



Outside the Box

Three cinematographers
discuss three very different
television series.

By Debra Kaufman, Phil Rhodes and
Iain Stasukevich

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For this month's special focus on television production, we spotlight directors of photography Steven Fierberg, ASC (*The Affair*); Rory Taylor (*Doctor Who*); and PJ Dillon (*Vikings*).

The Affair (Showtime)

Cinematographer: Steven Fierberg, ASC

Showtime's series *The Affair*, which at press time had just received a Golden Globe for "Best Television Series – Drama," takes a nuanced look at the vagaries of the extramar-

ital relationship between Alison (Ruth Wilson) and Noah (Dominic West). The former is a waitress in a Hamptons café, married into a local family who has owned a ranch in Montauk for decades; she and her husband, Cole (Joshua Jackson), are trying to overcome the tragic death of their young son. Noah, a schoolteacher and novelist, has married into a wealthy family, but he often butts heads with his arrogant father-in-law, straining relations with his wife, Helen (Maura Tierney). They meet when Noah, Helen and their children are vacationing at Helen's parents' mansion and go for lunch at the café; Alison and Noah notice each other, and both feel a frisson of attraction. As they continue to run into each other in the small town, the two ignite an affair, opening a Pandora's box of lies, feuding families, drugs, trauma and murder.

Created by Hagai Levi and Sarah Treem, *The Affair* unfolds around an intriguing structure, in which each episode

is divided into two halves: One half depicts the events as told by Noah to a police investigator, and the other shows the same events as described by Alison. That Alison and Noah relate the same moments very differently — often radically so — deepens the narrative and makes the mystery surrounding the murder far more complex.

Mark Mylod, one of the show's executive producers, also served as director for the pilot, and he tapped Steven Fierberg, ASC to serve as cinematographer. Fierberg, who would stay on to shoot all 10 episodes of the first season, had previously worked with Mylod on the series *Once Upon a Time* and *Entourage* (AC July '05). "The advantage of working with a director you've had experience with is tremendous," says Fierberg. "We had a very short prep, but Mark and I were able to make decisions very quickly. He can say one sentence and it bespeaks a whole world to me. We're in sync because we've done it before together. Working with Mark is a great collaboration."

For *The Affair's* visual style, Showtime suggested that the filmmakers reference John Cassavetes' films, and Mylod and Fierberg took the note to heart. "I would say his movie *Faces* is one of the 10 greatest films I've ever seen," says Fierberg. "It's wider-angle, right in the faces of the actors. Cassavetes' shots are extremely sophisticated and well done. The realistic lighting and 16mm grain has led people to unfairly overlook the incredibly effective visual storytelling and staging, but I am thrilled by it."

Fierberg and Mylod also had to consider if and how the images should underscore the show's structure, with its separation of Alison's story, Noah's story and, to a lesser degree, the point of view of the investigating detective (Victor Williams), who is usually seen near the end of each half. "Mark and I started with a discussion of what it means to be subjective," the cinematographer recalls. "I personally believe that subjectivity is established by proximity to a particular character. The camera has to be closer to that person than anyone else. In TV, you



Opposite (clockwise from top): Scenes from *Doctor Who*, *Vikings* and *The Affair*. This page, top: Detective Jeffries (Victor Williams) asks Noah (Dominic West) for his version of the events in the dramatic series *The Affair*. Bottom: Alison (Ruth Wilson) gives the detective her side of the story.

typically match the close-ups — there's symmetry. For shows that have an objective point of view, that's appropriate. But for a show like *The Affair*, which is subjective, the camera should be closer to the character whose point of view we're seeing.

"At one point, we talked about the possibility of having one person's story being handheld, but not the other's," Fierberg continues. "It's a strong way to differentiate, but we didn't feel it was right. It was too extreme and wouldn't serve the story." However,

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Noah attacks Scotty (Colin Donnell) as Alison's husband, Cole (Joshua Jackson), pulls a gun.

Fierberg and Mylod did decide never to shoot the scenes from the detective's point of view with a handheld camera. "It was always on a tripod or a dolly, and the lenses were more extreme — very wide-angle lenses that we'd never use with the other two stories."

Fierberg shot *The Affair* with an Arri Alexa recording 2K ProRes 4:4:4 files that were later scaled down to HD for broadcast. The crew carried two camera bodies, but primarily shot "single-camera style," the cinematographer says.

"Film never came up [as an option], to be honest," Fierberg adds. Only months before, he and director Kevin Connolly did have the film-versus-digital conversation in regard to the feature *Dear Eleanor*; opting for the Alexa, Fierberg set about testing lenses, and Panavision executive Bob Harvey, an ASC associate member, suggested that he look at the company's PVintage Series, which are based on Panavision's Ultra Speed primes. Fierberg had used

Ultra Speeds years earlier and was happy to be reintroduced to them; he opted to use the PVintage lenses on both *Dear Eleanor* and *The Affair*. "Even though we're shooting with a digital camera, I wanted [*The Affair*] to have a feeling and humanity that is more easily achieved with film," the cinematographer says. "The PVintage lenses made *The Affair* look less digital than it might have. The image is very soft — even, to some extent, desaturated — and I think that's an essential part of the look."

Further fueling their conversation, Mylod and Fierberg also referenced the latter's work on *Entourage* and *Secretary* (AC April '02). "I thought a lot about *Secretary*," says Fierberg. "A huge portion of that movie was shot with a 32mm lens, and I wanted even a slightly wider angle for *The Affair*." The director and cinematographer talked about the impact of shooting close-ups in close proximity to the actors with a wider lens, as opposed to shooting from farther away with a longer focal length.

"There's a very different feel when you're shooting close-ups with the 32mm lens," Fierberg notes. "Although some people find the look of the longer-lens close-up to be more intimate, I believe that subconsciously, the audience is aware [when the camera is] closer to the actor. It creates a different impact."

On *The Affair*, Fierberg primarily used the 29mm, 40mm and 50mm lenses, relying on the latter two for close-ups. "Both of those lenses are so creamy and lush," he enthuses. "It's just ridiculous how great they make the faces look." On rare occasions, he used the 75mm to save time. "Shooting with prime lenses takes longer than shooting with zooms," he says. "But if you really want that creamy look, the only way to do it is to put on those old prime lenses. They slow you down, but they give you something you won't get any other way."

Typical for a television production, time was always of the essence, as each episode was shot in just eight days.



Top: Alison tries to comfort Cole.
Bottom: Cinematographer Steven Fierberg, ASC (pointing) discusses a scene with Wilson.

And, Fierberg stresses, “it was eight days to produce 58 minutes, which is a big difference from 42 minutes.” *The Affair* was shot almost entirely in the state of New York, much of it in and around Montauk and the rest within the zone of New York City — particularly Brooklyn, where Noah and his family live. To avoid the huge summer crowds, the production shot in Montauk at the beginning and end of the season. “Mark and [director/executive producer] Jeffrey Reiner were very committed to really capturing the scale and scope of where we were,” says Fierberg. “Jeffrey knows the area, and he would take us to locations he knew specifically, such as Block Island.”

Rehearsal time was especially important, in large part due to the complexity of the script, which required that everyone always be aware of whose point of view each scene represented. “There’s a lot of depth in the writing,” Fierberg says. “Sometimes it references a scene we haven’t shot yet, or something that will become important three episodes later. So there was a need for very careful analysis of what was happening in a given scene.”



As a result of the dedicated rehearsal and blocking time on set, it wasn’t uncommon for Fierberg to shoot a scene in a single shot. “The scene might be rehearsed and figured out for an hour, and we might do a lot of takes, but then that’s it,” he explains. “Having very little coverage requires really knowing the scene and rehearsing until it’s great.” On an average day, he adds, the crew might not tackle many scenes, but the page count would be high — eight

to 10, and sometimes more. The cinematographer credits A-camera/Steadicam operator George Bianchini and camera operator Chris Hayes for their skill and ability, which helped to make this approach work.

With regard to his lighting, Fierberg reports that he was going for a look of “heightened realism” as well as sensuality. “It looks real and it doesn’t look ‘lit,’ but it is lit,” he says. “My cinematography should never call attention

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to itself, and I hope it doesn't, but I certainly put a lot of effort into making the actors look their best.

"I'm a soft-light guy, especially with digital," he continues. "When I light directly, I'll push Blondes, Babies, Mini-Brutes or HMIs through 6-by-6 or 8-by-8 butterflies with Full Grid and Lighttools egg crates. For a smaller direct light, I use the Chimera medium Video Pro strip [bank] with the bare-bulb Triolet fixture and egg crate. When I bounce, I frequently tape or clip raw bleached muslin to walls or ceilings, and hit it with Tweenies, Blondes or Source Fours. For a small soft light in close proximity, I use either 2-by-2 or 'fat boy' [2-foot four-bank] Kino Flos with bleached muslin clipped on the front. And I will always light a night car scene with the exceptional LiteGear LED lighting kit." Fierberg notes that gaffer Scott Ramsey (whose company, Xeno Lights, supplied the lighting package) and key grip Gary Martone made all the difference to the production. "They're phenomenal and so creative," he says.

The "sensual" aspect of the show's visual style, Fierberg adds, helps create an emotional connection to what the characters experience. For example, he says, "Alison remembers her child jumping into the pool, or how the waves touched her feet." One technique the cinematographer employed was to undercrank the camera. "By playing with the frame rate, you can get something very poetic and not achievable any other way," he submits.

Fierberg says he's found *The Affair* to be "one of the most satisfying projects I've worked on. The writing is phenomenal. It's good because it's subtle; it doesn't hit you in the face. I love working with these great scripts and great actors. I always want to work on projects where the directing, writing and acting are all of one piece, so I'm very satisfied with what we're doing on this show. We've been able to achieve a style that's rare in television: to take the time to rehearse and stage, then shoot masters and not do coverage. I love that."

— Debra Kaufman



The Doctor (Peter Capaldi) arrives on the scene for the season-eight, two-part finale of the science-fiction series *Doctor Who*.

Doctor Who (BBC)

Cinematographer: Rory Taylor

Since *Doctor Who* was first broadcast in 1963, the beloved BBC series has presented all manner of science-fiction-infused adventures headlined by its titular Doctor, the sole survivor of the alien but decidedly human-looking race of Time Lords. The Doctor and his companions travel through epochs and galaxies via the TARDIS (an acronym for Time and Relative Dimension in Space), a combination time machine/spacecraft that appears, at least on the outside, to be an unassuming police box. It's "bigger on the inside," though, and allows the heroes to journey far and wide while battling foes of all stripes — and, inevitably, save the day.

Over the course of the Doctor's onscreen existence, tastes in television have changed almost as much as the technology used to produce it. Deftly managing these factors as they apply to *Doctor Who's* camera department is a team of cinematographers, including New Zealand-born director of photography Rory Taylor, whose history on the

series includes 22 episodes going back to David Tennant's incumbency in the title role. Taylor notes, "Ernie Vincze, BSC was the original cinematographer I shared lighting [duties] with on *Doctor Who*. We alternated each filming block for four years, and discussed in detail the various lighting ideas required for each show. Working alongside Ernie was a wonderfully creative and aesthetically stimulating time."

Taylor's involvement in camerawork began in 1978 at the Swansea College of Art and Design. "I applied to every film school in Great Britain from my native New Zealand," he recounts. "From art college, I got a job as an assistant cameraman with the BBC Wales film unit in Cardiff." After traveling the world working on "all genres of programs: documentaries, sport, daytime TV, 2nd unit on dramas," Taylor advanced to the status of lighting cameraman in 1988 and subsequently worked on a variety of BBC network dramas, including *Berkeley Square* and *Insiders*. In 2000, he left the BBC for a freelance career, working on such series as *The Story of Tracy Beaker*, *Upstairs Downstairs* and *Casualty*, as well as

Doctor Who and its spinoffs *Torchwood* and *The Sarah Jane Adventures*. “Drama is my passion,” he asserts. “I love the skill and adventure of telling a story with a camera.”

Following a 16-year hiatus, *Doctor Who* was relaunched in 2005, and its recently completed eighth season starred Peter Capaldi as the Doctor. Taylor was behind the camera for the season’s two-part finale, which comprised the episodes “Dark Water” and “Death in Heaven.” Both episodes were written by executive producer Steven Moffat, produced by Peter Bennett (whose involvement in the series includes credits as both producer and 1st AD), and helmed by the series’ first American director, Rachel Talalay.

Given the history of the production, Taylor has come to expect esoteric demands. “Every episode has huge production values [with] greenscreen elements, stunts, explosions, chase sequences, prosthetics, monsters and enormous sets,” he says. The two-part finale was no exception. “Rachel and Peter wanted it to be fast-moving, scary, exciting and adventurous,” Taylor adds, noting that the script called for such environments as an active volcano; the “Nethersphere,” where people go when they die; the Unified Intelligence Taskforce’s equivalent of Air Force One; and glass tanks housing skeletons that would turn into the Doctor’s oldest nemeses, the Cybermen.

Since 2011, the BBC’s Roath Lock Studios in Cardiff has played home to *Doctor Who*, providing the stage space necessary for the show’s expansive — and diverse — sets. Taylor observes, “Every foreign world and alien planet in each episode is so different that, apart from the interior of the TARDIS, there is no in-house lighting style on *Doctor Who*.” Production designer Michael Pickwood supplies scale drawings and design concepts, and then, Taylor explains, “after an in-depth discussion with [the director] about each scene on each set, I try to imagine the scenario — the shape of the light [and] whereabouts the scene might be played.” ➤



Top and middle: The Doctor encounters Missy (Michelle Gomez) and the Cybermen in the episode “Dark Water.” Bottom: Cinematographer Rory Taylor.

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The Doctor and Clara (Jenna Coleman) meet with Dr. Chang (Andrew Leung) in his office, where a single Cyberman tank is held.



The next step is to draw up a formal plot for best boy Steve Slocombe. “As much as possible,” Taylor says, “I like to be involved in the installation of the lighting rigs. Once the construction of the set takes place, it’s easier to see any potential lighting problems.” To enable quick lighting adjustments, Taylor employs individually addressable dimming for every instru-

ment on the set, and he works with gaffer Mark Hutchings, “twiddling, fussing, and making sure everything is going to plan,” the cinematographer says. He also emphasizes the importance of a second, ready-plotted backup option “to be put into use quickly whilst on the floor alongside the actors, if everything is *not* going to plan. That is paramount.”

The volcano set for “Dark Water,” Taylor relates, “was relatively simple. The key light element was a real flame bar kept just out of vision, with fireballs safely in shot. We used steam to amplify the heat and vapors, with red, orange and white Kino Flos at various distances from the actors, set slightly below their eyelines, to act as a fill light as if from the lava flow.”

Additionally, Taylor explains, “300-watt and 500-watt tungsten Fresnels with Lee red gel filters were installed in the set and fed through lighting dimmers to give the effect of molten magma moving [beneath] the two actors.” The resulting pools of light were slowly faded between 50 and 100 percent to simulate the changing heat source, and the molten rock itself was realized as a greenscreen element. Taylor also had a 4K space light rigged overhead with red gel, but “it wasn’t needed,” he says. “Since the Doctor’s hair is predominantly gray, I had to be careful that in his close-up the mixture of colored lights didn’t make it look too much as if he were performing in a pantomime.”

Taylor adds that sound recordist Deian Humphreys “wasn’t particularly impressed with all the extra noise [from

the fire effects], but as a previous *Doctor Who* director said, 'It's television, not telesound!'"

Elsewhere in the episode, Taylor explains, "the Doctor discovers a tower block full of skeletons, each one in its own tank full of fluid that we later realize is 'dark water.' The water eventually drains from the tanks, and as the skeletons come into contact with the air, they regenerate into Cybermen. All very terrifying, scary and wonderful!"

Ten tanks, each measuring 4'x4'x6', appear in the scene. For logistical reasons, as well as the safety of the actors in the tanks, the production decided early on not to fill the tanks with water, and so Taylor worked with the art department to create a convincing dry-for-wet effect. The solution involved a coat of sea-blue paint on the side walls of each tank, and a wrinkle-free opaque white silk stretched across the back to create "an illusion of emptiness behind the skeleton, so nobody had any idea of the depth of the tank," Taylor notes. "It seemingly went on into infinity."

When the tanks were meant to appear full, Taylor lit the silk with a 1K Fresnel gelled with Full CTB. Then, "when they were empty, I was able to alter the color to match the side walls, to sustain the illusion of the change in clarity. [When the tanks were full] I also covered the front glass panel with Lee Frost to degrade the apparent sharpness of the skeletons and give the impression they were submerged in fluid." Taylor lit each skeleton from above with a 100-watt Dedolight focused on its skull. The last ingredient of the dry-for-wet recipe was an Acme LED Wave DMX water projector, set to a very slow speed.

Achieving the desired effect "took two 12-hour days of testing, much debating and a lot of research," Taylor notes. "The dark water was the basis of the whole episode, so it was vitally important for [viewers] to believe what they were watching." The final onscreen effect of water emptying from the tanks was created digitally, "much to my relief and disappointment," says a somewhat

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The Cybermen make their way through the city.

rueful Taylor. “[It was] another thing I didn’t need to worry about, but it would have been fun trying to solve the problem.”

Another key set for “Dark Water” was the office of Dr. Chang (Andrew Leung). Taylor describes the environment as “typical *Doctor Who*. The character is a scientist, and his office was beautifully dressed with lavish props, wonderful practical lighting and opulent black sofas. But it was simply enormous: 56 feet by 40.” While the office shared elements of the water-tank set, with a single tank lit identically to the others, it was intended to look very different in the context of the narrative. “The art department concealed the tank with various screens, which I lit with small, colored LED lights. I specifically requested that the art department supply a white opaque-glass desktop, where I could hide [Litepanels 1x1 Bi-Color LED fixtures gelled with Lee #216 White Diffusion] underneath to act as a soft key source.”

Given such a large, enclosed set, Talalay had expressed a desire to shoot in 360 degrees. Accordingly, Taylor used another four space lights rigged over the

center of the room and “made sure the background had enough colored LEDs to give the feeling of opulent space,” he details. He also employed a single 1x1 Bi-Color as key, back or fill light, as necessary. Ultimately, the set’s fixture count ran to more than 200 lights, which were installed during a two-day pre-rig with a crew of five electricians. Taylor notes wryly, “The designer commented that we outdid Bond.”

The technical pedigree of *Doctor Who* goes back to some of the earliest television studio cameras, but these days the production carries two Arri Alexa Classics, which record ProRes 4:4:4 to 32GB and 64GB SxS Pro cards. The crew split the rushes at lunchtime and wrap, and supplied the files directly to the BBC’s on-site editorial department. (There was no digital-imaging technician.) The Alexas were paired with Arri/Zeiss Ultra Prime lenses, which were managed by 1st AC Jonathan Vidgen. Sets were lit to a T4, says Taylor, because “part of the character of the Doctor is that he very rarely stands still in one place for any length of time. [Also,] I never believe I should restrict where an actor wants to go.

“I had a truck full of lights, from an Arri 18K to a 100-watt Dedolight kit,” the cinematographer continues. “Every light was used so much that I was nicknamed ‘Tipper Taylor’ by the electricians. I presume that’s a compliment, but you never know!”

Postproduction on the series is split between the BBC’s own facilities in Cardiff and Molinare in London. Colorist Gareth Spensley, working in collaboration with assistant Francois Kamffer, undertook color correction and some visual-effects duties on “Dark Water” and “Death in Heaven,” using FilmLight’s Baselight software. Each episode takes about two to four days to grade, Spensley explains, adding, “As a show it’s an absolute gift, because each week you’re setting up a new world. There are no rules. We can be doing Victorian London one week and an alien apocalypse the next.

“We do a lot of effects support work in the grade at Molinare,” Spensley continues. “That might encompass taking a main effects shot where it’s snowing, and we’ll add the snow in the close-ups, too.” Spensley is keen to emphasize the two-way collaboration between his facility and the BBC’s postproduction department. He continues, “A good example from ‘Death in Heaven’ involved the clouds over the graveyards. We were just asked to put a gray grad in, but we borrowed the textures that visual effects were building for the main cloud shots, and we tracked those into the majority of the graveyard scenes. I think we did 30 or 40 shots where we added roiling clouds.” Despite this additional complexity, Spensley enthuses, “it’s great fun. There’s tremendous creative freedom to keep the show looking fresh and exciting.”

Taylor concurs, and says he considers *Doctor Who* to be “unique in the fact that it’s a British institution, a series that is broadcast all over the world, with a fan base that covers every generation — and the challenges to the director of photography are enormous.”

— Phil Rhodes



Ragnar Lothbrok's brother, Rollo (Clive Standen, far left), joins forces with opposing leader Jarl Borg (Thorbjørn Harr, second from left) in the historical drama *Vikings*.

Vikings (History)

Cinematographer: PJ Dillon

Photographed by PJ Dillon, History Channel's *Vikings* brings to life the ancient Nordic sagas of medieval Scandinavia. The show focuses on the famous Danish chieftain and former farmer Ragnar Lothbrok (Travis Fimmel), his family, and his legendary raids upon England and mainland Europe. Season one sees him commanding a new generation of fast longships on raids into North East England. In season two, Ragnar grows in power and influence as alliances within his circle shift, and forces conspire against him.

Years before going behind the camera for *Vikings*' second and third seasons, Irish-born Dillon worked his way up through the camera-department ranks, starting out as a trainee in Ireland before spending a few years as a camera assistant in the United States. He shot his first feature in New Hampshire in 2000, the independent *Something Sweet*, while still assisting on bigger shows. "I learned the craft from working with other people, and applied that to what I was shooting myself," says Dillon.

Since then, Dillon has added

Primeval, *Game of Thrones* (AC May '12) and *Penny Dreadful* to his cinematography credits. In 2012, he was back in Ireland shooting the British series *Ripper Street* when he got the call from *Vikings* to join the crew as second-unit director of photography. "They have one cinematographer who does the whole series, but there's quite a lot of crossover days and a lot of second-unit work," Dillon explains. "At the time, the main-unit cinematographer was John Bartley [ASC], and he was very generous in terms of sharing his knowledge with me. When season two came around and he wasn't available, the producers asked me to step up."

In season one of *Vikings*, Bartley and director Johan Renck developed a desaturated look for the show that emphasized contrast and largely excluded blues and greens from its color palette. "When I came on board in season two, the general feeling was that the look of the show was great and well received by the fans and critics, and we wanted to develop it further," Dillon recalls. "People kept talking about the 'punk rock' aesthetic they wanted to maintain. I met with showrunner Michael Hirst, production designer [for seasons one and two] Tom Conroy,

costume designer Joan Bergin, the producers, and [director] Ciaran Donnelly, to discuss what really worked in season one and what could change without compromising the established look."

One of Dillon's first changes was the introduction of blue and green into the show's color palette. "It was important because sometimes the script would describe a scene in Wessex, in England, as green and verdant compared to Scandinavia, and we had to reflect that," he notes.

His other significant contribution to the look of the show was his use of diffusion filters — 1/8, 1/4 and 1/2 Tiffen Black Pro Mists, favoring the 1/4 — and a more frequent application of soft light. "I felt that some halation in the windows would add to the look that John had established," he says, adding that "there was quite a lot of hard light used in season one, and I wanted to soften that a little."

According to Dillon, there are no hard and fast rules as to what the show should look like. There are established guidelines — such as favoring primes and avoiding zoom shots — but the show's producers and executives tend to allow for the application of a director's personal aesthetic, "and as the cinematographer, I want to respect that," says Dillon. "For instance, some like to use a lot of handheld while some don't like it at all. We're lucky to have two very intuitive operators, Iain Baird on A camera and László Bille on B, who tend to develop relationships with the directors quite quickly."

Since season one, *Vikings* has used Arri Alexa cameras with Panavision Primo SL lenses provided by Panavision Ireland at Ardmore Studios just outside of Dublin. (Panavision's Kevin Greene provides technical support to the production.) For season two, the camera crew carried two full sets of Primo primes, a pair of 11:1 (24-275mm T2.8) Primo zooms, and a 3:1 (135-420mm T2.8) Primo zoom, the latter of which was primarily used for covering large-scale battle scenes. ➤

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Top: King Ecbert (Linus Roache) talks strategy. Bottom: Ecbert welcomes Princess Kwenthriht of Mercia (Amy Bailey) to his court.



Working with the Alexa XT and its 4:3 sensor, Dillon also incorporated the use of Panavision Primo anamorphic lenses, using them for standalone scenes, such as dream sequences and “moments of great import, just to add a different sort of texture,” he points out. “We’d maintain a 1.78:1 aspect ratio and crop left and right.”

After working with the Alexa Plus for season two, the production carried four Alexa XT camera packages for season three. The main unit gener-

ally shoots with two cameras, though days with crowd scenes may call for three, and battle sequences tend to shoot with all four.

Production for an entire season is divided into five 20-day blocks, and each episode shoots for 10 days, with some crossover days in each block for second-unit cinematographer James Mather. Depending on the content of each episode, this can bring the total number of shooting days up to 22-25 days per block.

Dillon calls special attention to the show’s daily schedule: a strict 10-hour continuous day, with no lunch break, that rarely goes into overtime. “Many of our directors who are used to working in the U.S. and Canada find this a bit of a culture shock given the extended shooting days they’re accustomed to, but most come to really like the system,” Dillon muses. “In practical terms, it means the production crew gets to have a life outside of work, and that has a huge knock-on benefit in terms of morale over the course of an extended shoot.”

Vikings also adheres to the European crew structure. “Electrics do all the flagging and bouncing, and grips are concerned with camera placement and support only,” says Dillon. “Our key grip, Phillip Murphy, regularly puts a GF-8 crane with a remote head onto a boat so we can do crane shots of long-boats on the water. Or we’ll rig them to the sides of mountains. On a television budget, these are serious undertakings that Phillip accepts without batting an eye.”

The first season of *Vikings* was set mostly in Scandinavia with the occa-

sional foray to the British Isles. The second season saw more action in Wessex, and Dillon wanted the cinematography to reflect the differences between the two lands: England is warmer and more saturated, while the Scandinavian landscape is cooler and less saturated, with more contrast.

Everything is filmed in Wicklow, just south of Dublin, with the exception of the occasional stock-footage shot or a plate filmed on location in Norway by the visual-effects unit. "We have the sea, mountains and farmland all within 20 minutes of the studio," Dillon observes. That being said, "Irish weather is pretty idiosyncratic," he adds. "You can get four seasons in one day, and often do. So if we've scheduled for sunshine and it rains all day then we just have to make it a rain scene. You can't fight the weather."

Whenever possible, Dillon prefers tungsten units to HMIs, even when filming exteriors. "That might be a form of insanity on my part," he concedes, "but the tungsten lamps just offer a different quality of light. It's not so electronic." The production employs 20K Fresnels with specially designed soft boxes built by gaffer Terry Mulligan. Backlight for large locations is supplied by 4' Kino Flo Celeb 400 DMX LED units with dimming and color temperature controlled remotely by Dillon from an iPad running Interactive Technologies' CuePad.

Interior key light is often provided through the windows and reflected off the floor or wall. Larger sources enter the room from a steep angle, casting a hard light focused away from the actors. For the rare occasion when an actor does receive direct illumination, it's through a layer of Lee Lux 400 diffusion. "If I want to boost that I'll use 5-foot square soft boxes, with incandescent bulbs from 100 watts up to 500 watts, depending on the size of the box, behind a layer of Lee Full Grid and at least one layer of Lux 400 maybe a foot away from it, and then maybe another [layer of Lux 400] a couple of feet away from that, so that by the time they hit the actor all of the direction has been knocked out of them," says Dillon. ➤



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Cinematographer
PJ Dillon
measures the
light on set.



Overall, Dillon considers his approach to lighting *Vikings* to be “quite stylized, though we tend to have it motivated and looking as natural as possible. Like for flame, we tend to use flame bars and candles rather than replicate it with artificial sources.”

For the season-two episode

“Blood Eagle” — for which Dillon received an ASC Award nomination — director Kari Skogland wanted to shoot the climactic execution of Jarl Borg (Thorbjørn Harr) using flames as the only light source. The special-effects department, led by supervisor Paul Byrne, rigged gas-powered torches for

all the off- and on-camera sources, giving Dillon complete control over their intensity. “Our electricians had almost nothing to do that night except stand back and observe,” says Dillon.

Once the flames were positioned, all that remained was to sort out the coverage of the gory “blood eagle” ceremony, which according to Nordic legend was performed by slicing open the skin of the victim’s back, breaking their ribs apart so they resemble blood-stained wings, and then pulling the victim’s lungs out through the wounds. “There were a lot of restrictions as to what we could and could not show,” Dillon remarks. “In fact, very little gore is ever seen in *Vikings*. It’s often intimated but rarely ever seen.”

The entire scene was shot over the course of a single night using a 50mm T1.0 PVintage prime on the A camera, which lived on the Steadicam with Baird operating. “It was a focus puller’s nightmare,” Dillon recalls, “but our A-

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camera focus puller, Alan Butler, did an amazing job. We were able to use everything.” With the lens set to T1.0 and the camera at ISO 800, Dillon was able to shoot at 96 fps to lend the action a more poetic style. Bille operated the B camera with standard Primos — filming at 48 and 24 fps to compensate for the 1-stop speed difference between the SL primes and 50mm PV — and captured reactions and expressive details with the help of a Lensbaby and what Dillon calls “funky filters.”

“I went to a glazier and got pieces of distorted glass cut to 4-by-5.6, then had ellipses, triangles, and circles cut into them with a water cutter,” the cinematographer describes. “You can set up a shot and use one of the filters to keep someone’s face sharp and have the rest of the frame fall off.”

Seasons two and three of *Vikings* were captured at 1920x1080 ProRes 4:4:4:4, with ArriRaw occasionally used for visual-effects plates. Season three

saw the addition of the Alexa XT Plus with Codex capture drives and an increased reliability on ArriRaw for visual-effects work.

On set, Dillon uses Pomfort’s LiveGrade to modify the look-up tables built in prep with DIT Aislinn McDonald. “You can get quite different conditions from day to day, and if you’re shooting a battle sequence over the course of a couple days, you have to try to make it match,” Dillon explains. “I have low-contrast LUTs built for high-contrast days, and high-contrast LUTs for low-contrast days. Sometimes I’ll even tweak a look during the shot, but otherwise I’ll just call the adjustments from shot to shot.”

LUTs for each episode are delivered to dailies colorist Chris Wallace at Deluxe Toronto. For season two, Dillon was able to supervise the grading of the first two episodes from Deluxe London via Skype and Streambox. For season three, Dillon traveled to Toronto to

supervise the first four episodes with Wallace in person. “Our feeling was that after I’ve been in the room with him for a few days, I can send specific notes and know he’ll execute them to the letter,” says Dillon, who supervised the remainder of season three’s dailies remotely from Ireland.

Season three sees Ragnar and his forces move beyond England to conquer sunnier climes on the European mainland. “In anticipation of this we’re gradually taking the look of the show toward more saturation and slightly less contrast,” says Dillon. With the Viking hordes closing in on a prosperous French city — as the season culminates with the Siege of Paris — the production and costume design become more refined and saturated, “and as the narrative becomes more cultured, we’re reflecting that in the photography.”

— Iain Stasukevich

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