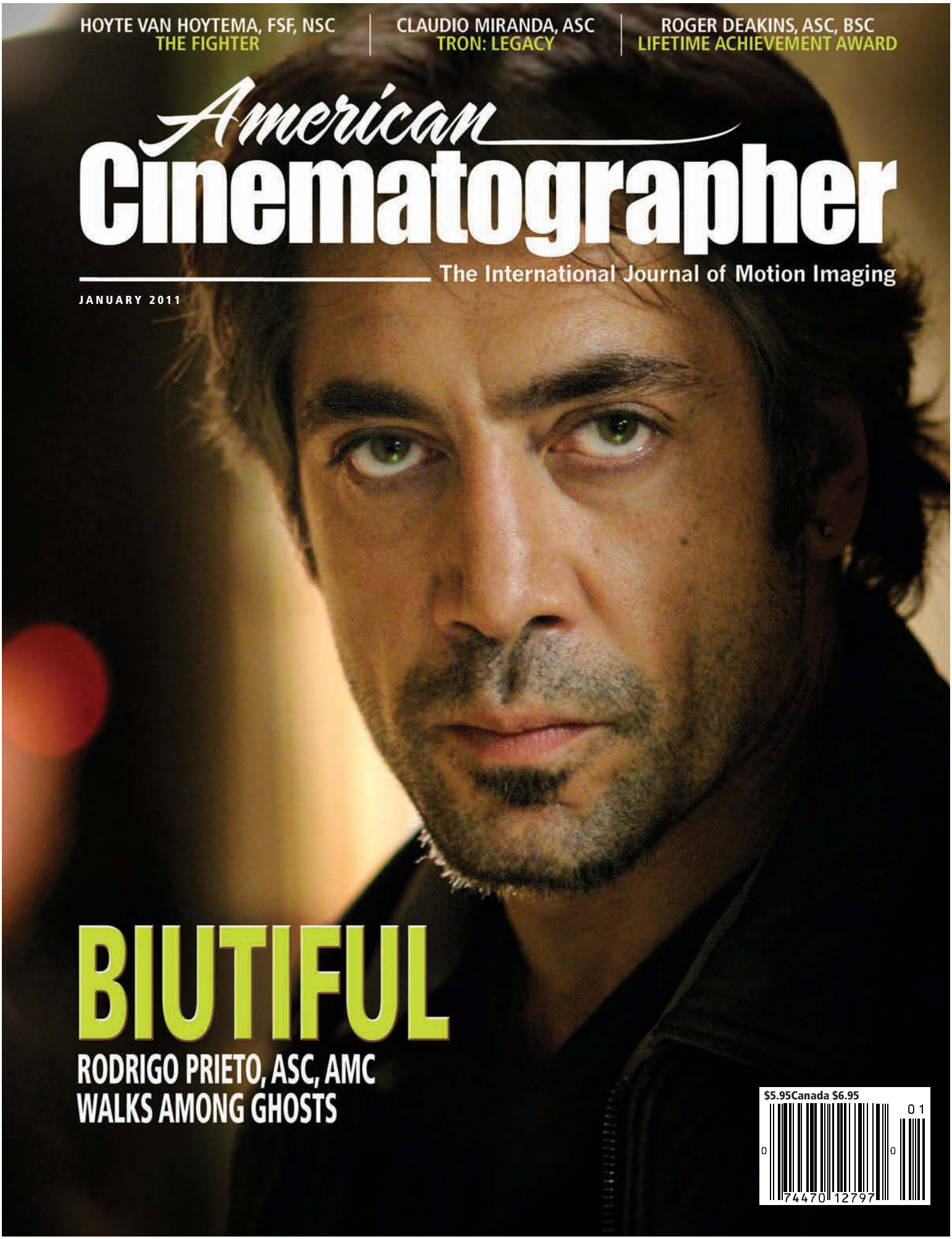

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Short Takes

Singer Ben Lovett pilots an airship into a fierce storm in the music video for his song "Eye of the Storm." Cinematographer Craig Kief utilized bluescreens, black lights and fluorescent tape to isolate key elements of the imagery that would later be combined with CG effects.

Creating an Animated "Eye of the Storm"

By Iain Stasukevich

"A couple of years ago, I saw a short animated film by Anthony Lucas called *TheMysterious Explorations of Jasper Morello* , and it blew me away," recalls director Christopher Alender. "The animation was done with silhouettes and collage backgrounds, and it got me wondering if I could do the same thing with live action."

Alender put the idea on hold until singer/songwriter Ben Lovett, a close friend, asked him to produce a music video for a song on his album *The Fear.* When Alender listened to the album, the track "Eye of the Storm" jumped out at him. "It's like a soundscape with a very cinematic feel," he observes.

Like *Jasper Morello*, the video for "Eye of the Storm" is set in a steampunk world, a highly technological Victorian society powered by steam. The video tells the story of a lonely captain (played by Lovett) battling to keep his airship afloat in the midst of a raging tempest. Alender decided to shoot all of the action against bluescreen, using minimal set pieces and props, and he asked cinematographer Craig Kief, a fellow Florida State University alumnus, to step behind the camera. "Craig is always game when I call him, even when we're doing something weird," says Alender. Kief says he was immediately drawn to the images Alender proposed. "A lot of the work I do, mostly commercials and music videos, has extensive visual effects, so this seemed like a natural fit," says the cinematographer.

The visual effects for "Eye of the Storm" called for the creation of the airship and all of the weather effects, and also for picking out specific details in Lovett's costume and the props. Typically, this would be accomplished by chroma-keying the bluescreen elements of the frame, but Alender intended to shoot 4K with the Red One MX (recording to Red Drives and Compact Flash cards), and he didn't want the CPU-hogging process to impede the post workflow. "It really slows you down, especially if you're experimenting and working with high-resolution imagery," he says. "We worked with the 4K sources but mastered in a 2K comp."

Alender and Kief came up with a way to isolate the elements they wanted to remove by shooting under black lights and using a luma key instead. The idea is based on an RGB image being split into three separate monochrome channels, with each channel containing a separate luma key based on a defined level of exposure. Kief and Alender experimented with different kinds of fluorescent tape and paint until they found the ones that reacted best to ultraviolet light. "Green fluorescent tape was the most powerful, so we used it to build part of the captain's wardrobe," says Alender. "Orange

Photos by Craig Cantey. Photos and frame grabs courtesy of Soapbox Films.

To create the impression of the singer's scarf blowing in the wind, the scarf was puppeteered with monofilament as Lovett walked on a treadmill. Electric fans were also used in conjunction with the monofilament.

reacted powerfully in the red channel. That left blue, which we used for the background and treated like regular bluescreen."

While shooting, Kief used a Sony BVM-L230 HD reference monitor, which allowed him to view one color at a time, giving him a preview of what the individual luma keys were going to look like. (The filmmakers also monitored an RGB composite for keying white elements.) "When you look at the different channels, the most saturated colors become bright white, and everything else falls pretty close to black," says Kief. "My primary goal was to give each color as much separation as possible."

Kief and Alender are aware of the similarities between their process and the photochemical bluescreen process, where composites were achieved by taking shots with bluescreen elements and rephotographing them through a blue filter in black and white so only those elements are exposed. This creates the holdout matte that cuts out the area of the background plate dedicated to the foreground when the two are combined. "We did a lot of experimenting," says Kief. "We weren't 100-percent sure what the shot was going to look like in the end, particularly the backgrounds, but Chris was meticulous about storyboarding every single shot, and we followed those boards exactly."

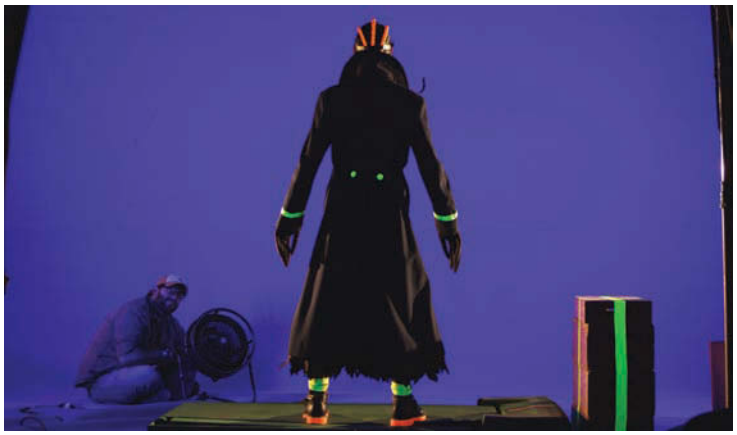
The airship set, which was placed in a corner of Soapbox Films' 10,000-square-foot soundstage in Burbank, Calif., comprised little more than a ship's wheel, a captain's chair and a treadmill (for walking shots). The skeleton crew included producer/puppeteer Kris Eber, who hides in plain sight, puppeteering Lovett's scarf with filament from atop stepladders or crouching behind flags, catching the books he tosses into a furnace. (The furnace is CG.)

The team didn't shy away from dramatic camera moves, despite the extra work required to track the shots in post. Creating digital moves in post was briefly considered, but, Kief notes, "Chris and I prefer to create a move in-camera because a move created in post never looks as good — the three-dimensional perspective doesn't change."

The Digi Blue background was lit with Kino Flo bluescreen tubes, and the foreground was lit with a pair of 4x4 Kino Flo heads outfitted with black-light tubes. Kief brought the black-light Kinos as close and flat to the lens plane as possible for the cleanest reflectance; if the lights were even slightly off axis, he'd get shadows on the fluorescent tape.

In the shots where Kief wanted to pull some detail out of Lovett's face, he'd use tungsten lights. Two 2K Mighty Moles were outfitted with Mole Shutters for lightning effects, a couple of 1K nook lights on dimmers provided the illumination from the roaring fire in the airship's furnace, and various tungsten sources were placed at strategic angles to bring out reflective highlights on bits of metal in Lovett's costume and the props. "The black light was actually strong enough that we were also getting a lot of fill directly from the fluorescent tape," recalls Kief. In some scenes, the reflectance is so bright, the collar almost serves as a bounce surface.

The production's Red One MX was provided by Keslow Camera in Culver City, Calif. "It's a real step forward and a real joy to be able to work with the Red at 500



Top and middle: Lovett positions himself for a shot as a crewmember operates a small fan. The Digi Blue background was lit with Kino Flo bluescreen tubes, and the foreground was lit with a pair of 4x4 Kino Flo heads outfitted with black-light tubes. Bottom: Kief takes the helm on set.

ASA," says Kief. "Before the MX, rating the Red at anything higher than 200 would start to introduce a lot of noise, and a good signal-to-noise ratio is important when you're trying to pull keys. The new sensor is so clean that I can start at 500 ASA and have no problem going to 800 ASA." Alender concurs, "Using a Red with the original chip would have been really problematic because there's so much junk in the blue channel. If we hadn't had access to the MX, we would've picked a different camera altogether."

Kief used T1.9 Zeiss Ultra Prime lenses, shooting as wide as possible to accentuate the graphic compositions and lend a slight distortion to the close-ups. Most of the video was shot with a 14mm lens. Kief also wanted to keep a shallow depth-of-field, so he shot every scene by setting the frame, opening the iris all the way and then lighting for the proper exposure level.

In post, Alender started with the raw 4K frames, which look a lot like screen shots from *Tron* (1982): orange for the small details in Lovett's shoes, jacket and helmet; green for his goggles and bits of detail on his jacket; and blue for the outline of the singer and the props. Alender peeled apart the RGB channels in Adobe After Effects, handling most of the rotoscoping, including crew and wire removal, and some of the compositing and 3-D animation. "Wes Ball and his company, Oddball Animation, stepped in to help with a lot of the final product, and they're really taking it to the next level with gorgeous sky environments and realistic particle effects," says Alender. "They also did the character animation for the demon creature. As more and more talented specialists jumped onboard, I evolved into more of an art director on the post side of things — I roughed out a lot of the stuff that others executed."

Kief and Alender see projects such as "Eye of the Storm" as great opportunities to experiment with art, media and technology. "We both love pushing the envelope creatively and technically," says Kief. "It's a lot of fun working with Chris. He's been at the helm on some of my most unique projects." ●