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the Witch and
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Dresden
Examining the motivation
behind the devastation



VFX

class gets taste of real-world quality, collaboration

Sean Mitchell, a working cinematographer with extensive visual effects experience, wanted to marry the two disciplines in his teaching at the Academy of Art University in San Francisco. His goal: collaborative student projects worthy of any professional visual effects house.

He created a new class called Visual Effects Cinematography, bridging the university's Animation and Visual Effects School and the Motion Picture and Television School. The class's first semester project was a spec commercial for the Apple iPod that required greenscreen photography, cloud tank work, miniatures, and numerous composites.

"For most of the visual effects students, it was their first experience with film and high-definition," Mitchell says.

Generally, he notes, students doing effects for a class would shoot on Beta SP video. Instructors might tell them about how working with film would differ in terms of grain, resolution and other factors, but it was all theoretical. "Actually shooting our project on film brought it out of the theoretical realm and into the practical," Mitchell says.

The greenscreen footage and miniatures were shot using an ARRI III camera with Superspeed Prime lenses on Kodak VISION2 500T 5218 film, then transferred to high-definition HDcam format on a Spirit DataCine for compositing. Mitchell chose 5218 for its contrast and high speed. "I liked the fact that it's a very fine grain stock, even though it's 500 E.I. We needed the speed of the film because the largest light we had available to us was a 5K, and a lot of the footage was overcranked at 96 fps. Fine grain was important as well because we needed to pull blue and greenscreen shots from it, and if you have a lot of grain or noise, it's difficult to pull the keys."

Once the student compositors got their hands on the high-res transfer, the difference in quality was immediately apparent. "They were amazed at how much easier it was to pull keys from the film-originated footage," Mitchell says. "It showed them what resolution really means."

For the live shoots, Mitchell brought together both undergraduate and graduate-level classes. Students performed every available crew role. Many of the VFX students had never been in the field for a shoot before, and many from the motion picture department had never worked on an effects shot. Both found it eye-opening.

"Those who haven't dealt with visual effects before think of effects as a post process. So they shoot some plates and take them to the effects people after they're done with their principal photography," Mitchell says. "They learn too late that they haven't gathered all the data they need — camera height and position, focal length of the lens, etc — that they'll need to work in 3-D software."

Jim Reigel, VFX supervisor for **The Lord of the Rings** trilogy, and Tim McGovern, an Academy Award®-winning VFX supervisor, gave the project a thumbs up. Both are members of the Academy's Presidential Advisory Board. "One of the weaknesses they've noted is that when students come out of school they don't know how to collaborate," says Mitchell. "Real-world effects today aren't done in isolation, like so many student projects. They're a very collaborative effort. That was one of the most important lessons that people took from the class."

Mitchell graduated from the Brooks Institute of Photography, and immediately interned with Allen Daviau, ASC, in 1991. He worked with Daviau on commercials and the films **Bugsy** and **Fearless**. On his own, he began shooting music videos and commercials, and teaching part-time at the Academy of Art University in 1995. He worked in visual effects at Tippet Studio in Berkeley on the feature films **Cats & Dogs** and **Evolution**. He is currently a freelance director of photography, and serves as the primary cinematographer for Mercury Multimedia.

Mitchell continues to teach his experimental class on visual effects cinematography. "At first, the class was a leap of faith," Mitchell says. "Now it seems to have gained a certain momentum. Students work a lot harder in this class, but when they see the final result, it all seems worthwhile." ■



Above: Students in the Visual Effects Cinematography course at Academy of Art University in San Francisco shoot a cloud tank for a composite scene.

Below: Cinematographer Sean Mitchell (behind the camera) on location with his Visual Effects Cinematography class from Academy of Art University in San Francisco shooting a "forced perspective" shot with a miniature car for a spec iPod commercial project.

