
PLUS: LUST, CAUTION; ELIZABETH: THE GOLDEN AGE; 3:10 TO YUMA
OCTOBER 2007
American Cinematographer
Q&A WITH
ROGER DEAKINS, ASC, BSC
• THE ASSASSINATION OF JESSE JAMES BY THE COWARD ROBERT FORD
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Features

On Our Cover: Infamous outlaw Jesse James (Brad Pitt) feels the cold hand of fate in *The Assassination of Jesse James by the Coward Robert Ford*, shot by Roger Deakins, ASC, BSC. (Photo by Kimberly French, courtesy of Warner Bros.)

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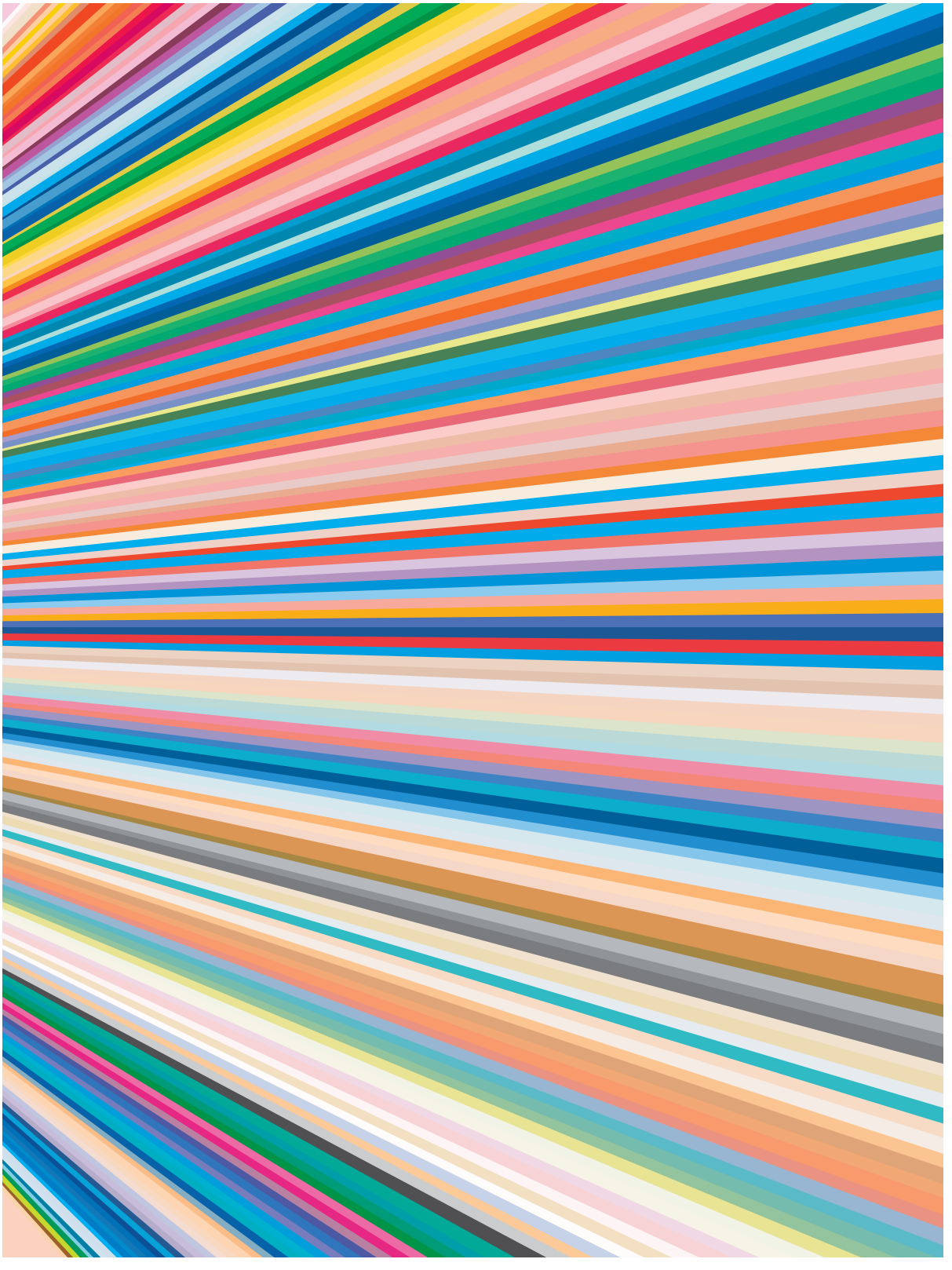

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Editor's Note

Director Sam Peckinpah famously maintained, "The Western is a universal frame within which it is possible to comment on today." Over the decades, many filmmakers have embraced this notion, but recent years have been a fallow patch for the venerable Western. However, some upcoming releases promise a bonanza for fans of the genre (if you'll pardon the pun).

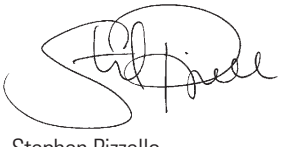
Roger Deakins, ASC, BSC has made his first two forays into Western terrain with Andrew Dominik's *The Assassination of Jesse James by the Coward Robert Ford* and Joel and Ethan Coen's *No Country for Old Men*. The former, a stately tone poem, offers rich rewards for cinephiles who appreciate stunning widescreen cinematography, intriguing thematic subtext and period realism. The more contemporary *No Country* offers both action and thought-provoking drama, as well as a truly unforgettable villain, psychopathic hit man Anton Chigurh (played by Javier Bardem). Despite his hectic schedule, Deakins set aside time to share his thoughts about both of these fascinating films with Jean Oppenheimer and me ("Western Destinies," page 30). Referring directly to Peckinpah's Westerns, Deakins offers, "Those movies are much more than the sum of their stories. They address many different themes, and I feel *Jesse James* and *No Country* are in that same vein."

Phedon Papamichael, ASC also explores the Western's timeless appeal in director James Mangold's remake of the 1957 classic *3:10 to Yuma*. While the cinematographer took full advantage of the widescreen Super 35 format, he says the filmmakers focused on generating drama with character-based conflict. "I was very much looking forward to the rare opportunity to shoot a Western, but this film isn't a Western in the classical sense," says Papamichael ("Unsafe Passage," page 72). "It's not about the land and the landscapes, it's more about faces and dialogue and strong characters. It plays more as a modern psychological Western drama."

Psychological conflicts also form the core of *Lust, Caution* and *Elizabeth: The Golden Age*. The former film, which reunited Rodrigo Prieto, ASC, AMC with director Ang Lee, is set in China during World War II and follows the efforts of an alluring woman (Tang Wei) to seduce a sinister government official (Tony Leung) who has been targeted for assassination. While analyzing the film for New York correspondent Pat Thomson ("Emotional Betrayal," page 48), Prieto notes that working in China was an eye-opening, sometimes harrowing experience: "Strangely enough, it felt like working with a crew in Mexico, in that you don't have all the tools, but your crew will do *anything*. Sometimes it can get tricky and dangerous. If you want to adjust a light but don't have a Condor or lift, someone will climb a wall or get a rickety ladder. I'd say, 'Hey, you're going to fall!' And they'd say, 'No, Hong Kong-style!' I had to turn away several times because I just got too nervous, but they were truly amazing and completely committed."

On *The Golden Age,* the sequel to the acclaimed 1998 film *Elizabeth,* cinematographer Remi Adefarasin, BSC admired director Shekhar Kapur for staking out new creative terrain rather than simply trying to recapture the glories of the first film. "Far too many of today's films are about instant gratification and leave you hollow at the end," Adefarasin tells London correspondent Mark Hope-Jones ("Palace Intrigue," page 60). "Shekhar has a very interesting and different approach to directing films; he wants to penetrate deeper."

In pursuing their respective goals, all of this month's featured cinematographers tapped their skill with lighting, this issue's special theme. We hope their collective wisdom will prove useful and illuminating.



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Letters

Keelhauled on *Pirates 3*

In the otherwise excellent June article about *Pirates of the Caribbean: At World's End* ("All Hands on Deck," p. 32), one paragraph has caused serious concern here at Image G. The paragraph is on page 47 and begins with the sentence: "One of the most challenging shots in *At World's End* features the demise of Lord Cutler Beckett aboard his ship, the *Endeavour*." In discussing a motion-control shot staged for this sequence, the show's director of photography, Dariusz Wolski, ASC, says, "On the first take, the rig broke. Then they decided to go with a simpler rig that didn't have a pan head." Unfortunately, this quote is imprecise and potentially harmful to Image G's reputation for successfully delivering difficult special-effects shots.

Following publication of the article, I spoke with Dariusz about this, and he told me he had intended to say, "in testing, [camera] heads broke" — which they did.

The positioning of the 120' motion-control track on the deck of the *Endeavour* required a compensating back pan to track the actor descending the staircase. Shots of the ship being ripped to pieces around him were achieved as a number of matching passes at different dolly and camera frame rates. Extreme speed was required for the "overcranked" elements of Beckett's demise, and a motion-controlled, winch-driven "Rocket Sled" rig was built by Image G specifically for this shot. The Sled achieved and precisely repeated a 30'-per-second move with a dramatic 5' stop.

In testing, there was no "standard" head that could withstand the extreme G-force caused by the sudden stop with the 145-pound PhotoSonics package. An Arri and a vintage Worrall were sacrificed in the attempt — happily, on Image G's test track, not on the set!

To solve the problem, we engineered and constructed a unique panning head that proved capable of both repeating and withstanding the sudden stop with the heavy camera mounted to it. During the actual shoot, Image G's Rocket Sled and the custom head performed flawlessly.

Sincerely,
Andrew Harvey, Producer
Thomas Barron, Director
Image G
Studio City, CA

DVD Playback

Ace in the Hole (1951)
1.33:1 (Full Frame)
Dolby Digital Monaural
The Criterion Collection, $39.99

After being fired from several high-profile newspapers across the country, abrasive news reporter Charles Tatum (Kirk Douglas) finds himself in New Mexico with no money. Flaunting his crackerjack portfolio, he bullies *Albuquerque News* boss Boot (Porter Hall) into giving him a job, and after spending a year covering small-town news, Tatum stumbles upon a local story he knows could be his ticket to the top: a nearby cave housing ancient Native American dwellings has collapsed, and local roadhouse owner Leo Minosa (Richard Benedict) has become trapped deep within it. While Minosa's parents try desperately to free him by calling in the authorities, his bored, brittle wife, Lorraine (Jan Sterling), sees his predicament as an opportunity to leave him and the life she has grown to hate.

When Tatum learns that the complicated process to extract Leo might take 24 hours, he manipulates the mining engineers at the scene to prolong the rescue attempt into a week-long process, and then entices Lorraine and the local authorities to stick around. Tatum's tabloid skills lead to best-selling news stories about the desperate Leo and his heartsick family, and it isn't long before the roadhouse and its grounds attract national interest, luring spectators and other journalists in droves. Tatum carefully feeds the media circus by conducting exclusive interviews with Leo inside the cave, and Lorraine begins raking in money at the roadhouse. It's clear that Tatum and Lorraine understand each other, and the tension between them erupts when she, impressed by his incredible opportunism, makes the now-famous remark, "I met a lot of hard-boiled eggs in my life, but you, you're 20 minutes."

Ace in the Hole was ignored by audiences upon its release in 1951, prompting director Billy Wilder to refer to it later as "the runt of my litter." But this scathing indictment of the media as a parasitic presence in American life was far ahead of its time, and seems even more relevant today. Astute, unflinching and crackling with incredible dialogue (written by Wilder, Walter Newman and Lesser Samuels), the film was Wilder's followup to *Sunset Boulevard*, and to make it he called upon one of Hollywood's most trusted cinematographers, Charles B. Lang Jr., ASC.

Lang had collaborated with Wilder on *A Foreign Affair* (1948), and he worked closely with the director to give *Ace in the Hole* the bold, tabloid quality it needed without drawing attention to the camera. The monochrome picture comprises sharp contrasts with a tight gray scale to convey the often-stark exterior lighting juxtaposed against the shadows of the cave where Leo waits for rescue. So successful was this collaboration that Wilder and Lang would reteam on *Sabrina* (1954) and *Some Like It Hot* (1959), both of which would earn Lang Academy Award nominations. (Lang, the recipient of the 1991 ASC Lifetime Achievement Award, earned 18 Oscar nominations in all, winning only once, for 1934's *A Farewell to Arms*.)

Previously unavailable in the U.S. on any home-video format, *Ace in the*

SONY

"Because the F350 has time lapse, slow shutter and over and undercranking, I got more creative options and my client got higher production value for the budget," Humeau says.

"With XDCAM HD, we shot a big show on a tight budget."

Thierry Humeau, director of photography and president of Télécam Films recently used his PDW-F350 XDCAM HD camcorders to create *Bombs, Bullets & Fraud*, a documentary on the US Postal Service Inspectors for Smithsonian Networks, a new HD TV channel from Smithsonian Institution and Showtime Networks.

"They needed a big movie that had to meet their high standards of quality on a fairly tight budget," Humeau says. "Some scenes we shot movie-style with a big crew, dollies and jibs. Some are ENG-style, following cops at night. Some are highly produced interviews. In every instance, the XDCAM HD camcorder came through."

The show's producer, Tim Baney of Baney Media is also a fan. He says, "The camcorder is very producer-friendly. You can instantly play back a scene on the LCD monitor and say okay, good, let's move on to the next take. It's a huge time saver and safety net that gave me confidence, knowing we got it in the can."

And the Smithsonian Networks' reaction? "They love it," says Baney. "In fact, they're already talking to us about another film."

To see a trailer of *Bombs, Bullets & Fraud* and find out how to receive up to $500 back on the purchase of an XDCAM HD camcorder, visit sony.com/xdcam.

Smithsonian NETWORKS

Hole recently made its much-anticipated debut as a two-disc special edition from The Criterion Collection. The high-definition picture transfer is generally excellent, offering great contrast and a solid, visible gray scale. With the exception of what appears to be a damaged shot in the source material (at the 42:22 mark), Lang's stark images have been exceptionally well preserved for home screens. The audio is solid, with good monaural tonality when played through the center channel and a slight increase in surface noise when run through two-channel stereo.

In addition to the feature presentation, disc one contains two of the package's many supplements, the film's original theatrical trailer and a dense audio commentary by scholar Neil Sinyard, who offers a close analysis of the film's thematic elements. Disc two contains Annie Tresgot's 58-minute documentary "Portrait of a 60% Perfect Man: Billy Wilder" (1980), which features interviews with the late director and some of his collaborators; a 24-minute interview with Wilder conducted at the American Film Institute in 1986; a 14-minute interview with lead actor Douglas recorded in 1984; a 10-minute excerpt from a 1970 audio interview with co-screenwriter Newman; a small gallery of stills; and, finally, a slight but amusing anecdotal afterword by filmmaker Spike Lee.

The supplements are impressive, but the DVD's conceptual design and packaging are really outstanding. The package insert — a sharp, newspaper-style pullout with essays by critic Molly Haskell and filmmaker Guy Maddin, chapter lists, and credits peppered with stills and fun advertisements that reference the film — is clever and unique.

This terrific treatment of one of Wilder's most cynical dramas will easily please longtime fans and is likely to win scores of new ones. This American classic is a welcome addition to any DVD library, and certainly a high note on this year's release calendar.

— Kenneth Sweeney

To Catch a Thief (1955)
Special Collector's Edition
1.85:1 (16x9 Enhanced)
Dolby Digital 2.0, Monaural
Paramount Home Entertainment, $14.99

"It's one of his rare films where so many of the popular themes from his other movies are all brought into one," says Mary Stone, Alfred Hitchcock's granddaughter, about the enduring appeal of his film *To Catch a Thief*. "You have Grace Kelly as the cool blonde; you have Cary Grant as the innocent man who is wronged; you have the conversations over food; you have the subtleties; you have the glamour; and you have the mother."

Indeed, many of Hitchcock's most recognizable cinematic devices appear in this lush, romantic thriller, memorably set in the south of France. Once-notorious jewel thief John Robie (Cary Grant), a.k.a. The Cat, has retired and is living quietly in the hills above Cannes. After several wealthy matrons vacationing at nearby hotels wake to find their priceless jewels missing, Robie is immediately considered a suspect in the crimes, and reluctantly agrees to help the local authorities with their investigation; working undercover at the hotels, he socializes with other potential victims, intending to snare the sly thief who's trying to frame him.

When Robie pegs a garrulous American widow, Jessie Stevens (Jessie Royce Landis), as the thief's next victim, he is not quite ready to be pegged as The Cat by her beautiful daughter, Francine (Grace Kelly). Having studied Robie's background, Francine knows who he is and believes he's the current thief. She wants in on his game, hoping he'll show her the tricks of his trade by making her a partner in crime. Robie does his best to convince her that he's innocent, but he can't resist the attention, and the two fall in love amid the raised eyebrows of the authorities and the wealthy jet set.

When Hitchcock chose this project, he called upon many of his frequent collaborators, including Grant, Kelly, screenwriter John Michael Hayes, and cinematographer Robert Burks, ASC. Hitchcock first teamed with Burks on *Strangers on a Train* (1951), and the cinematographer shot 11 subsequent pictures for him. For *To Catch a Thief*, the filmmakers decided to use a new motion-picture process, VistaVision. The expensive, high-clarity process proved to be the perfect choice for photographing the French Riviera, where all exteriors were shot. Balancing the glowing light of the sunny locale on Edith Head's stylish costumes and art directors Joseph MacMillan Johnson and Hal Pereira's lavish sets allowed Burks to use one of his most accomplished and sophisticated color schemes. The softer hues of blue, yellow and coral pink are offset by the vivid natural color of the location. Burks' work on the film deservedly won an Academy Award.

To Catch a Thief was recently reissued by Paramount Home Entertainment in a special collector's edition, and although the studio's 2002 DVD of the film was strong, this edition is a more concentrated effort. The picture transfer has been upgraded significantly; the 2002 version was anamorphically enhanced with solid color, but this new transfer is superior, looking more "film-like." The image is smoother and free of some of the surface dirt that was visible on the 2002 pressing. This transfer also sports slightly better contrast and is even richer in color and detail.

The 2002 DVD provided a good monaural mix that has been replicated on this release, and the studio has added the option of a Dolby 2.0 stereo mix, which gives the score and sound effects a richer tone without ever feeling artificial, like many such upgrades of monaural soundtracks do. ➢

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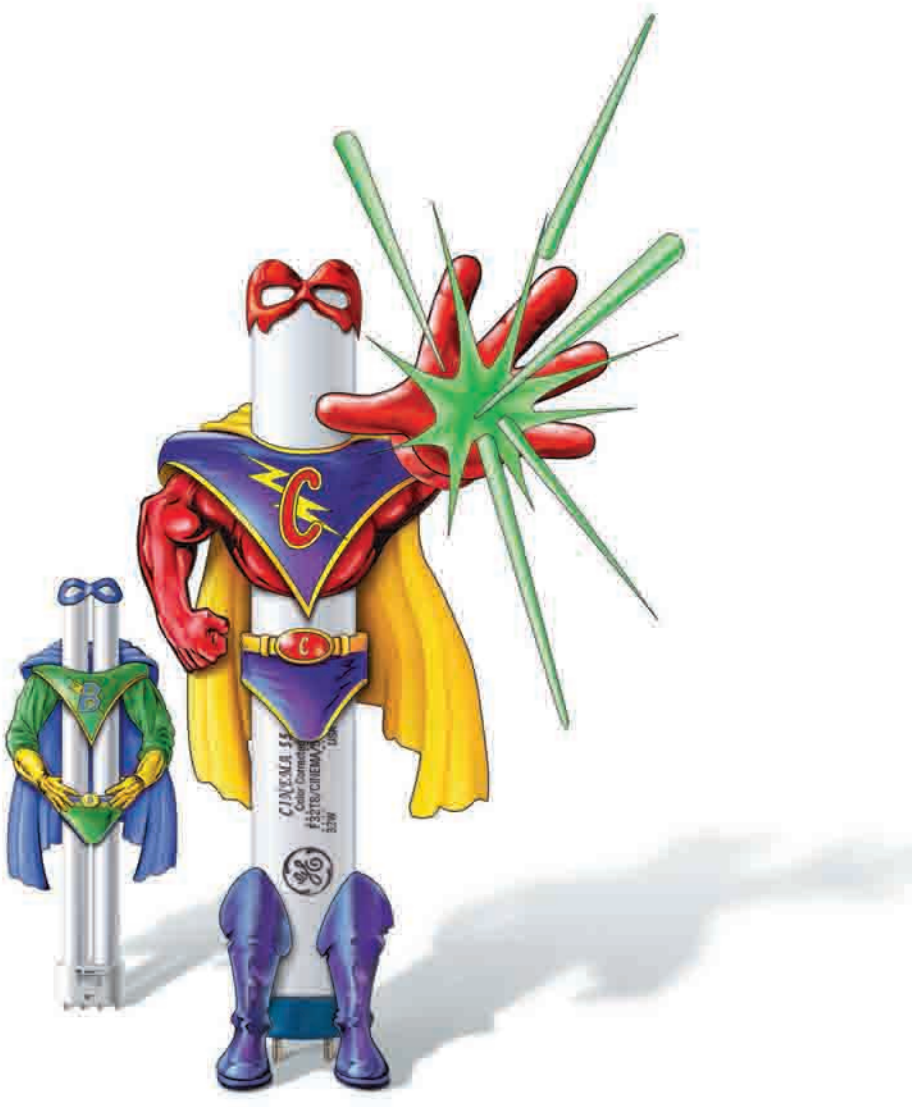

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The supplements borrowed from the 2002 release comprise 33 minutes of interview footage with Hitchcock's family members, production manager Doc Erickson, continuity assistant Sylvette Baudrot, and others; the film's theatrical trailer; and the 16-minute featurette "Edith Head: The Paramount Years." This disc's only new supplement is a rather dubious audio commentary by DVD producer Laurent Bouzereau, who seems ready with facts but quickly takes a back seat to filmmaker Peter Bogdanovich, who spends most of the time name-dropping, offering trite anecdotal information, and doing impressions of Hitchcock, Grant, Orson Welles and John Ford.

Despite the rather disappointing commentary track, this DVD is a marked improvement over the previous one. Showcasing the skills of one of the cinema's most celebrated directors, *To Catch a Thief* offers frothy, romantic entertainment, and Grant and Kelly's combustive star power sets off significant fireworks.

— Kenneth Sweeney

Rio Bravo (1959)
Special Edition
1.85:1 (16x9 Enhanced)
Dolby Digital Monaural
Warner Home Video, $20.98

When director Howard Hawks returned to America in the late 1950s after spending several years in Europe, he teamed with screenwriters Leigh Brackett and Jules Furthman to craft a new kind of Western, one more dependent on character and humor than epic action and widescreen vistas. The result was *Rio Bravo*, which tells the story of John Chance (John Wayne), a small-town sheriff whose station comes under siege when he arrests the brother of a wealthy land baron.

As hired killers arrive in town, Chance teams up with three unlikely partners: a recovering alcoholic (Dean Martin), a young marksman (Ricky Nelson), and an old man who can barely walk (Walter Brennan). The three men defend themselves and the station while Chance falls in love with Feathers (Angie Dickinson), a smart and sexy heroine. Hawks stretches this premise into almost 2½ hours of screen time, but the movie's construction is so elegant that it never feels slow or padded; the subplots are well balanced, and the many digressions (like the oft-criticized musical number that allows Nelson and Martin to sing onscreen) allow Hawks to examine some of his favorite themes with complexity and tenderness.

Rio Bravo is a deceptively simple film that expresses timeless ideas in the guise of an escapist adventure. Hawks couldn't have chosen a better collaborator than cinematographer Russell Harlan, ASC, a master of the Western form whose credits included Hawks' *Red River* and *The Big Sky*. Basing the look of *Rio Bravo* on the frontier paintings of Charles M. Russell, Harlan used expansive compositions not to favor the landscape, but to emphasize the democracy of Hawks' worldview. Viewers are invited to identify with almost all of the characters at one point or another, and sometimes Harlan's camerawork alters identification not only within the same scene but within the same shot. As a result, the film never feels static, despite the fact that its action is limited to relatively few locations. Harlan delivers the sweeping day exteriors Western fans have come to expect, but his most exquisite work is showcased in the night exteriors, as in an elegant sequence in which Wayne and Martin patrol the lantern-lit town.

It might have been easy to underrate Harlan's work in earlier, substandard video releases of *Rio Bravo*, but the new anamorphic transfer featured on this two-disc DVD package preserves the tonal range of the lighting and color palette with virtually no picture flaws. The mono soundtrack is equally strong, and is particularly effective in the movie's famous, dialogue-free opening scene. The supplements on disc one comprise an audio commentary by director John Carpenter and film critic Richard Schickel, both passionate and articulate Hawks fans, and a selection of trailers for other Wayne films.

Disc two features three documentaries, two of which are new. The first supplement is an updated version of Schickel's 1973 segment about Hawks from the TV series "The Men Who Made the Movies." The new 33-minute "Commemoration: Howard Hawks' *Rio Bravo*" is a superb featurette that contains interviews with Carpenter, Dickinson, Hawks enthusiasts Peter Bogdanovich and Walter Hill, and several film scholars and critics. Their insights, combined with audio recordings of an interview Bogdanovich conducted with Hawks for his book on the director, provide a concise but thorough production history and analysis of *Rio Bravo*. Finally, the 8.5-minute "Old Tucson: Where the Legends Walked" is an enjoyable look at the Arizona studio where *Rio Bravo* and many other Western classics were shot. It completes this essential package for fans of the Western.

—Jim Hemphill

■

NEXT MONTH'S REVIEWS

Invasion of the Body Snatchers (1978)
Cinematographer:
Michael Chapman, ASC

Flash Gordon (1980)
Cinematographer:
Gilbert Taylor, BSC

RoboCop (1987)
Cinematographer:
Jost Vacano, ASC, BVK

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Production Slate

Abandoning Society and Embracing Love

Chris McCandless (Emile Hirsch) thumbs a ride while trekking across the West in *Into the Wild*.

Into the Wild photos by Francois Duhamel, SMPSP and Chuck Zlotnik, courtesy of Paramount Vantage.

A Seeker Travels Too Far

by Jean Oppenheimer

Two days after wrapping Alain Resnais' *Private Fears in Public Places* in Paris, Eric Gautier, AFC found himself in San Francisco, prepping Sean Penn's *Into the Wild*. Stylistically, the two films could not be more different. "Resnais' film was shot entirely on stage — on nine stages, in fact — and involved very controlled lighting," says Gautier, speaking by phone from Normandy, France. "I always had three filters on the lens because Alain wanted it very diffused. Sean's movie was the exact opposite: we shot entirely on location, strove for a natural-light look and used hardly any filters."

Based on the nonfiction book by Jon Krakauer, *Into the Wild* recounts the experiences of Chris McCandless (Emile Hirsch), a middle-class college graduate who gave away all his money, cut ties to his family and hitchhiked across the West, ending up in Alaska, where he planned to test his survival skills. Things went well for a while, but in the end Alaska's harsh environment prevailed. McCandless recorded his adventures, the people he met, and his slow death in a diary that was found alongside his body. The diary and the hundreds of photographs he took on his two-year odyssey provided not only the backbone of the book, but also a great reference for the filmmakers.

"In a technical sense, we shot the film in a documentary style — we never rehearsed, there were no marks for the actors, and we usually shot only one take," says Gautier. "Sean had very precise ideas. Usually he designed the shot and then we discussed it, although he was always open to improvisation."

The production filmed in 33 towns/regions and rarely stayed in a location longer than three days. Four trips were made to Alaska to catch seasonal differences. "We spent most of our time hiking to hard-to-reach places," jokes Gautier, only half in jest. "The cameras had to fit into our backpacks because I wanted to be able to grab one and move quickly." The main camera, an Aaton 35-III, came from Aaton in Grenoble, France. Keslow Camera in Culver City, California, provided an Arricam Lite, an Arri 435, and a range of Zeiss Ultra Primes and Optimo and Canon zooms.

Gautier shot most of the picture at the long end of a zoom. The production carried three, an Optimo 17-80mm, an Optimo 24-290mm, and a Canon 150-600mm, as well as 2x extenders for all three. "The quality of the long lenses in the bright sun is just amazing now, so beautiful," he says. "In France, filmmakers rarely use long lenses or slow motion, except for very specific shots. Having seen Sean's first three pictures, I knew he liked long lenses and changes of speed within scenes. It was so much fun for me to play with those things."

Into the Wild was shot in 3-perf Super 35mm, and Gautier used three Fuji Eterna film stocks: 250D 8563 for day exteriors; 400T 8583 for a few scenes featuring McCandless' parents; and 500T 8573 for all other material. "I wanted the scenes showing his parents

Director Sean Penn (left) discusses an upcoming crane shot with cinematographer Eric Gautier, AFC.

to look slightly different from the rest of the picture, and Fuji 400 is a very soft stock," he says. FotoKem processed all of the production's footage, and Gautier carried out a digital intermediate (DI) with colorist Stefan Sonnenfeld at Company 3.

"Sean wanted this film to be very wide and very intimate at the same time," notes the cinematographer. "He wanted to always place Chris alone against this huge backdrop of nature and humanity." Penn also wanted a strong sense of movement in the nature scenes; if McCandless isn't walking or hiking, the camera is in motion. In one of the film's dramatic moments, he has hiked to the top of a mountain and feels as though he's on top of the world. To suggest his exhilaration, Gautier placed the camera on a circular track around Hirsch and zoomed in and out as the grips pushed the dolly faster and faster, creating an almost dizzying effect.

In contrast to the wilderness scenes, the camera is static whenever two or more characters are conversing. Gautier almost always used long lenses in these instances, keeping it intimate while suggesting a larger world beyond the characters. McCandless helps a farmer (Vince Vaughn) harvest his crops, after which they unwind at a bar. The room is filled with diners, but the camera restricts itself almost exclusively to two-shots of the two men. Behind them, out of focus, are the bar's colorful practicals, strung across the walls. The two men are in their own world, oblivious to the others. "Depth of field was the most important thing to me in this shot," says Gautier. "I wanted it to feel close and intimate. Diffused smoke added to the [shallow] depth of field, suggesting that the two men are among a lot of people but are unto themselves.

"I shot the scene with three cameras, something I generally don't like to do, and with no rehearsal. I wanted to restrict myself to the existing lights in the bar, but the light level was so low I added a couple of extra tubes. My philosophy throughout this film was to use what existed and adapt myself to the low light levels."

Another example, a night exterior, finds McCandless sitting around a campfire with two hippies. "Sean wanted to light just with the practical campfire and have the rest dark, but I felt we needed to have something a bit softer than the real flames because the contrast would be too strong. I also wanted something a little softer because this is one of Chris' happiest moments. We put a couple of 650-watt Tweenies on the ground and bounced them off a small white card placed almost under the campfire. [They picked up] the shadows and movements of the real flames, producing a nice flickering effect on the faces."

Another night, McCandless hops

Top: Steadicam operator Jacques Jouffret and other crewmembers trail Hirsch while capturing a shot on location. Center: McCandless tackles the rapids in a kayak. Bottom: During his travels, McCandless forges a bond with an older gentleman (Hal Holbrook).

on a boxcar. The sequence was shot on an actual moving train, and Penn wanted it to feel almost completely dark. "We shot the wide establishing shot dusk for dark and threw on a lot of grad filters to make it darker," recalls Gautier. "The only light in the boxcar was a green-gelled Kino Flo hanging from the ceiling." A red light blinking on and off appears to come from practicals along the train tracks; in fact, it was four small, flickering lights bound together — the whole thing only about 500 watts strong — that the electricians rigged in the boxcar doorway so the light would hit Hirsch's face. Gautier, who operated the A camera, was standing on the very edge of the doorway.

The train slows down as it approaches a rail yard, and there McCandless, who has fallen asleep, is dragged out of the car by a railroad watchman and savagely beaten. It is an unexpected and very violent moment. Gautier decided to use two cameras on the watchman as he pummeled McCandless; one was directed at his face, the other at his feet. Headlights from a parked car and practical lamps gelled green provided backlight. Farther away, Gautier bounced a few HMIs off white cards for fill light.

The most harrowing sequence in the film is McCandless' slow death from

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Above: McCandless pauses to contemplate his uncertain future. Below: Trouble begins when McCandless heads north to Alaska, where he becomes trapped by changing weather conditions.

starvation. When he arrives in Alaska, the ground is already frozen and under snow. He hikes deep into the wilderness and stumbles upon an abandoned school bus, which he makes his home. He sustains himself by shooting and eating wild game, and after several months, having fulfilled his dream, he decides to return to civilization. But the frozen river he had walked across has thawed into raging waters, and there is no way to cross it. He returns to the bus and tries to survive on plants and grasses when game proves scarce. But unfamiliar with the flora, he eats something poisonous and becomes even weaker and sicker. In the end, he starves to death.

When scouting locations, Penn and Gautier visited the real bus where McCandless died. "Sean didn't want to shoot in the actual bus, of course, but we felt it was important for the spirit of the movie for us to see it," says the cinematographer. Production designer Derek R. Hill was able to locate an exact replica of the vehicle. "Sean wanted bright sunshine for the moment when Chris realizes he has ingested poison," recalls Gautier. "He wanted it to be very violent and aggressive. When we shot the scene, however, it was pouring rain, so I placed four 18Ks outside the bus, shining through the windows. I loved the look of the artificial light for this very specific and dramatic moment.

"Emile was amazing in the scene, and we shot only a few takes. We captured the instant when Chris realizes he may have poisoned himself with a zoom through a bus window, but the main shot, when he is rolling around on the floor, is a tight shot from inside the bus. I used a long lens, but I wasn't even 2 centimeters from his face. I was rolling around on the floor with Emile, and Sean was pushing me to get tighter. It was incredibly intense, and everybody was exhausted afterwards."

The final shot starts tight on McCandless and pulls back out of the bus and up into the air. "We started the move with an Akela crane and finished it with a helicopter shot," notes Gautier. "We used video assist to obtain the same point of view."

Gautier has high praise for his crew and singles out 1st AC Chris Reynolds, whom he had worked with on *A Guide to Recognizing Your Saints* (see *AC* Oct. '06), and B-camera/Steadicam operator Jacques Jouffret. He met the latter by chance just two days before the shoot and hired him on instinct. "Jacques was just great, and he proved a really good partner," says Gautier. ➢

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Right: Harry (Morgan Freeman, left) chats with his friend, Bradley (Greg Kinnear), in Bradley's coffeeshop, a key location in *Feast of Love*. Below: Harry and his wife (Jane Alexander) share a quiet moment at home.

Friendship and Romance

by Jon D. Witmer

"I believe there are two kinds of cinematographers," says director Robert Benton. "There's the cinematographer who lights the scene, which is a terrific way to work. Then there's the cinematographer who lights the actor — not to make the actor look beautiful, but so you can see the nuance across the face." Given that he consistently places a premium on his actors' performances, Benton prefers cinematographers in the latter category, which is where he ranks *Feast of Love* collaborator Kramer Morgenthau.

"If you had told me 10 years ago that I would be doing a movie with Robert Benton, I would have said you were out of your mind," says Morgenthau, whose recent credits include the feature *Fracture*, the ASC Award-nominated telefilm *The Five People You Meet in Heaven*, and the documentary *Mayor of the Sunset Strip* (see *AC* March '04). "Filling the shoes of the cinematographers he's worked with was a big honor. I often asked him what Néstor Almendros [ASC] would have done in certain situations we found ourselves in, and he would always oblige my curiosity." (Benton and the late Almendros collaborated on five features: *Kramer vs. Kramer, Still of the Night, Places in the Heart, Nadine* and *Billy Bathgate*.)

Based on the novel by Charles Baxter, *Feast of Love* traces the intermingling lives of several friends and lovers in Portland, Oregon. The cast includes Morgan Freeman, Greg Kinnear, Toby Hemingway and Radha Mitchell. In their early discussions, Morgenthau and Benton talked about the films of Eric Rohmer, particularly *Claire's Knee*, another of Almendros' credits. "Benton would refer to that film because of its simplicity," recalls Morgenthau. "The camera never gets in the way of the story or the actors."

Summarizing his approach to

Feast of Love photos by Peter Sorel, SMPSP, courtesy of MGM.

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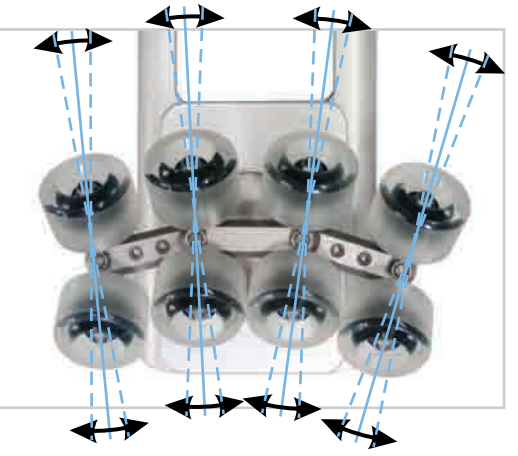

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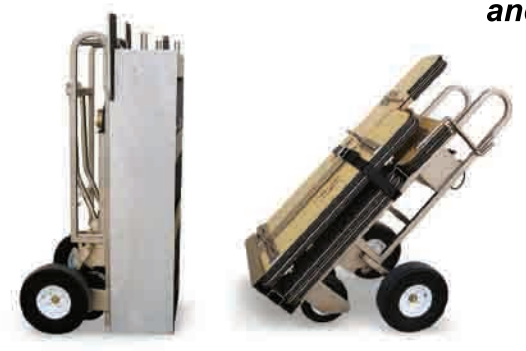

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Above: Diana (Radha Mitchell) is conflicted about her relationship with a married man (Billy Burke). Below: Cinematographer Kramer Morgenthau lines up a shot as director Robert Benton (center) and crewmembers look on.

Feast of Love, Morgenthau cites another key influence, the paintings of John Singer Sargent. "The predominant light source in the frame would often miss the actors, keeping them in shadow, which is a much more naturalistic way of lighting and also very expressive," he says. "That said, the actor's face was always the most important thing to us, and we made it a focal point using contrast and composition."

When he arrived in Portland, Morgenthau had six weeks for prep, time he dedicated to going through the script with Benton, building his crew, shooting tests, and scouting locations. (Thirty-eight days of the 40-day shoot were spent on practical locations. "On a location-based shoot, much of the production design is a matter of choosing where you'll shoot and then creating an environment there," he says, adding that production designer, Missy Stewart, did an excellent job on the show. Adds Benton, "I believe the location is one of the characters; it doesn't have lines, but it's in every shot. And that character must inform the narrative. With every picture, if it's successful, the actors are in a place they're interacting with."

Morgenthau hired his grip and electric departments locally, working with key grip Bruce Lawson and gaffer Bruce "Sarge" Fleskes. He brought three members of his camera department from Los Angeles: A-camera operator Don Devine, B-camera operator Chris Hayes, and 1st AC Kathina Szeto. "Usually I have a Steadicam on full time, but I chose to shoot this film traditionally," says the cinematographer. "We ended up using the B camera a lot less than I thought we would. Benton is not a two-camera director; he doesn't need the kind of extensive coverage some filmmakers require." (For select shots that required Steadicam work, Geoff Haley was brought up from Los Angeles.)

Panavision in Woodland Hills supplied the camera package, which comprised a Panaflex Platinum, a Gold II, and Primo prime and zoom lenses. Morgenthau notes that although the production carried 4:1 and 11:1 zooms, Benton's directing style lent itself to shooting with primes. "Once we'd set the frame, he didn't want to change it and immediately punch in to a 200mm," says the cinematographer. "We only used close-ups when they were called for in terms of emotion."

The only set built by the production was the bedroom where Oscar (Hemingway) and Chloe (Alexa Davalos) consummate their nascent love. To light the room for the night scene, Morgenthau used "a series of 6K space lights going through frames and coming from above. They were all on dimmers so we could bring them up and down, depending on where we were in the room, and keep them off the walls.

"There's nothing like a tungsten filament dimmed down to create a warm color," he adds. "It has a really nice, undoctored look." This toplight approach often casts Oscar's eyes in shadow, subtly accentuating his reservations as he seeks Chloe's acceptance.

When working in practical locations, he continues, "I prefer to light scenes in ways that are, first of all, organic to the space. For instance, when sunlight comes through the windows on a day interior, it doesn't come in

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Benton and Morgenthau plot their next move. "The beauty of Kramer's work is that you see the film, you don't see the shot," says the director.

perfectly at eye level and blast everyone on the side of the face. It usually comes in at imperfect angles and bounces off a couch, creating fill, and then maybe just lights the person from the neck down with hard light. Of course, when it comes time to do a close-up, great care is taken in lighting the actor, but that, too, is based on this organic approach."

A favorite scene of both Benton and Morgenthau's shows Diana (Mitchell) and David (Billy Burke) lying in Diana's bed, having just made love. Morgenthau details, "The camera starts on her face and then begins to pull back. They're completely nude, and they're sitting in bed drinking wine. It's night, and the windows have sort of a cyan glow coming through, and then there's a hot streak that looks like it's coming from a fixture outside the house. That light hits the sheets, and that's what lights the actors. They're 2 or 3 stops down, and the sheets at that slice of light are 5 or 6 stops over."

Morgenthau created the hot streak with one of his workhorse units, a Source Four Leko, and used gelled 2K Baby Juniors to create the cool ambient light coming through the windows. "We shot that scene day for night, so the window was tented in," he reveals. "There were some other hot pieces of light coming through and hitting the curtains, and those were more Source Fours. If any ambience was needed in the room, we'd bounce a Source Four into the ceiling or off the floor just out of frame."

As the scene progresses, Diana reveals to David — who is married to another woman — that she intends to marry Bradley (Kinnear), and this news sparks a quarrel. The actors move about the room as they argue, drifting in and out of shadow, illuminated only by light bounced off various surfaces in the shot. "Kramer shifted gears in such a beautiful little way in the shooting of that scene," says Benton. "I thought it was extraordinary. The architecture of the cinematography in that scene is flawless."

Feast of Love was shot on two Fuji Eterna emulsions, 500T 8573 and 250D 8563, both of which Morgenthau rated at their recommended ISOs. Using the tungsten-balanced stock, he extended his day-for-night wizardry into a sunlit, open-air football stadium, turning it into a moonlit, intimate environment for two scenes that involve lovers intertwined on the field. To create nighttime ambience, Morgenthau eschewed an 85 filter and underexposed the negative by 2 stops. Additionally, he used "huge, white overheads and large blacks that would create tremendous amounts of contrast and give it an intense night feeling. I always kept things in shadow and tried pointing toward backgrounds that were dark versus backgrounds that had hot sun on them. When we did see the sun, we just played it as moonlight." The overheads, suspended by Condors and rolled onto the field, included a 20-by and a 40-by.

One of the production's most challenging locations was a coffeehouse that appears several times. Owned and operated by Bradley, "Jitters" was a redressed coffeehouse featuring two glass walls that offered a view of the neighborhood and the ever-shifting Portland weather. "It was kind of like shooting a day interior and a day exterior at the same time," says Morgenthau. "We were using hard gels on the windows, a couple of different varieties of ND.6 and .9 sandwiched together, and there were banks of Kino Flos everywhere in the ceiling. We also had 18Ks coming through the windows off of Condors, and we sometimes underslung those units so we could get them even closer to the frame. I wound up using the lights through the windows more than the lights from above, which were built in as fill that could be switched on as needed."

The production's footage was processed by Deluxe Laboratories in Hollywood, and over the course of the shoot Morgenthau was able to print select dailies. "The rest of the time we watched dailies off a hard drive on a hi-def monitor from Company 3," he notes. "Benton, the producers, and my camera department and I were there every night in the office, watching dailies together. It was a nice communal experience."

Morgenthau finished the film with a digital intermediate (DI) at Company 3, where he worked with colorist Siggy Ferstl. "I didn't radically alter [the image] in terms of color or contrast," he notes. "I was able to do some very subtle softening of the image, which is something you can't do in a photochemical lab; I actually added diffusion to the entire picture using some wizardry Siggy came up with." On set, Morgenthau almost always used a ⅛ or ¼ Schneider B&W Classic Soft filter on the lens.

Feast of Love marked Benton's first feature in the Super 35mm 2.40:1 format. Morgenthau notes, "He understood that the big screen was the canvas we were painting." Benton concludes, "The beauty of Kramer's work is that you see the film, you don't see the shot." ■

Erratum

In our August coverage of *1408* ("Ghost Writer," p. 54), we incorrectly identified the show's unit photographer as Melinda Sue Gordon, SMPSP. The unit photographer was actually David Appleby. However, most of the shots featured in our layout were frame grabs or photos provided by the show's cinematographer, Benoît Delhomme, AFC.

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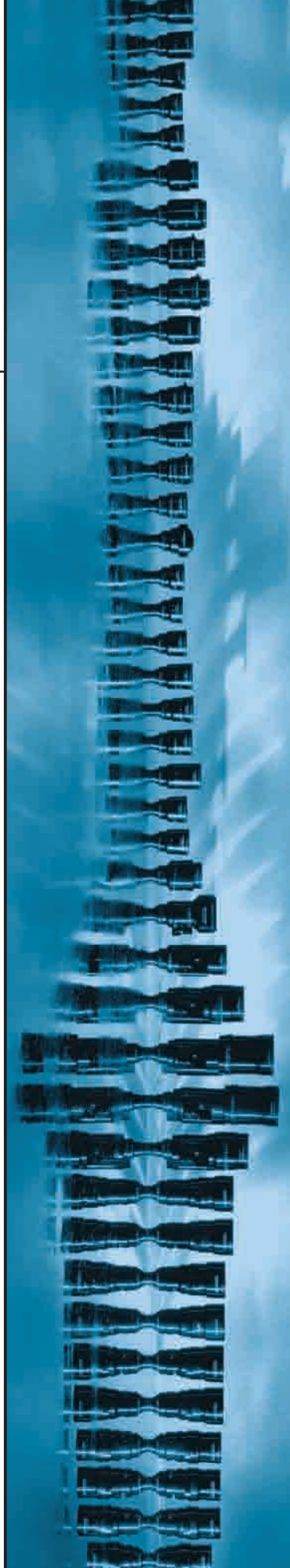

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Western Destinies

Roger Deakins, ASC, BSC explores the existential perils of the American West in *The Assassination of Jesse James by the Coward Robert Ford* and *No Country for Old Men.*

Interview by Stephen Pizzello and Jean Oppenheimer
Edited by Stephen Pizzello and Rachael K. Bosley

Unit photography by Kimberly French (*Jesse James*) and Richard Foreman (*No Country*)

Roger Deakins, ASC, BSC is not one to rest on his laurels. The five-time Academy Award nominee has two films currently in theaters (*The Assassination of Jesse James by the Coward Robert Ford* and *In the Valley of Elah*), one opening next month (*No Country for Old Men*), and another in postproduction (*Revolutionary Road*). When *AC* recently paid a visit to his Santa Monica home, he came straight from the airport, dropped his duffel bag in the foyer, and, despite having worked long hours on *Revolutionary Road,* proceeded to engage us in a lively and detailed discussion for two hours. After that, he drove to Hollywood with his wife, James, to attend a memorial service for his late colleague Laszlo Kovacs, ASC. The next day the couple flew to Germany, where Deakins began prepping his next feature, *The Reader*.

What follows are Deakins' thoughts about his first two forays into the Western genre: Andrew Dominik's *The Assassination of Jesse James*, a widescreen Western that takes maximum visual advantage of its period setting, and the Coen brothers' *No Country for Old Men*, a more contemporary story that reconfigures familiar Western motifs to build drama and suspense. *Jesse James* stars Brad Pitt as the famous outlaw, an American icon who seems destined to meet with a tragic end at the hands of Robert Ford (Casey Affleck), an ardent admirer keen to make a name for himself. Based on Ron Hansen's historical novel, the film combines a stately pace with stunning cinematography, resulting in an evocative, foreboding tone. *No Country,* on the other hand, is a hard-hitting drama from Joel and Ethan Coen, who removed their tongues from their cheeks to adapt Cormac McCarthy's novel about an existential showdown between laconic cowpoke Llewelyn Moss (Josh Brolin), who stumbles onto a bag of drug money, and sociopathic hit man Anton Chigurh (Javier Bardem), who tracks Moss with relentless resolve.

American Cinematographer: **Are you a fan of Westerns?**

Roger Deakins, ASC, BSC: Oh, yeah. I felt *No Country* was the nearest a contemporary film might come to a Peckinpah Western. *Pat Garrett & Billy the Kid* is one of my favorite films, along with *The Wild Bunch* and *Bring Me the Head of Alfredo Garcia*. Those movies are much more than the sum of their stories. They address many different themes, and I feel *Jesse James* and *No Country* are in that same vein.

There are also a few shots in *Jesse James* that call to mind the films of John Ford — frames within the widescreen frame that highlight specific visual elements.

Deakins: Andrew Dominik and I talked about that a lot, so I was always looking for those opportunities — tracking through doorways and using windows and other scenic elements to break up the wide frame. There are also a number of shots where we dolly past a character. I always used a dolly for those shots, because in general I don't like to use zoom lenses unless there's a very specific reason for it.

You shot both pictures in Super 35mm. Why did you choose that over anamorphic?

Deakins: I prefer Super 35 because it allows you to use short

Opposite: Iconic outlaw Jesse James (Brad Pitt) feels the hand of fate hovering over him in Andrew Dominik's *The Assassination of Jesse James by the Coward Robert Ford.* This page, top: In the Coens' *No Country for Old Men,* Llewelyn Moss (Josh Brolin, left) is pursued with dogged persistence by sociopathic hit man Anton Chigurh (Javier Bardem, right). Left: Roger Deakins, ASC, BSC (left) confers with Dominik while shooting *Jesse James.*

Photos courtesy of Warner Bros. (*Jesse James*) and Miramax Films (*No Country*).

Western Destinies

Right: Robert Ford (Casey Affleck) casts an apprehensive glance at Jesse as his idol and tormentor discovers an unpleasant news item in the morning paper. Below: As pressure mounts on Ford to kill James, the reluctant assassin confers with his anxious brother, Charley (Sam Rockwell).

focal-length lenses. I also like the scale of that format — the intimacy — and the texture of the film grain. In some cases I find anamorphic to be almost too clean, too grain-free and pristine.

***Jesse James* is a traditional period Western and *No Country* is set in the contemporary West, but the films seem to address similar themes.**

Deakins: That's interesting, actually. Andrew Dominik is a really meticulous guy, and he did a lot of research for *Jesse James*, which is based on a fantastic novel by Ron Hansen that's full of detail and really sets you in that world. Andrew was always saying, 'We're basically making a Victorian Western.' The West of Jesse James was *not* like most movies you see about that era. Times were changing, and things were becoming much more modern. *No Country* is thematically similar in some ways because it's also about the changing of the West. Sheriff Bell [played by Tommy Lee Jones] is kind of lost because the criminal world has changed so much beyond his imagination — he can't understand it anymore. I think there's a really good parallel between James and Bell, because neither can really function in the modern world. They're aging, they're thinking about death, and they're struggling to understand what's going on around them.

***Jesse James* was your first project with Dominik, whereas you've worked with the Coens many times. How different were your working relationships with the directors?**

Deakins: Very different. I've had a very long relationship with the Coens, so after prep we don't really

have to talk that much about day-to-day stuff. If we discuss anything, it's the order of the shots rather than the shots themselves. Once we set the camera up, either Joel or Ethan will offer his suggestions, but we basically already know how we're going to cover the scene. They storyboard everything, and they're very precise. As a result, I feel their films have a sort of picture-book style of presentation.

Andrew, on the other hand, spends a lot of time considering things before, during and after we shoot them. He really ponders and agonizes. [Laughs.] It was a much more intense way of getting to the point you want, and it was more about being instinctual on the day. That said, we did do a lot of planning for certain key shots.

What were your main locations?

Deakins: On *Jesse James* we shot mainly in Calgary, Edmonton and Winnipeg. The scouting was pretty intensive because the movie had a lot of variety in terms of locations. We also needed snow for certain scenes, and during the shoot we were always adjusting our schedule to accommodate that. We were after a very particular look, and some of these locations were miles and miles apart. For some of our city streets, the only places that really worked in Calgary and Edmonton were these historic towns that looked a bit like Disneyland pavilions. Those suited our purpose for certain interiors and small exteriors, but Andrew really wanted to create a sense of modern Victorian streets, and we had to go to Winnipeg for that. We also built a town up in the Rockies that stood in for Creede, Colorado, at the end of the film. It was tricky trying to find all of these locations in places that weren't necessarily ideal.

No Country was difficult in another way. We shot mostly around Santa Fe, New Mexico, not because the story was set there but because of the tax breaks. We used the little town of Las Vegas, which is east of Santa Fe, for most of the night scenes in town, but it was a struggle to find locations that would match places like Eagle Pass, Texas. We shot in Marfa, Texas, for a week just to establish a sense of the landscape. We really had to scratch around to find the right locations, because Santa Fe does not look like Texas.

Left: During a tense sequence in *No Country,* Moss holes up in a hotel room and arms himself while awaiting the inevitable arrival of the relentless Chigurh. The warm source lighting of the bedside lamp lends the scene an ominous feel. Below: In *Jesse James,* a warm lamp provides a more romantic ambience as a member of the James gang, Dick Liddil (Paul Schneider), attempts to seduce a cohort's stepmother (Kailin See).

***Jesse James* opens with a train robbery that takes place in a wooded area that seems to be lit almost entirely by a light on the front of the train and lanterns held by the characters. How did you approach that sequence?**

Deakins: We shot that in Edmonton in this preserved town where they had a little loop railway and a small train. Andrew actually wanted to ship in a much bigger train, but the cost was prohibitive. We kept trying to reassure him that we could do things photographically that would give the train more of a presence. Andrew kept calling it 'Thomas the Tank Engine,' and when you saw it in broad daylight, it did look pretty puny! Now, though, he thinks it looks great.

When you're dealing with that kind of period situation, the first thing you think of is the technical

Right: After blockading the path of an oncoming train, Jesse prepares to launch an ambush with his gang. Lighting for the scene was provided mostly by a 5K Par mounted on the front of the train and specially rigged lanterns held by the actors. Below: Jesse emerges from a cloud of steam with his six-guns at the ready. The extra atmosphere was provided by a steam generator attached to the train.

challenge of lighting everything. The train robbery had to look as if it were really lit just with lanterns. Of course, if you look closely at the shots, they're totally unrealistic because there's much too much light! Nevertheless, our approach worked pretty well. Andrew kept pushing for darkness, and, of course, if you haven't worked with a director before, you wonder what he means by 'dark.' In this wooded area where the James gang was waiting to ambush the train, I'd positioned some lights on Condors to rake through the trees so you'd get some sense of the trees before the train came. But about an hour before we started shooting, I decided to turn them off, and instead we just pumped some atmosphere into the area. Luckily there wasn't much of a wind, so we could maintain a low level of smoke hanging in the air and just let the light on the front of the train provide the general ambience. We shot the arrival of the train without any rehearsal, but it worked out just great. The only light in the whole scene is coming from either the train or the lanterns the outlaws are holding. The lanterns were dummied with 300- or 500-watt bulbs. Sometimes I'd keep the flame and put the bulbs behind the flame, dimmed way down. We positioned little pieces of foil between the bulb and the flame so all the camera would see was the little flame. At other times during the robbery, we just had bulbs in the lanterns — two bulbs side by side, dimmed down and sometimes flickering very gently. To augment the lanterns for close-up shots, I occasionally used a warmed-up Tweenie bounced off a gold stippled reflector.

The light on the front of the train stretched credibility, really. They did have lights on the front of trains back then, but they wouldn't have been as strong as the 5K Par we used! We also had some gag lights underneath the train — little bare bulbs dimmed down — to light the steam and create the effect of this fiery red glow beneath the train. We had a special-effects rig on the train that

would create sparks as it started braking. There's one shot where the train is coming toward you and seems to hit the camera and carry it down the tracks; on the tracks, we set up a camera-platform rig with a big, soft buffer, and the train actually hit the platform and started pushing it along. In that particular shot, you can really see the warm glow of the bulbs underneath the engine. We also positioned a little silver reflector that caught some of the bounce from the 5K on the train, just to create some reflected light that would reveal the front of the train — otherwise, there was nothing else to illuminate it. We had a steam generator on the train so that when it stopped, we got this big cloud of steam that Jesse disappears into.

The rest of the sequence, including the interior scenes, was basically lit with dummied lanterns with bare bulbs inside. Inside the train, all the oil lamps had little tin hats on top of them; inside those were pieces of silver foil and a ring of five 300-watt bulbs dimmed down with flicker generators. Those read really well onscreen, but if you looked closely at the actual lamp it wouldn't make sense, because the light was coming from the tin hat and not from the lamp itself. I chose those in collaboration with the art department because I knew Andrew wanted to do a constant move through the train with Frank James [played by Sam Shepard].

The only time we used conventional film lights in that sequence was when we were running with the outlaws down the hill toward the train. The robbers are supposed to look as if they're being lit by the light at the front of the train, and I think we used a 10K bounced off a white card to create that sort of effect amid the steam. When we finally show the train carriage, you can see the passengers amid this golden light coming through the windows. That light was provided by 175-watt mushroom bulbs mounted on 10-foot strips positioned all the way down the interior ceiling of the train carriage. We could rely on our dummy lanterns when we were inside the train, but when we shot that exterior we had to really project the light out into the atmosphere.

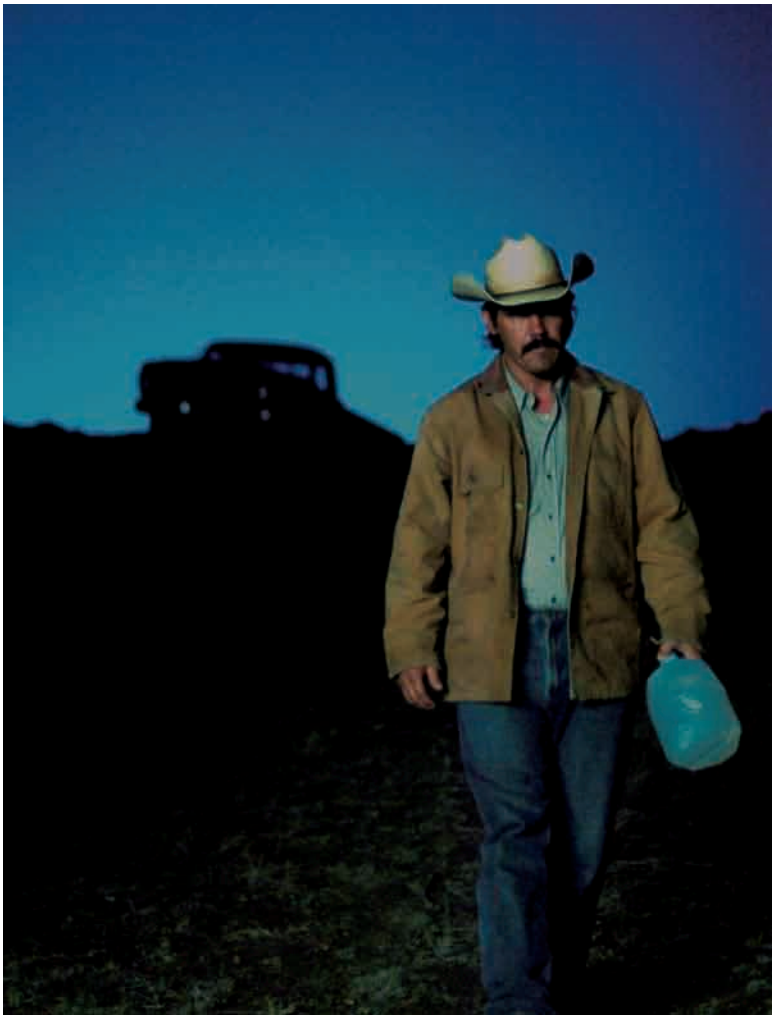
That shot of the passengers was inspired by one of Andrew's photographic references, and I think it's one of the most successful shots in the film. When we were doing it, though, it filled me with dread, because I was concerned that the light would just burn out the passengers and it would end up looking silly.

The opening scenes of *No Country* provide an interesting contrast, because you were dealing with a large desert basin that was lit partially by the lights of modern pickup trucks.

Deakins: That was kind of frustrating, because that whole sequence — when Moss [Josh Brolin] goes back to a crime scene at night and is pursued by drug dealers — had to go from night through dawn and then into full daylight. I wracked my brain about how to do that, because the area we were filming

Above: Members of the James gang use weapons to announce their intentions. The golden light seen through the train windows was generated by strips of mushroom lights mounted on the ceiling of the carriage interior. Below: Prior to the robbery, Jesse bonds with accomplices Wood Hite (Jeremy Renner, left) and Charley Ford.

Right: Moss treks back to his pickup truck after discovering $2 million at the site of a drug deal gone wrong. Below: Troubled by his conscience after abandoning the crime scene's sole survivor, Moss heads back at dawn to give the man some water — an act of kindness that proves to be his undoing. To emulate a dawn look beyond the rise, Deakins aimed eight 18Ks into the sky.



in was a half-mile square in this big, dusty basin. I couldn't see any way around it other than to use a big wash of light on top of the escarpment above the location, so I put three Musco lights up there to create a moonlight effect. I didn't want to do it, but I didn't see any other possibility. After we set up the Muscos, I knew we needed more of them, but I was lucky to get the three.

To try to make the transition to dawn, we picked out a rise where Moss parks his truck; when the drug dealers come back, they park their truck in the same spot with their headlights on. We tried to make the transition to dawn by lighting behind the trucks, as though the sun was starting to come up beyond the rise. We got about eight 18Ks and literally just shot them up into the air to light the sky while flagging them off everything else. Those basically lit the dust in the air and created a very faint glow behind the trucks.

Where I came unstuck was that the actual spot where the sun rose each day was just to the left of the rise, and when we later did the main shot of Moss running away, it was a cloudy morning. That was *so* disap-

After returning to the crime scene, Moss is spotted by a pair of drug dealers who attempt to gun him down. Deakins was frustrated by the area's cloudy weather, which didn't allow his simulated dawn to mesh seamlessly with the real dawn.

pointing, because if it had been a clear morning I think the lighting I'd done and the actual dawn would have meshed pretty well. As it is, you see the dawn coming up for real and then my fake dawn in front of some clouds! That really upsets me, but we only had two days to shoot the whole sequence, so we couldn't just go back there and do it over the next day.

A number of shots in *Jesse James* have a sort of dreamlike vignetting at the edges of the frame. How did you achieve that effect?

Deakins: That was done entirely in camera with lenses that are now called 'Deakinizers.' I used to use this gag where I put a small lens element in front of a 50mm to get a similar effect. I went to Otto Nemenz and asked how we could create that effect in a better way, with more flexibility and lens length. The lens technician suggested taking the front element off a 9.8 Kinoptic, and also mounting the glass from old wide-angle lenses to the front of a couple of Arri Macros. Otto now rents out three Deakinizers. Removing the front element makes the lens faster, and it also gives you this wonderful vignetting and slight color diffraction around the edges. We used different lenses, so some were more extreme or slightly longer than others. Sometimes we used [Kardan] Shift & Tilt lenses to get a similar effect.

Most of those shots were used for transitional moments, and the idea was to create the feeling of an old-time camera. We weren't trying to be nostalgic, but we wanted those shots to be evocative. The idea sprang from an old photograph Andrew liked, and we did a lot of tests to mimic the look of the photo. Andrew had a whole lot of photographic references for the look of the movie, mainly the work of still photographers, but also images clipped from magazines, stills from *Days of Heaven,* and even Polaroids taken on location that looked interesting or unusual. He hung all of them up in the long corridor of the production office. That was a wonderful idea, because every day we'd all pass by [images] that immediately conveyed the tone of the movie he wanted to make.

Did you contribute some specific ideas about the palette of the movie's sets or costumes in your discussions with those departments?

Deakins: I thought quite a lot about Jesse's costumes and certain settings in terms of how everything was going to read onscreen. I did a slight bleach bypass on the negative to enhance the blacks, so those considerations were important in terms of rendering detail. Andrew had very specific ideas about the blackness of the costumes against the snow.

In the night scene where Jesse shoots Ed Miller [Garret Dillahunt], Andrew wanted them to be riding black horses, but I told him that was going to be really tough at night. In that type of situation, you don't want to see too much of the landscape, so I basically lit up these little white trees to provide some sense of the background. Andrew really just wanted to show the characters as disembodied heads floating in blackness, but I knew it would be really hard to hold those details with the characters moving over a long distance. I lit that scene with a line of 10Ks positioned about 400 feet away from where we were shooting, with a bottom cut to keep the spill off the ground. I suppose moonlight would be the

Western Destinies

Right: Crewmembers set up a crane shot on a set depicting a street in St. Joseph, Missouri. Jesse's house sits atop the hill at left. Below: The crew prepares an Aerocrane for Deakins. The cinematographer notes, "I've been using the Aerocrane a hell of a lot for 10 years or so, because I find it to be an incredibly versatile way to move the camera."

justification for that source. Andrew wanted a very particular, silvery look for night scenes, so it wasn't realistic in that sense. That was one scene where the digital intermediate [DI] really came in handy, because I could use Power Windows on the horses to bring them up a bit, and on the actors' faces to take them down some. If you're trying to track a man on a horse for 200 feet, he'll get brighter and brighter as he approaches the light unless the source is a mile away, and that just wasn't feasible. But in the DI, I could compensate.

Throughout *Jesse James*, the camera is moving in interesting ways. What kinds of camera-motion systems did you use on the show?

Deakins: The preamble to the train-robbery sequence, when Robert Ford first meets Jesse and his gang at a campsite in the woods, begins with a long Steadicam move that starts on Ford's feet. He sits down to introduce himself, but they all get up and leave him sitting there. The camera then tracks around Ford to show the gang behind him, and that move was done with a little Aerocrane with a remote head. I've been using the Aerocrane a hell of a lot for 10 years or so, because I find it to be an incredibly versatile way to move the camera; it's like a 14-foot sectional jib arm with a PowerPod remote head. Another part of that whole scene is a dialogue in the woods between Charley Ford [Sam Rockwell] and other members of the gang. That was mostly improvised as a way to introduce some of the characters. We had to get all of the shots pretty quickly before the sun went down, so I just did it all handheld.

There are some really nice time-lapse shots of the sky and clouds throughout *Jesse James*. Who shot that footage?

Deakins: Our Steadicam operator, a Canadian named Damon Moreau. When we didn't have any Steadicam stuff for him to do, or if we were waiting for Andrew to get the actors ready, we would send him off to shoot some time-lapse footage. It was looking really great, so we had

Left: After a falling out between gang members, Liddil draws a bead on his former friend, Hite. Below: Hite gains the upper hand. Due to the limited daylight in Canada during the winter, scenes set in this house had to be shot in a studio, which led Deakins to blow out the windows with a combination of 2K Blondes and diffusion panels.

him do more and more of it. He got some wonderful stuff, including these patterns of light on the floor of the James house after Jesse and his family move out; the flickering effect was created by the time-lapse of the sun going through trees or behind clouds.

In some of the interior scenes in *Jesse James*, you let the windows blow out and go white. Was that a stylistic decision or a more practical choice?

Deakins: That was both a practical problem and a creative choice. We built the houses on location so we could shoot everything on location, but that proved to be impractical in some cases, because the restricted daylight in Canada during the winter was just too ridiculous. Scenes in the house where Wood Hite [Jeremy Renner] is killed ultimately had to be done in a studio. We had big circular panels of diffusion outside every window and aimed a group of 2K Blondes at each window from about 20 feet away.

When we were downstairs in our studio house, I tried to create a feeling of the landscape and the snow outside the windows by positioning black flags slightly beyond the windows and keeping them out of focus to create the line of a hill. There's not a lot you can do in those kinds of situations. The blown-out windows ended up being part of the look of the film, because I did that even on some of our location sets. At the house in St. Joseph where Jesse is killed, you do see a bit of the landscape outside the windows, but they're mostly blown out. It's a good thing we'd been doing that, because one day there was 2 feet of snow outside the windows that didn't really match the rest of the scene!

In other scenes, we made use of the old-fashioned glass in various

The governor of Missouri, Thomas Crittenden (James Carville), addresses a gathering of citizens and supporters in a hotel ballroom. To augment the real fixtures and candles, Deakins suspended two lightweight ring-lights from the ceiling over the governor's table and the bandstand.

windows to create distorted views. Old glass has a kind of wavy texture, and it just seemed very evocative in some way. [Laughs.] There's one nice shot where we're craning up outside a window and the glass is kind of wobbling in front of Jesse's face. We also used the glass to create patterns on the walls for a scene in which Jesse wakes Charley to have a nighttime chat with him. I lit that scene with 1Ks, and I removed the lenses from the lamps to create a really sharp, pinpoint source. When you put that kind of source through a window, you'll get the pattern of the glass on the background.

Was it tricky balancing the film's interiors and exteriors? There are a number of shots where you can see the exteriors through the doorways of relatively low-key dwellings.

Deakins: The hardest shot was when Jesse arrives on horseback at Ed Miller's cabin, where they have this really eerie conversation. The cabin was built on location, and it was supposed to be an exterior scene, but the day we turned up there was 2 feet of snow outside. We discussed whether we could clear enough snow up to the horizon so we could shoot Jesse's arrival through the door. Well, the horizon was about a quarter-mile away, so that would have taken a week! It was absolutely freezing, -20 degrees, and we ended up shooting only part of their conversation before packing it in. Weeks later we put the cabin inside a warehouse, and I had the set painter create a 20-by canvas with a little bit of a horizon line so we could shoot the rest of the dialogue onstage, trying to match what we'd done on location. We left the door of the stage open to keep the set cold, because we had to be able to see their breath! I'm amazed that scene works so well, because it was cobbled together over two different days of location shooting and an additional day onstage in the warehouse.

There's a major interior scene late in *Jesse James* when Ford attends an event hosted by the governor. How did you light the ballroom where that scene takes place?

Deakins: The ballroom was actually a restaurant in a hotel, and it was a very big space. I couldn't really rig much there, but they did let me put up a couple of lightweight ring-light rigs that I could hang from the ceiling. Those are basically concentric rings of household bulbs controlled by a dimmer. I hung the larger one over the governor's table; that rig had a 10-foot ring of about 20 40-watt bulbs; an 8-foot ring with 60-watt bulbs; a 6-foot ring of 75-watt bulbs; and an inner ring with 100-watt bulbs. I also hung a smaller version of that rig off toward where the band was playing. It's a quick, simple technique I use to create a big soft light when I don't have any ceiling height. The rest of the lighting for that scene was provided by the little globe lights you see above the tables. For close-ups, I might've bounced a light off a piece of card.

Two scenes late in the film involve dramatic reflections. Just before Ford shoots James, the outlaw notices Ford's reflection in the painting he's dusting; in a subsequent scene where James' corpse is on public display, the body is

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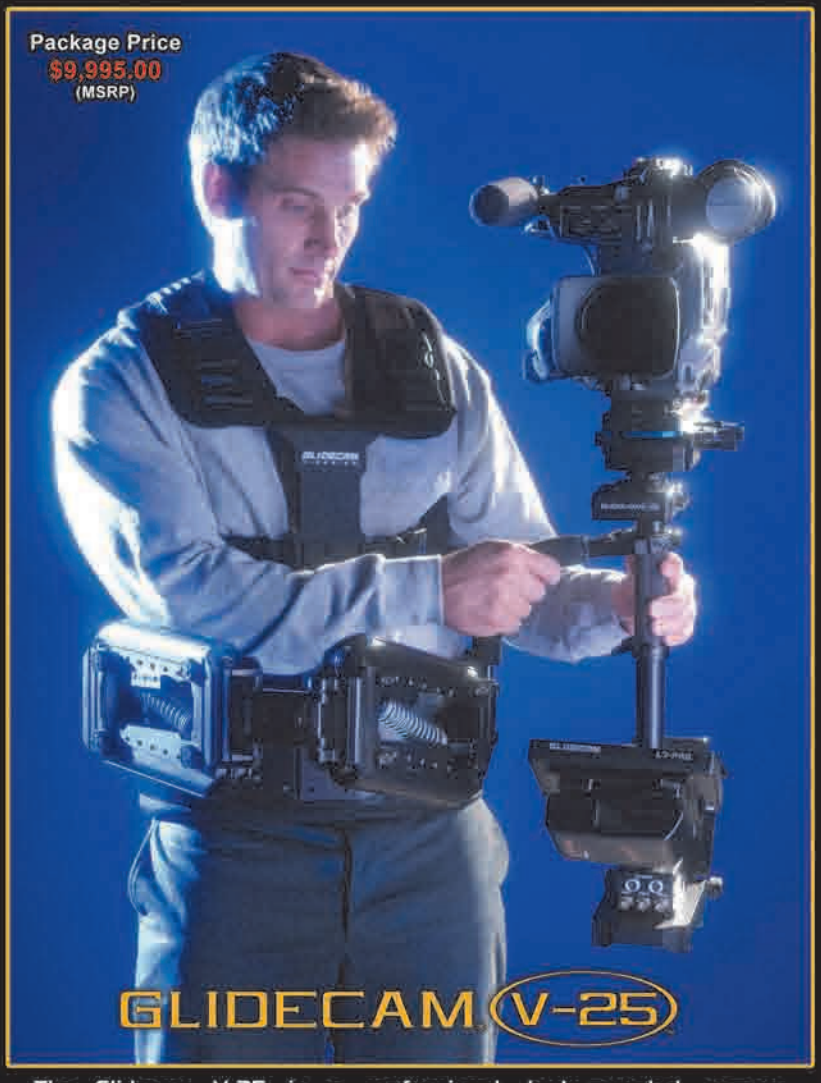

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Right: After Bob kills Jesse, he and Charley go on tour with a stage show to re-create the infamous incident night after night for paying crowds. Most of the lighting for the stage was generated by bare bulbs serving as footlights. Below: Bob takes aim at his brother for the umpteenth time.

reflected in a photographer's lens. What did you do to make those shots so sharp?

Deakins: Both of those were just opportunities we noticed on the day. The shot of the corpse was storyboarded as a wide shot followed by a close-up of Jesse's body being lifted into the frame. But when I noticed the reflection in the lens, I realized we could just track into it. People might think that shot is a CG effect, but it isn't. We just built up the light level in the room to get the reflection. It was the same for the scene where Jesse is killed. The clear implication is that Jesse knows what's coming, which makes his death a form of suicide.

After Ford kills Jesse, he and his brother go on tour with a theatrical show where they re-create the assassination again and again. How did you approach the lighting for those stage scenes?

Deakins: That was done in a real theater in Winnipeg. The set was built with the light fixtures included, but I never got a chance to see the set before we got there to shoot. We were in the middle of the schedule, and we flew there on a Sunday and started shooting on Monday. I basically had one evening to take a look at it and have a talk with the designer. To me, the most important aspect of that scene was the footlights. Andrew had a very specific scene in mind where we would start on stage looking right at the footlights, which are so bright you don't see the audience at first. The footlights were probably just 150-watt bare bulbs. I must mention that our Canadian gaffer, Martin Keough, was a real help in those situations. He seemed quite young, but when I interviewed him, I liked him,

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Right: Initially hailed as a hero, Ford sees his name and reputation slowly turn to mud. His low point arrives one night in a bar, where, unrecognized by the other patrons, he must endure the humiliating lyrics sung by a strolling troubadour (played by real-life rocker Nick Cave, with guitar in the deep background). Below: After coming to terms with history's verdict, Ford opens a saloon, but he can't outrun Jesse's vengeful admirers.

and I just hired him on a hunch. He was as good a gaffer as I've ever worked with, and the key grip, Rick Schmidt, was equally so. They were just brilliant. Lighting *Jesse James* was quite tricky because of all the practical work and the need to create that firelit feel without it looking fake.

Through much of *No Country,* Moss is holed up in motel rooms, but you managed to create a lot of suspense through your lighting.

Deakins: The lobby of the big hotel was a location in Las Vegas, New Mexico, and we shot those scenes at magic hour to get the feeling of dusk outside. The hotel room itself was a set because we had so many specific shots to do there. Inside that room, I wanted the feeling of the streetlights coming through the windows so that when Moss turned off his bedside lamp, we'd get this reddish sodium light coming through the windows. Then we had white light under the door so we could show Chigurh's shadow creeping down the hallway toward the door. The shot of Moss diving out the window was done on a set, but the shot of him landing in the street was done on location.

During the big shootout that follows, Chigurh seems like an invisible force, because you never really get a clear look at him.

Deakins: In the book, Chigurh is the personification of evil, and it's implied that he's almost like a ghost. So throughout the film, we wanted to make him a very shadowy or indistinct figure. When you first see him, he's been arrested and is sitting in a police station in handcuffs while a deputy is on the phone in the foreground. Chigurh is just a soft-focus shape behind him, but you can see him starting to wriggle out of the handcuffs.

The big shootout was pretty complicated. We had small rigs of four or five 1Ks bunched up on rooftops, and we had little gag lights on streetlights to create more defined pools of light. I stuck with the orange-sodium look for that chase because I wanted it to feel pretty grim.

There's also some interesting lighting in the subsequent scene, where Moss crosses the border into Mexico and dumps the money off a bridge.

Deakins: That was one of the trickiest setups in the movie because it was staged at a freeway crossing. The art department put in the border

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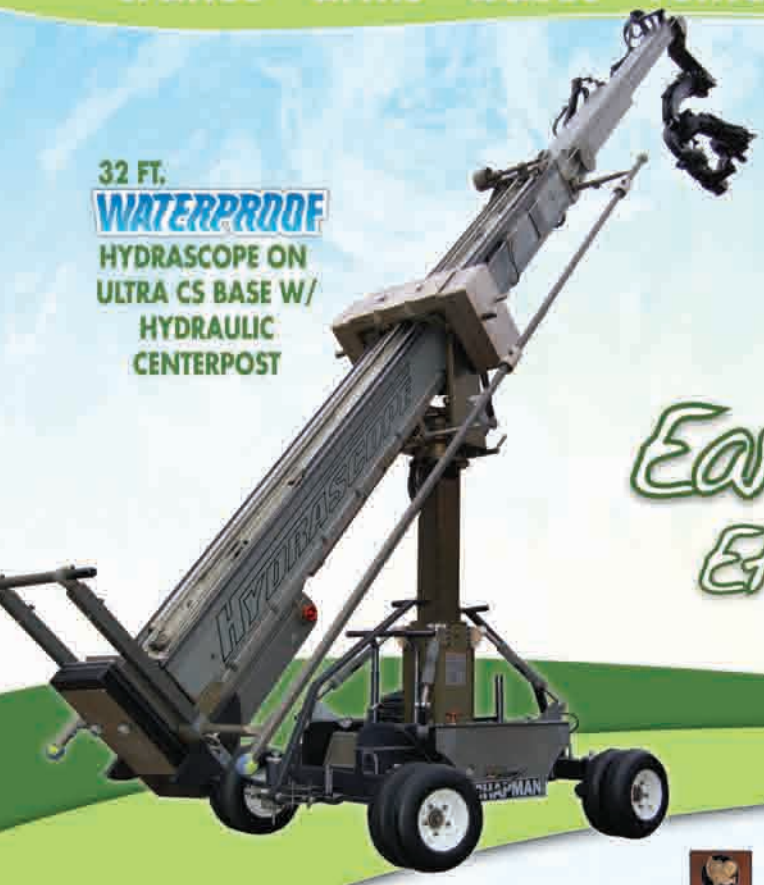

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posts. I wanted the American side to have blue light, so we changed out all the streetlights. We lit the border post with Cool White fluorescents. For the main action on the Mexican side, I wanted more garish colors. When Moss stops to talk to those three kids, you can see colorful light coming up from below the bridge, as if there's a street down below. I enjoyed playing with the colors because the lighting for the preceding shootout consisted entirely of orange-sodium light.

You finished both of these pictures with DIs at EFilm. What kinds of enhancements did you make in post?

Deakins: We did a bleach bypass on the negative for *Jesse James*, so part of the DI work on that film, which was done at 4K, was to counteract the harshness of that process in some scenes. But mostly I was using the process to balance things out, change the contrast a bit, and help things match for day exteriors. For instance, the campsite you see just before the train robbery in *Jesse James* was shot in one location with low sunlight, but the scene between Bob Ford and Frank James by the train tracks was done somewhere else at a completely different time. It was a really gray day, and although Andrew liked the fact that it looked a bit different, we couldn't keep the two looks *that* far apart. Also, one scene was shot earlier in the schedule, so the leaves were much greener.

The most involved scene in *No Country* was the whole night-into-dawn exterior we discussed earlier. The DI was invaluable for that, especially for a bit involving a dog paddling down the river after Moss. One shot would be cloudy and the next would be in clean morning light, with reflections on the water. In the DI, I could use a Power Window to add a little highlight in the sky to create the impression that the sky was brighter and was reflecting in the water.

JESSE JAMES TECHNICAL SPECS

2.40:1
Super 35mm

Arri 535B, Arricam Lite

Cooke S4s; Arri Macros; Kinoptic 9.8mm; Kardan Shift & Tilt lenses

Kodak Vision2 500T 5218, 200T 5217, 100T 5212

Bleach Bypass by Deluxe Laboratories

Digital Intermediate

Printed on Fuji Eterna-CP 3513DI

Before we started shooting *Jesse James,* I knew I probably wouldn't be available to do the DI, so I shot a lot of test references that my timer, Mike Hatzer, could use to balance the film before I got to do it. I have to say, EFilm was fantastic. I was shooting [*Revolutionary Road*] in Connecticut, and they actually set up a whole system there so I could do the DI on evenings and weekends. At the same time, I was also timing *In the Valley of Elah* the same way, and last weekend I came back to L.A. to do the final grading of both films at EFilm with the directors. The downside of the DI is that you really need to be present when the work is being done. There are so many variables you can't just leave it to others.

Did you screen dailies on both pictures?

Deakins: I didn't really get to see much in the way of dailies on either film, just the odd shot. I got three or four shots printed every day, one take, and I'd watch them on an Arri LocPro. On *No Country,* I set up the LocPro in the boardroom of our hotel, and when I got back in the evening I'd just spin through those few shots from the day before. For the first time, the Coens didn't watch [film] dailies at all; they watched the scenes in HD. I just couldn't do that; HD dailies put me off because they look so flat. It was the same with *Jesse James*. Andrew would sometimes catch up on a few scenes with me, but he mainly watched footage on HD tape.

We understand Emmanuel Lubezki [ASC, AMC] is shooting the Coens' next film. Are you taking a break from the collaboration, or was it just a scheduling conflict?

Deakins: I was committed to *Revolutionary Road,* and now I'm heading to Germany to do *The Reader.* I knew when the boys would be shooting, and I just wanted to work a bit earlier than they were starting. They're in good hands with Chivo, though. I'm sure they'll be fine! ■

NO COUNTRY TECHNICAL SPECS

2.40:1
Super 35mm

Arri 535B, Arricam Lite

Arri Master Primes; Cooke S4s; Arri Macro lenses

Kodak Vision2
500T 5218, 200T 5217, 100T 5212

Digital Intermediate

Printed on Kodak Vision 2383

Emotional Betrayal

Rodrigo Prieto, ASC, AMC reteams with director Ang Lee on *Lust, Caution,* a period drama set in Hong Kong and Shanghai.

by Patricia Thomson

Unit photography by Chan Kam Chuen

Two years after encamping in the Canadian Rockies to film *Brokeback Mountain* (see *AC* Jan. '06), Rodrigo Prieto, ASC, AMC, headed halfway around the world to rejoin director Ang Lee for their second collaboration, the World War II espionage drama *Lust, Caution*. Based on a short story by Eileen Chang, the film is set in Hong Kong and Shanghai during the Japanese occupation. With this picture, Lee's first in China since *Crouching Tiger, Hidden Dragon* (*AC* Jan. '01), the chameleonic

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Opposite: An affair between a college student, Chia Chih (Tang Wei), and a high-ranking bureaucrat, Mr. Yee (Tony Leung), is not quite what it seems in *Lust, Caution*. This page, top: In her effort to get close to Yee, Chia Chih works her way into the good graces of his wife (Joan Chen). Below: Cinematographer Rodrigo Prieto, ASC, AMC points the way on the Nanking Road set at Shanghai Studios.

director tackles yet another genre: film noir.

The screenplay expands upon Chang's 28-page story, dramatizing the backstory of its main character, Chia Chih Wong (played by Tang Wei). While attending Hong Kong University, she is recruited to join a student theater group and blossoms as an actress. Eventually the students' anti-Japanese productions morph into plans for more drastic action: murdering a member of the puppet government, security minister Mr. Yee (Tony Leung). The bait will be Chia Chih, who is instructed to befriend Mrs. Yee (Joan Chen) and seduce her sinister husband.

When the Yees suddenly move to Japanese-occupied Shanghai, however, the plan falls apart — but only for a time. Soon the students regroup on the mainland and are taken in by the resistance, who properly train Chia Chih for her role as a femme fatale. She plays this part to perfection, ensnaring the cautious but susceptible security chief in a sexual relationship. Her instructions are to maneuver Yee into a situation where he can be assassinated.

According to Prieto, *Lust, Caution* was more complicated than *Brokeback Mountain* in every respect. "*Brokeback* was almost like therapy for Ang, who'd just done *Hulk* and *Crouching Tiger*," says the cinematographer, who earned an Academy Award nomination for his work on *Brokeback*. "He wanted to scale down and do something more intimate and simple." As Lee recalls, "I decided I was not going to get angry or frustrated, I was just going to learn to love moviemaking again. So [*Brokeback*] was done with a minimum — great acting and shot very simply, almost like my first movie. On *Lust, Caution*, I got ambitious again." The shoot, which lasted five months, was "very intense," adds the director. "The style is very different — more genre-aware, yet at the same time more controlled and more delicate."

Photos courtesy of Focus Features.

Emotional Betrayal

Chia Chih and Mrs. Yee join some friends for another game of mahjong. Scenes such as this called for some of the film's subtlest lighting effects: picking up and enhancing the women's flashing jewels as they caught the light during the game.

Prieto falls back on a Chinese saying to describe the production: "Ang wanted us to be like ducks paddling in the water: it seems very pleasant and easy, just gliding along, but underneath the surface the duck's feet are paddling hard. Ang wanted the film to look unburdened; he didn't want the hard work to be apparent. But there certainly was a lot of paddling underneath! Ang is meticulous and scrupulous about everything, and it all has to be just so. To get there takes a lot of work, but we hope it doesn't show."

Shooting in Malaysia, Hong Kong and Shanghai, Prieto had a top-notch Hong Kong crew. Many had worked with Lee previously, and some were directors of photography in their own right, such as gaffer Ng Man-Ching and focus puller Kenny Lam Ping Wah. Dolly grip Louis Jong Chi Leung, well acquainted with Lee's precise ways, was "always ready with his tape measure," says Prieto. "His moves were just perfect." Though his immediate crew spoke English, others did not, so Prieto's right-hand man and translator, Billy Yung Ka Lok, was "an indispensable part of my group."

Chinese working methods took some getting used to. "The structure of work in China is very different," says Prieto. "The hierarchy is much stronger, so whatever Ang desired would happen no matter what! Strangely enough, it felt like working with a crew in Mexico, in that you don't have all the tools, but your crew will do *anything*. Sometimes it can get tricky and dangerous. If you want to adjust a light but don't have a Condor or lift, someone will climb a wall or get a rickety ladder. I'd say, 'Hey, you're going to fall!' And they'd say, 'No, Hong Kong-style!' I had to turn away several times because I just got too nervous, but they were truly amazing and completely committed."

The filmmakers' goal was to create a modern-day revision of film noir. "The subject matter is obviously noir-ish — intentions are hidden," says Prieto, who nevertheless decided against using hard light and sharp shadows. "In the end, I mostly went with a softer lighting style, creating contrast by controlling and manipulating soft light. We decided to represent the hiding theme with focus rather than shadows; we tended to use very shallow depth of field. One of the reasons we picked Arri Master Primes was so we could work at T1.3 for certain scenes. We also sometimes used clashing colors in the lighting to add dramatic tension."

Prieto's visual references were not film-noir classics, but rather paintings. Two key sources were the book *Northern Lights*, on Denmark's Skagen school of landscape painting, and the illustrations of Maxfield Parrish. In both cases, he says, "we took the color, that magic-hour contrast of golden light with blue-purple light. That combination became an important theme for our main

Unable to sleep one night, Chia Chih walks into another room in Yee's home and finds him burning some documents. This is one scene where Prieto used a source dubbed the "Killer Pizza Light" — red, yellow and white Christmas lights secured to a cardboard square with transparent plastic. "For this scene, the Pizza Light was hidden behind the desk along with a cluster of 12 100-watt lightbulbs on dimmers gelled with different degrees of CTO and Straw to create a flickering fire effect," says Prieto. "Later, when the fire dies down, the embers' light was created with the Pizza Light and the ½-stop-underexposed top ambient light — which Ang [Lee] called 'Ambionic Light' and I called 'No-Light Lighting' — provided by 10 2K Blondes through two 12'x12' frames of Full Grid with Lighttools Soft Egg Crate over the set, teased off the walls with black material. The lights are off during the scene, and we wanted to represent the darkness of the encounter. I pushed the Fuji 500T one stop, rating it at ISO 1000; got an incident reading of 1.0 from the toplight; and set the lens to T1.3, so the set was quite dark indeed!"

character, and it also created one of my biggest challenges, because that look had to be maintained outdoors for two weeks when we shot the film's climax."

Another inspiration was Henri Rousseau's jungle paintings. These established the palette in Hong Kong, which Lee describes as "tropical, wet and colorful." By contrast, Shanghai features mixed, desaturated colors, conveying a sense of lost innocence and disillusionment. Prieto elaborates, "Hong Kong's color palette consisted of blues, greens, cyans and a touch of red, mostly in the bougainvilleas." Shanghai has two looks, beginning with a drab, monochromatic palette (achieved through costumes and production design), and progressing to a more colorful look as Chia Chih infiltrates the Yees' privileged world. "Ang wanted [the colors] to look less designed in Shanghai than they do in Hong Kong, so it's a little more haphazard," says Prieto. "We wanted to contrast the decadence of the Yees' lifestyle with the war-torn city where they live."

Prieto used Kodak and Fuji film stocks to underscore the cities' visual differences. For day scenes set in Hong Kong, he used Kodak Vision2 200T 5217. For night scenes in Hong Kong and all scenes in Shanghai, he used Fuji Eterna 500T 8573. "Fuji captured all those blues and greens very well," he notes. "Kodak's 5217 is harder, maybe a little more contrasty, but it felt a bit more innocent — pristine, direct and unfiltered. Fuji, being a little softer with slightly more grain, felt a little more decadent. That softness also worked well with the shallow depth of field."

Prior to *Lust, Caution*, Prieto had used Arri Master Primes just once, for a nighttime desert scene in *Babel* that was lit with a single flashlight (*AC* Nov. '06). At that time, the lenses were just hitting the market, and he couldn't get a complete set. This time, he planned to use them for the entire movie "so we could work wide open, and also for contrast." But when the team viewed the first set of film dailies, they realized the lenses were a bit too sharp. "[Production designer] Lai Pan said, 'These lenses are designed for the scientific photography of ants!'" Prieto recalls with a laugh. So despite his general antipathy toward diffusion, he added a ¼ or ½ Tiffen Black Diffusion FX filter to the lens throughout the shoot.

Lust, Caution was filmed in the standard 1.85:1 format, and Prieto always had two cameras on hand, an Arricam Studio and Lite. His lenses stayed mostly in the mid-range: 27mm for wide shots; 40mm, 50mm and occasionally 32mm for medium; and 75mm for close-ups. "We'd use a 50mm if we wanted a close-up to be more intense or uncomfortable, moving in closer with the camera," says Prieto. "We only used longer lenses for some of Chia Chih's points of view when she's paranoid and feeling she's being followed on Nanking Road.

Emotional Betrayal

Above: The crew prepares to film Chia Chih and her friends on a tram using a Pegasus Crane and PowerPod remote head. "This shows some of the lighting for the tram scene," says Prieto. "The 24K on a 100-foot Condor in the background is gelled with ½ CTB and ¼ Plus Green for our 'moonlight.' On another Condor is a Blanket Light rigged as toplight, reproducing a streetlamp." Right: Prieto and director Ang Lee fine-tune their approach.

For that, I used the Angenieux Optimo zoom at 290mm focal length."

An important part of the lighting design was the mixing of colored lights and color temperatures. "Compared to other films I've done, the lighting in this movie is more deliberate, more designed, but I still wanted it to be unobtrusive — like the duck paddling," says Prieto. "Chia Chih and the students are actors, so I felt I could allow myself to be a little more artificial with lighting, in the sense that all this is like her stage. But any lighting we used was usually justified with a source."

One example of a subtly stylized lighting scheme is the third sexual encounter between Chia Chih and Yee. It follows a scene in which he reveals himself to be a torturer and admits he sometimes imagines her face in his victim's. The sex that follows is "an intense combination of

death and passion and lust," says Prieto. In discussing the scene, Lee had shown him an erotic Tibetan *thangka* painting. "The background was black, and it was full of color and complicated imagery — the whole story in one page — with red, purple, and greens," says the cinematographer. "It felt violent." The production designer incorporated the colors into the wallpaper and blanket, and Prieto intended to emulate them with lighting. "I wanted just one light source, and it was very important to decide what that lamp would be because that would determine the color. We finally chose one with a green lampshade,

Dolly grip Louis Jong Chi Leung takes a measurement as Lee and Prieto discuss a shot of the two main characters. "This scene is close to the climax and shows some of the sunset lighting I had to create in broad daylight," says Prieto. "We covered their walk from many different angles at different frame rates to accentuate Chia Chih's fear that the assassination could happen any second."

so the main source has a greenish hue. I wanted to contrast that with red, and we justified that by having a bedside table made of red wood. I checked the color temperature of the light going through the lamp and the light bouncing off the table, and matched that with gels. I lit the scene with a Barger-Baglite DV-3 with a Chimera Medium Shallow Bank gelled with ¼ Plus Green, and a 2-by-4 Kino Flo gelled with Full CTO and Full Minus Green. The mixed colors give the scene a strange feel, but they're all motivated."

Prieto took great pains to find the right gel for the purple-pink color associated with Chia Chih's evolving relationship with Yee. The hue occurs in three scenes. It's introduced after their first sexual encounter, "which is pretty harsh, violent and disagreeable," says Prieto. "The day has ended, and the last golden ray of sunlight is coming in one window. Through the other window is this lavender fill from the dusk sky." To achieve this, Prieto used Roscoe Pale Lavender on five Image 80s placed outside the window for fill and a 10K gelled with ¾ CTO for the sunset gold. "It's a long crane shot that begins with a wide shot where we see them both, then slowly goes into her as Yee walks away and throws his jacket to cover her up. The camera goes to her face, and she has a slightly mysterious smile."

The second use of the purple-pink hue is during a rendezvous in a Japanese restaurant, a tender scene in which Chia Chih sings to Yee and he reveals a gentler side. Here Prieto achieved the color combination with space lights gelled with ¼ Minus Green and dimmed down 20

Emotional Betrayal

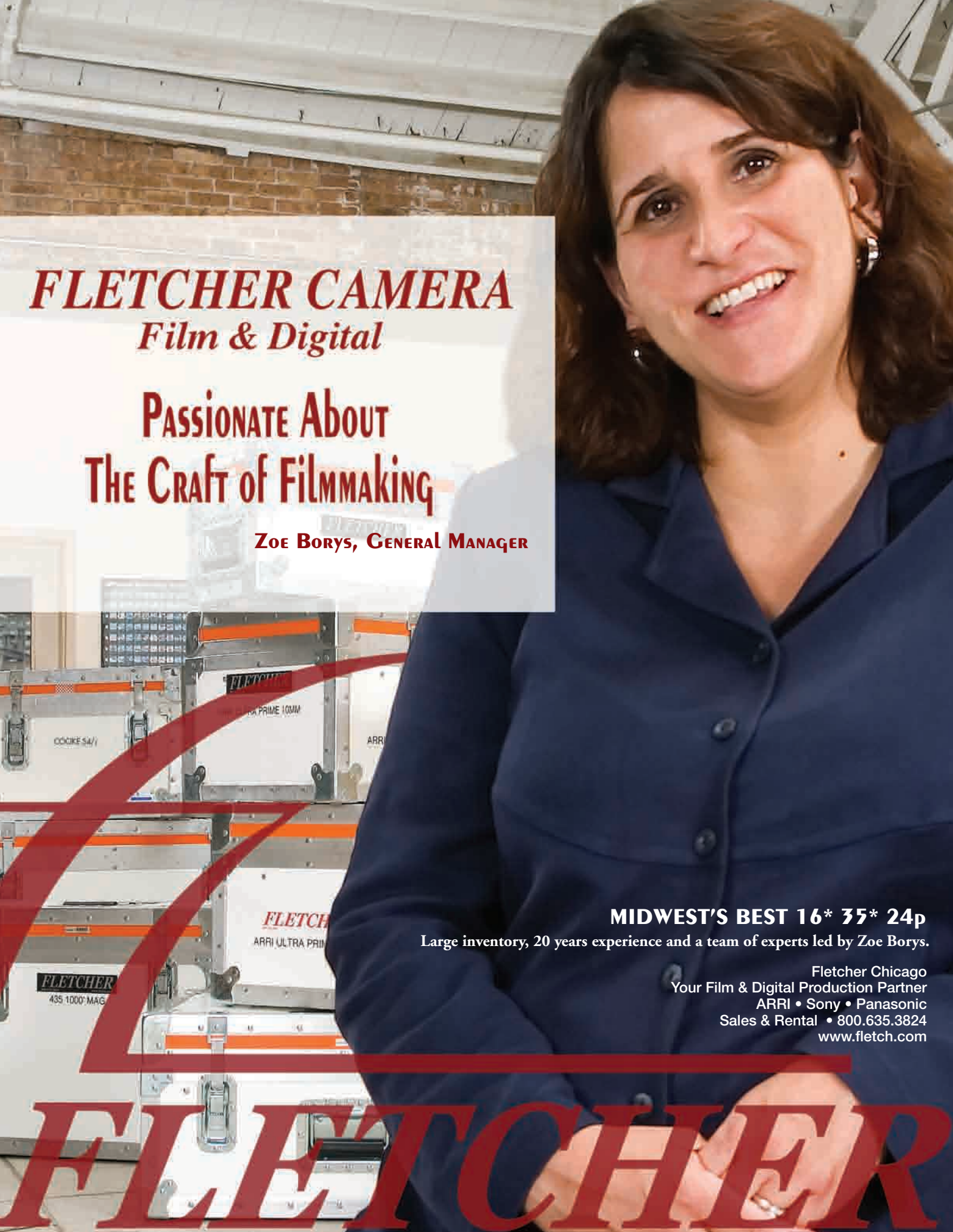
The crew prepares to film Chia Chih in a café, the scene that kicks off the film's climactic sequence. "This is the lighting for the café before a transition to the sunset lighting," says Prieto. "You can see the three 18Ks on Condors for sunlight, 4K Pars going through 12-by Full Grid for ambient daylight, and a Blanket Light for Chia Chih's keylight as she sits in her booth."

percent going through 12'x12' frames of Full Grid. "Ang wanted this scene to look like they were inside a pink lantern," says the cinematographer, "so I lit the set with an enveloping, pinkish soft light."

The third occurrence is the film's climax, which progresses from late afternoon to dusk. "Rodrigo told me this was the most nerve-wracking thing he's ever done as a cinematographer," says Lee. The long magic-hour sequence was shot outside at Shanghai Film Studio on a reproduction of Nanking Road. (The studio had a street set, but Lee didn't want to use it because he believed Chinese viewers would recognize it from previous movies and commercials. Lee had an exact reproduction of Nanking Road built perpendicular to it. Constructed full scale and without forced perspective, this street had 182 storefronts to dress and light.)

The climax begins with Chia Chih waiting in a sunlit café on Nanking Road. To create the feeling of mid-afternoon light, Prieto started with 18Ks outside and 4K Pars tucked away on columns inside the café, bounced off of bleached muslin on the ceiling. A transition occurs after a cutaway to her coffee cup. When the camera tilts back up, golden sunset light is introduced, mixed with slightly cyan ambient daylight. She exits to the street, and a wide shot reveals the whole intersection in late afternoon light. "I had to come up with a way of creating this golden light with enough intensity to fight ambient daylight, and it became really tricky," says Prieto. The sequence took 2½ weeks to shoot, and Prieto had to maintain that light while shooting exhaustive coverage that ranged from rooftop-sniper POVs to shots ramping from 24 fps to 48 fps to suggest Chia Chih's acute fear. "Scheduling each angle to be shot in the shade of the buildings was a big challenge," he says. "It took careful planning to pull off the illusion that it was all shot at sunset, because we had to film at all hours of the day." An interior scene follows, when she and Yee go into the jewelry shop. After she is presented with the pink diamond, the ambient light changes to a slightly pink-magenta hue. Afterwards, she rushes back onto the street, and it's now near dusk, with a purple-and-gold sunset. She wanders in a daze, grabs a pedicab, and then is stopped at a blockade.

For this huge exterior, Prieto relied on the digital intermediate (DI), which he carried out at EFilm in collaboration with colorist Yvan Lucas, to achieve the purple skylight. The golden sunlight again came from tungsten bulbs. "I was using [Fuji Eterna] tungsten film and had an 85 filter on the lens, which made ambient daylight neutral and tungsten light golden," he notes. "I chose tungsten instead of Musco lights or HMIs to avoid gelling massive units. The problem was finding a [tungsten] source that could overpower daylight, one that would light an 80-foot stretch of street."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Emotional Betrayal

Filming Chia Chih in a pedicab as the "sun" sets on Nanking Road. In search of big guns to create sunset lighting in the midst of broad day, the production imported Iride Concorde and Jumbo lights from Cinelease in Burbank and combined them with Dinos and Maxi-Brutes.

Prieto recalled reading about the Iride multi-fixture lights that Italian gaffer Filippo Cafolla had designed for Vittorio Storaro, ASC, AIC years ago. Yung Ka Lok located some through Cinelease in Burbank. "They're like clusters of Par lights with very spotty bulbs — extremely focused and very piercing," says Prieto. He chose the Concorde 31, a 6'x6' hexagonal unit with 31 aircraft lights (ACLs) of 600 watts and only 28 volts, and the Jumbo 16, a 4'x4' unit with 16 ACLs. "I was afraid we wouldn't be able to afford them because this was toward the end of the shoot, and we didn't have a big budget," says the cinematographer. "But Cinelease actually loaned them to us; we just had to pay for shipping. Otherwise, I don't know how we would have done it."

Altogether, Prieto positioned three Jumbos, one Concorde, five to six Dinos, two 24Ks, and three Nine-light Maxi-Brutes down the cross street to create a sunset source. To beat the natural daylight, "I calculated that I had to be one stop over ambient with these lights. The nightmare came when the light level started to drop! We were shooting in winter, so days were short. When the ambient light level started dropping, we had to start turning lights off like crazy! It changed every second."

Lust, Caution also involved lighting effects so subtle they might register on viewers only subliminally. One example is the flashing diamonds described in the opening lines of Chang's short story, a detail Lee wanted to include: "Though it was still daylight, the hot lamp was shining full-beam over the mahjong table. Diamond rings flashed under its glare as their wearers clacked and reshuffled their tiles." To light the mahjong scenes, Prieto put a 150-watt mushroom bulb inside the practical lamp hanging above the table, and around the sides of the bulb he added 216 diffusion on a wire frame; this allowed the harder light to hit the table while a softer, diffused light hit the women's faces. "The bounce off the white tablecloth provided the key light, rounded off by the softened light from the bulb in the lamp," he says. "It worked well for Chia Chih, and it was also effective because I could shoot in any direction with two cameras. I had a 2-stop-underexposed ambient light for the background, provided by top-lighting through 12-by-12 frames of full grid cloth and Lighttools Soft Egg Crate on top of the set. We used Dedolights for accents on walls and decorations."

The final touch was the flashing diamonds: Lee wanted to see their light reflected on the women's faces. After testing various means of achieving this effect, Prieto settled upon a low-tech solution: small pieces of mirror embedded in pieces of clay that were held and gently moved by electricians under three Dedolights on stands next to the camera. The lights were gelled pink, yellow and blue — the diamonds' colors. "It was fun coming up with all these strategies," he says. "We shot so much mahjong with that effect that the electricians got really bored and ended up making little figures with the clay. At the end, we had all these little clay ducks and birds with mirrors on them!"

Another subtle touch was a special eyelight for Leung. "I wanted something to bring the devil out of Mr. Yee," says Lee. Inspired by a scene in which Yee approaches a torture victim with a piece of red-hot steel, his eyelight became "a shimmering, reddish light on his eyes — the killer light," says Prieto. (The scene was eventually cut.) To create this effect, Man-Ching bought red, yellow and white Christmas-tree lights, attached them to a white cardboard square, and secured them with transparent plastic. "It looked like a frozen pizza," says Prieto with a laugh, "so it became known as our Killer Pizza Light. We also used it on other scenes, like a night car interior that was shot against greenscreen; in that scene, Yee talks to Chia Chih about his job, which includes torturing people. We created combination of soft moonlight — 4-by-4 Kino Flos gelled with

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Emotional Betrayal

Prieto gives some last-minute instructions to the crew during the sunset sequence.

½ CTB and ¼ Plus Green — and passing streetlamps — 500-watt Photofloods hanging from the end of long sticks that were moved past the car to create moving light on the actors. As each streetlamp passed, we'd dim up the Killer Pizza Light to create a strange shimmer in Yee's eyes reminiscent of the torture scenes."

Another unit Prieto's crew devised was the Moon Cube. Because city lights in the 1940s didn't obscure moonlight as much as they do today, Lee wanted moonlight to be visible in two large night exteriors. "Man-Ching built a 12-foot cube using Half Grid cloth, and it had one black side," explains Prieto. "Inside it were three 4K Pars and one 6K Par gelled with ½ CTO and ¼ Plus Green to create a softish cyan source. We hung this softbox on a large industrial crane, and we used it for an establishing shot outside the building where Yee does his dirty work. I contrasted this source with a few tungsten fixtures hidden behind walls and a 2K Blonde with 216 diffusion on a Condor lift that was augmenting a streetlight. Piercing the darkness, we had two 2K Xenons gelled with ½ CTO scanning the area as searchlights."

The other scene lit with the Moon Cube was set at a quarry where an execution is about to take place. "We used the Moon Cube over a canyon-like hole that was filled with dark water," says Prieto. "For distant trees, we augmented

the moonlight with an 18K and 12K Par gelled with our moonlight color combo. In such a large space, those big lights seemed like Dinkies, so we were at a T1.3 and were still underexposing the moonlight by half a stop. I used the headlights of the soldiers' trucks to add contrast and drama to the scene, hiding 2K Fresnels behind the trucks to enhance the period trucks' dim headlights."

Prieto rarely used hard light, but it felt appropriate for one scene that occurs after Yee has ordered an execution. At the designated hour, he sits alone in a bedroom and listens to the clock chime. Prieto imagined him in a dark room, lit by the hallway light. "The first image is looking at the door, and the lights from the hallway naturally create an atmospheric scene because he is silhouetted. But when we went in for coverage in the opposite angle to see his expression, the light source was behind the camera. I thought we should go against what we'd been doing and use very hard, naked frontal light. So we literally put him in the spotlight — he's finally exposed, vulnerable. There's no more mystery."

In shots looking toward the hall, Prieto used a 2K Fresnel in the corridor above the door. For the reverse angle, the crew knocked down a set wall and swapped the 2K for a 10K without its lens placed farther back, so the exposure on Leung's face would not change radically as he walked toward the light when leaving the room.

The scene's treatment grew out of this noir touch. "It wasn't scripted," says Prieto. "After he left the frame, it occurred to us to tilt the camera down to show the shape of his shadow on the bed. You see his shadow turn around, look at the bed, and then leave. The scene ends with a simple shot of the empty bed lit by the lonely frontal light from the hallway. I wouldn't call it a pretty shot, but it's effective." ■

TECHNICAL SPECS

1.85:1
35mm

Arricam Studio, Lite

Arri Master Prime and Angenieux lenses

Fuji Eterna 500T 8573; Kodak Vision2 200T 5217

Digital Intermediate

Printed on Fuji Eterna-CP 3513DI

Palace Intrigue

Remi Adefarasin, BSC outlines his approach to *Elizabeth: The Golden Age,* a lavish sequel that continues the saga of England's "Virgin Queen."

by Mark Hope-Jones

Unit photography by Laurie Sparham

Having come to the attention of the West with his award-winning Hindi-language film *Bandit Queen* in 1994, director Shekhar Kapur was given the opportunity to turn his attention to England's Virgin Queen in *Elizabeth*, released in 1998. The film was a tremendous success and proved an important career milestone for many involved, including

Opposite: No longer a neophyte, Queen Elizabeth II (Cate Blanchett) demonstrates her iron will in the sequel to *Elizabeth*. This page, left: Elizabeth encourages Sir Walter Raleigh (Clive Owen) to dance with her favorite lady-in-waiting, Bess Throckmorton (Abbie Cornish), in her private quarters at Whitehall Palace, a set built at Shepperton Studios. Below: Remi Adefarasin, BSC assesses a setup.

cinematographer Remi Adefarasin, BSC, who was nominated for an Oscar and won awards from the BSC, BAFTA and Camerimage for his work on the picture.

The film told the story behind Elizabeth I's accession to the English throne in 1558 amid a political climate charged with conspiracy and religious division. Elizabeth (played by Cate Blanchett) is portrayed as vulnerable and naïve during the early months of her rule, but her heart steels over the course of the film, leading her to assassinate her enemies and adopt the Virgin Queen persona, announcing that she is "married to England."

The new film *Elizabeth: The Golden Age* takes up the story and relates the middle years of her reign, a period during which she facilitated exploration of the New World and dealt with a plot involving her cousin, Mary, Queen of Scots, and Philip II of Spain, who in 1588 sent a great armada to topple the English throne.

Many of those involved with *Elizabeth* returned to work on its sequel, including Kapur, Adefarasin and Blanchett. Adefarasin, whose feature credits include *House of Mirth* (see *AC* Feb. '01), *About a Boy* and *Match Point* (*AC* Jan. '06), recently spoke to *AC* about his work on the *Elizabeth* films from Australia, where he was filming *The Pacific*, HBO's companion piece to *Band of Brothers*. "When we made *Elizabeth*, all we had to go on was a good story and a very dedicated bunch of people," he says. "We had many discussions about the look and style of the film, and it was clear from the very beginning that Rembrandt would be a source of inspiration visually." In particular, Adefarasin was influenced by the Dutch painter's tendency to illuminate the central area of an image and allow the edges to drop away into darkness; reproducing this technique allowed him to suggest unseen perils lurking in the shadows of Elizabeth's court.

When he and Kapur began talking about the visuals for *The Golden Age*, they found themselves gravitating toward a very different but equally admired painter. "Shekhar and I got together with John Myhre, who designed *Elizabeth*," recalls Adefarasin. "We needed a plan for the Spanish Armada — would we shoot it at sea or on a bluescreen stage, or both? In doing research for that, we came upon some of J.M.W. Turner's astounding seascapes. Of course,

Photos courtesy of Universal Pictures and The Moving Picture Company.

Palace Intrigue

Elizabeth seeks the private guidance of her personal astrologer and "seer" (David Threlfall), but finds that he is unable to answer all of her questions.

every cinematographer loves Turner's use of light and impressionism to capture atmosphere. He rarely painted explicitly figurative works, and Shekhar was instantly attracted to his ability to say more with less."

The production of *The Golden Age* was delayed after Kapur became involved with another project, and by the time he returned, Myhre was unavailable. Guy Dyas came aboard as production designer and started to contribute his own ideas. "Designers and cinematographers must work together very closely," says Adefarasin. "Guy turned in nifty concept artwork, and that helped us discover what Shekhar really wanted." The director was determined not to simply remake the first film, which pleased Adefarasin. "I enjoy doing as many genres as I'm offered. The story and the opportunity to find something different are what get me hooked. Far too many of today's films are about instant gratification and leave you hollow at the end. Shekhar has a very interesting and different approach to directing films; he wants to penetrate deeper."

Adefarasin decided to keep the lighting as simple as he could. "Like Turner, I tried to light in broad strokes, to be expressionistic and not fussy. *The Golden Age* is a film where the lighting techniques should not be obvious, though they should affect the audience. That's not to say we weren't kept busy and weren't creative. Lighting technology has come a long way since we made *Elizabeth*, but a film about a queen who died in 1603 does not require neon or LED units. Candles and oil were the sources, yet we had to see the actors' expressions. As a cinematographer, I should be brave

Left: Bess tends to the needs of her queen. Adefarasin notes that these intimate scenes were intended "to show Elizabeth's humanity and the trust she has in Bess." Below: To light the bathing sequence, gaffer Jimmy Wilson rigged overhead space lights to suggest the slight glow of moonlight, and used a few heavily diffused Zip lights, rope lights and a flame bar to bolster the candles.

enough to create the atmosphere yet not so brave as to alienate the audience."

In addition to Blanchett, *The Golden Age* stars Geoffrey Rush (reprising his role as Sir Francis Walsingham, the queen's adviser), Clive Owen as Sir Walter Raleigh, and Samantha Morton as Mary, Queen of Scots. Scheduling these actors had a real impact on how the production took shape. "Originally we planned to shoot most of the film at real locations," says Adefarasin, "but because all the actors weren't always available, we ended up having to build more sets. Another issue was the absence of many exterior scenes; I was constantly trying to do wide shots to create a sense of space." Focus puller David Cozens, a regular on Adefarasin's crew, recalls that a 28mm Zeiss Ultra Prime was up on the camera quite frequently. "Remi knows the characteristics of the Ultras so well," he says. "We've shot a lot of films with them, and he knows how to make them look their best." Night interiors were exposed somewhere between a T2.5 and a T2.8, whereas daylight scenes were anywhere between a T4 and a T8, due to the fluctuating English sunlight.

Adefarasin knew from the outset that the picture would be finished with a digital intermediate (DI) at The Moving Picture Co. (MPC) in London. This did not affect his lighting, though it did permit him the extra negative area afforded by the Super 35mm format. A final aspect ratio of 1.85:1 was selected, just as it had been for *Elizabeth*, in order to allow for the height of the interiors. Adefarasin and colorist Max Horton worked together on the DI. "The DI suite is a political powder keg, and the

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Elizabeth plans her global strategies in the Map Room.

image can be stolen from the image maker with relative ease," notes the cinematographer. "Only one person is at all the discussions, concept meetings and the shoot itself, and he can easily get shouted down."

Though he shot most of *The Golden Age* on Kodak Vision2 500T 5218, Adefarasin was encouraged by the visual-effects team at MPC to use Vision2 200T 5217 for blue-screen work. "For a few exteriors we used [50D] 5201," he adds. "It's good but a little too smooth for this film, but at a certain point using too much ND becomes a nightmare for the operators."

A feature of Adefarasin's photography over the years has been his use of materials and fabrics to add detail, texture and realism to lighting. On *Elizabeth* he often shot through glass, nets, drapes or flames, and he also broke up light from fixtures by placing them behind lengths of silk or lace. For *The Golden Age* he found Lowel Rifa-lites useful because he could hang lace in front of them to reduce light levels without changing the color temperature that had been set on the dimmer board. Black lace also served to "break down the clinical and precise look of electric light," he says.

Much of the film was shot with a very fine net stretched across the lens, out of which Adefarasin cut a custom hole for every setup. Then he would tease out some of the strands to give the hole a soft rim, through which the key point of interest in each shot would be framed. "The effect is very slight, but it adds a little mellowing to the image, especially the edges." For certain scenes he also mounted two peanut bulbs on the 19mm support bars and aimed them at the net on the lens. The bulbs were on dimmers and could be brought up in order to gently fog different sides of the net, sometimes with warm or

Top: Elizabeth leads her troops into battle. Middle: The queen ascends to a hilltop to assess the outcome of the fighting. Bottom: Standing beneath stormy skies, Elizabeth realizes she is victorious.

cold gels, or even a mixture of the two.

For a scene in which Elizabeth bathes with the help of Bess Throckmorton (Abbie Cornish), her favorite lady-in-waiting, Adefarasin blended a number of light sources to complement the tenderness of the moment. "The scene is at night, and there's a wooden tub surrounded by candles and modesty screens," he says. "We wanted to show Elizabeth's humanity and the trust she has in Bess." Gaffer Jimmy Wilson rigged overhead space lights, from which a very slight glow suggested moonlight, as well as a few heavily diffused Zip lights to bolster the candles. "Remi and I both came out of Ealing Studios, both ex-BBC, and we have a great working relationship," says Wilson, who has worked with the cinematographer for 19 years. "When we recce and talk through films, I can anticipate what he's going to want to do. He still surprises me, though!"

They also used rope lights, a fixture they discovered when struggling with how to light soldiers in the back of a covered army truck in

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Right: The monarch entertains guests at a banquet in the Great Hall. Below: The crew captures a shot of Blanchett and Cornish in the Chapel Royal in Winchester Cathedral.

Band of Brothers (*AC* Sept. '01). "To give an overall wash, we pinned lots of rope light all over the roof of the truck," recalls Wilson. "It's designed to run at 240 volts, but we ran it at 270 to make it a bit colder. Once you've got it to the right color temperature, you can put as much of it around as you want, and we adapted that system to *The Golden Age*. In that bathing scene, about 6 feet in front of Cate and just below the lens we strung a dozen or so runs of it between two stands, all running back to Variac dimmers. The candles set the tone of the color temperature, and the rope lights blended in." As a final touch, Adefarasin used a "flaming claw," similar to one he had on *Elizabeth*, to heighten the candlelit feel of the scene. "It's basically five copper pipes connected to a small gas tank," he says. "It's real flame and undulates naturally — very good for augmenting firelight."

The production made use of a number of cathedrals for location shoots. Limited to one night's shooting at Westminster Cathedral, which was dressed to represent the Escorial Palace in Spain, Wilson had to combine cherry pickers, scissor platforms, and scaffolding to rig 30 18K HMIs in the limited spaces immediately beyond the high windows. These units, powered by five generators, punched through pre-rigged diffusion frames to create the illusion of daylight within. Adefarasin designed a variety of cutouts to go in the frames that suggested the presence of rooftops at different heights outside and gave the light shape. The crew had only a certain number of hours to shoot before a swing gang came in to clear the cathedral floor of equipment so it would be ready for the next day's activities.

Mary, Queen of Scots (Samantha Morton), is executed at Fotheringay Castle. This sequence was filmed in the Priory Church of St. Bartholomew the Great.

A chapel adjoining Ely Cathedral served as part of Elizabeth's court for the film, though shooting during the day presented problems. "The Lady Chapel at Ely is very beautiful, mostly because of the light changing on the fine stonework," says Adefarasin. "It has huge, clear windows on all sides, so the sunlight begins at one end and works its way 'round to the opposite side. Shekhar didn't seem keen on shooting eight pages in two hours, so we had to prepare for the inevitable." In order to protect the set from shifting sunlight, Wilson designed grid-cloth curtains on runners that could be moved as necessary. "Jimmy rigged some 18K HMIs outside so we could attempt to keep the light constant," says Adefarasin, who also put several uncorrected 10K Molebeams on the same platforms to create warm, isolated pockets of simulated daylight. "These trick the eye into seeing consistency; at the same time they give a highlight to [Walter] Raleigh and help him

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Right: A SuperTechnocrane angles in on Raleigh's flagship, the *Tyger*. The gimbal-mounted galleon was built on Stage H at Shepperton Studios. Below left: King Philip II (Jordi Mollà) scans Lisbon Harbor from the deck of a Spanish warship built onstage. Below right: Raleigh tests his mettle on the high seas.

stand out from the crowd. Part of the fun of my job is turning a negative into a positive, doing two separate things with one stroke."

All the location work had to match the look of sets that were built at Shepperton Studios. "It's fiddly, but the nice thing about a studio is that Remi and I can always go to a set while it's being built and fire up a few lamps to see what we're getting," says Wilson. He used a number of "jungle mirrors" to help create the effect of dappled sunlight inside Elizabethan buildings. "A 'jungle mirror' is a set of 12 9-inch-square mirrors, each of which is on a gimbal attached to a 5-foot-square frame," he explains. "We hit them with Molebeams and got lots of different shapes, splashes of light thrown in all directions that gave interest to the background."

Adefarasin also used Source Four Lekos for backgrounds, throwing them completely out of focus to maintain a cold, Turner-like wash. For studio interiors of a scene that takes place in Elizabeth's tent, the cinematographer had to re-create sunlight that had been continually broken by fast-moving clouds during the exterior location shoot in Somerset. Wilson rigged a long line of 20 20K HMIs on the rail in the stage, all pointing down at the tent. "We set up a chase program at the Impulse lighting desk," he explains. "As one 20K faded down, the one

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Director Shekhar Kapur (center) works out a scene with actors Owen and Malcolm Storry.

next to it came up, so it created a roll of light that gave the same effect as a cloud passing overhead. We tried various speeds until we found one that looked right."

The biggest set, Raleigh's flagship, the *Tyger*, was built on Stage H at Shepperton. Historically accurate right down to the correct shot, powder and wadding for its cannons, the entire galleon was mounted on a large gimbal. This meant that lighting fixtures could not be rigged to the ship itself, further complicating the problem of how to light it for day scenes, night scenes, as well as the battle with the Spanish fleet, which took place at dusk. "Keeping the look going was a huge challenge and caused many nights of worry in preproduction," says Adefarasin. "To make it look real, I would have really liked my source to be well outside of the stage — impossible. Multiple sources would have looked phony. Jimmy came up with the idea of building lighting platforms above the center of the ship."

"We designed a gantry that ran the entire length of the ship — the top mast missed it by about 8 inches!" says Wilson. On this platform were 24 20Ks, all individually fed back to the DMX dimmer board and controlled by a full-time console operator. "If you imagine looking down at the galleon from the gantry, the stage floor around it is supposed to be sea, and all of that had to be bluescreen," says the gaffer. "But, of course, bluescreen has to be lit as well, so behind 45-degree coves we hid lots of Kino Flos, 4-by-4s and

Image 80s, but we had to light it all evenly, so it was quite tricky to do."

In order to replicate the gentle light in Turner's seascapes, Adefarasin bounced all of the 20K heads rather than point them directly at the ship. "We got a light-gray curtain on a track that surrounded the bluescreen and directed the lamps at that curtain," he recalls. "It gave us a soft, non-directional light." The curtain could be moved around the ship with ease, allowing the crew to shoot in any direction. Wilson also made sure that the lights were rigged and programmed to accommodate swift changes of setup: "We had them all pre-set so that if we changed side, port or starboard, at the touch of a button we could bring up one side and take down the other. When we were shooting daylight scenes, we used the same light sources but brought in 20-by frames of UltraBounce, which is a peak white material. We also had the complications of fire effects, for which we were putting Full CTO, or even Full plus ¼ CTO, on 12K Dinos and rolling them a bit from the desk."

Of his camerawork, Adefarasin notes, "My approach needed to be simple, because sometimes the cameras swept everywhere. I had two great operators, Simon Finney [A camera] and Ben Wilson [B camera]; Simon had to cover the scene with due diligence, and Ben was able to hunt around for his shot, and we would find really exciting, dangerous images." Wilson notes that keeping space clear for the ever-mobile cameras was not as challenging on *The Golden Age* as it might be on other productions. "Remi thinks things through so well," says Wilson. "He doesn't carry things around that he won't use; he knows what his lights will do. Sometimes cinematographers will have lamps queuing out the door 'just in case,' but Remi doesn't. He knows exactly what he wants." ■

TECHNICAL SPECS

Super 1.85:1
(Super 35mm for 1.85:1 extraction)

Arricam Studio, Lite; Arri 435, 235

Zeiss Ultra Prime and Angenieux Optimo lenses

Kodak Vision2
500T 5218, 200T 5217, 50D 5201

Digital Intermediate

Printed on Kodak Vision 2383

Unsafe Passage

3:10 to Yuma, shot by Phedon Papamichael, ASC, follows a desperate rancher's attempt to bring a dangerous outlaw to justice.

by Joe Donovan

Unit photography by Richard Foreman

The "horse opera" was once a staple of Hollywood and the stock in trade of dozens of great ASC cinematographers, but today the Western remains a rare treat. This autumn promises to end the drought with *3:10 to Yuma, The Assassination of Jesse James by the Coward Robert Ford* and *No*

Opposite: With notorious criminal Ben Wade a temporary guest in his home, rancher Dan Evans (Christian Bale, center) and the others escorting Wade to justice are noticeably on edge about strange sounds outside. This page: Unaware that he is about to be snagged by the long arm of the law, Wade (Russell Crowe, right) and his vicious colleague, Charlie Prince (Ben Foster), ride into town after a successful stagecoach robbery.

Country for Old Men.

The original *3:10 to Yuma* was released by Columbia Pictures in 1957. Directed by Delmer Daves and photographed in black-and-white by Charles Lawton Jr., ASC, the film was based on an Elmore Leonard short story. Glenn Ford was cast against type as infamous outlaw Ben Wade, and Van Heflin played the proud but desperate Dan Evans, who volunteers to deliver Wade to the nearest train station in the hope of earning enough money to save his drought-stricken ranch. On the perilous journey to the final showdown, with Wade's murderous gang in pursuit, Wade and Evans begin to earn each other's respect.

The recently released remake of *3:10 to Yuma* reunited director James Mangold with cinematographer Phedon Papamichael, ASC, his collaborator on *Walk the Line* (see *AC* Dec. '05) and *Identity* (*AC* May '03). Papamichael likens the film, which stars Christian Bale as Evans and Russell Crowe as Wade, to a one-act play. "The characters reveal some interesting layers," he says. "Wade likes to take chances and put himself in situations where he's challenged almost out of boredom. His gang is totally focused and dedicated to him. When he's captured, Evans just happens to be there, begging for an extension on his loan. Evans volunteers for the suicidal mission in part for the money, but also to earn the respect of his son, who is fascinated with Wade."

Principal photography took place in New Mexico, in and around Santa Fe, Abiquiú and Galisteo. The Bonanza Creek Ranch stood in for Contention, where the climactic shootout takes place, and Galisteo portrayed Bisbee, where Wade and Evans meet. The production constructed several additional buildings at the Cerro Pelon Ranch near Santa Fe. A few night exteriors were picked up back in Los Angeles at Bronson Canyon.

Throughout the project's prep and production, the ability to adapt to changing circumstances was crucial to success. Originally budgeted at close to $100 million, the picture was put in turnaround by Sony Pictures and eventually passed off to Lionsgate. Soon the shoot was reconceived to suit a budget of about $50 million, and the new schedule, which totaled 54 days, was pushed into winter, so the filmmakers began working with roughly six hours of full daylight and many continuity challenges. After Christmas break, they returned to find their sets covered with deep snowdrifts.

The filmmakers chose to shoot Super 35mm (2.40:1) and finish with a digital intermediate (DI), which they carried out at Modern VideoFilm in Burbank. "Regardless of genre, I don't enjoy composing for 1.85 as much," says Papamichael. "I'm really comfortable with the wider frame, and I think it gives you much more space to play with. Mangold loves doing the foreground close-up, with an actor's face making up a quarter of the frame, and he loves the focus rack. We make extensive use of the close-focus [Panavision] Primo lenses. That's become a bit of a trademark of ours."

Papamichael shot the entire picture on two Fuji Eterna stocks, 250T 8553 and 500T 8573. "I try to

Photos courtesy of Lionsgate.

Unsafe Passage

Above: Evans and his son, Will (Logan Lerman), disagree over how to respond to moneylenders who have set fire to their barn. Below: Will races to empty the barn of valuables.

stay away from very high- and low-speed stocks," he notes. "I could have gone with a slower daylight film, but I don't like the grain structure to change so much during the movie. I'm usually shooting at around a T2.8½, but if I really need the extra stop I'd rather just open up." His Panavision camera package comprised a Panaflex Platinum, two Millennium XLs, and Primo prime and zoom lenses.

Most scenes in *3:10 to Yuma* fall into one of four situations: moonlit or firelit night exteriors, sunlit day exteriors, daylight interiors, and night interiors lit with oil lamps. As is typical of Westerns, day exteriors were predominant. Exteriors often included actors on horseback, which provided the crew with some rigging challenges. Papamichael's instinct was to eschew electric sources whenever possible. "For day exteriors, we often weren't even silking," he says. "The good thing about New Mexico in winter is that the sun is almost always low. There were usually too many characters to block the scene to the sun, and we were usually using multiple cameras. We used Daylight Blue 12-by bounces to redirect and shape light.

"Often we weren't designing shots carefully, but rather being flexible with the camera and just trying to get in there. You think you can control horses, but you can't — they just don't stand still. So Dave Luckenbach, my A-camera/Steadicam operator, was constantly reacting [to their movements]."

Day interiors in the saloon or hotel rooms were lit through windows. "Most of the third act takes place in a second-floor hotel room that was extremely small, for example, and sometimes we had eight actors in there," says Papamichael. "The way it's blocked, combined with our shooting style, which often involves someone turning into a tight close-up followed by a focus rack, meant that all the space was used up. Once you make the decision to bring all the light through the window, it becomes a matter of planning and shooting when the light is appropriate."

The windows were covered with layers of hard ND gel that could be removed in stages to adapt to changing light levels outside. The ND was also used to create a dusk or dawn feel outside, even in broad daylight; the crew went as heavy as ND.27 to achieve that effect. "I also used negative fill on interiors, bringing blacks as close as possible to the action to model," adds Papamichael. "Instead of adding light, I was removing ambience. I did that when I was losing the sunlight and the contrast was disappearing."

Often Papamichael removed weather from the equation with a large, complex rigging job outside that was made more difficult by winter winds. The main day interi-

Preparing to film Wade, Evans and the others as they make camp for the night.

ors were shot in a second-floor set, further complicating matters for the crew. The crew flew 20'x20' and 40'x40' blacks to eliminate or minimize direct sunlight inside, and then four or five 18Ks were sent up on Condors or scissor lifts. The 18Ks were usually brought through Opal or light Hampshire diffusion and ¼ CTS. This enabled the production to stretch six hours of daylight into 14-hour workdays.

Key grip Ray Garcia suggested Daylight Blue bounces, and Papamichael made extensive use of them throughout the shoot. "With New Mexico's big, blue, open skies, those bounces made the light look much more natural," he says.

In exterior situations, Mangold often asked for tracking close-ups with the actors on horseback, sometimes with focus racks. The effects unit built a hydraulic rig with two saddles, but Crowe, an accomplished rider, didn't care for it. On occasion track was laid, but that was difficult and time-consuming. Papamichael originally planned to use an Ultimate Arm, but the project's reduced budget precluded that option for the most part. In the end, the filmmakers used Gator Utility Vehicles in conjunction with the Steadicam, which didn't quite allow for the height Papamichael would have preferred.

For moonlit exteriors featuring characters on horseback, Papamichael and his crew used a camera car with a truss hung with balloon lights that lit the actors with a soft, ¾-toppy moonglow. Gaffer Cory Geryak recalls that the overhead helium-balloon rig allowed the horses to drift a bit and still stay within range of the light, which was important given the varied terrain. "The balloons were 8K tungsten tubes that were 12 feet long and 6 feet in diameter," says Geryak. "There were four circuits, two per half, so we could turn sections off. We also had them on dimmers. I think we ended up going with just one circuit on each half of the balloon, so the full balloon was lit but to about half intensity. The bulbs are actually quite small — eight 1Ks. They're 220-volt, so the cables that go to the balloon are much smaller and lighter, which makes it easy to float the balloons. Ray Garcia devised the truss system to hold them, and it worked quite well. The natural variations in distance and movement of the horses made it difficult for the operators and the camera assistants, but it gave the shots a more organic and realistic feeling."

The landscape in the deep background was raked with light from fixtures on Condors. "Bardwell & McAlister makes a 12-light Maxi-Brute that we've fallen in love with for Condor work, because it's really lightweight," says Geryak. "I believe the head with the globes is about 45 pounds, and a traditional Nine-light Maxi is probably closer to 80 or 90 pounds. Another nice feature of these 12-lights is that they have interchangeable lenses instead of changeable globes; they use an HPL globe, the same technology as the Source Four Lekos. The different lenses give you different patterns of light, and a narrow lens is a very hot, punchy spot that's good for distances. You can go from very narrow

Unsafe Passage

Right: In an effort to get a jump on Wade's gang, which is hot on their heels, Evans and his colleagues consider taking a dangerous shortcut through Apache territory. Below: Cinematographer Phedon Papamichael, ASC (left) and director James Mangold refine the shot.

to narrow, medium or flood. We put three of those 12-light Bardwells in a Condor at each end of the canyon, along with a Mole Richardson 5K Par, and we were within the weight guidelines for Condor use. The 12-lights gave us a big, soft backlight, and the Par was perfect for picking out a ridge or gully."

Papamichael needed a fine degree of control in order to balance the level in the foreground to that in the background. "When something looks 'lit' in this type of situation, it's almost always because there's a variance in level," he notes. "The level of the background must be the same, because the moon is a very consistent source, like the sun. What I often see done wrong is that something in the deep, deep background will be hotter than the foreground. Of course, contrast comes from modeling and not using fill. But I find it's key to have the same f-stop throughout the frame. The actor cannot have a hotter rim of moonlight than the ridge behind him, and vice versa."

The filmmakers set a key campfire scene close to a sheltering canyon wall so the light could play against the rock wall, adding visual interest and placing the scene in an environment. "I like to do campfire light with as much real flame as possible, but if you have too many sources the light becomes even and you lose the individual flickers," says Papamichael. "We used flame bars and other gags to boost the theatrical campfires, but I tried to use as few sources as possible. One character wears glasses, and on close-ups you can see the flame reflected in the lenses!"

Some campfire shots were staged in a gymnasium in Santa Fe for greater control, and to escape the cold. At times the propane flame bars were augmented by a box that the crew referred to as the "Jell-O cube." Geryak explains, "It's a cube measuring 1 to 1½ feet that has six 650-watt globes inside. It uses a Socopex connection that allows us to control it using a programmable board. We have a little frame that we cover in Full Straw and either Opal or 250 diffusion to help slow it down. It's the orange gel that makes it look like a Jell-O cube. We can bury it near the fire and it throws 360 degrees of light."

Away from the firelight, the night exteriors fall off quickly to black. "I'll only create visible moonlight if it's the only source," says Papamichael. "Moonlight does read to your eye, and it's very hard light.

But the minute you turn on one 20-watt bulb, that will overpower the moonlight. I would motivate from moonlight, but only if the actors were riding out in the open and there were no other sources. If there was a single torch or a campfire, I might put the moonlight 2½ or 3 stops under so it's not just orange and black. It might not be a complete absence, but you perceive it as such. I think your eye needs a neutral tone in order to identify the flame source as warm and saturated, but it's very subtle."

Papamichael avoided setting multiple lights for a moonlit scene, but the wide-brimmed cowboy hats sometimes required light from below the eyeline. "I would sometimes do a passive bounce to pick up the eyes, especially when the characters were wearing wide-brimmed hats," he says. "Cory would often handhold the battery-powered Litepanels LED light, but it was filling at 3 stops under and didn't read as another source. There's only one moon, and I tried to stay true to that."

When possible, Papamichael captured night exteriors at late dusk. "We'd wait for the very last light. After the sun sets, you have maybe a 20-minute window when there's still some definition and blue in the sky; the meter reads 1 or maybe 1.4 when you point it up to the sky. Then I would usually bounce a very big soft source into a frame of Daylight Blue to create a very, very low fill, as though it was coming off the sky. We'd use floating nets so the light wouldn't increase in intensity when the actors moved closer. In these situations, it's all about not feeling the source."

3:10 to Yuma includes a few night interiors that made extensive use of a lantern rig Geryak devised for Wally Pfister, ASC on *The Prestige* (*AC* Nov. '06). "In our testing, we found that the flame in oil lamps doesn't move all that much," says the

Unsafe Passage

Filming young Evans as he waits pensively in the hotel for his father's return.

gaffer. "We took a 650-watt tungsten globe that was just the right size to fit into the base of the oil lantern. The filament looked like the right height of an oil flame. Then we dimmed it down to about 30 volts. It burns just hot enough that you can't tell it's not real fire, and it comes out to the same color temperature as an oil lamp, around 2100°K. It blooms out and hides itself. If we get really tight to it with the camera, we'll frost the glass a bit to keep it obscured."

For interiors, Papamichael also depended heavily on rope lights mounted on boards in various configurations. "The advantage of rope lights is that they're very low-profile and can be easily hidden on small sets," he says. "They're lightweight, easy to move, and you can just lay them on a surface or prop them up against an apple box. They wrap nicely. Often we just handheld them. They produce a beautiful, natural light that's about 2000°K; they photograph at about the same color temperature as the little gas lanterns."

Because darkness was an important component of the visual scheme, wardrobe and other design elements were controlled and low key. Walls were kept somewhat dark and sometimes lined with wood paneling. "That gave me a little more freedom from worrying about walls heating up too much," says Papamichael. "When I push light through windows, I always keep an eye on the walls to make sure they're not too flooded. We do a lot of grip work and cut a lot of light to control that. I'd say the biggest part of my lighting is eliminating light! That's where the DI has become a direct extension of what we do on the set. I use the DI quite a bit to control and shape light."

Papamichael's collaborator at

Modern VideoFilm was colorist Joe Finley, who had also worked with him on *Walk the Line.* The film was finished with a 2K workflow to save money in the post phase. "It was a pretty quick process, about eight days," says Papamichael. "Joe is very familiar with our aesthetic and is able to do an overall timing on his own. Mangold and I then tweak, and I'm able to build some windows, control some skies and work on the matching. We worked with a 2K projector, but we did occasional filmouts, which I enjoyed. When you get a little bit of that film texture back, the picture gains something emotionally."

Throughout the shoot, FotoKem developed and transferred more than a million feet of film, using digital stills Papamichael had shot on set and manipulated in Photoshop as a rough guide for saturation, contrast and density. The filmmakers viewed hi-def dailies on D-5 tape that had been transferred by Kay Sievert using the Millennium telecine and Avid's DNX115 codec. "When you're shooting a Western, I think it's important that the editor is looking at something a little bigger to cut with," says Papamichael. "Our editor, Mike McCusker, worked with a good quality DLP projector in the editing room. He was also able to do some rough preliminary timing in his Avid. The image quality was pretty high right from the dailies stage.

"I was very much looking forward to the rare opportunity to shoot a Western," concludes Papamichael, "but this film isn't a Western in the classical sense. It's not about the land and the landscapes, it's more about faces and dialogue and strong characters. It plays more as a modern psychological Western drama. Every time you make a movie, you go in with a certain concept, but the movie ends up telling you what the visual language should be. *3:10 to Yuma* was another example of that." ■

TECHNICAL SPECS

2.40:1
Super 35mm

Panaflex Platinum, Millennium XL
Primo lenses

Fuji Eterna
250T 8553, 500T 8573

Digital Intermediate

Printed on Fuji Eterna-CP 3513DI

Short Takes

Cut-and-Paste Aesthetic for Switchfoot's "Awakening"

by Iain Stasukevich

One of the raw, pre-color-corrected photos used to create the "photo-mation" effect for the "Awakening" video. Note the time-code cutout at bottom right; these cutouts were used in every photo to ensure that each frame was in sync.

After 10 years of making commercials and music videos, director/cinematographer Brandon Dickerson is accustomed to seeing an idea take on a life of its own. His latest video, for Switchfoot's "Awakening," is a good example of how a simple idea can take a radical turn.

Dickerson developed the original concept around a process he calls "photo-mation." The effect involves filming a subject, editing the footage into a sequence, printing out a hard copy of every frame of the edited piece, and then re-photographing those frames to create a new sequence. "Imagine if you took 35mm motion-picture film and printed out every frame as an 8½-by-11 print, and then you had an actor hold each printed frame and re-photographed each frame one by one," explains Dickerson. "You could take long exposures with an open shutter in a way you couldn't do with a motion-picture camera. The result is you have streaks of light that you can only achieve in still photography, but the band's performance remains in perfect sync."

Using footage from another Switchfoot video, Dickerson shot a series of tests with actor Tony Hale. He pitched the demo to the band, but the label went a different route for the song in question. Six months later, they called Dickerson back and asked if he was still interested in revisiting his concept for "Awakening," only this time with a nod to the popular video game *Guitar Hero*. "I wasn't familiar with the game, but they found it humorous that on tour they were always playing *Guitar Hero* before playing an actual gig," Dickerson recalls. "My original idea of holding up one picture and taking a photo and repeating that expanded into this three-dimensional box that was a television, and now each frame of the video had five cutouts [one for each band member] from the original sequence. There was some serious math involved, and thousands of picture scraps to track."

The basic concept focuses on two men [actors Hale and Adam Campbell] who meet in an elevator and then continue on to their separate homes, where they don fake tattoos and eyeliner and play a surreal version of *Guitar Hero*; the graphics and even the guitar controllers themselves are crafted from cardboard and paper.

Before shooting the actors and their parts, Dickerson flew to Toronto to capture the band performing with a Panasonic HVX200. "We shot the band onstage from a variety of angles, some locked-off, some moving, but mostly

Photos and frame grabs courtesy of Brandon Dickerson.

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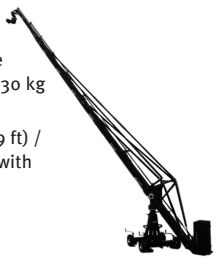

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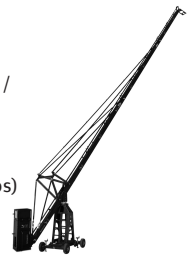

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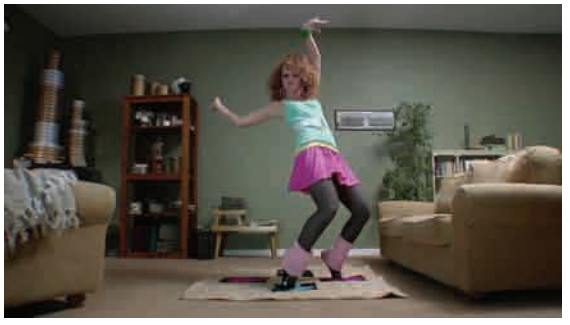

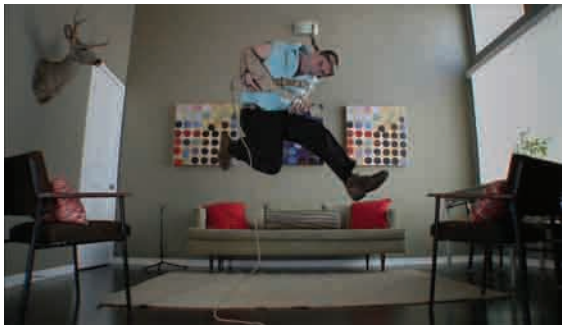

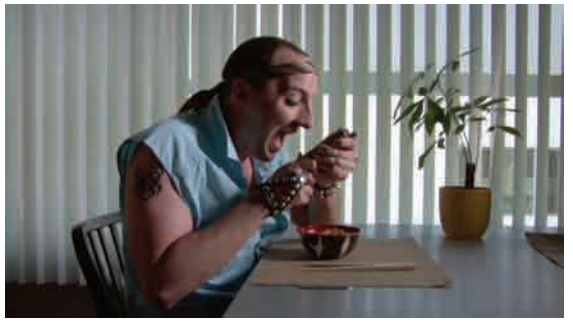

Frame grabs highlight the video's whimsical look.

static because the footage was going to become the cutouts." In Los Angeles, the P2 media was handed over to post supervisor Michael Cioni at Plaster City Digital Post in Hollywood. Dickerson shot the narrative portion of the video, then assembled a rough cut at Plaster City with editor Jeff Stone. Placeholders were inserted where the band's photo-mation performance would go. The band had to sign off on their performance in the cut before the photo-mation still photography could begin.

When the go-ahead was given, Cioni and Dickerson created high-resolution QuickTimes of the Toronto performances and transcoded them into PICT sequences at 24 fps. The result was about 1,200 separate JPEG images. Although laser printing would have been more efficient time-wise, the glossy quality of the printed image wouldn't lend itself well to the flash photography used in the photo-mation process, so the 1,200 frames were printed out on five inkjet printers that ran for almost 72 hours.

Next, a team of 10 people hand-cut the band members from every frame. The time code for each frame was taped to the envelope, and the corresponding band member cutout was placed inside. "We had envelopes everywhere, and they had to take each frame and rip out every band member by hand because I wanted it to look organic," says Dickerson. "The more handmade it looked, the better."

The animation was accomplished in three 10-hour days. Images were captured at a resolution of 2048x1280 using Dickerson's personal Canon Rebel XT.

When it came time to decide which frame rate to use for the photo-mation, the team agreed it would shoot 24 frames for 24 frames. After finishing the first few performance sequences, they decided to double their shots. "That enabled us to move things every frame but only change band members every other frame," says Dickerson. "We found it looked choppier and far more hand-crafted." On the first passes, he adds, "I was doing intricate rack focuses using a really shallow depth of field, but it looked too sexy. It was too nice."

Cioni notes that setting up a data-centric workflow was the key to bringing the video in on schedule. Like the Toronto footage, all of the narrative elements of the video were filmed with an HVX200 and imported directly into Final Cut Pro. The digital photo-mation images were shot in an empty studio at Plaster City, so when Dickerson finished shooting a sequence, the camera's flash memory card was handed off to Stone, who was able to rebuild the 24p sequence almost immediately. By the last day of photo-mation photography, both Dickerson and Cioni had figured out what would work.

Three days of printing, 1,600 man-hours of cutting, and 36 hours of photography later, Dickerson found himself with 50 seconds of photo-mation footage. "My respect for animators, particularly the old school, is through the roof," he says. "I can't imagine the amount of patience involved."

However, Dickerson's biggest headache had nothing to do with the photo-mation process. Instead, it was the tapeless P2 workflow. "The P2 cards didn't bother me, but erasing them and

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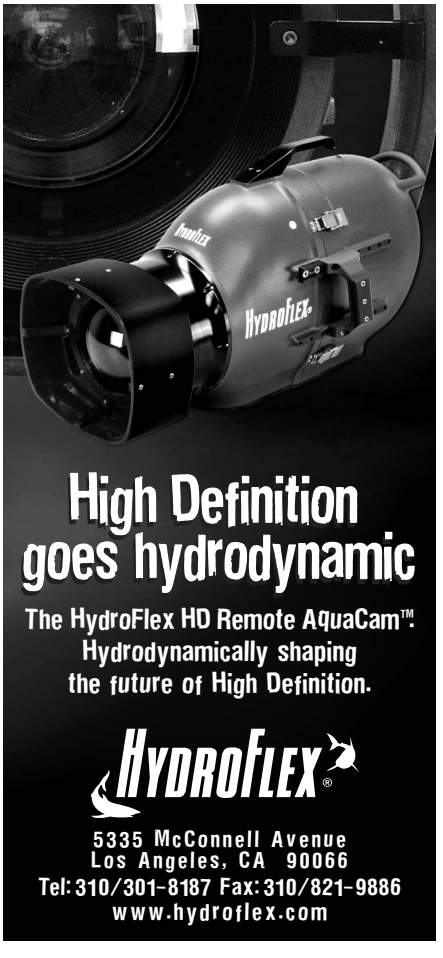
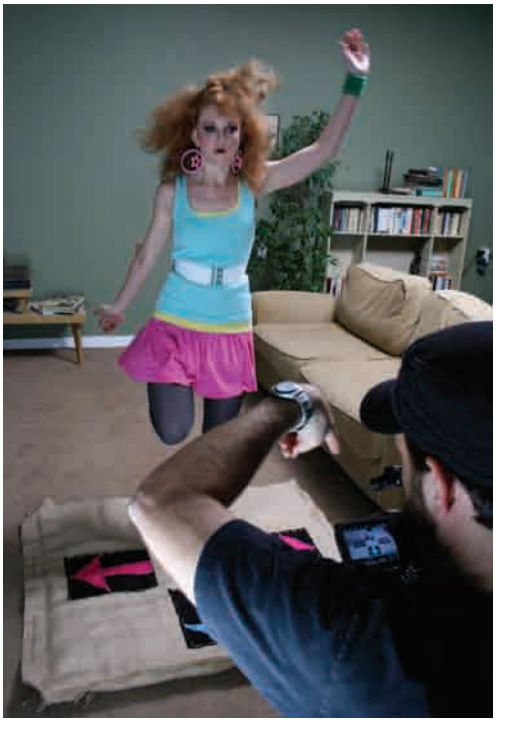


Above: Actor Tony Hale totes a faux guitar while taking his cues from director/cinematographer Brandon Dickerson. Below: Dickerson captures footage of actress Jayma Mays.

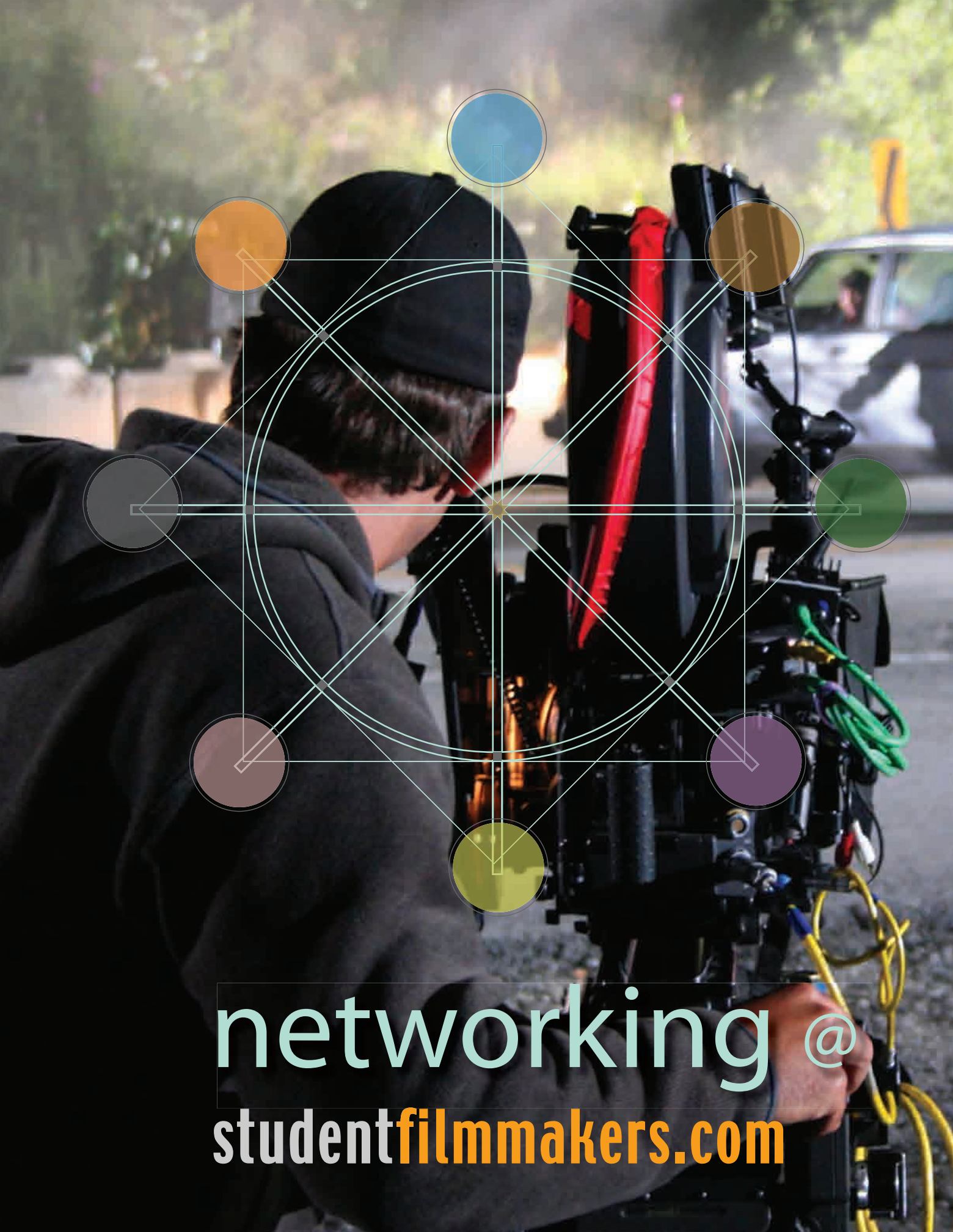
then re-using them freaked me out," he recalls. "In the end, we lost nothing. Well, maybe I lost weight, but we didn't lose any media!"

Another reason Dickerson chose to shoot with the HVX200 was for its 24-fps capability and video-quality aesthetic. Everything was recorded in the 720pN format and then up-converted to 1080p for mastering. Since completing "Awakening," Cioni recommends that cinematographers using the HVX200 record the image using the camera's internally upconverted 1080i format. "At first, everybody thought shooting at 1280x720 would be better because that's closer to the native resolution of the camera,'" explains Cioni. "With the HVX, in every frame you can actually can see the compression — particularly in low light — and so you're scaling that compression 33 percent when you up-rez to the 1080 master. The compression at 1920x1080 is less visible because even at 1080, you have the same amount of compression you have in the 720 image. The downside is you have to record 1080i, and your card economy also tanks about 40 percent."

"Awakening" earned the top slot on Fuse TV's "Guilty Pleasure" Countdown, and it has found great success on YouTube, whose low-rez capability makes it difficult to tell how much work went into the photo-mation. "It's a mixed blessing," says Dickerson. "The response has been great, but it's bizarre to know what poor quality people are watching it on."



Now that he has experimented with HD, Dickerson would like to use it again, albeit with a little more support. "I've been shooting film professionally for 10 years, and it took the right project to go to a tapeless HD workflow," he says. "This is the first project where I kind of let go of all the ways I'd been doing things. Going from film cans to ones and zeros isn't easy." ■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Post Focus

Private investigators Patrick (Casey Affleck) and Angie (Michelle Monaghan) listen to a prospective client in a scene from *Gone Baby Gone*, which was shot by John Toll, ASC and finished with an all-HD editorial workflow.

Photos courtesy of Miramax Films.

Beantown Noir

by Iain Stasukevich

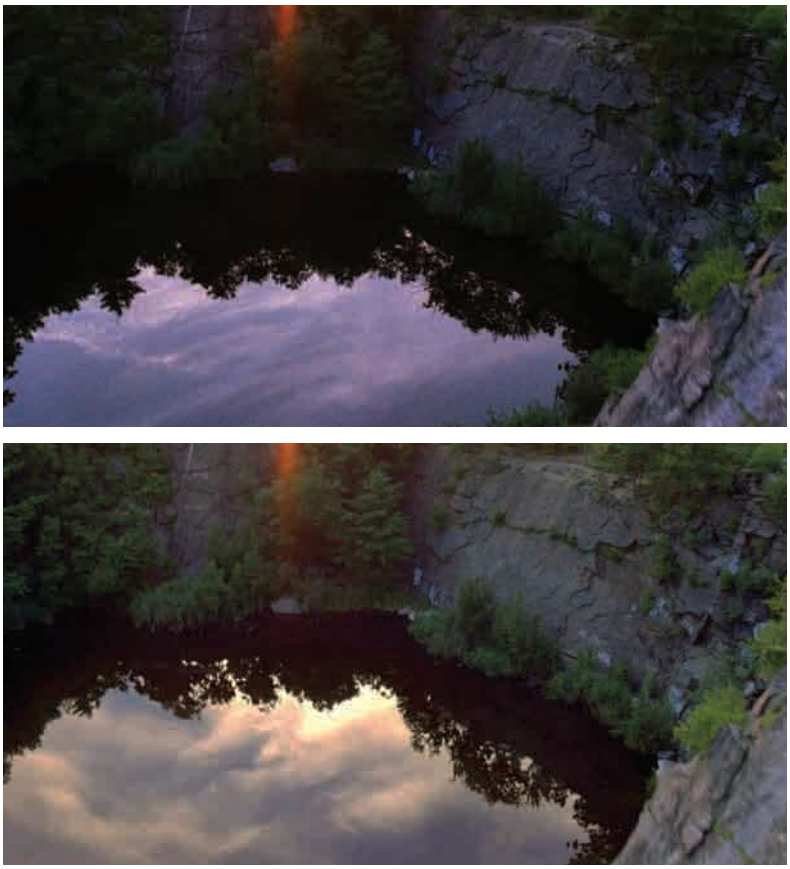
With a budget of $19 million, the Miramax Films production *Gone Baby Gone*, based on the novel by Dennis Lehane, cost less to produce than the average blockbuster costs to market. Shot by John Toll, ASC and directed by Ben Affleck, the film follows two young private investigators (played by Casey Affleck and Michelle Monaghan) as they hunt for a missing 4-year-old girl on the seamiest side of Boston's underworld.

In the months preceding principal photography, which took place in and around Boston, executive producer David Crockett called Marcie Jastrow, senior vice president of sales at Modern VideoFilm, to request a budget for hi-def dailies. "I put the bid together, and we did the HD dailies," recalls Jastrow. "Then, a few weeks into the shoot, I get a call from Ben Affleck, who starts asking a lot of Avid-related questions. He wanted to start cutting scenes, but every time he looked at the standard-definition Avid files, it depressed him." Says Affleck, "I've been interested in nonlinear editing for a long time and have tracked the technology as it's gone along. I knew everyone was renting the Avid Nitris for onlining, and I thought we should cut our whole movie that way."

After the shoot wrapped, Miramax approached Runway Editorial to handle the Avid editing systems for the film. Dan McGilvray, the senior engineer and technical-department supervisor at Runway Editorial, was tasked with the challenge of an all-HD editorial workflow. McGilvray recalls, "Ben wanted to know why he was cutting in standard-def instead of hi-def, and when we pointed out that hi-def would cost more, Ben was committed to a hi-def workflow even though he knew it was brand new, that it would be more expensive, and that there would be significant technical obstacles faced in the cutting room. His position was, 'Well, don't you want to be as close as possible to the final result instead of dealing with a poor proxy?'"

The first challenge met by McGilvray and assistant editors Brett Reed and Kevin Hickman was that all of the footage had already been digitized in a standard-def resolution. When Modern VideoFilm initially received the camera negatives to transfer dailies, three outputs were made: one 1080p HDCam SR master, one standard-def direct-to-disk Avid file, and one standard-def DigiBeta tape backup. Upgrading the picture quality for editorial would mean redigitizing all 125 HD masters and transferring master-clip information into the new HD Avid project. In the meantime, there would be a two-week wait between the production wrap and the arrival of editor Billy Goldenberg, and Affleck had already begun a standard-def cut of the movie using Avid Xpress Pro on his own laptop in 24-frame progressive NTSC. "The workflow was a little bit hinky at first," says the director. "I was cutting scenes, and I thought I could just convert these NTSC EDLs to HD, but that didn't really work out."

Transitioning formats from a 24-frame NTSC project to a 24-frame HD project posed a more difficult challenge than expected, requiring assistant editors Bret Reed and Kevin Hickman to



These shots of a quarry where a key action sequence takes place illustrate the look of the original footage in dailies (top) and after the digital grade (bottom).

re-sync all the sound and eye-match all the cuts. Affleck and Goldenberg used two Symphony Nitris systems to cut the film, while two Avid Meridians were upgraded to Adrenaline systems for the assistants, but the new master clips in the HD project were having trouble linking back to the original Xpress Pro EDL. Eventually all the footage was redigitized, and Affleck's cut was conformed at a resolution of 1920x1080, 24 progressive frames per second with 35mm settings (to enable key number counting and tracking) while using DNX175, a full-raster HD codec and the highest-resolution compression supported by Avid. When Goldenberg arrived, he began fresh on the second half of the movie. Runway provided technical support, integration services and workflow solutions for the new equipment, and it was up to McGilvray to connect these four unique systems to a 24-terabyte Unity and keep things running smoothly throughout the editorial process.

Editing in HD has often been deemed impractical because of storage requirements and/or expense. Affleck believes the slightly higher cost of storage was offset by the benefits HD offered, particularly when it came to screening completed scenes and cuts for the studio and producers. Editing in HD allowed the editors to present previews in HD directly from the Avid without having to conform or up-rez. "It meant we could screen in the cutting room at a resolution that was as close as we could get to the original image," says the director. "So if people whose opinion we really wanted came in to watch something, it looked great."

Recently, Avid has developed more efficient codecs, such as DNX36. Like DNX175, it's a full-raster, 1080p codec, but with a compression scheme requiring about 1/5 of the storage space. "The technology moves quickly, but the acceptance of new workflows and new technologies is surprisingly slow,"

Above: Patrick is discouraged by his lack of progress. Below: Director Ben Affleck (left) and Toll confer on location.

remarks Howard Brock, president of Runway. "*Gone Baby Gone* and a handful of other shows are sort of blazing the way. It's taken the better part of 20 years, but we're finally coming full-circle back to where [nonlinear] editors can now experience something much closer to the final product in the process of cutting rather than at the very end." Affleck adds, "There's a world of difference between standard-def and hi-def, and the way the image looks and feels is important to me."

During the shoot, Toll talked with Affleck about the benefits of doing a digital intermediate (DI). "Early in production I began having discussions with Ben about how a DI would be good for us," Toll says. "The original budget for the film did not include money for a DI, and there was always a question whether we would get approval for one. So while we were shooting, I made choices based on the idea that we would be finishing photochemically, but knowing that if we did have the opportunity to do a DI, I would have many more tools available to me in color timing.

"Ben wanted the picture to have a naturalistic, realistic feel. Because he had no firsthand experience working with a DI, he questioned whether we could retain a 'film-like' look while using a digital process."

Toll assured Affleck that the final look of a DI could hew closely to that of a photochemical finish, with the added advantage of having tools to control contrast and color saturation while giving special attention to different areas of the frame.

One of Toll's production practices is to print select 35mm dailies so he and his collaborators are clear on the look of the picture. "I still print some amount of film on every project," the cinematogra-

pher says. "I believe a contact print is still the best way to check yourself on a daily basis, which was particularly important on this picture because Ben wanted to have a natural, 'film-like' look. Throughout production I printed selected film rolls that gave us a very good idea of how the picture would look in its final form when finished on film photochemically."

Affleck occasionally sat in on the film dailies with Toll, gaffer Jarred Waldron, and key grip Ben Beaird, but he viewed the majority of the dailies on DVD or via the Web. "You can only look at the little pixellated images for so long, though," says the director. "After we watched a week's worth of footage on the projector, I would turn to John and say, 'This is beautiful.'"

Those film-daily prints became very useful later during postproduction. Modern VideoFilm had done the original video dailies, and early in the editing process, Affleck was there, assembling a special 10-minute presentation reel of select scenes from the rough cut of the picture. While there, he was able see a demonstration of some of the digital tools available in the DI process.

"Ben started to get interested in the idea of a DI," recalls Toll, "so we decided to scan the negative used in this demo reel and take it through the DI process all the way to release print as a test of how a DI would work for our film. As a starting-point reference, we pulled shots from our film-dailies prints and used these as a guide on our first pass in the DI color correction."

Modern VideoFilm colorist Skip Kimball appreciated this approach. "It's something I've wanted to see happen since I started doing DIs," says Kimball. Toll adds, "I was actually surprised to hear how infrequently filmmakers use film prints as a starting-point reference for DI color correction. The best representation of the original visual intent of cinematographers is their work during production, especially if they're not available to attend DI sessions. Skip is a great colorist, but without direct input from the filmmakers who created the images he works with, he can only guess how they

should look in their final form."

Modern VideoFilm scanned the 35mm negative for *Gone Baby Gone* at 2K on a 4K Spirit for correction on a da Vinci Resolve. Before proceeding with the DI, Toll and Kimball reviewed the 10-minute selects reel, and the scanned-negative versions of those shots were corrected to create a comparable test roll that Kimball could refer to when Toll or Affleck couldn't be in the suite with him.

Having worn the hats of writer, director, producer and actor, Affleck shakes his head when asked if he'd ever go behind the camera as a cinematographer. "There are too many talented cinematographers I still want to work with," he says. "Having the opportunity to work with John Toll has been a huge thrill for me. When I'm the best cinematographer I can work with, you'll know it's a dark day in Hollywood!"

Runway Editorial, (310) 636-2000, www.runway.com.

Modern VideoFilm, www.mvfinc.com.

Cineric Offering Real-Time DI Services

New York post house Cineric, Inc., which recently carried out 4K digital restorations of *Dr. Strangelove* and *Carousel*, has expanded its operation to include digital intermediate (DI) services up to and including 4K-resolution film scanning, recording and color correction at real-time speeds, along with visual effects and compositing services.

Located in The Film Center, 630 Ninth Ave., Cineric has nearly doubled in size to 18,000 square feet. "This expansion is another step in the journey we began in 1983," says Balázs Nyari, the company's founder and president. "Considering our capabilities and experience in the demanding realm of 4K digital film restoration, a move into providing state-of-the art DI services was a natural next step."

The newly expanded facility provides storage and access to more than 240 terabytes of information, and there are plans to increase capacity to a petabyte (1024 terabytes) in the near future. According to Daniel DeVincent, Cineric's director of digital services, the only other computer system currently comparable in size and speed is used by the U.S. government to handle Social Security information.

DeVincent notes that the common practice today is to down-rez data files to 2K resolution to facilitate real-time DIs while filmmakers are grading and manipulating images in other ways. "Our experience proves that images resulting from 4K DI workflows look and feel more filmic," he says. "Filmmakers use those subtleties to compliment the emotions of performances, and audiences can feel and see the difference."

Cineric pioneered 4K film restoration with *Carousel*, the 1955 classic that 20th Century Fox produced in CinemaScope55 (see *AC* June '05). Cineric scanned each frame at 4,000 lines of resolution to capture all the information stored on the original negative, and performed all color and dye-fading corrections, dirt and scratch removal, de-flickering and image stabilization in full 4K space. The resulting files were output to

both film and an HD master file that was used for the production of high-quality DVDs. With their new capabilities, Cineric can provide HD in the 4:4:4 format as well as 4:2:2.

Cineric's restoration of Sony Pictures' *Dr. Strangelove* was the first black-and-white digital restoration to employ an end-to-end 4K workflow (*AC* Feb. '07). Several other features are currently undergoing 4K digital restoration at Cineric.

Nyari notes that most new DI projects are much less complex than restoration projects, which require repairing faded or physically damaged images. He emphasizes that the Cineric staff brings a deep knowledge of analogue and digital techniques to their work. "We are unique in that most of our people have a full understanding of the history of both film and digital technologies," he says. "Just as important, we love storytelling and understand the concerns of filmmakers. We look forward to putting the tremendous power of our technology in the hands of creative filmmakers."

For more information, call (212) 586-4822 or visit www.cineric.com.

Roundabout Announces New Services

Roundabout Entertainment, Inc. recently added finishing services — including color conforming, restoration and digital noise reduction — to its suite of hi-end HD post solutions. The incorporation of these services came with the recent installation of Digital Vision's Nucoda Film Master, which was used on the just-completed digital grade of the independent feature *Kiss the Bride*.

Roundabout's bolstering of its full-service HD post services with a dedicated grading suite answers growing client demand by providing an end-to-end finishing solution for feature films, long-form television, commercials and restoration projects. Featuring the resolution independent Digital Vision Film Master, the facility now offers DI/grading and finishing, restoration, and digital video noise reduction through seamless integration with its Avid Symphony Nitris edit suites.

"The Film Master is a highly efficient tool that will save our clients time and money. It takes our color correction services to a whole new level, allowing us to do true hi-end final color grading, while also providing the critical DVNR and restoration capabilities," remarks Deborah Willard, Roundabout's president. "Our first project on the system, *Kiss the Bride,* proved the system invaluable with its fast intuitive interface and color-matching efficiencies — and its ability to handle infinite layers allowed us to show the film's director immediate progress."

Film Master's data-centric flexibility allows color grading at full resolution, uncompressed — at any point before, during or after editing or effects work, providing a creative, productive workflow. Full support of the DI process includes fast reordering of layers and effects, dynamic grades, and animation of effects parameters. The highly-regarded Film Master scene detector automatically identifies and marks scene cuts on the background timeline for immediacy in grading so client presentations are accurate and fast.

For more information, call (818) 842-9300 or visit www.roundabout.com. ■

New Products & Services

Bron-Kobold's DW200 HMI
by Jay Holben

When I'm working in a situation where an HMI is required, I will usually look for 1,200 watts or more to augment or overpower natural daylight. I've worked with some great small fixtures, but when I tried the Bron-Kobold DW200, I was very surprised by not only its versatility, but also its punch.

When I first opened the airline case (an optional accessory), I was taken aback by the number of pieces comprising this small fixture. There's the main head, which is a compact 4"x4"x7"; the Par reflector attachment; the "open face" reflector attachment; a "bare bulb" attachment for use with a softbox; a set of two lenses for the open-face mode; and four Par lenses. In addition, there are the ballast and battery connection, although the battery connection has an old-school two-prong screw connector that I haven't seen on battery blocks in quite awhile. The paperwork notes that this battery ballast requires 26-34 volts, so I imagine there is a specific Bron battery that I didn't have the chance to test. There is also an available Fresnel lens that I didn't have the opportunity to test.

The separate reflector attachments affix easily with a small twist and lock securely in place. However, I was never happy doing this with even a slightly warm fixture, as doing so exposes the bare HMI globe (and scrapes against the envelope). I've had two HMI bulbs (one an 18K) explode and am therefore hesitant to risk any exposure to even a slightly warm, bare HMI globe. I wouldn't want to switch out reflectors on this fixture unless it was stone cold, but others might not feel that way. The only attachment that gave me some trouble was the "bare bulb" softbox adapter, when the softbox was already attached. As it has a rotation of its own (to easily orient a softbox vertically or horizontally), it was a little tricky to line up the five points of contact and get it to twist-lock in place. Connecting this adapter to the fixture without the softbox attached was a lot easier.

The head itself has a spot and flood feature, which alters the position of the globe within the center of the reflector attachments. It has a very smooth range and adjusts easily, but I wish there were some kind of calibration so I could tell at a glance how far toward flood or spot the fixture is positioned.

The accessories, lenses and scrims are 5", which is somewhat frustrating because they can't be replaced with standard Mole or Arri (5⅛", 130mm) diffusion. Instead, they'll have to be ordered from Bron.

The Par reflector attachment has a parabolic-shaped polished smooth reflector in an enclosed housing with safety glass. The "open face" attachment also has an enclosed housing with safety glass and a parabolic-shaped reflector, but it is pebbled for an overall softer light output. The quality of light from this open-face unit is pleasing enough that I would actually consider using it clean, directly on talent.

Although there are specific lenses designed for use with each of the reflector attachments, they are all the same size and can be used interchangeably. The frost lens, intended for use with the open-face attachment, works well with the Par attachment, as do any of the Par lenses with the open face. In fact, I couldn't decide which I liked better: the wide lens on the Par attachment or the open-face attachment. Both gave a very pleasing light. The medium lens didn't work well with the open-face attachment, and I wasn't too pleased with the light quality from the medium lens with the Par attachment, either. There was a lot of variation in the light output with the medium lens, as well as color fringing. This was not true of any other Par

Par reflector attachment (readings in footcandles)

	No lens	Spot lens	Med lens	Wide	Stipple
	Spot*	Spot / Flood	Spot / Flood	Spot / Flood	Spot / Flood
4'	20,000 /	6200 / 1900	6600 / 1400	1200 / 670	550 / 310
6'	8200 /	3100 / 720	2300 / 670	590 / 270	240 / 150
8'	5000 /	1800 / 410	1300 / 360	340 / 170	140 / 84
10'	3300 /	1100 / 240	830 / 260	210 / 100	84 / 52
12'	2200 /	720 / 170	590 / 170	150 / 78	59 / 37
14'	1500 /	590 / 130	410 / 120	100 / 55	45 / 28
16'	1200 /	410 / 97	310 / 97	78 / 42	34 / 21
18'	950 /	340 / 73	260 / 78	64 / 34	28 / 16
20'	770 /	270 / 64	190 / 55	52 / 28	23 / 14

*As mentioned, with the Par attachment in full flood with no lens there is a dark center spot. Because of this, and because of an inability to read a consistent hot center, I elected to omit the Flood dataset.

lenses. With all other lenses, and all other configurations, the light output was very smooth and pleasing.

One further drawback to the Par attachment is that with no lens in full flood, there is a center dark spot, similar to a flashlight beam. Because the globe is positioned through a hole in the center of the reflector, this dark spot becomes evident in this configuration. It is smoothed out the moment any of the Par lenses are incorporated.

Photometric measurements took me awhile because there are so many possible configurations to this little fixture. They are real-world measurements taken with a Sekonic L508 meter in a practical environment, always reading the center hot spot of the light — not data generated in the vacuum of a laboratory setting.

At 20', full spot, the beam angles for the Par attachment were:

No lens: 2' (circular)
Spot lens: 4' (circular)
Med lens: 3'x6½'
Wide lens: 6½'x18'
Stipple lens: 23' (circular)

Open-face reflector attachment
(readings in footcandles)

	No lens	Frosted lens
	Spot / Flood	Spot / Flood
4'	4700 / 1500	1000 / 720
6'	2000 / 630	440 / 290
8'	1200 / 340	270 / 160
10'	670 / 210	180 / 100
12'	480 / 160	120 / 73
14'	360 / 110	90 / 55
16'	270 / 84	68 / 42
18'	210 / 68	52 / 34
20'	170 / 55	42 / 28

With Chimera XS Softbox
(readings in footcandles)

	Flood	Spot
2'	270	260
4'	90	73
6'	39	34
8'	24	23
10'	16	15

The set also comes with a dichroic 3200°K filter for integrating this fixture with tungsten lighting, which is a 1-stop loss. There's enough room in the accessory ears to easily fit two lenses simultaneously, so the dichroic can work in tandem with either the open-face or Par reflector and any of the other lenses.

The accessory ears on the fixture feature the top locking ear that is spring-loaded and slides under a lip lock in place — not my favorite, as it's clumsy to operate when hot. Further, this fixture, in both open-face and Par modes, has only three ears, so the top locking ear pretty much has to be locked into place to keep the barn doors, lenses and diffusion in place. All of the lenses have large, color-coded hoop handles that stay remarkably cool, even after an hour of burning. Small "stops" on the lenses allow a 90-degree rotation without having to open the ears and reposition the lens. I'm not sure why the stops are necessary, however, as the handle is enough to stop the lens from rotating too far; I found the "stops" more clumsy than helpful.

The fixture itself stays remarkably cool, even after an hour of burning. There was hardly any point that I couldn't touch with a bare hand. Even 4' from the front of the fixture, with no lens at full spot, the heat output was only 100°F.

The four-leaf barn doors have built-in gel clips, a nice touch.

The DW200 is an "all weather" fixture, and I put that to the test, running it under a fairly heavy "rain" situation for 30 minutes with no deleterious effects. It functioned perfectly in a fairly heavy downpour.

In addition to the three reflector attachments and multiple lenses and spot/flood adjustment, the ballast for the DW200 has a built-in dimmer that allows for dimming down to about 40 percent output.

The fixture is small enough and light enough to be squeezed into almost any situation. It also runs cool enough that I would have no problem tucking it into a corner right against a wall or ceiling. It packs a lot of punch to boot.

The head and ballast are incredibly silent. I've never heard HMIs this quiet before. If I put my ear against the ballast, I could hear a slight hum, but it's certainly a head that can be run close to talent or microphones.

The head has a standard ⅝" baby pin socket, but strangely, it's a little shallow. On one of the stands I mounted it on, the lock-down didn't quite get into the ridge on the spud, and instead locked down on the top smooth metal — not what you'd want if you were hanging this fixture overhead.

Overall, this is an incredibly versatile light with a lot of output for its wattage. For more information, visit www.bron-kobold-usa.com or call (866) 504-2766.

Element Labs LED Fixtures
by Art Adams

In only two days, shoot seven shots each of 39 different NASCAR drivers in dramatized situations with a pit crew, car and diagnostic stations. Each driver is available for 30 minutes, tops. Each set of shots will be cut into three 8- to 10-second vignettes to be used in show openers and commercial bumpers.

That was what Calgary-based Jump Studios faced when it signed on for a second round of show packages for ESPN's NASCAR telecasts. "We shot the first round in Daytona with the Busch Series drivers in early February 2007," says Brian Vos, Jump Studios' general manager. "Based on that, we were asked to shoot, edit and finish a second package with the Nextel Cup drivers."

The project demanded a unique look that would grab viewers and draw them into the exciting world of high-speed racing. "The use of multiple LED screens really fell out of our discussions with our client," says director Jeff August. "We knew they wanted something big, bold and different that the drivers would be comfortable around and would create a memorable yet believable scene. We started with the Element Labs Stealth screens and then

built the rest of the set around those."

Vos and August saw a Stealth demonstration at NAB and talked about the technology with director of photography Jeff Sutch. "Stealth gave me all that I was envisioning for this shoot," notes August. "It offered me and my design team endless graphic possibilities that in the end would be more dynamic and real than another green-screen composite."

Stealth consists of LED panels that can be assembled into massive video screens of virtually any shape or size. The panels are constructed of either a white or black lattice that blends into backgrounds so as not to distract from the video image. In combination with an easy-to-use hardware-processing tool that maps customer-supplied video across the finished array, it's possible to use Stealth to create dynamic, live-action backgrounds that can change at a moment's notice. Boasting 48-bit color depth and a pixel pitch of 25mm, it was easy for August to envision using this technology to build a set that not only was dynamic but also could contribute to lighting each shot.

In addition to Stealth, the production used two other products from Element Labs. 1-meter-square Versa Bank frames, containing 504 LEDs per frame, were used to create a large soft source over the car, and 4'x1' Kelvin Bank full-spectrum LED prototypes were used to light the talent. Bill Streed, Element Labs' sales representative for the Kelvin series of lights, notes that common LED lights contain only three colors: red, green and blue. "If you're looking at those colors, you can create any color that your eye can see," he says. "But if you're lighting an object with only those three colors, it's a completely different ballgame."

To see a color accurately, it has to be hit by light containing that color. When lighting an object that is brown or cyan, for example, you have to illuminate the object with light that contains those colors in order to photograph them accurately. Red, green and blue LEDs have large gaps in their spectrum: brown falls into a space between red

and green, while cyan falls into a gap between green and blue.

The Kelvin series uses a proprietary mix of LEDs that include the colors orange and cyan, as well as a broad overall white, such that the units emit full-spectrum light. The overall color of the light can be easily warmed or cooled, and the individual LED colors can be mixed to create almost any color imaginable. The lights can also be dimmed without changing color. This six-color (RGB COW) LED mix makes the Kelvin series the only full-spectrum LED lights available to the motion-picture industry at this time. Element Labs contributed two 4'x1' Kelvin Bank prototypes to the production for testing.

"There was no need for a generator or fans to cool off the set — it was a very easy way to work," says Sutch. "It was very fast: just program and go. It was lightweight, and I even shot through the Stealth lattice screen from behind to create a textured fence look. The Kelvin Bank prototypes eliminated the need for color-correction gels on my keylights. I had other lights standing by but never needed them.

"I look at both Stealth and the Versa Banks as being really big video displays," he continues. "We built two walls of Stealth, one on either side of the car, and played a wide selection of cool video imagery on them, including mock-ups of speedometers and RPM gauges as well as treatments containing the drivers' names."

Kelvin Banks mounted easily on rolling Mathews stands, and the Versa Banks were suspended on steel cable from a truss grid with pipes at specific points. The Versa Banks mounted flush together, creating a single 2-meter-by-5-meter screen that hung safely over the car.

The Stealth screens, originally designed for live concert tours, required little time to set up. Each screen arrived folded and preconfigured in its own road case. The tops of the segments were attached to trusses and unfolded cleanly as the trusses were raised. Each screen consisted of 96 Stealth panels, resulting in a display measuring 21' wide by 8' high with a 3:1 aspect ratio. At 2.2 pounds per panel, each screen weighed just under 300 pounds, including cabling. Together, the Versa Banks and Stealth screens formed a short tunnel, with a race car parked in the center. Pit crews worked around the car and the displays, with the talent framed in the foreground.

Recalls Sutch, "Originally, I thought we might have a problem with the far ends of the Stealth walls because perspective caused the far LEDs to face farther away from the camera than on the close ends, and I thought the far ends would look darker. I had the grip crew move the far ends of the Stealth walls closer together to force the perspective and open those LEDs up to the lens. It turned out that being off angle to the LEDs wasn't a problem at all, so I had the grips square the walls off again.

"We used the Versa Banks over the car in place of a big softbox. Sometimes we used them for white beauty light for the car, and sometimes we played a loop of sky and clouds that reflected in the car's windshield.

"The Stealth and Versa Banks both ran on 208-volt, three-phase power. The Element Labs engineer controlled the whole system from a Mac laptop connected to a small media server. The screens' video inputs took standard DVI cables, and we controlled each screen individually. Jump Studios gave the engineer a CD full of graphic content, and off we went."

The project was shot in high-definition video using two Panasonic VariCams. "I had ring lights on both cameras, and I used the 4-foot Kelvin Banks from the front with 216 diffusion on the doors," the cinematographer notes. "I had a couple of tungsten backlights with ½ CTO on them. The rest of the lighting was LED."

All of the LED lights were balanced for 3200°K by Jonah Strauss, an Element Labs engineer. "We balanced the 4-foot Kelvin Bank keylights to match a 3200°K Kino Flo ring light by mixing differing amounts of all six Kelvin LED colors," says Strauss. "We then repeated the process for the RGB-only Stealth screens and Versa Banks. The Stealth signal-processing unit has a built-in RGB color-correction feature, and we mixed those colors such that the unit output 3200°K white light to the screens when a white video signal was fed into the unit. To white-balance the Versa Bank array, we used our RasterMapper software running on a laptop."

"This is a new way of looking at lighting situations," says Sutch. "You can color-correct on the fly; it's like having a camera-control unit or paint box on a light: warm it up, cool it down, dial it in just right. It was very quick and very soft. The biggest advantage, though, is that the active lighting gives the talent something to react to, which results in better performances. In this way, it's vastly better than green-screen."

Element Labs, (512) 491-9111, E-mail: info@elementlabs.com, Web site: www.elementlabs.com.

Cinematographer Art Adams consulted with Element Labs in the development and testing of the company's lighting products.

Iconix HD-RH1

by Jon D. Witmer

From his earliest discussions with director Steve Shill and the producers of the Spike TV miniseries *The Kill Point*, cinematographer Bert Dunk, ASC, CSC knew he had found the right project for the Iconix HD-RH1 point-of-view

camera. "I'd been following [the camera] for about a year, and I was waiting to get my hands on it," he recalls. "It sparked my interest because it struck me as a hi-def version of an Eyemo, only better because of its size."

Over the course of eight one-hour episodes which began airing in July, *The Kill Point* details a bank heist/hostage situation that spans three days. Shooting on location in Pittsburgh, the crew captured exteriors in Market Square, and the bank interior was photographed on a set constructed in a warehouse. "With an eight-hour show that's basically either in the bank or out in the square, the challenge was to keep it moving and keep it interesting," attests Dunk. "The Iconix afforded me a lot of unusual angles I otherwise wouldn't have been able to get."

Roughly the size of an egg, the HD-RH1's camera head measures 1.32"x1.50"x1.92" and weighs 2.5 ounces. The small size is made possible by a separate HDTV controller unit — itself a fairly compact package measuring 8.4"x1.8"x12" and weighing 3.5 pounds — that connects to the head via a proprietary cable available in 3-, 6- and 10-meter lengths.

Referring to his camera team, operators Russell McElhatten and Frederick Iannone and 1st ACs Michael Endler and Rick Crumrife, Dunk says with a chuckle, "We would have fun just figuring out places to use the camera." Over the course of the shoot, the Iconix was dragged on the ground, mounted on a train, used extensively in an air vent, and even attached — by means of a paperclip — to the end of a sniper rifle.

"There were times when we

were up on a balcony overlooking Market Square, and we'd run the camera 20 feet up in the air on a boom pole to get a nice shot looking down at the square," says the cinematographer. "We also had some shots of the SWAT team looking down to the market, and by using the boom pole we were able to stick the camera out over the ledge and look back at the actors. [These shots] took seconds to do; otherwise we would've been building scaffolding or bringing in a scissor lift."

Working in 4:2:2, Dunk recorded to a Sony SRW1 deck whenever possible and utilized a Sony HDW-S280 HDCam field recorder when portability became a concern. The Iconix can also capture footage at 25, 30, 50 and 60 fps, but Dunk never strayed from 24 fps. "When there was gunfire, I would turn the shutter off so that we would maintain the entire flash of the gun," he adds. "That worked great."

The HD-RH1 accepts C-mount lenses, and Dunk employed a set of Fujinon primes. Coming out of Panavision's Plus 8 division, Dunk's camera package also included two Sony HDC-F950s. "[The Iconix] is maybe a little bit slower than the 950, but not by much, and the picture quality is just incredible," says Dunk. "When we put it up to the 950s, I was amazed at how good the picture was."

With its ⅓" 3-CCD prism system, the HD-RH1 features native 16x9 scanning in 720p, 1080i, 1080p and 1080psf. (For *The Kill Point*, the camera was used in 1080p.) The camera is also capable of outputting dual-link 4:4:4 RGB/YCbCr.

"It would be wonderful for car shots — since there's no mass, there would be no real vibration issues," notes Dunk. "Really, I think the only limiting factor for the use of the camera is one's imagination."

For more information, visit www.iconixvideo.com or call (805) 690-3650 or (800) 783-1080.

Alpha 18 Compact 18K HMI

P56 lighting, the sister branch of K5600 Inc., has released the Alpha 18 18K Fresnel HMI. It weighs 125 pounds

in open-eye mode (good for the new Condor rules) and has a small, shallow profile of 23" with a standard 24" Fresnel or ceramic glass. The core of this innovation is a patent-pending, custom-made reflector molded out of quartz composite material, allowing the lamp to be much closer to the reflector and therefore reducing the physical size of the Alpha 18K by a third (compared to the traditional 18Ks on the market).

The light output from this new reflector is increased by almost 15 percent with a softer and smoother lighting pattern than the oversized, conventional aluminum reflector.

A computer-designed extrusion/vent system is precisely angled for maximum cooling efficiency, and with a specially engineered back door (Turbine style), the Alpha 18 will stay cool in any critical position. A double-suspension system (one to the lamp heat sinks and one to the chassis support) makes the Alpha 18 lamp less fragile to rough handling that occurs during location transportation.

The Alpha 18K allows the user to switch from the soft Fresnel look to a hard-shadow Open Eye by interchanging lenses instantly from the front of the fixture with the pull of a knob. The Alpha 18K is now available for sale and rental in Los Angeles, New York and Miami.

For more information, visit www.p56lighting.com or call (818) 901-1214.

Airline-Friendly Kobold HMI Kit

Bron-Kobold has put together a 200/400 Kobold all-weather HMI kit that weighs less than 50 pounds, meaning airline overweight fees do not apply. Each Sub 50 Kit includes the DW 200

and DWO 400 Open Face HMI systems, which includes the fixtures, ballasts, cables, lamps, barn doors and case. The kits are configured three ways: the Sub 50-1 (47 pounds) has the IP 43 rated EWB 200 and EWB 400-575 AC ballasts; the Sub 50-2 (49 pounds) has both AC ballasts and also includes the BB200/C DC ballast for the DW 200; and the Sub 50-3 (45 pounds) includes the BB200/C DC ballast for the 200 and the EWB 400-575 AC ballast for the 400. Optional accessories for the DW 200 and DWO 400 include the 3400°K glass conversion filters and glass diffusion filters.

For more information, call (866) 504-2766 or visit www.bron-kobold-usa.com.

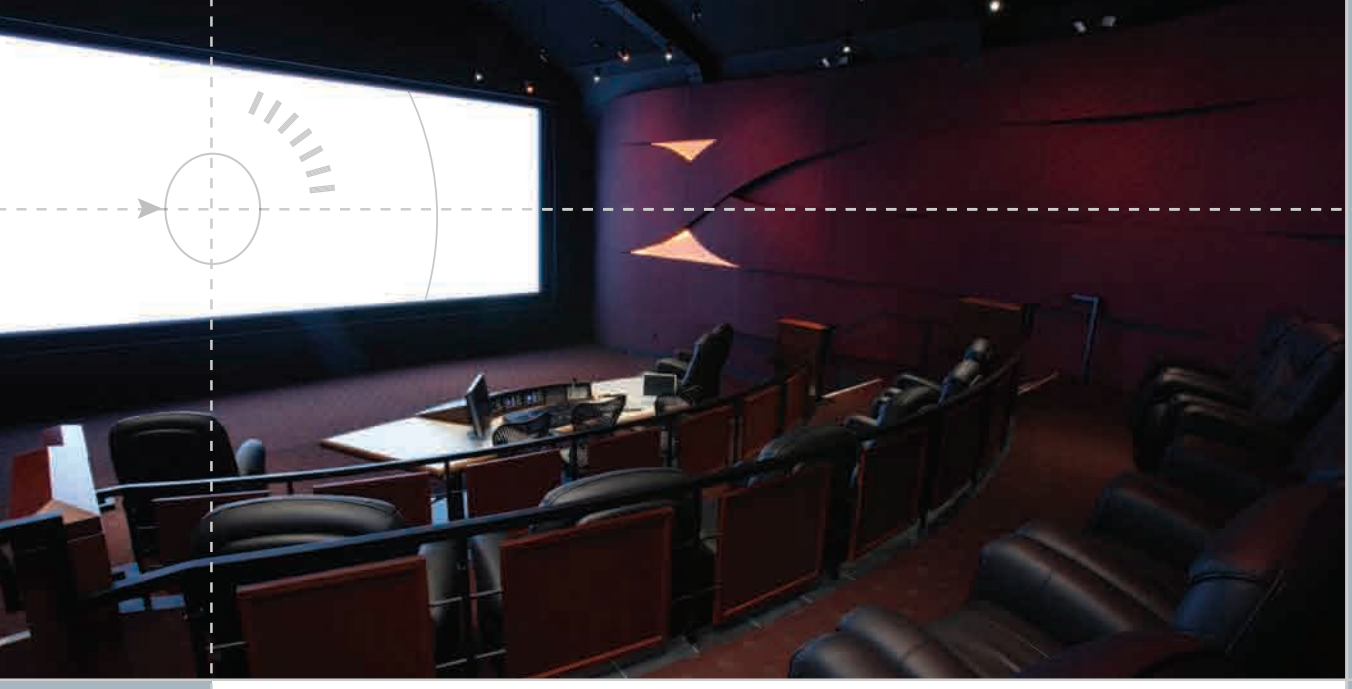
Zylight's Tiny, Brighter Z90

Zylight has introduced the Z90 Intelligent LED light. Four times brighter than the Z50, the Z90 features Zylight's exclusive switchable tungsten and daylight output.

Only slightly larger than the Z50 and drawing the same power, the palm-sized Z90 also features a new color Gel Mode that allows users to select any one of over 400 industry-standard theatrical gel numbers from four leading manufacturers. Color selection is easy with an integrated digital display, and presets are provided for saving user favorites.

Wireless control is a breeze with ZyLink technology built into every Zylight. With the new Z90, lighting professionals can choose from 10 independent wireless ZyLink channels to create flexible and scaleable multi-light installations. The same Zylights used independently on one shoot can be wirelessly linked together the next, forming a large soft source of light. Zylight's advanced HD-LED technology produces a bright, soft and wide output similar to incandescent fixtures, but with no bulbs or filaments to break. A snap-on adapter allows professionals to mount standard 3" lighting accessories, such as barndoors or a softbox, to easily control the output. It is powered from AC or 7-24V DC source.

For more information, visit www.zylight.com or E-mail: info@zylight.com. ■



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Clubhouse News

New Member

The Society has welcomed Bojan Bazelli into its membership ranks.

At age 7, **Bojan Bazelli, ASC** was introduced to photography and cinematography in his native Yugoslavia when his father took him to a projection room to view a film. The experience stirred a deep curiosity in the youth, as he wondered how a projector could create beautiful images on a distant screen.

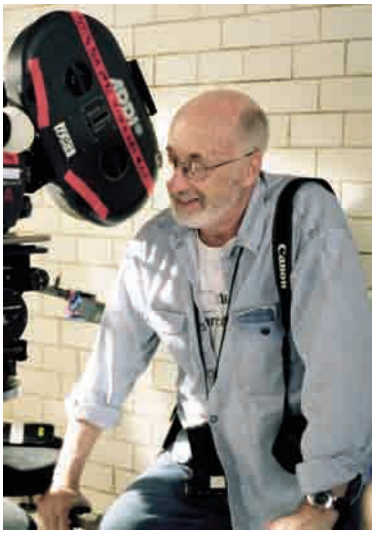
He studied photography in high school in the Yugoslavian coastal town of Heceg Novi and continued his training at FAMU Film School in Prague. Director Abel Ferrara, impressed with one of Bazelli's student films, offered the aspiring cinematographer the job of shooting *China Girl* (1987) in New York City. Bazelli has lived in the United States ever since.

Bazelli's long list of feature credits includes *Tapeheads*, *Patty Hearst*, *The Rapture*, *Boxing Helena*, *Kalifornia*, *The Ring*, *Mr. & Mrs. Smith* and *Hairspray*. He earned an Independent Spirit Award nomination for best cinematography for *King of New York* in 1990.

He also has been recognized for his commercial work, winning a Gold Clio in 1998 and American Independent Commercial Producers Awards in 1996 and 1998.

Goldblatt Honored

Stephen Goldblatt, ASC will be recognized for outstanding achievement in cinematography at the 11th Annual Hollywood Film Festival and Hollywood Awards on Oct. 22. He will receive the Hollywood Cinematographer of the Year Award at the festival's Hollywood Awards gala.



ASC Calls for TV Entries

The Society has issued a call for entries in the television categories of episodic and movie/miniseries/pilot for the annual ASC Awards competition. The deadline for submissions is Nov. 1 at 12 p.m.

The winners will be announced at the 22nd Annual ASC Awards on Jan. 26, 2008.

"This annual celebration is an opportunity for our members to express their admiration for the artistic achievements of their peers," says ASC President Daryn Okada. "It is also a forum where we hope to inspire cinematographers around the world to follow their dreams in their pursuit of creative visual storytelling."

Cinematographers can submit programs that have a U.S. premiere broadcast date between Jan. 1 and Oct. 31, 2007. ASC members will choose five nominees in each category. "We believe it's extremely important for peers to judge artistic achievements in cinematography, because [our work] is generally designed to be transparent to audiences," says Russ Alsobrook, ASC, chair of the Awards Committee. "Many creative lighting and composition variables augment the actors' performances and affect the emotional tones of stories."

Entry forms can be downloaded from the ASC Web site, www.theasc.com. For more information, call (323) 969-4333.

ASC Members Nominated for BSC Award

At the British Society of Cinematographers Summer Lunch, held at Pinewood Studios on July 15, Phil Meheux, BSC was presented the Golden Camera for his work on *Casino Royale*. Other nominees were José Luis Alcaine, AEC for *Volver*; **Dion Beebe, ASC, ACS** for *Memoirs of a Geisha*; **Emmanuel Lubezki, ASC, AMC** for *Children of Men*; **Guillermo Navarro, ASC** for *Pan's Labryinth*; and **Wally Pfister, ASC** for *The Prestige*. ■

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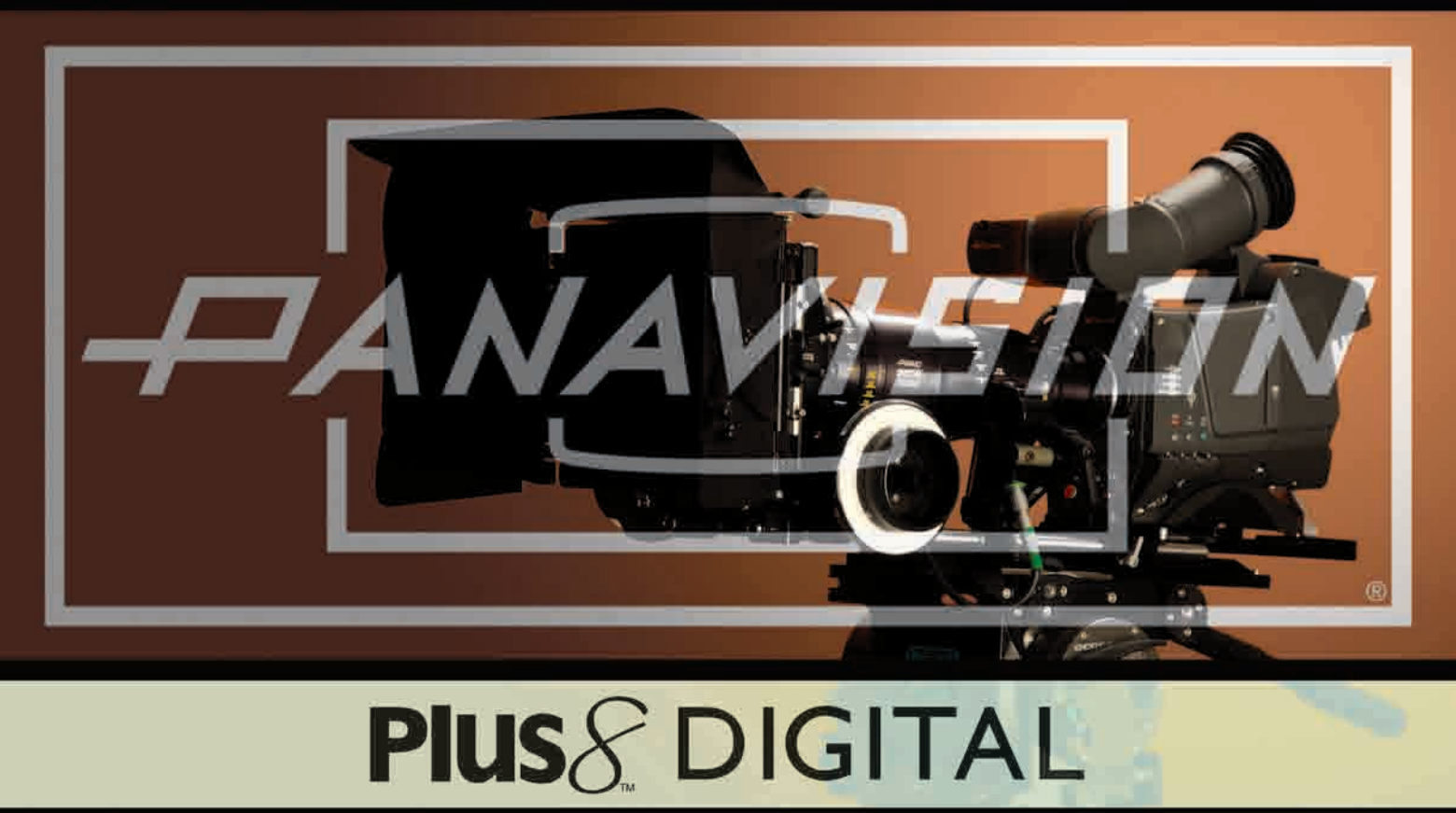

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ASC CLOSE-UP

John Bailey, ASC

When you were a child, what film made the strongest impression on you?
Like most kids, I was a sucker for horror and sci-fi films. Two that scared me to death at an impressionable age were the original *The Thing*, photographed by Russ Harlan, ASC, with a score by Dimitri Tiomkin, and *The Man from Planet X*, directed by Edgar Ulmer and photographed by John Russell, ASC. At that age I didn't have any idea that movies were made; I thought they just sort of happened.

Which cinematographers, past or present, do you most admire?
Néstor Almendros, ASC was my true mentor. What I most learned from him were simple manners and respect for the crew. Vittorio Storaro, ASC, AIC's work on *The Conformist* made me decide to become a cinematographer. Gregory Sandor, who photographed *Two-Lane Blacktop*, the first studio film I did as camera assistant, taught me how to set key-to-fill ratios and how to be consistent through the coverage of a scene. His one-light dailies looked like many cinematographers' answer prints. Willy Kurant, ASC, AFC, one of the great French New Wave cinematographers along with Coutard and Almendros, is a longtime friend who photographed a film I directed. And Laszlo Kovacs, ASC was the great exemplar of an artist who always did the most beautiful work, regardless of the assignment. His work always served the script, and it bothers me that the Academy never nominated him.

What sparked your interest in photography?
In college I was interested in fiction writing, but as a student in Europe I discovered the 'art film.' Its two key exponents were writer/directors such as Ingmar Bergman and Michelangelo Antonioni. Their 'writing' was a watershed to my generation.

Where did you train and/or study?
The University of Southern California (USC), when it began the graduate program.

Who were your early teachers or mentors?
Woody Omens and Gene Peterson at USC. Woody was the first person to give me encouragement in film school, and he is a dear friend to this day. Gene was a wild and crazy guy; he spent summers shooting wildlife films for Disney. He loved regaling us with stories of waking hibernating bears and filming them in their lairs.

What are some of your key artistic influences?
The sculptor David Smith, the painter Mark Rothko, the photographer Paul Outerbridge, and the ever-fertile composer Elliot Carter, who turns 100 next year. Carter is the only person I've ever asked for an autograph.

How did you get your first break in the business?
I had a job filling lab orders for stock shots for the American Airlines library. In 1965, if you saw a shot of an AA jet in the air or on takeoff or landing, I probably provided it. My second job was syncing 16mm dailies for a Headstart documentary being edited by Verna Fields.

What has been your most satisfying moment on a project?
Maybe I could have answered that 25 years ago, when there were a lot fewer to choose from.

Have you made any memorable blunders?
In *American Gigolo* there's a Steadicam POV shot of a character stalking Richard Gere on Westwood's sidewalks. Somehow, the shutter on the Panaflex slipped from 180° to 40°. The shot was 2 stops underexposed. I only spotted it afterwards. We pushed the roll 1 stop and printed it up 1 stop. Since I always overexpose day exteriors, the negative was fine, but the accidental effect was a disquieting, picketing stutter of foreground parking meters between the camera and Gere. Some students have remarked on what a 'bold choice' that was as a psychological window into Gere's anxiety. Yeah, and a window into 'critical studies.'

What's the best professional advice you've ever received?
Early in my career, as an assistant doing commercials, I found myself sitting at the top of a Titan crane next to the great Phil Lathrop, ASC, waiting for the sun to set for a wide beauty shot of cars. He sat there patiently behind the lens. I leaned toward him and said, 'I'm just starting in the business and hope someday to be a cinematographer. What advice could you give me?' He looked at me so hard I felt like bailing off the crane. 'Only one thing, kid,' he said. 'Sit down whenever you can.'

What recent books, films or artworks have inspired you?
I recently spent three days in the National Gallery in London, reviewing the history of Western art from Cimabue and Duccio to Van Gogh and Gauguin. I had headphones pressed to my head and was caught up in the commentaries and the amazing textures of paint you can only see at close scrutiny. It was a transcendent experience in one of the world's greatest collections.

Do you have any favorite genres, or genres you would like to try?
After the misfired experience I had on *The Producers*, I would still like to do a musical.

If you weren't a cinematographer, what might you be doing instead?
My father was a machinist, and I spent summers working lathes and mills in his machine shop. I would like to be a sculptor in steel.

Which ASC cinematographers recommended you for membership?
Principally the late, generous John Alonzo.

How has ASC membership impacted your life and career?
The sense of community and fellowship is something I carry with me even in the darkest and most desperate hours on the set. ■

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ONFILM

CHECCO VARESE, AMC

"I was born in Peru and studied architecture at a school in Milan, Italy. I never worked as an architect but it has helped me as a cinematographer. When I'm shooting a film, I am looking at life through a viewfinder that speaks to my soul and my brain at the same time. Every film has its own visual grammar, just like writing poetry, novels and journalism. It is about creating an arc that flows with the emotions of the story, using contrast, colors, highlights, shadows, composition and movement. A handheld shot could be used at a poetic moment or to punctuate an extraordinarily violent and aggressive scene. The only unbreakable rule is that it must serve the story. I believe filmmakers are the guardians of the memories of the 20th century."

Checco Varese, AMC began his career shooting television news, mainly in war zones, and documentaries for broadcast networks. He has shot hundreds of music videos and commercials, and has earned some 20 narrative credits, including *El Aura*, *La Misma Luna (Under the Same Moon)*, the upcoming release *Prom Night* and the HBO pilot *True Blood*.

[All these films were shot on Kodak motion picture film.]

For an extended interview with Checco Varese visit www.kodak.com/go/onfilm.

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