Siggraph 2008's Computer Animation Festival is undergoing an expansion this year, and crucial to this evolution is the new blood brought by student animators. Indeed, says Entertainment Director Jill Smolin, 10 of the 15 shorts selected for the festival's awards ceremony represent student work, and the festival's two jury panels chose numerous other student pieces for screening in the general Competition Screenings as well.

"Student work is incredibly inspiring," Smolin says. "We received pieces from all over the planet this year, and the diversity of the work is truly remarkable. Students push all kinds of envelopes, playing with dimension and color, with tone and story."

I recently spoke with three of the U.S.-based student animators who passed muster with the 2008 Competition Screenings's highly selective jury—which included professional artists, animators, scientists, and technologists. The student work ranges from the innocent to the darkly humorous, but each piece affords a glimpse into animation's next generation.

BY KRISTINHA M. ANDING
Carolyn Anderson-Volo strove to capture childhood innocence in Distraxion, for which she used Autodesk Maya and Pixar RenderMan.

Mental Images mental ray to create a saxophone-wielding character in his short, Distraxion.
Carolyn Anderson-Vale ▶ BoxRacer

Carolyn Anderson-Vale is aware that her future is wide open—and she is open to it.

"I can’t wait to just stop up information, to learn more about subtle animation, acting, and getting the performance down," says the newly minted junior animator at Sony Pictures Imageworks.

Landing this prized job and seeing her thesis project, BoxRacer, get accepted into Siggraph’s Competition Screenings has been the reward at the end of a tough year for the recent graduate of Sarasota, Fla.-based Ringling College of Art and Design, who dealt with both a car accident and the death of her grandmother during the last 12 months. She dedicated the short to her grandmother.

But BoxRacer reflects none of the hardship she recently endured. The piece—portraying a brother and sister’s fast-paced race in cardboard boxes down a seemingly endless stairwell—is instead filled with the sweetness and universal childhood innocence that Anderson-Vale says she consistently aspires to in her animation.

"I like to do stories that are close to childhood, things that a lot of people can relate to," she says, noting that her own brother and sister used to race downstairs on pillows in their three-story Virginia townhouse. She explains that she opted for boxes over pillows because animating cloth would have been "just too much for senior year."

She tackled the challenge of facial animation head-on, however, creating characters who maintain subtle expressions that clearly illustrate their emotions throughout the short’s speedy pursuit. "Subtle animation has always been a challenge for me," Anderson-Vale says. "It was definitely a challenge to get the facial expression right. I think I did the scene with the dialogue three times, and getting the emotions to come across was hard."

Another difficulty was communicating the proper perspective to the audience as the characters hurtle around bends and down many flights of stairs. "There are supposed to be seven floors, so if I had to make it so you wouldn’t get lost, giving you a feel for what floor they were on and whether they were going down the building rather than left, right, or up," she says.

Anderson-Vale used Autodesk Maya and Pixar RenderMan on HP workstations when creating the short.

"It’s been an incredible, hectic year, but at the end, everything’s just wonderful," says the grateful grad, who also just married her college sweetheart. "I worked hard for three years and finished my thesis, and then I got this job. It just feels really great."

Mike Stern ▶ Distraction

The path to a career in character animation has been a long one for Mike Stern, who slowly wended his way through a pest life in advertising and into the DreamWorks animation department.

After earning his bachelor’s degree in advertising design from Syracuse University, Stern worked as an art director for three years at J. Walter Thompson in New York. He returned to school to study computer animation at New York University (NYU), and upon realizing that character animation was his primary interest, he simultaneously enrolled in Animation Mentor, an online animation school focusing solely on the specialty (see this month’s Dream Job on p. 58 for more on Animation Mentor). "My thesis semester at NYU was my first term at Animation Mentor," Stern says.

While at Animation Mentor, Stern starred Distraction, a humorous short detailing the travails of an office worker beset by the lamy saxophone riffs of his colleague’s favorite music. The recording blaring from his coworker’s stereo takes on a life of its own under the guidance of Stern’s imagination, which conjured up a smooth-moving saxophone player who invades the beleaguered main character’s personal space and drives him to the brink of madness.

The biggest challenge was finding time to work on the short, says Stern, who continued to produce the piece during the next two years while simultaneously working full-time at DreamWorks, where he contributed to Bee Movie and Kung Fu Panda. "It was tough coming home after a day of 8 hours of animation and then doing more," he says.

Another challenge was conquering the mechanics of the animation. "I didn’t have an exact reference [for the saxophone player] that I could watch and pick apart, so a lot of it had to come from my imagination," Stern says. "I ended up looking at a lot of clips of dancers and saw how they moved and how they control their weight and create lines in their bodies."

Stern used Autodesk Maya on a PC for modeling, rigging, lighting, and texturing (Animation Mentor provided all rigs for the characters); Mental Images mental ray for rendering; Apple Shake for compositing; and Adobe After Effects and Apple Final Cut Pro on a Mac for editing.

Getting Distraction into the Siggraph Computer Animation Festival was the goal all along, Stern says. "There were times when I was working at 2 in the morning and thinking, ‘Why am I doing this? What is ever going to become of this?’ But when I found out I was accepted at Siggraph, I knew I’d have a chance to be in a room and see how people respond to what I’ve spent the last two years making. I’m excited about hearing the crowd reaction."
Stern says he is also excited about continuing his education, this time at DreamWorks. "I just want to keep getting better at this stuff," he says.

Patrick O'Brien: Goobees

For Patrick O'Brien, getting his short Goobees into the Siggraph Computer Animation Festival was like "winning the gold medal."

"It was the pinnacle for us in terms of recognition," says O'Brien, who completed the piece with Seth Freeman, Michael Losure, and Tony Piedra—all students of Texas A&M's Visualization Sciences master's degree program.

Goobees occupies the darker end of the thematic spectrum, featuring a world in which anthropomorphized chocolate candies and gumdrop guys are pitted against each other in a fight to the finish. The short starts out during the aftermath of a bloody battle, in which the chocolates have emerged victorious, and then moves inside of a factory, where the sweets repurpose their victims into a new candy treat. A young boy purchases these Goobees from a vending machine, which happens to have a magic window through which he can witness the next match-up about to take place.

"We wanted to have this bright candy land with this dark understory to it, where all these candies are fighting and killing each other," says O'Brien, who handled lighting and shading for the piece.

The students took advantage of their school's Visualization Sciences Lab, using Autodesk Maya for animating, effects, and modeling; Pixar RenderMan for rendering; Apple Shake for compositing; Apple Final Cut Pro for editing; and Adobe Photoshop for matte paintings. All work was done on a Linux system.

O'Brien says one of the biggest lessons they learned was the importance of preproduction. "We all had a general idea of what we thought it should look like, but we just started working on it instead of nailing that down in the beginning," he says, noting there was a lot of work they could have avoided by being more thorough in the planning stage. "There was a real rush to jump in and get going and a lot of time pressure."

One thing O'Brien says he feels they did right was cutting down on rendering time by using Shake. "We tried to do a lot in post—complex stuff and volumetric effects—using Shake to do a lot of little fixes as opposed to having to resrender," he says.

The success of Goobees has opened doors for the four students: O'Brien and Losure are employed at DreamWorks, while Piedra and Freeman are at Pixar.

"I think, for all of us, just getting our foot in the door is really exciting," says O'Brien, who finds himself living outside his home state of Texas for the first time thanks to his new job. "We're all really happy that Goobees helped us do that."

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Reel-Exchange Student Animators


[FEATURED REEL]

RUBEN VANDERBROEK, New York University

Precognition was created as Vanderbroek's thesis at NYU. All the footage was tracked using 263 Boujou. The objects, buildings, and monorail were modeled and animated in Autodesk Maya and rendered with Mental Images mental ray. All the final render passes were composited with the live action using Apple Shake.

[EDITOR'S PICKS]

JUAN LEON
Fashion Institute of Technology, New York
Re:Animation is a surreal short depicting the process of a musical inspiration. The animation was created using Softimage/XSI 6.5 and Adobe After Effects. The music was created by New York based Druidification, through a combination of Sony Sound Forge and Cakewalk Sonar to match the audio with the visuals.

DANIEL BOHRER
Vancouver Film School
Bohrer's LaFerreera's VFX reel explores the idea of having the storyline as background while bringing the character/audience relationship to the foreground. The music-driven project tells a story of an old man, for which Bohrer used Autodesk Maya and Pixar RenderMan.

DOMINIC MARCOTTE
Centre NAD, Montreal
Mosquitoes is the story of a young mosquito waiting for his exam. Marcotte did all of the storyboarding, animatics, modeling, texturing, rigging, animation, lighting, and compositing using Softimage/XSI 6.5, Adobe Photoshop CS3, and Eyeon Software Fusion 5.2.

RICHE GEILLES
Rice University, Houston
85% is Geilles' entry for the 2008 Festival VidéoEx competition held by the International Secretariat for Water. The water elements were created by filming water poured into clear glass vases and then alpha-masked with the existing elements in Adobe After Effects.

FRANKY PLATA
Centre NAD, Montreal
The New Toys was done during Plata's first four months of visual-effects studies at Centre NAD using Softimage/XSI and Eyeon Software Fusion. His character design was based on the character Haskinda created by one of his friends—with previous authorization—which established the feel for the short as a "sad toy story."

KEVIN TAYLOR
Blackpool and the Fylde College School of Art and Design, U.K.
The Barracuda... Build it project is Taylor's first animation, and it allowed him to create a specific environment using 3D modeling, audio, and visual graphics. The buggy was modeled, textured, and animated in Luxology modo and then put into Adobe After Effects for postproduction work and final composition.

TYLENE WRIGHT
New York University
Dive: A Creative Process is an abstract short film about the creation of a sketchbook that Wright put together with a combination of 2D and 3D visual-effects techniques using Autodesk Maya, Adobe After Effects, and Photoshop.