference actually begins on Saturday for Siggraph related organizations and committees - (like Chapters Officers of which I am one.)

Instructional Courses start on Sunday
Here is the title of one: "Discrete Differential Geometry"
Many papers and courses were about programming, math and physics. These are disciplines that are way over my head.

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## Convention Floor

Opened to throngs wanting to be the first on the floor.
250 companies exhibited, 65 for the first time, more than 70,000 net square feet of space.
Each booth vying for attention with new products and versions.
Computer Graphics Hardware and Software including Alias, Autodesk, Avid, etc.

For me I noticed lots of choices for 3D printing. Great Display devices, Very user friendly 3D modeling and character rigging.
Motion Capture a big topic a lot of booths displaying advanced motion capture hardware and techniques.

Major Studios & FX houses including Dreamworks, Disney, Pixar, Sony Imageworks, Blue Sky Studios, Industrial Light & Magic, had booths displaying their upcoming releases and work.

### Some highlights from the floor.

Alias released Maya 7.0. Lots of new features including streamlined workflow between Maya and Photoshop - as well as Illustrator, MotionBuilder, and other CAD applications. Autodesk announced 3ds max 8 - its venerable 3D animation solution. Softimage released XSI 5.0, a major upgrade in the company's flagship 3D application. In addition, Softimage showed Face Robot, a unique facial animation tool that was co-developed with Blur Studio. Pixologic presented ZBrush 2.5

### Training Companies and Publishers offered new dvds or books related to CG Software and Techniques

The Gnomon Workshop - Ballistic Publishing  - Digital Tutors:

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### Job Fair

The job fair area was busy and well attended - which reveals that many attendees are just entering the field.
The ongoing boom in the animation and CG industry meant that a lot of recruitment was occurring at the job fair, informally at a variety of after-hours events, or in private meeting rooms - for some of the larger companies.

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### Guerilla Studio:

 If you went to the Guerilla Studio  it was likely that you saw  Rocky Mountain Siggraph's very own Steve Kilpatrick. He was a hard working red-vested student volunteer who put in lots of long hours making sure visitors had a good experience trying out
cool and different software and hardware. You could have your nails done, get large print pout from your computer graphic files, compose digital music, record yourself in a motion capture booth, become part of a digital portrait wall, create and print a 3-D file, work with a large direct pen tablet screen and try out loads of software.

## Computer Animation Festival

For me this is one of the creative center pieces of the entire conference. It is here where the multi-talent-level, multi-focused community of conference participants and content themes is most evident in a single venue.  There is work by individual students, up and coming small studios, tip top film and commercial studios, government agencies, and more.

As for quality = 560 submissions was shortlisted to 68 pieces of work which included in the festival.
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### Art Gallery - Threading Time

Two of my favorites - Camille Utterback and Jon Mayer
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Two champions and authors of digital art,
Bruce Wands & Joe Nalven were at the conference

Bruce heads up the graphics department at SVA in NYC (I taught a few continuing Ed classes there in the mid-90s)
Here are some links for Bruce:
http://www.nydigitalsalon.org/index.php
http://www.wiley.com//legacy/products/subject/architecture/arch-design/wands/
http://www.brucewands.com/

Joe Nalven also has a digital art book out "Going Digital: The Practice and Vision of Digital Artists"
Here are some links for Joe
http://www.digitalartguild.com/
http://www.amazon.com/exec/obidos/tg/detail/-/1592009182/qid=1122508157/sr=8-1/ref=pd_bbs_sbs_1/103-0702102-9523833?v=glance&s=books&n=507846
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As for quality in the Art Gallery -
about 10% of over 1100 submissions were selected.

The art gallery is a calm oasis in an overwhelming experience of technological buzz of the rest of the conference.
It was here and in emerging tech that George Lucas spent a few hours after his keynote.

*From Joe Nalven  -*
"For those who had experienced digital fine art mainly on the Internet, the Art Gallery provided a real treat. Nearly all of the works were large and all beautifully printed, enhancing both scale and sense of presence. One of the criticisms often leveled against digital art is its lack of tactile quality compared to natural media (paintings), yet the works displayed more than made up for a lack of 'real' brush work. A few of the works solve this problem by combining digital printing with traditional and hand-worked techniques, including tearing the edges of the canvas (Heather Freeman), or using the prints as an element in constructions such as the wonderful kites by Mark Millstein or the Labyrinth by Joohyun Pyune. And one of the exhibitors created an illusion of brushstrokes with ingenious in-camera techniques (Ansen Seale). But many seduced with lines, patterns, and textures that no hand could have drawn before the age of the computer, while others invited viewers to enter dreamy depths of lush transparent layer upon layer, or mesmerized with illusions so real you could hardly keep from touching the surfaces."

(See my visual essay for samples from the art show.)

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## Emerging Technologies Exhibits

The emerging technologies exhibits (32 in all) ranged from mind-boggling to bizarre. All of it interactive, experimental and forward looking. Some of my favorites The Interactive FogScreen (also in san diego in 2003), Virtual Hang-Gliding, Virtual Canoe, Straw-Like User Interface.

The Best: Andy Wilson's - TouchLight –A rear projection screen that is actually transparent when seen from behind. Projected images can actually "be grabbed at the sides" with your hands (touch) and be stretched and rotated. This was almost like a magic show.

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## Papers

Papers are the more traditional sessions and very technical - great for programmers - and those who deal directly with code or customizing software. All the SIGGRAPH 2005 papers can be accessed online at the BROWN COMPUTER SCIENCE website here - http://www.cs.brown.edu/~tor/sig2005.html

Here are some categories for the papers - way over my head!
Skin & Faces, Hardware Rendering, Mesh Manipulation
Illustration and Image-Based Modeling, Meshes I, Video & Image Matting, Motion Capture Data: Interaction and Selection, Plants, Capturing Reality I, Texture Synthesis, Capturing Reality II, Image Processing, Fluid Simulation
Dynamics of Solids, Deformable Models, Geometry on GPUs, Transparency & Translucency, Styles of Human Motion, Appearance & Illumination, Shape & Texture, Ray Tracing, Precomputed Light Transport

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**if you missed the conference or want to review what might have been missed**

Get the Full 2005 Conference Presentations on DVD.
Visit www.siggraph.org for details.

**what's next ?**

**BOSTON !**

SIGGRAPH 2006, the 33rd International Conference on Computer Graphics and Interactive Techniques,
will be held in the Boston Convention, 30 July - 3 August 2006.
http://www.siggraph.org/s2006

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**Special Acknowledgment**

I would like to recognize Dino Schweitzer - one of the founders of the Rocky Mountain Siggraph Chapter
the SIGGRAPH Conference Chief Staff Executive for several years (2005 was his most recent and last)
for his commitment to, dedication to and participation in Siggraph for the past 20+ years.

*Some of his articles on the password protected ACM Portal:*

*Dino Schweitzer, Ray tracing: a means to motivate students in an introductory graphics course, Feb. 1990*
*Dino Schweitzer, Getting to the "graphics" in a graphics exercise - July 1991*
*D. Schweitzer, Designing interactive visualization tools for the graphics classroom - March 1992*
*Integrating introductory courses in computer graphics and animation Dino Schweitzer 1995*

**THANKS DINO.**

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**Thanks to all the VOLUNTEERs who work throughout the year to prepare the SIGGRAPH annual conferences.**

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**Additional Links:**

http://www.intelligentagent.com/archive/Vol5_No1_reviews_siggraphartgallery_eber.htm

http://features.cgsociety.org/story_custom.php?story_id=3065&page=

http://www.dpandi.com/newsreviews/reports/events/siggraph05/

http://www.opengl.org/about/news/siggraph2005.html

papers: http://www.cs.brown.edu/~tor/sig2005.html

http://www.cs.princeton.edu/gfx/pubs/Burns_2005_LDF/index.php

http://cgw.pennnet.com/Articles/Article_Display.cfm?Section=Articles&Subsection=Display&ARTICLE_ID=230471

http://rhizome.org/thread.rhiz?thread=18187&page=1

http://www.asu.edu/cfa/art/people/faculty/collins/Virtue.html