

American Cinematographer



Robert Yeoman, ASC
The French Dispatch



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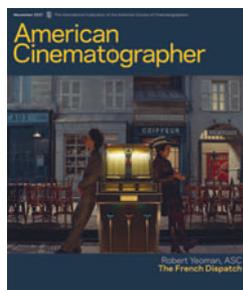


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Contents



On Our Cover:

Student revolutionaries Zeffirelli (Timothée Chalamet) and Juliette (Lyna Khoudri) spearhead a passionate protest movement in *The French Dispatch*, directed by Wes Anderson and shot by Robert Yeoman, ASC. (Image courtesy of Searchlight Pictures.)

Features

22 La Vie Littéraire

Robert Yeoman, ASC contributes dazzling imagery to *The French Dispatch*.

36 Captivity to Freedom

Filmmaker Hogir Hirori's *Sabaya* documents the liberation of Iraqi women and girls enslaved by ISIS.

44 Heroic Extraction

The Rescue chronicles a diving team's life-saving mission, with the help of underwater reenactments shot by Ian Seabrook.

50 Dueling Identities

Minka Farthing-Kohl helps St. Vincent and Carrie Brownstein lampoon music documentaries for *The Nowhere Inn*.

Departments

- 8 Letter From the President
- 10 Shot Craft: **Shooting documentary interviews**
- 16 Picture Partners: **Edward Lachman, ASC and Todd Haynes**
- 56 The Virtual World: **Muppets Haunted Mansion**
- 60 Tech Focus: **Software for cinematographers**
- 64 New Products and Services
- 67 AC Marketplace/Ad Index
- 68 Clubhouse News
- 72 Wrap Shot

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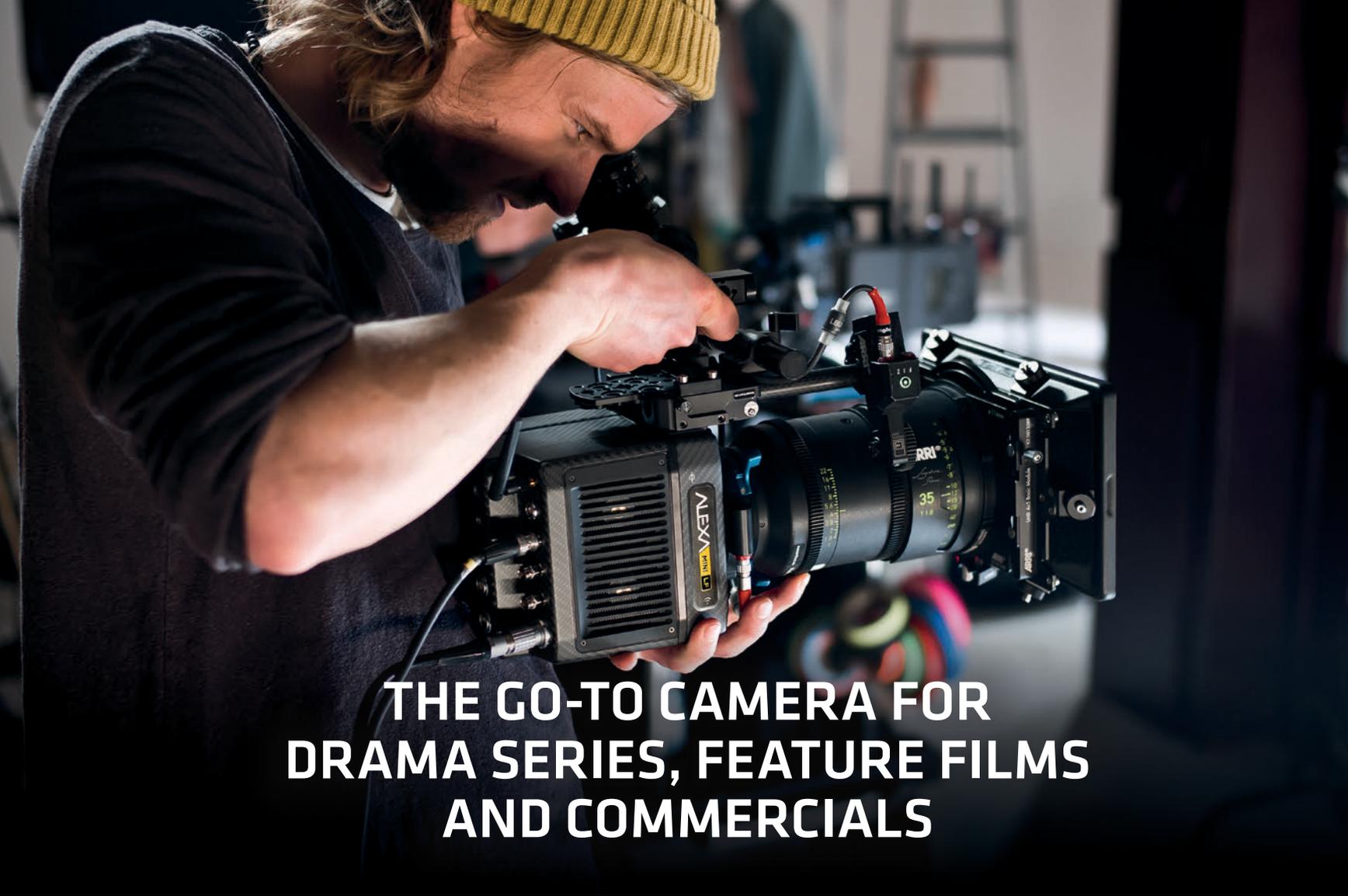
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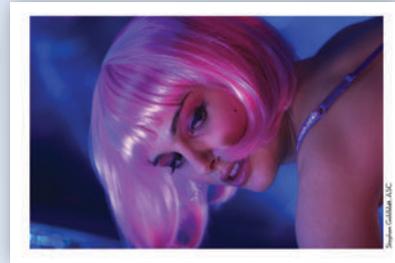
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Letter From the President



PORTRAIT BY
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ARE WE STILL “ALL IN THIS TOGETHER” — words written on this page during the time we stayed at home, and repeated elsewhere around the world often enough to have become a cliché? These days, some of the behavior we see around our country makes me wonder. On a different front, fellow cinematographers have mentioned to me over the years how they have seen their work censored by government edict or by thoughtless people working in postproduction: those groups or individuals certainly are not all in this with us. Show business is tough, and always has been.

Speaking of tough, in this issue we discuss some amazing documentaries shot in or revisiting demanding circumstances. We can take heart that filmmakers Elizabeth Chai Vasarhelyi and Jimmy Chin — who made *The Rescue*, about the schoolkids who became trapped in an underground cave in Thailand — are definitely in this together. The new documentary, which includes the camerawork of underwater cinematographer Ian Seabrook and interview cinematographers David Katznelson, BSC, DFF and Picha Srisansanee, is Vasarhelyi and Chin’s followup to the amazing, heart-stopping, Oscar-winning *Free Solo*, and proves once again that real stories are usually the best stories — not reality-TV-provoked stories, but stories of real lives lived in success and failure.

Ed Lachman, ASC returns to his nonfiction roots with Todd Haynes’ documentary about the rock band The Velvet Underground, who were certainly in this with us — within the altered reality of the group itself. Playing their

music now is a view of a totally in-this-with-us, humanistic, intoxicating, offbeat, too-cool-for-school band (“... I found a reason to keep living, oh, and the reason, dear, is you. I found a reason to keep singing, and the reason, dear, is you...”), and they make a great subject for a documentary — although it is tough to see how much our heroes have aged (and, therefore, all of us as well).

Also this month, to help you think about how documentaries are made, ASC member Shana Hagan is guiding us through the Society’s first ASC Master Class about shooting documentaries.

Returning to the present moment, what happened to “do the right thing,” anyway? We went from a pandemic of Covid-19 to a “pandemic of the unvaccinated” — and, in our business, a long struggle over establishing more reasonable working hours for cinematographers and other crewmembers. But still, we are all in this together — and if we stay together, we will get through this, too.

A handwritten signature in black ink, appearing to read "Stephen Lighthill".

Stephen Lighthill
President, ASC

Andy Warhol captures footage of Velvet Underground singer Nico, using a Bolex camera equipped with an SOM Berthiot zoom lens. Warhol’s left hand is on the zoom-control lever, which a user could push forward to zoom in and pull to zoom out.



“Action Royale” uses Sony Venice to bring cinematic quality to the small screen

Action Royale is the latest release from Snap Originals, a new slate of made-for-mobile original shows on Snapchat. Created by Jacob Motz, the ten-episode series is a coming-of-age thriller about a teenager who starts an underground esports gambling ring to pay off his father’s debts. Unfortunately, he and his gaming phenom best friend soon find themselves in over their heads in a dangerous world.

Although intended to be watched on the app, director of photography Oren Soffer and directors Igor Martinovic and Maria Juranic designed the series to look like a big-screen feature. They chose to shoot on the Sony Venice in Rialto format to help create a look that would translate to audiences watching on a smartphone. In addition, they wanted a camera that could handle bright daylight and challenging low-light environments.

“One reason why we wanted to shoot Venice was to use the 6k format to oversample the image for reframing in post, as well as wanting to shoot with shallower depth of field on large format lenses shot wide open to help separate characters out from backgrounds and help them pop more in images meant to be seen on a smaller screen; but the main reason was the color space,” explains Soffer. “The show is very colorful, and that was really important to us in the design of the show. We wanted a camera that we knew could handle that kind of range of tonality. We knew we were going to light with all sorts of different primary colors in a variety of different environments and looks, and we wanted to show that in a way that wouldn’t look too garish.”

Unlike most filmmakers who abhor the idea of their work being watched on a smartphone, Soffer and the team worked to design a look meant specifically for watching on a smartphone and a unique 9x16 format.

“You have to take into account the delivery method. One of the challenges was creating a look in the lighting that had contrast and felt cinematic, but still looked good when viewed on a smartphone in various unpredictable viewing conditions. That was our number one mandate for ourselves as we really wanted to push what a Snapchat show could look like. We want it to look like an expensive TV show.”

To help create the look, Soffer used a combination of Leica-R and Leitz Prime lenses, and opted to shoot wide open. “Large format just opens up the field of view on slightly tighter focal lengths. We really wanted to let our backgrounds go blurry because if you’re watching the show on your phone, you almost need to exaggerate how blurry your backgrounds are so that your eye goes to a character in the foreground and doesn’t get lost in the environment.”

To achieve the 9x16 look, Soffer turned the Rialto on its side and set up the handles and monitor in portrait orientation.

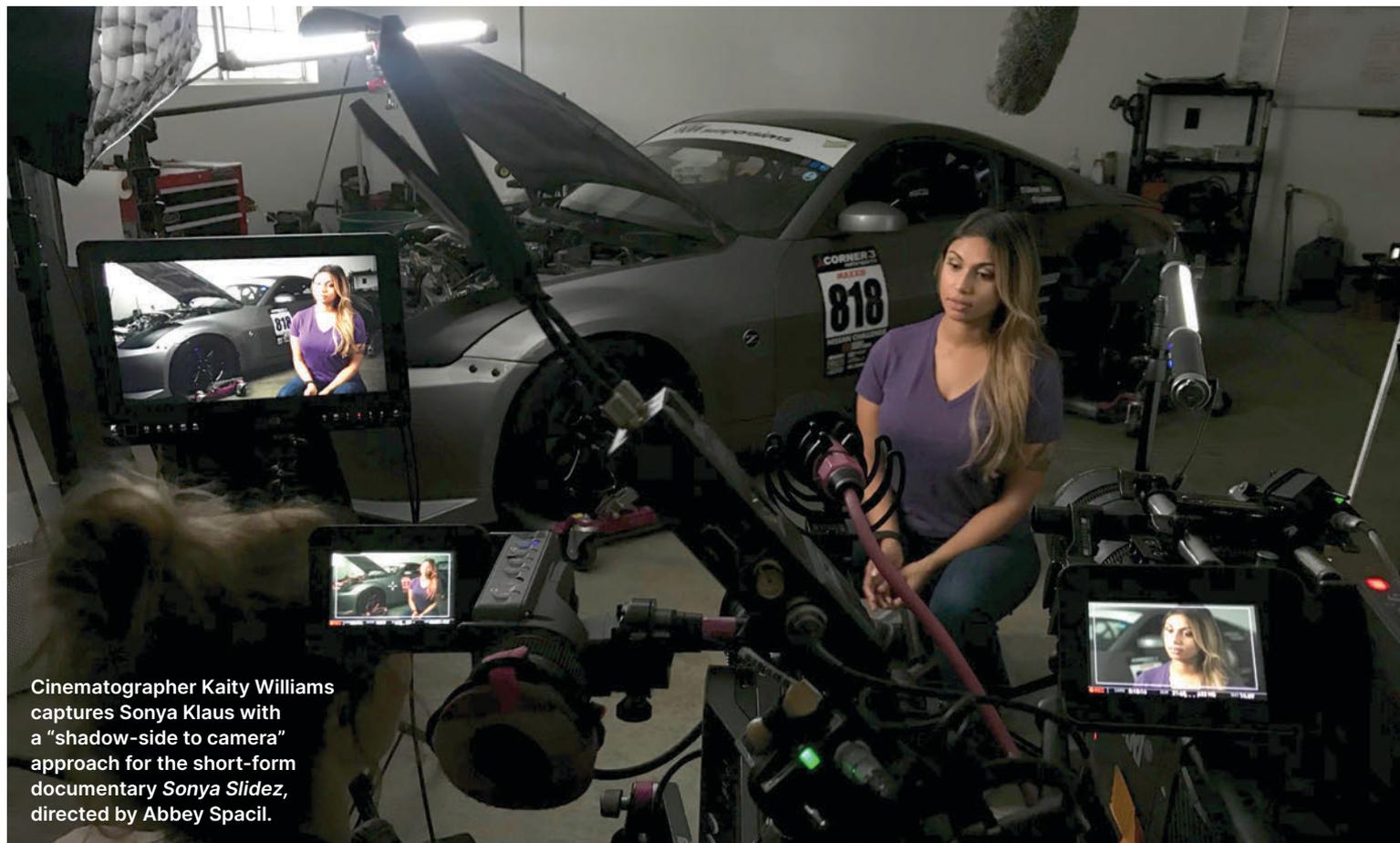
“We basically treated it like that was the correct orientation of the camera. The only way you would know that it was turned on its side was that the Sony logo was sideways. The design of the Rialto is so perfect for orienting in any direction.”

For inspiration, Soffer looked to photography which has a history of shooting in the 9x16 format. “Framing for a vertical composition was really interesting. It changes the way you think about where you place characters and objects in the frame, as well as the relationship between foreground and background when you’re framed on a close-up.

To read the full story, visit sonycine.com



The Talking Head



Cinematographer Kaity Williams captures Sonya Klaus with a “shadow-side to camera” approach for the short-form documentary *Sonya Slidez*, directed by Abbey Spacil.

IMAGE COURTESY OF KAITY WILLIAMS.

The visual simplicity of the “talking head” interview can be deceiving. Often a key element in documentary productions, this particular kind of shoot tasks the cinematographer with balancing proper modeling of the face — putting the subject in the best light (literally) — while maintaining the project’s overall tone and style. This installment of Shot Craft presents some things to consider when shooting this type of material.

Lighting

The talking head is a perfect opportunity to break out classic three-point lighting and model the subject with key, fill and backlight.

The most flattering key light is achieved by placing a large soft source off to one side of the camera and orienting the shadowed side of the subject’s face closer to the camera. (See “Eyelines,” page 11.) In this way, documentary talking heads are an ideal application of the “shadow-side to camera” approach, which offers some dimensionality to the face.

A classic variation of shadow-side can be seen in “Rembrandt-style” lighting, where the key source is off to one side and above the eyeline to create a triangle-shaped highlight on the cheek of the side in shadow — a prototypical “portrait”-style look. Depending

on the documentary’s style, you might even want a naturalistic effect, like sunlight dappled by a tree. Some talking heads are shot in front of a greenscreen, a fixed pattern or colored background, or even silhouetted to protect the speakers’ identities.

Documentary interviews are often conducted where the subject lives or works. This can present the cinematographer with many complications, including mixed color temperatures, mixed sources, harsh architectural lighting and bland backgrounds. (See “Choosing the Location,” page 11.) You must be able to adapt to all of these situations, and be especially flexible, as

documentary filmmakers frequently work with limited resources. LED lighting fixtures will give you a lot of flexibility, as they are lightweight, energy-efficient — and, typically, both daylight and tungsten color-balanced.

Creating color contrast in lighting can add depth and interest to the frame. Allowing the background to go a little cooler while the subject is a bit warmer can provide a chromatic separation that enables the subject to “pop” in the frame. In nature, shorter light waves get filtered out by atmospheric factors, so objects in the distance appear bluer than objects close to the viewer. Therefore, by making your

Former Facebook executive Tim Kendall is lit with Rembrandt-style portrait key lighting for the Netflix documentary *The Social Dilemma*, photographed by John Behrens and Jonathan Pope. The main camera angle (top) has Kendall's eyeline just to the side of the camera, while the second angle is a full profile.

backgrounds slightly cooler than the foreground, you're accentuating this concept and adding perceived depth to the image.

Choosing the Location

If you and the director aren't filming interviews against a fixed background — such as a greenscreen, a black curtain or a pre-made backdrop — you must choose the right background for the subject. This is where the cinematographer can have the most influence over the look of the talking-head interview. Choosing an area near a large window can go a long way toward simplifying lighting and creating a pleasing, natural look, and understanding how to position the subject in relation to the window will help you refine that look. A common technique is to position the subject so that the window provides the key light — essentially in front of the subject, yet off to one side.

Try to avoid placing the subject directly against walls and corners, as this creates a flat image. Rather, placing the camera *at an angle* to walls can helpfully generate leading lines of perspective as opposed to flat planes. Including interesting aspects of the location in the background, away from the subject, can create visual complexity, but make sure it isn't too "busy." Windows are wonderful for natural daylight — but you must be aware of what's visible through the window, such as pedestrians or vehicle traffic, since they can produce distracting motion or light in the frame.

Eyelines

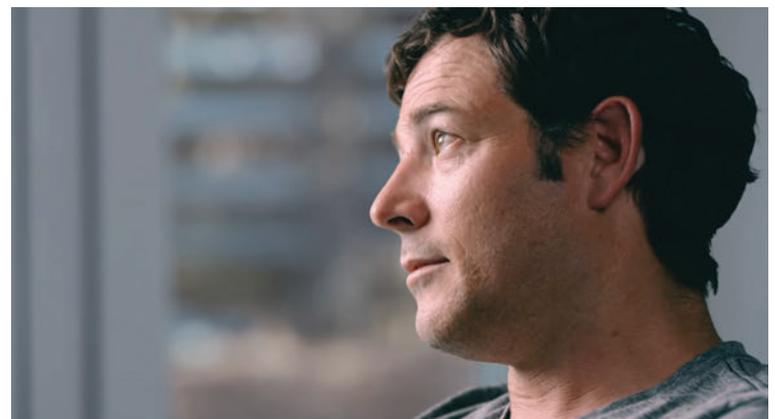
The subject's eyeline is critical in the documentary interview. Typically, it is just to one side of the camera as the person speaks to an off-camera

interviewer. This gives the audience a sense that the subject is in conversation with someone. It also allows for shadow-side key lighting, as the subject is slightly turned away from the lens. Generally, this is accomplished by placing the interviewer close to the lens.

When a documentary features interviews with multiple subjects, it's often considered a best practice to create alternate eyelines for each interviewee by changing the side of the camera that the interviewer is on. Having alternating subject eyelines helps create a cohesion in the edit, where disparate interviewees appear to the audience as if they could be having a conversation with one another.

If a subject is meant to directly address the audience, the eyeline is straight at the lens, but be aware that this can be intimidating for people who are not accustomed to speaking to camera. Without having an interviewer to look at and speak to, the subject can become nervous and self-conscious. To solve this problem, noted documentarian Errol Morris created a device called the Interrotron, which he employed on such documentaries as the Academy Award-winning *The Fog of War* (AC March '04) — about former U.S. Secretary of Defense Robert S. McNamara, with interviews shot by cinematographer Robert Chappell.

The Interrotron is a variation of a teleprompter, but instead of providing a script in front of the lens, it supplies a video image of the interviewer on a half-mirror placed in front of the lens; this allows the interviewee to see and talk to the interviewer while looking directly into the lens. Additionally, the Interrotron incorporates a second teleprompter-style half-mirror so



IMAGES COURTESY OF NETFLIX.

The "talking head" interview tasks the cinematographer with balancing proper modeling of the face while maintaining the project's overall tone and style.

the interviewer can clearly see the interviewee, and they can have a natural conversation while maintaining the desired eyeline. A similar tool is the EyeDirect, which uses a large mirror and half-mirror in front of the lens to provide a reflection of the interviewer to the subject, and a mirror reflection of the subject for the interviewer to see.

Incorporating Multiple Cameras

Because the talking-head interview is rarely a scripted performance, it

behooves the filmmaker to capture the interview from multiple simultaneous perspectives to provide edit points. This means that many interviews are shot with two or more cameras. How additional cameras are incorporated is a matter of aesthetics. In some cases, a second camera is "stacked," positioned directly above or below the main camera to maintain continuity of eyeline with a different focal length or frame size. This provides the opportunity for jump cuts that

In another “talking head” interview from *The Social Dilemma*, Aza Raskin, co-founder of the Center for Humane Technology, is presented against an interesting background that brings depth to the image.



IMAGE COURTESY OF NETFLIX.

The subject’s eyeline is critical in the documentary interview.

make use of two slightly different perspectives — another stylistic choice. More commonly, the second camera is positioned farther off to the side, sometimes even far enough to capture the subject in profile. In such instances, both cameras should be on the same side of the eyeline so that the second camera doesn’t jump the established “180-degree line” that extends from the eyes of the subject to the off-camera interviewer.

“Rules” for using a second camera to shoot talking-head segments is the topic of some debate among documentary filmmakers. Should the primary camera have the closer lens (i.e., longer focal length or physically closer) and

the secondary camera be wider? Or vice versa? My own preference is for the secondary camera to be wider (unless it creates a more drastic side-profile angle, in which case it should be longer). This allows the primary camera, with the longer or closer lens, to have a more intimate connection with the subject’s eyeline, and the wider camera, where the direct connection isn’t as strong, to have a looser connection with that eyeline. (See “Lens Selections,” this page.)

A second or third camera can also capture B-roll footage — such as shots of the subject’s hands, their environment or objects they’re discussing — to provide editorial cut points. It’s also possible to

accomplish all this with a single camera by continuing to shoot casual conversation after the interview is over, or directing the subject to repeat movements so you can create cut-away moments.

Lens Selections

In my experience, nothing beats a zoom lens for documentary work. It gives you the flexibility to alter the relationship between camera and subject on the fly as you’re shooting. Even in talking-head interviews, a zoom allows for quick compositional adjustments without significantly distracting the interviewee and interviewer from the conversation at hand. Zooms even allow for adjustments to be made

during the conversation. (During the interviewer’s questions, the cinematographer can quickly reframe the composition on the subject.) They also provide dynamic mid-conversation focal-length alterations. For instance, as the subject discusses an emotional topic, the cinematographer has the ability to slowly push in to a tighter composition to underscore the drama of the moment.

However, some cinematographers prefer prime lenses for documentary work for their faster speed, lighter weight and more compact size. Using primes also creates a certain discipline, in that the cinematographer must change the camera’s position — or the lens — in order to modify a composition.

There is no rule regarding focal length for a talking-head sequence.



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Former U.S. Secretary of Defense Robert S. McNamara looks directly into the camera — with the aid of director Errol Morris' Interrotron rig — in the documentary *The Fog of War*.

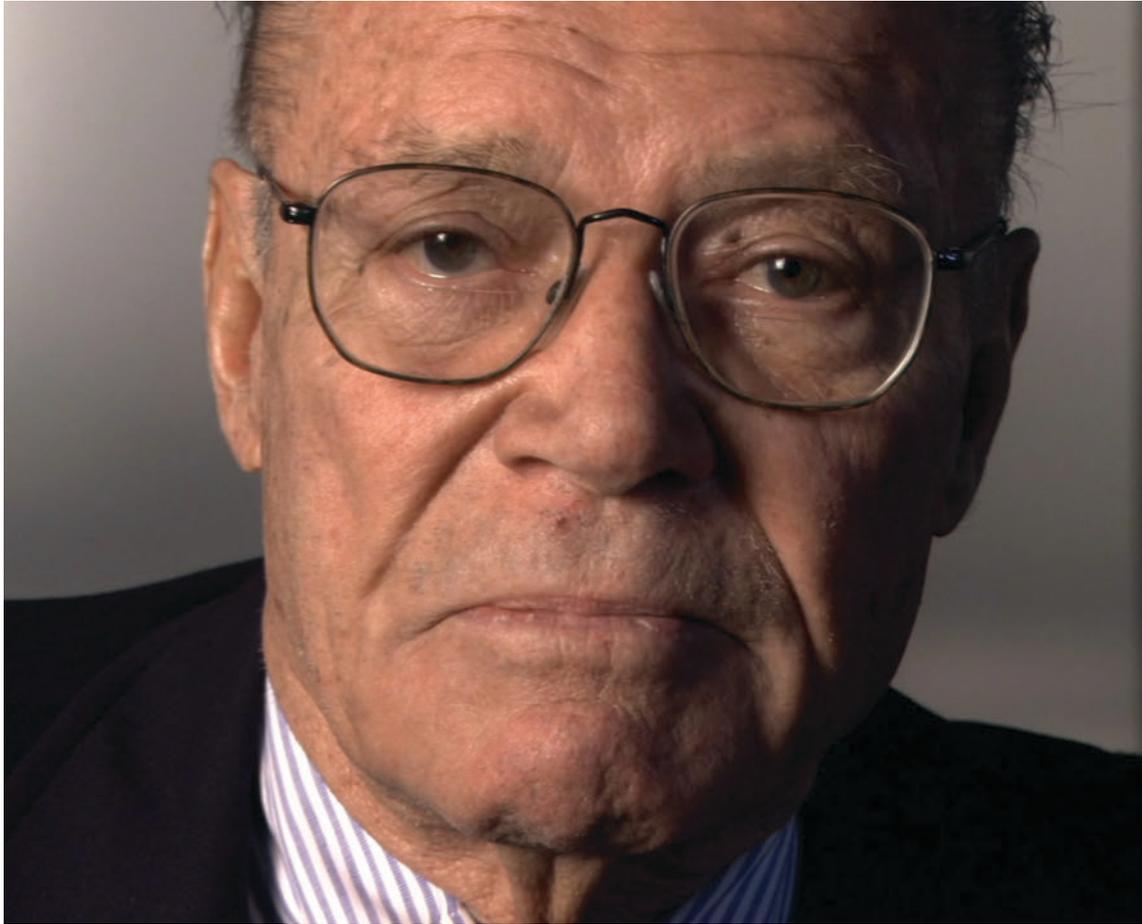


IMAGE COURTESY OF THE CRITERION COLLECTION.

a bit farther from the subject. One consideration, however, is background perspective compression. For a given medium-close-up framing, a wider lens closer to the subject will exaggerate the relative distance between the subject and the background (as compared to the distance between the camera and the subject). A longer lens farther away — to maintain the same compositional framing — will compress that distance, both magnifying the background and making it appear closer to the subject.

Additionally, the same compression factor affects the human face. A 100mm lens from 10' away will give a very different rendering of the face than a 10mm lens 1' away. Going too long and too far from the subject will tend to flatten out facial features and even make the subject look heavier. Going too wide and too close can distort and exaggerate their features. There is an aesthetic sweet spot for every face and focal-length combination — which can vary based on objective aesthetics as well as those of the specific production at hand — and finding it takes a bit of trial and error. Using a zoom lens is one way to find it quickly.

Moving the Camera

Some filmmakers prefer to use subtle camera moves during talking-head segments. This can be achieved with the primary camera, but it is more often captured by a secondary camera on a slider or

Some cinematographers prefer wider lenses close to a subject to create intimacy between the subject and the viewer. This is another situation some subjects might find intimidating, but it can also be argued that we live in a society wherein cameras are ubiquitous, and people are fairly comfortable around them or quickly become so.

A more traditional approach is to use a slightly longer focal length

Allowing the background to go a little cooler while the subject is a bit warmer can provide a chromatic separation that enables the subject to “pop” in the frame.

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For Netflix's *Challenger: The Final Flight*, photographed by Graham Willoughby, former astronaut Rhea Seddon is presented with a classic example of off-camera eyeline (left), paired with a tighter shot with her eyeline farther off, yet on the same side of the "180-degree line."



IMAGES COURTESY OF NETFLIX.

small jib. Handheld operation can provide a kind of immediacy and fly-on-the-wall feeling, but filmmakers should be wary of conducting a

long interview while the cinematographer is standing with a heavy camera on their shoulder. Being active with a camera on your

shoulder is physically demanding, but standing in place and trying to maintain a steady composition for 30 minutes to an hour (the typical

length of an interview) exacerbates the challenge.

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Lachman, Haynes Reteam on *The Velvet Underground*



Director Todd Haynes and ASC member Ed Lachman's work together on *The Velvet Underground* — an exploration of the seminal rock band founded by Lou Reed and John Cale — represents the longtime creative partners' first documentary collaboration. Haynes and Lachman have paired on seven features (*Far From Heaven*, *I'm Not There*, *Carol*, *Wonderstruck*, *Dark Waters*, and the forthcoming *Fever*, a biopic about singer Peggy Lee) and two television productions (the miniseries *Mildred Pierce* and a segment of HBO's *Six by Sondheim*).

Taking cues from the avant-garde cinema of Velvet Underground confidante and promoter

Andy Warhol, as well as the work of other independent filmmakers of the time, the documentary combines new and vintage interviews with a panoply of archival footage. The result is an immersive approximation of the kind of multi-media "experience" the band presented in its live concerts at Warhol's Factory and other venues. The film features split screens and multiple panels to convey the ambience of the eras in which the Velvets came together and produced their brand of highly experimental music, influencing countless rock acts that followed.

Haynes and Lachman spoke with *AC* to discuss the project, which is now streaming on Apple TV Plus.

American Cinematographer: You two have had a fruitful collaboration over the years. Why do you think you've clicked so well?

Todd Haynes: When we were just meeting each other and having the first talk about *Far From Heaven* (2002), Ed brought bags of art books, and I would later see that's how he lives. He surrounds himself with references from artists, photographers and books about film. We immediately began to talk about the project from the vantage point of artmaking. We all are involved in this medium and in various kinds of art and craft and narrative storytelling, but you don't always feel like the artistic sensibility is driving

the personality of everyone you work with. [It does] for Ed and me, though — each project has offered a collaborative dive into the language and references, and we both get off on that.

How about you, Ed?

Edward Lachman, ASC: Todd had a similar background. I studied art history and film, and he studied art and semiotics, so we already had the same grammar to talk about things. He was inspirational about his references. He always goes further than looking at a film in terms of, 'Oh, that's the style we should represent.' He always understood why the style was that way and how it was created. Each film takes us

on another journey, and the process always inspires me.

Do your shared sensibilities extend into music?

Lachman: Bob Dylan was always influential for me growing up, so [*I'm Not There*, 2007] was a film I really wanted to be involved in with Todd. Back in the early '70s, I had done a promo video for Lou Reed [for the 1973 *Berlin* album]. Lou came up and kicked the tripod out from under me. I was in shock, grabbing onto the camera as he told me, 'Do it like Andy [Warhol]!'

Later, I directed a performance film of the album *Songs for Drella* [1990] for Lou and John Cale — an homage and memorial to Andy three years after he died. During that shoot I mentioned the tripod incident to Lou and he said, 'Oh, I don't remember much from back then.'

Haynes: Ed has had his hand in every phase of filmmaking, touching back to European art cinema from the '60s when he was coming of age. He's studied under great filmmakers and artists and DoPs from that period, so when we discuss the great American era of independent film, [Ed often has] a direct link to people we're talking about.

Were Ed's firsthand experiences helpful to you?

Haynes: I always felt an easy atmosphere because Ed had a history with so many of the people who were there. It made them feel comfortable. It would have been interesting if Lou Reed was around [he died in 2013], but I know that Ed being the DoP put John Cale at ease.

What was the initial spark for this project?

Haynes: [Reed's widow] Laurie Anderson decided to make his



THE VELVET UNDERGROUND IMAGES COURTESY OF APPLE. WONDERSTRUCK IMAGE COURTESY OF AMAZON STUDIOS.

archives available to the New York Public Library, and Universal Music Group — which controls the masters of Verve Records [the Velvet's first label] — asked her if this would also be time for a documentary on the band, which had never been done conclusively. Shortly thereafter Laurie and I met, and then we were contacted by [UMG head of film and TV production] David Blackman about doing this.

I knew there wasn't traditional material featuring the band, and Lou Reed is not with us and [vocalist] Nico is gone [she died in 1988], so the project would come with inherent challenges. But that's why you do things, too.

The film is presented largely in split screen with shots from avant-garde 1960s movies next to

talking-head interviews, allowing the viewer to marinate in the art scene that helped give rise to *The Velvet Underground*. Did you want to make the documentary 'like Andy'?

Haynes: We had an amazing opportunity to include the entirety of the avant-garde filmmaking culture that was so prolific and robust at that time. Jonas Mekas was really the central force — he always had a venue for showing filmmakers from New York and beyond, from older experimental cinema to the newest thing Warhol rolled out of his camera through the 1960s. These were gathering places for all these artists we're talking about in visual art, music, performance and poetry.

I was thinking we were going to be predominantly referring to the



Opposite: The Velvet Underground's John Cale, Sterling Morrison and Lou Reed perform in the 1960s. This page, top: Ed Lachman, ASC frames an interview with Cale for the new documentary. Bottom: Lachman shooting the feature *Wonderstruck* with Velvet Underground director Todd Haynes.

Split screens juxtapose images throughout the documentary.



“How do we multiply or divide up our frame?”

1.33:1 16mm aspect ratio [with the archival footage], so what do we do with that? How do we multiply or divide up our frame? We [decided to reframe] our interviews into 1.33 so mostly it's the two 1.33 portraits or the portrait next to other information within the 1.85:1 [release ratio]. That is the format of Warhol's *Chelsea Girls*, where it was two 1.33 projectors side by side through the whole film. We not only reflected the integrity of 1.33, but also did things only a Warhol-brain would spot.

You shot interviews with the likes of John Cale, Velvet Underground drummer Moe Tucker and Martha Morrison, the widow of guitarist Sterling Morrison. How did you approach shooting those?

Lachman: It was interesting

how Todd married contemporary interviews with the archival footage. I came to think of the interviews like Andy's photographic silk screens, with colored flat panels behind each subject, and Andy's black-and-white screen tests.

Haynes: We would pick different colors based on the color swatches from Warhol's silk screens. They have a kind of dirty pastel palette to them. Then we'd put some texture on them like they were painted walls in tenement apartments. When we were shooting at someone's apartment, like Jonas', we'd bring [the panels] in. Otherwise, we were in a little studio and the artists would come in and do them there.

Lachman: My other reference was Andy's *Screen Tests* series, so it's a one-light source. They've been

lit rougher than I normally would, but I tried to maintain that quality of somewhere between the *Screen Tests* and his lithos. We were shooting digitally, but at the end of every interview we would shoot some Super 8 on a Beaulieu Pro camera. It wasn't sync sound, so we would use that just for image. I thought that married the present and past very well.

What camera were you using predominantly?

Lachman: My Arri Alexa Mini, shooting in 2.8K ArriRaw. We even did that on [the 2019 feature] *Dark Waters*. I tried to keep it as low-res as possible. I'm always opposing 'digital look,' so I also used an older Angénieux 25-250mm HR 3.5 zoom lens. Then we also applied some LiveGrain, which Todd and I are big advocates of using — again, to marry the film with the digital. We

didn't mind the quality of some of the older [video] archival footage, because that has its own look. If I could have shot to make it look like back then, I would have.

Ed, do you have a particular tool set to make interview subjects comfortable and get a better response out of them?

Lachman: I like to be a little longer with the lens so I'm not right on top of them. And I have the lighting set beforehand, so when they walk in, I'm not fiddling around. And just let it go — Todd did long interviews, which also puts them at ease. The great thing about digital is you don't have to worry about changing film rolls. So that gives fluidity to the discussion, and you can talk about other things while the camera's still rolling. I try to keep the lighting as low as possible, so the filmmaking process isn't interfering



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Top: Archival footage conveys the group's inspirations and the zeitgeist of various eras. Bottom: The band's later incarnation, without Cale, included Moe Tucker, Morrison, Doug Yule and Reed.



with why we're there: to get them to share their story. Like Todd said, sometimes we were in people's apartments, so I would use a 1K or 2K in a book light.

How would you describe the interplay between the two of you on set?

Lachman: We're each in our own worlds. Once we're there, we do what we do.

Haynes: Ed would be reframing while we shot. This had a more improvisational element, because [we were doing] long, static shots and Ed would widen and narrow the frame. He knew we were going to manipulate the size later to 1.33, but we still wanted to give variation in size. And those choices being made intuitively by Ed always seemed to work.

Lachman: It's important I hear what's being said. I have a headset on, so I'm in the moment. On other projects, sometimes I like to move the zoom slightly in to reflect emotion, but here we were working with static frames, so I could do the same thing with frame size.

What was your approach to the finishing at Harbor Picture Company?

Haynes: It was about not imposing a strong language over the material, not oversaturating or adding too much contrast to the footage, so you really could see the blacks. I wanted to keep the mistakes and imperfections of the transferred sources — which were sometimes from negative and sometimes from interpositive — and not clean up the edges, which were often ragged.

Cale and Reed reunited to collaborate on *Songs for Drella*, their musical tribute to the late Andy Warhol, and their live performance of the song cycle was shot by Lachman.



SONGS FOR DRELLA IMAGE COURTESY OF ED LACHMAN, ASC.

Ed, you've recently been in a color suite doing new work on the *Songs for Drella* film. Will we see that sometime soon? It's an ideal companion piece, as it features Reed and Cale reuniting to perform their tribute to Warhol.

Lachman: It's been screened at Telluride, and by the time this article comes out, it will have been shown at the New York Film Festival. We'll also be showing at festivals in Europe.

You shot that without the audience present, right?

Lachman: Lou didn't want cameras between them and the audience, so I suggested shooting the rehearsals as if they were in a performance. That allowed the intimacy of getting close to them and not worrying about an audience. I

could set up dolly tracks. So I did that for two rehearsals, and we also shot two performances in one night with multiple cameras, but I never shot the audience. It became about the intimacy between the two of them — a confessional between Lou and John.

"Each film takes us on another journey, and the process always inspires me."





La Vie Littéraire

The French Dispatch, a whimsical exploration of literary life, reteams ASC member Robert Yeoman with director Wes Anderson.

By Jim Hemphill

The *French Dispatch*, the eighth collaboration between director Wes Anderson and cinematographer Robert Yeoman, ASC, is the latest step in a creative evolution that began in 1996 with the feature *Bottle Rocket*. The teaming yields increasingly ambitious results with each new outing, and their latest is presented as a series of magazine articles from the titular publication, brought to life onscreen.

The story begins with the death of the fictional magazine's editor, Arthur Howitzer Jr. (Bill Murray), whose passing inspires recollections of highlights from *Dispatch* history. These include the tale of an imprisoned, brilliant, and possibly insane painter (Benicio Del Toro) whose muse is one of his prison guards (Léa Seydoux); a lively account of a student revolt in Paris; and a kidnapping adventure involving the French police and their renowned institutional chef.

Previous spread: The titular publication's offices, located in the fictional French town of Ennui-sur-Blasé. This page: *French Dispatch* editor-in-chief Arthur Howitzer Jr. (Bill Murray, center) has a laid-back meeting with a pair of staff writers (Wallace Wolodarsky, left, and Owen Wilson).



THE FRENCH DISPATCH PHOTOS COURTESY OF FOX SEARCHLIGHT PICTURES.

The array of stories enabled Yeoman to employ a variety of stylistic techniques — including moving between color and black-and-white and transitioning from one aspect ratio to another — while retaining the symmetrical, deep-focus compositions Anderson has always favored.

The cinematographer's prep for *The French Dispatch* began the way it usually does with Anderson: the director sent him the script, a list of the actors who would star, and a detailed animatic. "It's really beneficial to me to know which actors are playing which parts," says Yeoman. "Wes' animatic is kind of a cartoon version of the film, and it's pretty intricate. He does all the voices, and you get an idea about the locations, the camera moves, and so on. Once I have that, we have Zoom conversations and exchange emails about the look and ideas and references, which gets the ball rolling."

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Brilliant, incarcerated painter Moses Rosenthaler (Benicio Del Toro, center) finds his muse — and lover — in prison guard Simone (Léa Seydoux).



Perhaps not surprisingly, many of the references for *The French Dispatch* were from French cinema, specifically the French New Wave, which has held special meaning for Anderson and Yeoman throughout their creative partnership. Raoul Coutard's cinematography in films by Jean-Luc Godard and François Truffaut was particularly relevant, says Yeoman. "[On every movie,] Wes sets up a library of DVDs and Blu-rays that cast and crew can check out, and we watch a lot of them and discuss them," he says. "After a while, it enters your subconscious. At one point Wes and I were talking about lighting a particular scene, and I said, 'Vivre Sa Vie,' and he replied, 'Yes, exactly.'"

Although *The French Dispatch* takes inspiration from many notable films (including Henri-Georges Clouzot's *Diabolique* and Louis Malle's *The Fire Within*), its visual language will be familiar to Anderson's fans.

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Cinematographer Robert Yeoman, ASC (at camera) and director Wes Anderson (seated at right) frame actors (from left) Bob Balaban, Henry Winkler, Adrien Brody and Del Toro.



“There’s something magical about shooting film.”

Vincent Scotet, who served as 1st AC on the project, says that upon entering a set, he immediately located the dead-center point in the room, “and if we were in doubt about where that was, we got out the measuring tape.”

Once the center was established, Yeoman and his crew went about executing Anderson’s animatics, which called for actions that often ran up against the physical limitations of actors and locations. “The challenge we have in a lot of the animatics is that the actors and camera move extremely fast in them,” says Yeoman. “In real life, that’s not easy to do, especially when the actors are going up stairs, for example. But [key grip and Steadicam operator] Sanjay [Sami] was a rugby player, so he’s pretty fast, and he’s adept at pushing the dolly very quickly and coming to a very quick stop.”

Sami, who has worked with Yeoman and Anderson since *The Darjeeling Limited* (2007), is often tasked with creating unusual rigs to realize Anderson’s ambitions, as the director has an aversion to many modern filmmaking tools. “Wes likes to do things old-school, so we all have to embrace the lack of some of the technical gear we might ordinarily use — like camera cars and Technocranes, for instance,” Yeoman says. “The last time we used a Technocrane was on *The Royal Tenenbaums*, for the

Tech Specs: 1.37:1, 2.39:1
 Format: 4-perf Super 35mm
 Cameras: Arricam ST, Arricam LT, Arriflex 235
 Lenses: Cooke S4, Anamorphic /i; Arri/Zeiss Master Anamorphic
 Film Stocks: Kodak Vision3 200T 5213 (color), Eastman Double-X 5222 (black-and-white)

big shot following Owen Wilson's car accident. We rely on Sanjay to come up with more homemade approaches to doing things."

Yeoman and his crew agree that, often, these "more analog" methods work out better, especially for complicated shots that involve combinations of whip-pans and dolly moves in which the camera must interact with the actors in a meticulously choreographed dance. "We have to be able to change direction on the track very quickly and be as precise as Wes wants to be down to the millimeter," Sami says, "because if you're off by a millimeter, [the frame] isn't centered anymore when you hit your mark. You need to hit your mark and then move back 90 degrees on that axis. There are very hard stops and very fast pullbacks, and the 90-degree angle changes happen very quickly."

To help achieve those kinds of camera moves with the desired elegance, Sami designed a series of switch tracks inspired by his children's toy-train set. "The switch tracks allow us to very quickly change direction with the precision Wes wants," he explains. "I love rising to the challenge of figuring out the physics of creating the shot that's in Wes' head."

The other component to those tricky moves is Yeoman's operating.

"I usually use a geared head, but on those shots, I use a fluid head and twist myself into a pretzel," the cinematographer explains. "I put my feet where the landing position should be, so at the beginning of the shot I'm often very uncomfortable. Then, as I swing around, I come to a position where I feel I'm balanced, and that's kind of how I do it. The more I have to do them, the more nervous I get, because if I blow a take with a group of great actors, I feel terrible about it."

Sami notes that "it's very, very rare that we do a take again because Bob missed it — and it's not as simple as just twisting and untwisting, because there are often multiple swish-pans in the same shot. Plus, I'm tracking at the same time, and we're doing really fast dolly moves with really hard stops again and again. It's a 270-degree swish pan with four stops on the way while the dolly is moving!"

The deep focus that's characteristic of Anderson's frames placed similarly great demands on Scotet. "Today it's very fashionable to shoot wide open and have very narrow depth of field, but we do the opposite," says Yeoman. "Many times, Wes will have an actor very close to the camera and other actors in the background, and he'll want everybody in focus.



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Top: Rosenthal and Simone pose for art connoisseurs with the ambitious “installation piece” he’s created on one of the prison’s walls. Bottom: Art maven and *French Dispatch* writer J.K.L. Berensen (Tilda Swinton) presents a seminar on Rosenthal’s work.



“Wes likes to do things old-school, so we all have to embrace the lack of some of the technical gear we might ordinarily use.”

I’d say to Vincent, ‘Hey, what do I need to carry focus here?’ And he’d say, ‘You need a T8 to do that.’ So, we’d light to a T8.

“In this film, we had a long dolly shot with actors frozen in place, with some very close to camera and some very far,” Yeoman continues. “We shot that at T11, and it’s an interior. We brought in a lot of lights because we needed that depth of field to carry everybody in focus. Greg Fromentin, my gaffer, did an amazing job with that. We were shooting with a Cooke S4 25mm lens on an Arri ST at 200 ASA. To light the sequence, we needed six 18K HMIs and two 9K HMIs bounced into the ceiling, which was covered with white cloth. We put the lights behind the set walls.”

Adds Scotet, who was collaborating with Anderson and Yeoman for the first time, “I remember that day very well. We had an actor in the foreground who was 2 feet from the camera and one in the back who was 20 or 25 feet away. Working with Wes and Bob [involves] a different way of talking about focus and the choices you make in a shot. It’s often more about where I should set focus to play with the depth of field and carry as many actors as possible, instead of choosing one specific actor in the frame to be sharper than the others. Most of the time we’re using split focus, when the T-stop allows us to do so.”

Despite the rigorous technical requirements, Anderson’s sets tend to be very stripped-down. “We have the smallest on-set crew imaginable,” Yeoman says. “It’s a very different way of working. Wes does not like an

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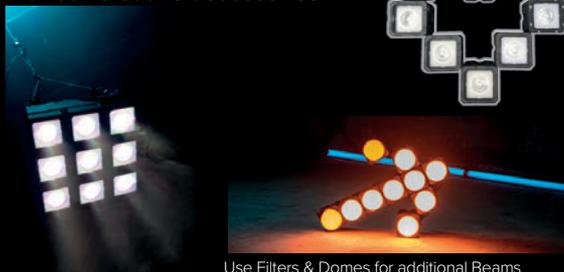
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army of people around. He doesn't like video village or anything like it; he tries to create an intimate atmosphere for the actors.

"I generally don't bring a lot of lights onto the set," he continues. "For example, on *The Grand Budapest Hotel* [AC March '14], our hotel location had a giant skylight, and we just bounced a lot of HMIs through that, used a lot of practicals inside, and brought in one light for the actors. That was pretty much how we did the interiors. Wes doesn't want to see a lot of lights and light stands; he'd rather keep the space as clean as possible."

The director also prefers keeping company moves to a minimum, favoring locations that are within a golf cart's ride from the production's

Student revolutionaries Juliette (Lyna Khoudri, left) and Zeffirelli (Timothée Chalamet) flank *French Dispatch* journalist Lucinda Kremetz (Frances McDormand) at the barricades, under heavy police scrutiny.



hotel. “There are fewer logistical problems because everything is close by,” Sami says, “and everyone gets the flavor of the place they’re working in [by staying in the area.] That’s less likely to happen on a backlot.”

Anderson’s old-school approach extends to shooting on film, and Yeoman says he appreciates the discipline the more traditional medium brings to a set. “In general, I think everyone pays attention and focuses more when you’re shooting film,” he notes. “When you shoot digitally, often you turn the camera on and just keep rolling, and the hair-and-makeup people go in between takes. With film, when you slap the slate, everyone’s attention is really there. The disadvantage is that we shoot [Kodak Vision3 200T] 5213, which is [ISO] 200! We shot on that stock for

Left: Anderson in a behind-the-scenes photo snapped on set by Yeoman. Right: A French police commissioner (Mathieu Amalric, right) whose son has been kidnapped shares a gourmet dinner with Wright to discuss the case.



“Wes doesn’t want to see a lot of lights and light stands; he’d rather keep the space as clean as possible.”

all the color scenes, and we used Kodak 5222 [ISO 250] black-and-white stock for all the black-and-white material. When you shoot on [Arri] Alexa, of course, it’s [ISO] 800. So, we needed more light, particularly for nights and interiors, although we didn’t have to break our rule about ‘fewer lights and light stands’ that often on this picture — only occasionally. When I’m shooting film, I do go back to using my [light] meters much more than when I shoot digitally.”

But for Yeoman, the payoff is worth it. “There’s something magical about shooting film,” he says. “With digital, you can see on the monitor pretty much exactly what you’re going to get. With film, there’s a magic that happens from the moment we load the film to when it goes to the lab and someone else prints it. I certainly have a pretty good idea of what it’s going to look like, but there are often surprises — and generally good ones.”

Sami concurs, recalling that on *Moonrise Kingdom* [AC June ’12], which Yeoman shot on Super 16mm, “the dailies often surprised us. A lot of the takes that we presumed were going to be way too dark were actually really good.”

Yeoman adds, “Don’t get me wrong, I love what we can do with the Alexa and other digital cameras. At the same time, I think a lot of the magic of filmmaking has been lost since we entered the digital world, and that magical quality appeals to me. The magic of cinema is very important to me.” **Q**

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Captivity to Freedom

Sabaya filmmaker Hogir Hirori documents the courageous liberation of enslaved Iraqi women. **By Terry McCarthy**



S *abaya* is a harrowing documentary that focuses on one of the most despicable chapters of ISIS' four-year reign of terror: the kidnapping of thousands of Yazidi women from Northern Iraq, who were held captive as sex slaves. Kurdish/Swedish filmmaker Hogir Hirori cleverly chose to shoot the film from the perspective of a small group of volunteers dedicated to freeing the women from their ISIS slavemasters, allowing a ray of humanity to shine through the darkness, and rescuing the film from mind-numbing

Previous spread: The al-Hol refugee camp in northeastern Syria.
 This page, top: Filmmaker Hogir Hirori captures footage at the camp.
 Bottom: Hasakah Central Prison, also in northeastern Syria, holds thousands of ISIS militants.



IMAGES COURTESY OF MTV DOCUMENTARY FILMS.



horror. Hirori, who shot the entire doc single-handedly, also made some artful cinematographic decisions to show the dizzying gulf between the ISIS rapists and the civilized world they terrorized.

In 2014, ISIS soldiers in the Northern Iraq district of Sinjar massacred some 5,000 Yazidi men, and kidnapped another 5,000 to 7,000 Yazidi women, according to the U.N. Because Yazidis are not Muslims, ISIS asserted that they could be used and exchanged among ISIS fighters as sex slaves — or “sabaya,” in Arabic. Even after ISIS was defeated militarily in 2017, many of these women remained enslaved, confined with their captors in the vast, lawless ISIS refugee camp of al-Hol in northeastern Syria.

Hirori made six trips to Syria between 2018 and 2020 to film the work of Mahmud; his wife, Siham; and their friend Ziyad as they locate and then rescue the women from the al-Hol camp. Mahmud and his group work for the Yazidi Home Center — they have already rescued some 200 sabaya, whom they have helped return to their families in Iraq. They estimate that there are still some 2,000 women who are missing.

It is very dangerous work — in one nighttime sequence, Hirori keeps

En route to a rescue mission.



the camera rolling as their car races away from the camp while under gunfire from a pursuing vehicle. The woman they have just rescued is sobbing in the back seat: “Please don’t let them take me again. ... They were always beating me.” They evade their pursuer and finally make it to the safety of Mahmud’s village, where his wife takes the woman in, gives her new clothing, and calms her down with gentle words.

“Mahmud and his family are very poor,” Hirori tells *AC*. “They just have a few farm animals. But what they do have, they share — and their levels of hospitality, humanity and humility were extraordinary.”

Hirori had initially planned to take a full crew with him to shoot the film, but he quickly realized the situation was too dangerous, and he ended up doing all the work himself — camera, sound and producing.

“If I’d had more people, it would have drawn attention to the rescuers and put them in danger,” he says. Initially, Mahmud was wary of having an unknown person film them, but because Hirori speaks their language and was patient, “we eventually grew to trust each other, and became good friends,” the filmmaker says.

When asked what motivated him to risk his own life to make this

“If I’d had more [crewmembers], it would have drawn attention to the rescuers and put them in danger.”

Tech Specs:

1.78:1

Cameras: Canon EOS C300 Mark II; GoPro Hero7, Hero8;

Sony a6000; iPhone X, 11 Pro

Lenses: Canon L-series zoom

Top: Mahmud and his colleague Ziyad speak with camp infiltrators who are assisting with rescue efforts. Bottom: Mahmud, a volunteer for the Yazidi Home Center, confers with a source to procure information on Yazidi girls and women hidden in the al-Hol camp.



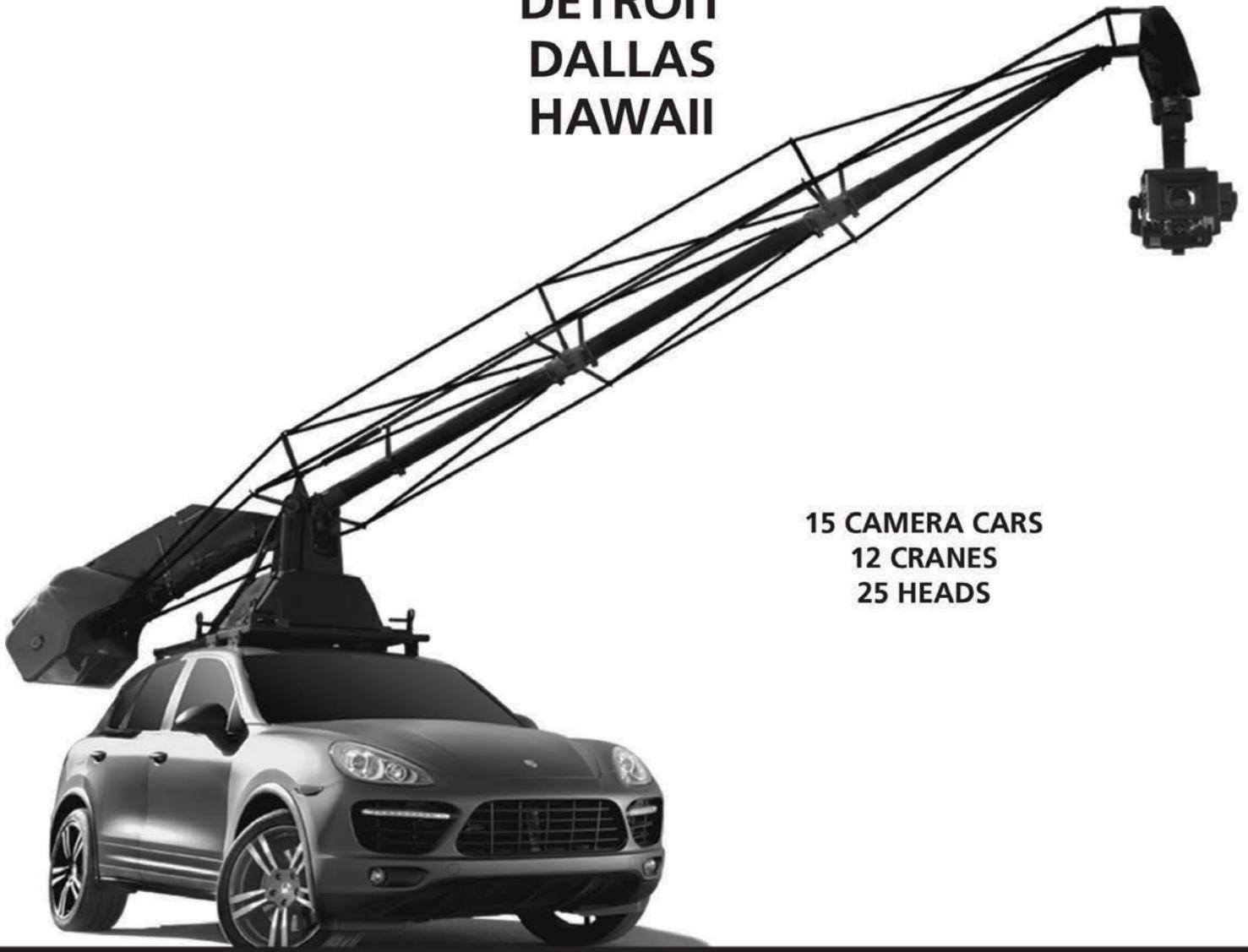
“[I sought] to tell these urgent stories and create awareness of the situation, in the hope that those women and girls who are still held captive by ISIS can be saved and reunited with their families.”

film, Hirori replies, “To tell these urgent stories and create awareness of the situation, in the hope that those women and girls who are still held captive by ISIS can be saved and reunited with their families.”

Hirori shot most of the film with a Canon EOS C300 Mark II — more than 90 percent, he estimates — which he paired with lenses that included Canon’s L-series zoom. In addition, he had some smaller cameras: GoPro Hero7 and Hero8 units, a Sony a6000, and even iPhones, which could be used when the filming needed to be more discreet. On several occasions when Hirori documented undercover visits to the camp to find Yazidi captives, the filming was done from behind the veil of a black robe, using a GoPro or an iPhone. These darker images, which resulted from shooting through black fabric, added to the sense of menace within the sprawling refugee camp of some 60,000 people — many still ardent ISIS supporters.

A particular incident of contrasting color palettes stands out as an illustration of the journey from captivity to freedom. In the camp, all the women are forced by ISIS to wear black niqabs, their faces covered except for a narrow horizontal slit at eye level. Yazidis do not normally wear black, so when Mahmud and Ziyad rescue women and bring them back to the safe house in their village, Mahmud’s wife promptly gives the freed women colorful clothing. In a memorable nighttime scene, Siham takes all the hated black niqabs collected from the freed women

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The bright colors in this frame showing Mahmud's mother are in stark contrast to the black robes worn by the women in the camp.



“It was very symbolic, how the women would be transformed by dressing again in colorful clothes.”

and burns them on a small bonfire. “It was very symbolic, how the women would be transformed by dressing again in colorful clothes,” Hirori says.

Producer Antonio Russo Merenda said that he and Hirori gave a lot of thought to how they could show Mahmud's house as a contrast to the camp. “It is so easy to dehumanize an area like Syria — or Afghanistan, or Iraq — if you just show the dark side,” says Merenda. “We wanted the film also to give hope, to show there is a house, a family, something you can relate to. Mahmud and his family remind us of what is best in us.”

Editor's Note: At press time, AC became aware of the controversy in regard to whether all of Sabaya's subjects gave their informed consent to appear in the film. ◻

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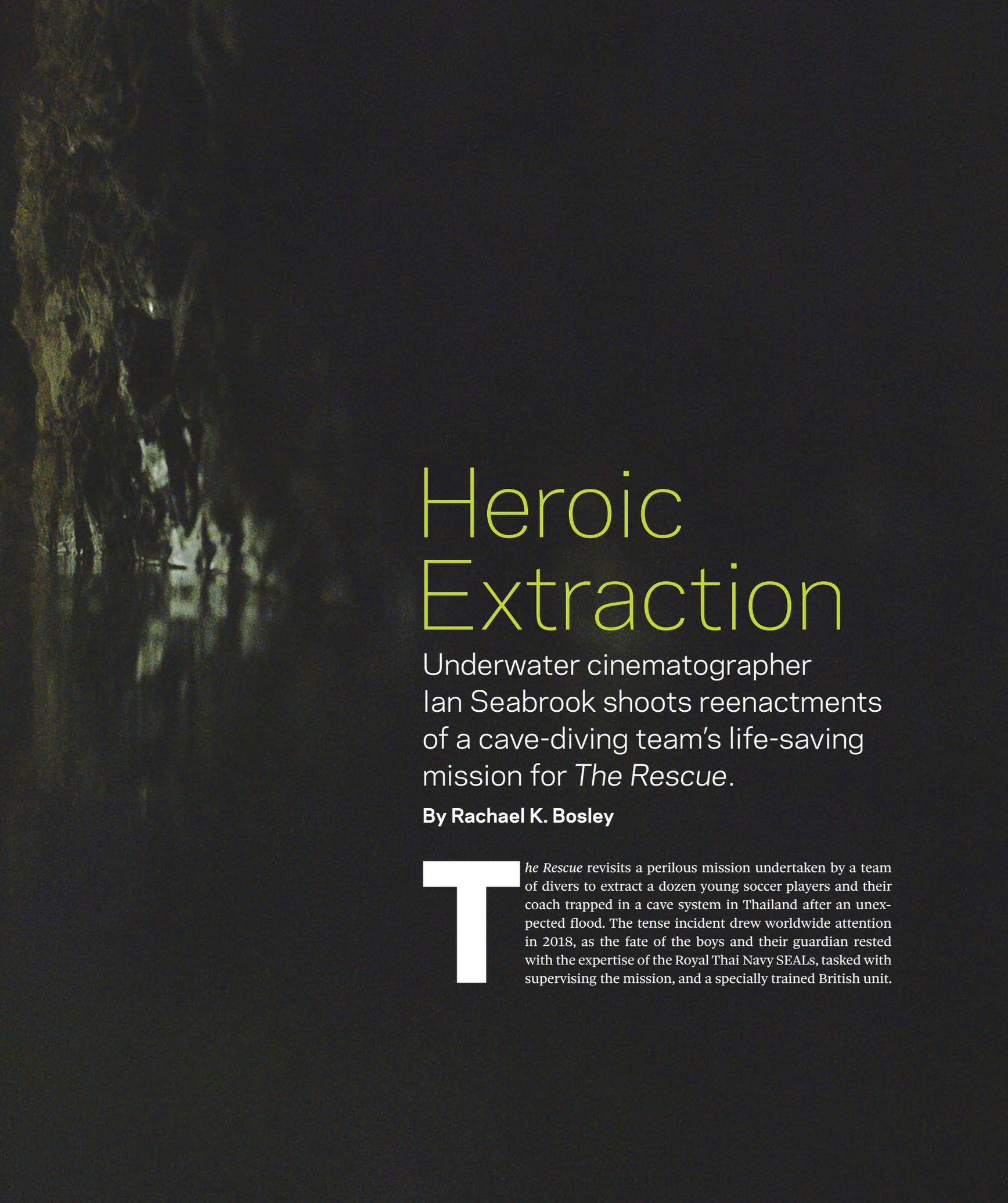
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“Whether you have 50 million dollars or five thousand dollars, time is still of the essence. Production always wants to know, can we do it - can it get done in the 12 hours. I can stay on that zoom all day, all week, all episode. Wherever I was on the lens, it felt like a prime. You can go all the way to the wide end of the lens and it holds true, as well as all of the focal lengths in between.”

JOE “JODY” WILLIAMS
CINEMATOGRAPHER







Heroic Extraction

Underwater cinematographer
Ian Seabrook shoots reenactments
of a cave-diving team's life-saving
mission for *The Rescue*.

By Rachael K. Bosley

The *Rescue* revisits a perilous mission undertaken by a team of divers to extract a dozen young soccer players and their coach trapped in a cave system in Thailand after an unexpected flood. The tense incident drew worldwide attention in 2018, as the fate of the boys and their guardian rested with the expertise of the Royal Thai Navy SEALs, tasked with supervising the mission, and a specially trained British unit.

Previous spread: British divers Rick Stanton and John Volanthen in a set that was built at Pinewood's Underwater Stage to emulate Chamber 9 of the Tham Luang cave system. This page: Volanthen makes his way through the darkness of the cave-system set.



PHOTOS COURTESY OF NATIONAL GEOGRAPHIC.

Some of the most suspenseful moments in this new documentary are depicted in dramatic reenactments of the rescue effort. The work of underwater cinematographer Ian Seabrook in re-creating key events — discussed in detail in this article — served as a vital strand in a complex visual web that includes interviews with the principals, a tapestry of international press footage, and video footage shot by the SEALs. The military footage, which was captured primarily in the main rescue staging area (known as Chamber 3) within the Tham Luang Nang Non cave system during the actual rescue operation, has not been seen before.

Assessing Assets

“Our goal was to create a holistic view of the rescue out of all these fragmented perspectives, and when we started, there was very little footage from inside the cave,” says E. Chai Vasarhelyi, who directed the National Geographic documentary with her filmmaking partner and husband, Jimmy Chin. “We’d heard rumors about the Thai Navy SEAL footage, but at that point we hadn’t seen it and didn’t know if we’d be given permission to use it.”

The 87 hours of SEAL footage yielded a gold mine of visual connective tissue — “the most exciting thing that can ever happen when you’re making a doc,” says Vasarhelyi — though that perspective did not extend beyond Chamber 3, whereas the children and their coach were

eventually found about two miles from that location, in Chamber 9.

“Except for a few GoPro shots the cave divers had [captured] themselves, we had no footage of the actual rescue,” says Chin.

“We needed to cover the big dramatic beats, which were pretty clear,” adds Vasarhelyi, “and our choices were reenactment or animation.”

Underwater Authenticity

The 10-day reenactment shoot at Pinewood Studios’ Underwater Stage in England marked the first time the directors were able to work in person with some of their camera team and the cave divers. It was October 2020, and the Covid-19 pandemic had siloed nearly everyone involved in the production.

Los Angeles-based cinematographer Seabrook flew to the U.K. for the Pinewood shoot and used his quarantine time to prep. “I pored over research materials about the actual event for many hours,” he tells *AC*. “Given the short window we had to shoot this, every element had to be meticulously planned. Once out of quarantine, I met with 1st AD Joey Coughlin and line producer Tibo Travers to discuss the shooting schedule, props, set design, wardrobe and SPFX requirements, and coordinated with Jimmy and Chai by phone and via Zoom. It was in no way normal prep, but by the time we all met for the first time, we were ready.”

Five of the British cave divers involved in the rescue — Rick Stanton,

“Our goal was to create a holistic view of the rescue out of all these fragmented perspectives.”

Cinematographer Ian Seabrook and crew photograph the reenacted conclusion of the divers' mission in the Chamber 3 set in the Pinewood tank.



John Volanthen, Jason Mallinson, Jim Warny and Chris Jewell — played themselves in the Pinewood reenactments.

“The [reenactment] process was really useful, because the divers are meticulous and they showed us exactly what they’d done,” says Chin, who had previously collaborated with Vasarhelyi on the Academy Award-winning 2018 documentary *Free Solo*. “We needed to dig into all those details, because for us, the bar for authenticity is really high. With *Free Solo*, we wanted a general audience to appreciate it, but we knew the most salty, strappy old climber had to buy it, too. We wanted to bring that kind of authenticity to *The Rescue*.”

Expanding the Set

Using 3D scans of the Tham Luang cave system, Rod Vass, of the U.K. company Armordillo, created a replica of select cave sections — which were submerged in 20' of water at the 66'x33' Pinewood tank, whose water capacity is approximately 317,000 gallons.

“As the pandemic had caused shipping delays in construction materials for Vass to use on the sets, there was not enough cave set and we were running out of time,” Seabrook says. Fortunately, while surveying the tank, the cinematographer noted rock-wall sections left over from another production, stored under the stage ramp. “When I found the cave sections at Pinewood, I called Rod Vass to see if they could be painted

the same color as the cave sets he was working on.” Seabrook and 1st AD Coughlin then transported the pieces to Vass’ facility in Southern Wales, where the sections were successfully incorporated into the construction — effectively doubling the size of their set.

Reenacting the Rescue

With “vérite” as his brief, Seabrook outlined his rough shooting plan for the divers, and then “asked them to ignore what I was doing unless there was something specific we were looking for within their actions,” he says.

Seabrook shot with an Arri Alexa Mini LF safeguarded by an underwater housing he’d made, capturing in Open Gate using Zeiss Supreme Prime and Supreme Prime Radiance lenses. “It was important to maintain a small footprint in the cave sets, which had some very narrow passageways, and I felt the large format would serve the production if Imax exhibition was proposed,” he says. (Though *The Rescue* does not have an Imax-certified version, the movie was projected on the Imax screen at the Toronto International Film Festival.) In regard to the combination of lenses, he adds, “The Zeiss Supreme Radiance have a [coating called] ‘T* Blue,’ [which creates a blue flare that] I felt would give some shots a unique look, given the beams from the divers’ headlamps would be flaring the lens,” he says. “The Zeiss Supreme had a different, softer,

Tech Specs:

1.85:1

For reenactment footage shot by Ian Seabrook:

Cameras: Arri Alexa Mini LF

Lenses: Zeiss Supreme Prime, Supreme Prime Radiance

Divers Volanthen (left) and Stanton arrive in Chamber 9 — re-created here in Pinewood's Underwater Stage.



“We were all keen to represent the divers’ incredible work properly, and everyone was deeply invested in telling this story.”

non-blue flare — [so] the flares [wouldn’t all] look similar.”

Rating the camera between 1,000-1,600 ISO, he shot at T4 “to not only give focus puller Dean Thompson a chance, but also to mask the at-times lack of set I was shooting around,” Seabrook notes. He adds that he had conducted tests at 800 ISO on the Alexa with the Zeiss primes wide open and found the veiling glare too significant when the divers’ headlamps hit the lens, creating a washed-out look. The lifted blacks of the veiling glare also revealed the limitations of their set, so Seabrook elected to shoot at a higher ISO in order to stop down and control the flaring and lifted blacks. “Also, I felt the lenses performed better when [they weren’t] wide open,” Seabrook notes, “but there were times when I opened up to [as wide as a] 2.8. I was in daily communication with [supervising colorist and ASC associate] Stefan Sonnenfeld at Company 3 about my levels. Dailies were [performed] by Company 3 in London and beamed to Stefan in Los Angeles, who examined the grade and LUT, [which I] and DIT Joe Steel had selected.”

Special-effects coordinator Chris Hubbard used industrial-strength pumps to give the water a level of turbidity that matched what the divers had experienced in Tham Luang, where monsoon rains and raging floodwaters had created near-zero visibility.

Lighting the Heroes

To create a “no-light” look underwater, Seabrook and underwater gaffer Aaron Keating embedded the Astera Helios and Titan LED tubes and HydroFlex HydroFlo fluorescent tubes in the set. “I would do a few passes with the camera to see if I could see any sources glowing, which I would correct if I did,” says Seabrook. “Aaron and I devised a chocolate-and-coral gel combination that we used at 3,000K so the [light from the] Asteras wouldn’t look white; this accurately represented the divers’ helmet lights bouncing against the mud and rocks. [Mobile-LED-lamp manufacturer] Scurion also gave us some lights, and we added ND [gel] — and in some cases diffusion — to the [lamp] heads. We used Opal [diffusion] on some and 216 on others.

“I used 12’x12’ blacks to drape between the gaps in the sets and act as negative fill,” he adds, “and we bounced light from portable custom underwater LEDs, Titan tubes and HydroFlo sources into Griffon underwater — below [the divers] and to whichever sides of the cave set we were looking at — to add a bit of ambience.”

Pooling Talents

David Katznelson, BSC, DFF and Picha Srisansanee performed cinematography duties for *The Rescue*’s interview material — Katznelson in the U.K. and Srisansanee in Thailand.

As unusual as the project was, “it was a great collaboration,” Seabrook says. “We were all keen to represent the divers’ incredible work properly, and everyone was deeply invested in telling this story.” **Q**



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Dueling Identities

Cinematographer Minka Farthing-Kohl captures mockumentary and scripted-narrative styles for *The Nowhere Inn*.

By Tara Jenkins



A filmmaker and subject embark on an ill-fated attempt to craft a music documentary in the surreal dark comedy *The Nowhere Inn*, an exploration of identity, ego, authenticity and fame. Playing fictionalized versions of themselves, Annie Clark (better known as rock star St. Vincent) is shadowed by her close friend Carrie Brownstein (a founding member of the band Sleater-Kinney and co-creator of the IFC series *Portlandia*) as they attempt to document Clark's life on the road — while their respective visions for the project begin to markedly diverge. The production, shot by Minka Farthing-Kohl and directed by Bill Benz, comprises a scripted narrative interwoven with footage designed to emulate the documentary form.

Previous spread: Annie Clark (aka rock star St. Vincent) faces the grievances of her disgruntled creative partner. This page, top: Clark and co-star Carrie Brownstein — both co-writers and producers on the film — play fictional versions of themselves. Bottom: Cinematographer Minka Farthing-Kohl.



PHOTOS COURTESY OF IFC FILMS.



Envisioning Styles

“The film definitely took on a handful of permutations before we landed on the hybridity that it ended up becoming,” says Brownstein, who co-wrote the screenplay with Clark. “We started to think about something that could match the otherworldliness of *St. Vincent*, and get into something that felt more experimental and could [speak] to the ineffable, magical quality of [music], which never lands somewhere specific and asks more questions than it provides answers for.”

Brownstein, Clark and Farthing-Kohl all cite directors Peter Greenaway and Nicolas Roeg, and such films as Roeg’s *Performance* — a 1970 crime drama co-starring Mick Jagger — as significant inspiration for *The Nowhere Inn*. Says Farthing-Kohl, “We were drawn to the pacing and atmosphere [that Greenaway’s and Roeg’s] montages and camerawork created, and the foreboding narrative tension it forced the audience to linger in — whether it was Roeg’s omniscient zooms or Greenaway’s grand sets and heavily scored tracking shots.”

“Through fictionalized renderings, we were trying to get to something more truthful about ourselves and our intentions and our artistry,” Clark notes. “I could have done the more traditional, behind-the-scenes,



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Tech Specs: 2.39:1, 1.78:1, 1.33:1
 Formats: Digital Capture and Super 16mm
 Cameras: Arri Alexa Mini, Arriflex 416
 Lenses: Panavision Auto Panatar, D and E Series anamorphic, Primo Anamorphic Zoom;
 Canon 16mm zoom; Arriflex/Zeiss 16mm-format Super Speed
 Film Stocks: Kodak Vision3 500T 7219, 250D 7207

Clark and Brownstein have words.



‘Hey, this is who I am!’ film, but I kept stumbling over the idea that even if I did it in that kind of way, I would still be the one sculpting the narrative. It felt cynical to try and make a behind-the-scenes [movie] that would just make people *like* me. Let’s just make art about making art, and that will be more true to the spirit of things.”

Shooting Methods

This film and the Netflix production *Concrete Cowboy*, which both saw general release this year, represent Farthing-Kohl’s first full-length features as a director of photography. He and Benz have been friends since their time at Temple University, and *The Nowhere Inn* marks their second collaboration — the two previously partnered on the first season of the Comedy Central series *Detroiters*. “The conversation with Bill was always about the best way to make sure the audience doesn’t get lost in this ‘meta-film,’ to make it clear exactly where they are in the story,” Farthing-Kohl says. “To that effect, we used different aspect ratios — 2.39:1, 1.78:1 and 1.33:1 — and different cameras, going between Super 16mm for the documentary look and digital for the [scripted narrative] thread

of the story.”

The digital portions were shot on Arri’s Alexa Mini paired with a variety of Panavision anamorphics, comprising E and D Series lenses, Auto Panatars, and the 48-550mm T4.5 Primo Anamorphic Zoom (ALZ).

The documentary portions were shot on an Arriflex 416 — paired with Canon’s 6.6-66mm T2.7-3.3 zoom and Arriflex/Zeiss 16mm-format Super Speeds — with Kodak Vision3 500T 7219 and 250D 7207 film stocks, and presented mostly in 1.78:1. The only exception is a flashback conversation between Clark and Brownstein, presented in 1.33:1. “In contrast to the omniscient and formal aesthetic of the anamorphic digital camera, we wanted the Super 16mm to feel raw, loose and ‘found,’” Farthing-Kohl says. “The Dardenne brothers’ work in both documentary and fiction was very influential in its kinetic energy and vérité aesthetic, while achieving a condensed narrative timeline that’s so present in scripted storytelling.

“Bill Benz and I often discussed the perspective of the scene in deciding whether to shoot it from the ‘documentary’ camera or ‘narrative’ one,” the cinematographer continues. “Sometimes it played best for the

Director Bill Benz on set.



story to switch mediums on a punchline or to ping-pong back and forth. Knowing this was our approach, we lit the scenes with our gaffer, Garrett Ian Williams and key grip, Shun Goldin, to allow us to do both by lighting to a T2.8 at 500 ISO. When given the chance, we would sculpt the light for the narrative camera during close-ups, and allow the documentary lighting to be rougher and less shaped, as if we were capturing those unintended in-between moments.”

Juxtaposing Genres

In addition to emulating the raw, frenetic visual style often associated with music documentaries, the mockumentary elements of the production offered the filmmakers the opportunity to comment on traditional plot points of the genre as well. Says Clark, “First, we had to really familiarize ourselves with the ‘concert doc’ form and the tropes of the popstar behind the scenes. Those films usually play into the idea that ‘I am just a normal person who happens to be a rock star, but I have normal problems just like you.’ There’s usually a ‘coming home’ scene, a ‘romance gone awry’ — all these different tropes and narrative points.

We familiarized ourselves with those and made sure we hit them.”

Also integral to creating the feel of a concert film was the intercutting between backstage and musical-performance material. The footage of Clark’s live concert had been shot in digital format by cinematographer Tarin Anderson at the Hollywood Palladium, prior to Farthing-Kohl’s joining the project. “The constraints of the documentary concert footage gave us a visual language to build off for the rest of the film,” Farthing-Kohl says. “And the concert footage had this loose, marauding lens that steered us into a more formal and singular aesthetic for the narrative portions.”

The filmmakers’ success in crafting a movie that had the spontaneous feel of a documentary, he adds, had much to do with the close-knit camaraderie on set. “Bill, Annie and Carrie set the tone for this incredibly collaborative, generous and open-minded set that trickled down to the whole crew,” Farthing-Kohl says. “It felt like a student film in the best possible way — like making a movie with all your friends. I wish we could do it again!” ◻

The Muppets Go Virtual

Muppets characters Gonzo (left) and Pepe the King Prawn in an LED-wall volume for *Muppets Haunted Mansion*, shot by Craig Kief, ASC.



IMAGES COPYRIGHT THE MUPPETS STUDIO.

Gonzo and Pepe the King Prawn must survive the night amid a ghostly cast of characters — played by Kermit the Frog, Miss Piggy, Fozzie Bear and the rest of the Muppet gang. *Muppets Haunted Mansion* is an amalgam of two beloved Disney properties: Jim Henson's *Muppets* and the Haunted Mansion attraction featured at Disney parks around the world. The 45-minute special is chock full of cameos and Easter eggs that fans of both works will recognize.

Created by Disney's The Muppets Studio for Disney Plus, the project was co-written and directed by Kirk Thatcher and photographed by Craig Kief, ASC — who were

apt choices, as both have ample experience in the Muppet world. Thatcher's directorial credits include *The Muppets' Wizard of Oz* and *It's a Very Merry Muppet Christmas Movie*, while Kief served as series cinematographer on ABC's *The Muppets*. Thatcher and Kief had previously collaborated on several commercials and music videos, including Muppets projects.

Entering the Volume

The Halloween special was initially conceived as a traditional shoot, but Covid-19 altered the plan. "It was originally scheduled to go into prep around the end of February 2020, but everything started shutting

down, and the project was put on hold." Kief recalls. "Virtual production started really taking off over the following summer, and [frequent Muppet-production collaborator Soapbox Films] decided to invest in an LED wall on their soundstage. Because of the specialized requirements needed to shoot Muppets on practical sets, we were able to do this in a more streamlined, efficient and safe way via virtual production."

Thatcher explains that the project was proposed to him as a scaled-down version of the workflow used on *The Mandalorian* (AC Feb. '20). "Building all the sets in Unreal Engine and shooting in [an LED] volume sounded amazing

because it's really good at [rendering] walls and realistic textures," he says. "One of the reasons I started working with Jim Henson was because we were both technophiles. I designed the [character] Waldo, a CG puppet that [first appeared in the Disney attraction *Muppet*Vision 3D* and] could be operated by physical controls. Jim loved technology and always pushed the envelope."

Soapbox Films hired ARWall to integrate and operate the Los Angeles-based LED volume. Included in the set-up was a primary 20'x16' wall — comprising Ledman COB 1.5mm-pixel-pitch LED panels — as well as two 15'x10' sidewalls, a 20'x15' ceiling, and two 20" x 40"

Cinematographer Craig Kief, ASC (right) oversees a setup in the volume.

mobile mini-walls for additional lighting and reflections. The ceiling, as well as the side and mobile walls, each comprised Absen 4.68mm-pixel-pitch panels — a lower-pixel-count solution “because they were more cost effective and would never be photographed,” Kief says.

To capture the performances in the LED volume, Kief deployed an Arri Alexa LF camera with Panavision Sphero 65 lenses. “I had Panavision’s Special Optics team modify two Panaspeeds — 29mm and 35mm — to match the look of the Spheros so that I could get to a T1.4 for a shallower depth of field than the native T2.8 of those Spheros. The main reason to do this on a volume is to avoid moiré.”

Virtual Challenges

Kief notes a number of technical hurdles the production encountered as they familiarized themselves with the new technologies and workflow. “One of our early issues was visible scanlines and trying to genlock everything to eliminate them,” says Kief. “I learned so much through this experience. One of the key takeaways was that these setups are incredibly complex integrations from different providers, and everything has to work together at a high-performance level, or you’re dead in the water.”

Kief ringed the set ceiling with Kino Flo FreeStyle LED lights, controlled via DMX to synchronize with the onscreen content. “There’s a bit of a misconception that the volume does all the lighting for you,” he says. “But if you increase the brightness of the screens so [they’re bright enough to sufficiently] light the subject, you could end up contaminating other parts of the volume, including the screen



“One of the key takeaways was that these setups are incredibly complex integrations from different providers.”

itself. Also, the color rendition of the panels is not nearly as full-spectrum as current LED cinema lights.

“I have a long history in lighting, and I even worked as a consultant for ETC when they designed their fos/4 line of fixtures, so I know a lot about color rendition,” Kief continues. “The color quality of the emitters used in current LED display panels is very narrowband, like the first generation of LED movie lights from a dozen years ago.”

Digital Designs

Production designer Darcy Prevost re-created the iconic architecture of the Haunted Mansion in SketchUp using a variety of reference material provided by Disney. “Disney had a Matterport photogrammetry scan of the ride at Disneyland, so I could look around each area and see curves, textures and understand the layout,” says Prevost. “At the time, the park itself was shut down [due

to Covid-19], so we weren’t able to visit for ourselves.

“I’d model everything as close to ‘within an inch of its life’ as possible, and then export as an OBJ 3D file,” Prevost continues. “ARwall had two modeling teams transforming the OBJ models into Unreal Engine models: Mark Allen at Allucinari and the Dastoli brothers at Dastoli Digital. We had lots of review meetings where Craig could ask for things like practical lights, and the set decorator and I could choose a specific sconce in digital form to add — in that sense, it’s not much different than working traditionally. If you’re doing a virtual-production project, you really can’t cut your prep short.”

Visual-effects and postproduction supervisor Brooke Stone led *Muppets Haunted Mansion* across the finish line. “A lot of our work was fixing little 2D glitches and puppeteering rod removals,” says Stone — though she adds that her

team’s work also helped create the otherworldly appearance of hundreds of Muppets “ghost” elements, which were ultimately placed into the show during postproduction.

About the volume shoot as a whole, Stone says, “It’s impressive how everything worked with the LED wall, as opposed to a completely greenscreen environment, because [with greenscreen work] it takes much longer for the final shots to come together in post.”

Adds Kief, “In the instances where something wasn’t working perfectly in the volume, the on-camera panels could be turned green or blue for us to pull keys from, while the off-camera panels gave us the accurate interactive lighting to complement the background environments that would be composited in afterwards. It was the best cohesion of foreground lighting and green- or bluescreen work I’ve seen.”

The Virtual World

Top: A preliminary illustration from production designer Darcy Prevost, representing Gonzo and Pepe interacting with the CG set. Bottom: Director Kirk Thatcher (left) and Muppets performer Bill Barretta confer in the volume.



Benefits of the Medium

"As a director, [I found] the LED-volume experience very freeing, once I got my head around not moving the camera, but moving the screen content," Thatcher says. "The challenge with Muppets is always the perspective. I like the 29mm lens [on the LF] because it makes them seem more like they're human scale when they're just 12 inches tall.

"The LED wall is great on shots like [a character] running down a

hallway. [These shots] are so hard to do on real sets with Muppets because you need to build expensive removable floors, but they are easy on an LED wall because you can move the 3D set," he adds. "I'm super happy with the final movie — it looks like you're really in the Haunted Mansion, but the mansion ghosts are Muppets. I've already written two more project pitches for Muppets in a volume with Unreal Engine."

Taking stock of the experience,

Kief sees the cutting-edge state of LED-volume virtual production as a critical evolutionary phase for cinematography. "It reminds me of the early days of compositing and chroma keying," he says. "It took a lot of R&D and troubleshooting to figure everything out back then. Now it's something everyone does. The LED volume is so much nicer, and the photography is inherently more integrated with the visual effects. It's just fantastic, and it's only going to get better."



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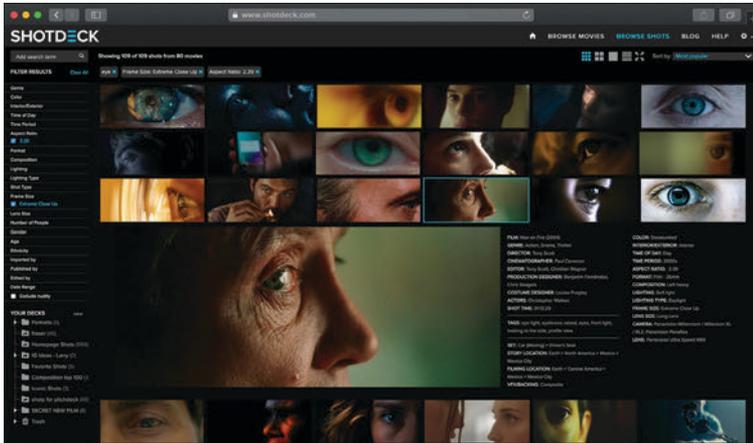
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Software for Cinematographers



Software and apps that help streamline and enhance the filmmaking workflow have become essential items in the cinematographer's toolkit. In this special section, director of photography Christopher Probst, ASC details a few of his favorite options for prep, production and post.

"All of the applications and services profiled here aid in facilitating communication, simplifying on-set tasks, and increasing the nuance and influence the cinematographer has on the image-making process — and many of them do it in the palm of your hand," Probst says. "It's certainly worth exploring these and the myriad other tools available for your cellphone, tablet or computer."

ShotDeck offers thousands of screen-grabs for users to analyze.

Prep

ShotDeck

Lookbooks are important tools for filmmakers to communicate with each other about images for a given project. ShotDeck, a website created by ASC member Lawrence Sher, has a curated database of thousands of screen-grab stills from moving-image productions, which are

extensively metadata-tagged with keywords for such categories as type of shot, location description, theme, mood, color scheme, and even the types of equipment used.

Probst: "You can search for certain tags, and it'll bring up hundreds of high-quality images

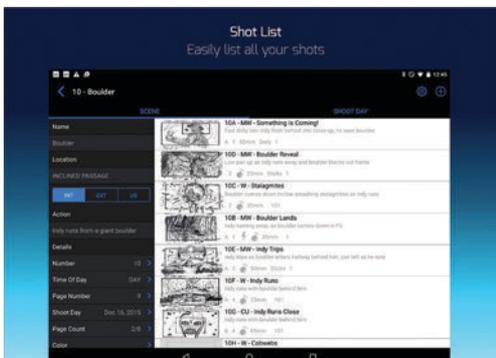
from some of the most cinematic movies to use as references. You can then select the frames that best fit your project and start building a 'deck,' which can then be sent to other members of your team. It's a remarkably powerful, time-saving tool."

Helios Pro | SkyView Lite | Sun Surveyor Lite

Predicting the position of the sun has always been crucial for any daytime shot. Probst notes that free apps such as SkyView Lite and Sun Surveyor Lite offer sun location and mapping paths, but for extended options, he prefers Helios Pro (pictured at right), created by cinematographer Nic Sadler of Chemical Wedding.

Probst: "There are new augmented-reality / light-simulation features that allow the app to

render an environment to simulate exactly how the sun will illuminate it and where the shadows will fall at any time of the day and on any date in the future. For example, in urban settings, it utilizes OpenStreetMap building data to render a 3D reconstruction of the city — while out in nature, the app creates a dynamic 3D mesh of the terrain."



Shot Lister

Creating a shot list is essential for many filmmakers. But when scene breakdowns stretch the abilities of a conventional spreadsheet, Shot Lister can help, as it is designed to handle a wide range of organizational tasks.

Probst: "Shot Lister allows you to create and organize your desired shots and plot them to a time-of-day schedule. You can easily edit your shot list as things inevitably change during the production — and as you check off your

progress, it even tracks your schedule, indicating if you are ahead (in green) or, more than likely, *behind* (in dreaded red)."

Production

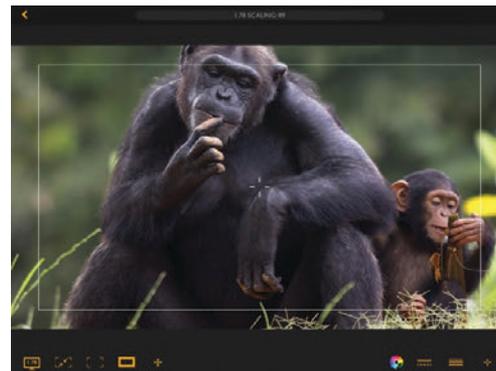
Artemis Pro | Artemis Prime

Building on the long-established functionality of the Artemis Pro digital viewfinder system created by Sadler, Chemical Wedding has also created Artemis Prime, a physical viewfinder that allows you to mount your production's actual taking lens [of any squeeze ratio] to a digital viewfinder with an integrated display tablet.

Probst: "With Artemis Prime, you can now employ your lenses of choice and adjust the camera parameters — specifying the format, framelines and specific imager dimensions — in the app to accurately display the proper field of view for a given shot / focal length / focus distance.

The app also displays the shot with the actual depth of field and character the lenses bring to the image. You can even apply LUTs selected from a preloaded list and see your shots as they are intended to look when actually filming. The software also allows you to capture a frame from the viewfinder and examine it on the tablet, where you can draw and add notes to the image.

"The Artemis Pro app is available for an iPhone or iPad, while the Artemis Prime, which requires both an iPad and a physical viewfinder, can be rented at a number of rental houses."



Luminair

For use with DMX-enabled and "Smart" lighting systems, this app places the functionality of a lighting console / dimmer board on a mobile device.

Probst: "Luminair gives you a whole dimmer console on an iPad or iPhone, which allows you to walk around the set and create dimming cues — as well as light-setting combinations for scenes, which can be stored and then re-created

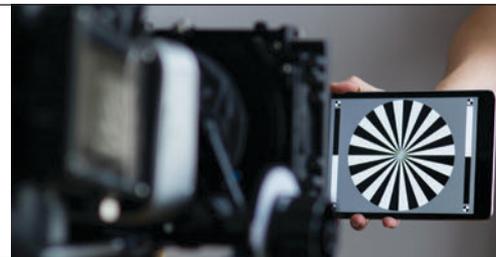
later at the push of a button. My electric team even made a Pelican case for the system that houses the Ethernet Art-Net/SACN router, and then they put a dedicated iPad into the lid so that it can be detached and easily carried onto the set to make adjustments."

Focus Chart | FocusChart

These two similarly named apps display focus charts with a Siemens star, and offer a quick, simple alternative to carrying a folder full of printed charts.

Probst: "When on set, assistants often want

something in-frame to grab a quick focus check on. Pulling up Focus Chart [pictured at right], you can get a nicely illuminated Siemens star graphic on a tablet or phone, which is a much more useful pattern than just a slate or a flashlight."



DigiSlate | Clapperboard

Apps such as DigiSlate and Clapperboard offer digital slates that can be displayed — and clapped — right on your screen.

Probst: "These apps are great for assistants to have on hand for tight insert shots or if they are in a dim environment."

Post



Blackmagic Design DaVinci Resolve

As a cinematographer, understanding the color-correction process and its various techniques is vital to seeing a project through to its completion. DaVinci Resolve is a color-correction and non-linear video-editing software system with limited and studio versions.

Probst: “Having familiarity with a color-correction program like DaVinci Resolve is about understanding the tools and the approach. Having a firm understanding of primaries and secondaries, power windows, and especially keying and manipulating a certain aspect of a shot can dramatically impact how you talk to a colorist during a coloring session. For instance, if you start

going in keying absolutely everything, you can really dig yourself into a hole. But if you know that a scene may start in one extremely colored environment that you may want to manipulate, and then it moves into another challenging color scenario, you may suggest which part of the shot is more dominant and attack that via your primary correction settings. You then can key and manipulate the other environment’s colors separately. There is a more basic version that is available to download for free, so there’s no time like the present to get playing, and broaden your understanding of color correction.”

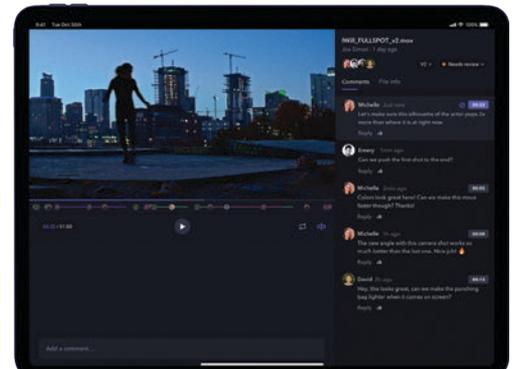
Frame.io | Pix System

There are a number of subscription services that allow filmmakers to not only view and share dailies, but provide commentary and feedback, and track shots through postproduction.

Probst: “Both the Frame.io and Pix System services are about collaboration, feedback, and ways to safeguard your intentions through the entire imaging chain. If you’re doing VFX and revisions, for example, you can circle a portion of the frame and make notes. Both services allow you to stay in communication with postproduction and VFX departments through the final steps

in the completion of the project — which is an essential phase for the cinematographer to maintain the integrity of the filmmakers’ intentions.”

(Editor’s note: Adobe recently announced that it has entered into a definitive agreement to acquire Frame.io.)



Expanded coverage will appear in an upcoming piece at ascmag.com.

American Cinematographer Opens Online Archive to the World

More than 100 years of filmmaking knowledge is now available via our website, allowing AC subscribers to dive deep into every issue since 1920.

Trace the evolution of motion-picture artistry and technology — from the silent era to sound and color, from CG visual effects to digital capture and virtual production — while following the careers of the greats as they make cinema history.

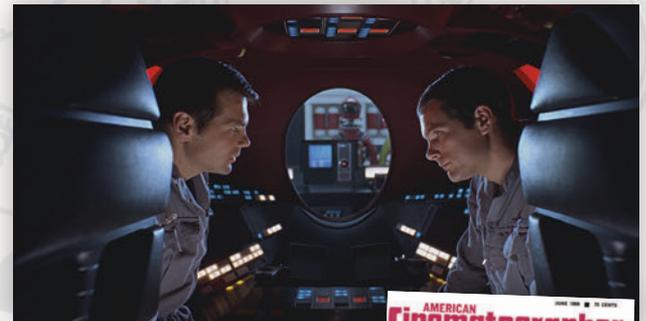
Digital and print AC subscribers with “Archive Access” can log in now to get instant access to more than 1,200 issues of cinematography’s magazine of record at ascmag.com/archive



In an exclusive AC interview, Alfred Hitchcock explains his methods of working with cinematographers, production designers and editors. (AC May 1967)



Len Powers, ASC details his collaboration with iconic comedians Stan Laurel and Oliver Hardy. (AC Oct. 1929)



Read our exclusive interview with Stanley Kubrick as he details his meticulous approach to the sci-fi classic 2001: A Space Odyssey. (AC June 1968)



Douglas Slocombe, BSC and Steven Spielberg discuss their close collaboration on *Raiders of the Lost Ark*. (AC Nov. 1981)



Read about the production of *Citizen Kane* as described by Gregg Toland, ASC himself — revealing his visual approach to one of the great examples of expressive cinematography. (AC Feb. 1941)

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Red Releases V-Raptor 8K VV

Red Digital Cinema has unveiled the V-Raptor 8K VV camera, its first entry in the next-generation DSMC3 platform. The camera features the highest dynamic range, fastest cinema-quality sensor scan time, cleanest shadows and highest frame rates of any camera in Red's lineup. The V-Raptor features a multi-format 8K sensor (40.96mm x 21.60mm) with the ability to shoot 8K large format or 6K Super 35. This in-camera option allows users to leverage any of large-format or S35 lenses with the push of a button and deliver at more than 4K resolution. The new camera exceeds previous sensor capabilities, presenting users with the option to capture 8K full sensor at up to 120 fps (150 fps at 2.4:1), 6K at up to 160 fps (200 fps at 2.4:1) and 2K (2.4:1) at 600 fps while still capturing more than 17 stops of dynamic range.

For more information, visit red.com.



Angénieux and Band Pro Present 37-102mm FF Optimo Ultra Compact Zoom

Angénieux has released the 37-102mm T2.9 Full Frame Optimo Ultra Compact Zoom, the first such lens in a series of two. The lens was showcased by Band Pro Film & Digital, Inc., the exclusive partner for Angénieux lenses in the Americas, at special events in New York and Los Angeles. The 37-102mm and the forthcoming 21-56mm Full Frame Optimo Ultra Compact Zoom are designed to pair with Optimo Ultra 12X and Optimo Prime series lenses to create a complete Angénieux full-frame solution. The 37-102mm and the 21-56mm are the direct descendants of the Academy Award-winning Optimo 15-40mm and 28-76mm lenses, and they are intended to eventually replace them on movie sets.

For more information, visit angenieux.com and bandpro.com.

Flanders Scientific Debuts BM241

Flanders Scientific, Inc., has released the BM241, a 24" color-accurate professional display with a feature set suited to production, editorial and broadcast environments. A larger-format version of FSI's BM211 monitor, the BM241 is equipped with live side-by-side viewing for two signals, look LUT support, dual-link SDI compatibility, FSI's advanced Video Data Analyzer and HDR Preview modes, among other features. The BM241 can easily be paired with the BM211 for multiple-monitor environments, and it's equipped with a newly designed backlight that offers expanded color-gamut capabilities, improved contrast, and better perceptual matching between FSI's entry-level displays and its DM- and XM-series monitors.

For more information, visit flandersscientific.com.





Sony Announces New Crystal LED Displays

Sony Electronics, Inc., has released modular Crystal LED C-series (high contrast) and B-series (high brightness) displays. Both are available in two pixel-pitch sizes — P1.26mm and P1.58mm — to suit different installation needs. Both series feature the “X1 for Crystal LED” image-quality processor, which incorporates the LED-control technology developed for Sony’s Crystal LED and the signal-processing technology for which Sony’s Bravia televisions are known. The displays provide realistic large-scale imagery that maintains image integrity up close and at a distance. The Crystal LED C-series provides high contrast of 1,000,000:1. It features a deep-black coating optimized for a range of applications, including corporate showrooms, lobbies and customer-experience centers. The Crystal LED B-series offers high brightness (1,800 cd/m²) ideal for bright environments while showcasing realistic images with a wide color gamut. This series has an anti-reflection coating with a matte finish that is especially ideal for production applications, including virtual sets and studio backdrops.

For more information, visit pro.sony.com.



Chauvet Acquires Kino Flo

Chauvet has acquired Kino Flo, a multi-award-winning manufacturer of lighting systems for cinema and television production. Kino Flo will continue to serve customers from its Burbank, Calif., office, and founder Frieder Hochheim will continue to lead the company. Chauvet & Sons LLC is a global provider of professional luminaires, trusses, controllers and related equipment. The company has offices in Sunrise, Fla.; Las Vegas, Nev.; Belgium; France; Germany; Mexico; and the United Kingdom. “This represents an important step for our company in our ongoing mission to expand our broadcast-, studio- and film-lighting capabilities,” says Albert Chauvet, CEO of Chauvet.

For more information, visit chauvetlighting.com and kinoflo.com.

LumenRadio Announces Stardust, Aurora, Luna

LumenRadio has announced three new indoor units that represent the next generation of wireless DMX technology: Stardust, Aurora and Luna. Stardust is an eight-universe CRMX transmitter featuring Ethernet and WiFi with a web portal and color screen for operation. Aurora is a single-universe flex unit with WiFi and color screen, and Luna is a single-universe flex unit with push-button interface. All units have a Bluetooth interface and can be equipped with V-mount battery, and rack and wall mounts.

For more information, visit lumenradio.com.



Disguise, ROE Visual Announce Partnership

Disguise and ROE Visual have announced they will team to expand extended-reality showrooms and virtual-production studios around the world. Disguise’s XR workflow allows teams to render photorealistic graphics content from engines such as Unreal Engine on LED surfaces developed by companies such as ROE Visual. The new partnership will see ROE Visual LEDs powering the expansion of Disguise offices, including its XR stages launching in Beijing, Seoul, New Zealand and Hong Kong later this year. In turn, Disguise will employ its XR workflow to run ROE Visual showrooms in the U.S., the Netherlands and Japan.

For more information, visit disguise.one/en/xr and roevisual.com.



Tilta Introduces Mirage

Tilta has introduced the Mirage matte box. Featuring a lightweight build and a multi-functional, modular design, the Mirage offers a standard 95mm clamp on backing that can be mounted directly onto classic cinema lenses or adapted to DSLR and mirrorless lenses. The cartridge-filter design replaces the conventional screw-on filter system and can be installed quickly with a single press. The Mirage features a newly designed Variable ND module (optional) that accommodates multiple configurations, the lightest being 4.6 ounces. Using new PL + CPL technology, the VND module can produce accurate colors even at its maximum density.

For more information, visit tilta.com.

Creamsource Presents FrameSync for Vortex8

Creamsource has introduced FrameSync for the Vortex8. With FrameSync, the Vortex8 can be triggered from an external source such as a sync generator or the genlock output of a cinema camera to ensure that it is synchronized with the camera shutter. This is especially useful when using effects such as strobe, where a lack of synchronization between the camera and the lights can cause issues like flash banding and frame tearing. FrameSync can also be used for frame-accurate strobing for advanced special effects or frame rates up to 5,000 fps.

For more information, visit creamsource.com.

Chimera Introduces Creamsource Vortex8 Solutions

Chimera Lighting has introduced three accessories for the Creamsource Vortex8: a Pop Bank, a Medium Lightbank and a Chimera Lantern. The Pop Bank attaches directly to the fixture without requiring a Speed Ring or bracket. The front screen is a Chimera Small (24"x32"), which almost doubles the front aperture. The Medium Lightbank uses a frame and classic Chimera pole construction, delivering smooth, even light from a 36"x48" aperture. The Chimera Lantern creates soft, overhead lighting that can be easily controlled with the included four-sided skirt kit. It mounts without the need for frames or rings and includes support poles.

For more information, visit chimeralighting.com.



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P+S Technik Unveils Technovision Zooms

P+S Technik has introduced Technovision 40-70mm T3.2 and 70-200mm T3.5 1.5x anamorphic zoom lenses. Designed for full-frame sensors, the PL-mount lenses combine the visual characteristics of Technovision 1.5x anamorphic primes with the convenience of a zoom lens. The 40-70mm weighs 8.7 pounds, and the 70-200mm weighs 12.2 pounds.

For more information, visit pstechnik.de.



Advertisers Index

- | | |
|-----------------------------|-------------------------------|
| 5 th Kind 27 | ROE Visual Co. LTD 25 |
| Arri 5 | Sony Electronics 9 |
| Arri Rental 13 | The British Virgin Islands 29 |
| Astera 31 | The Studio - B&H 53 |
| Band Pro Film & Digital 7 | Video Village C4 |
| Blackmagic Design 3 | Vitec CS/SmallHD C2, 1 |
| Camerimage 59 | William F. White 49 |
| Cavision Enterprises 67 | AC Archive 63 |
| Cooke Optics 19 | ASC/Leica 69 |
| Elation Lighting 15 | ASC Photo Gallery 6 |
| Ernst Leitz 35 | |
| Filmotechnic USA 41 | |
| Fujifilm/Fujinon 43 | |
| Milk Studios 14 | |
| Pille Filmgeraeteverleih 67 | |
| Pro8mm 67 | |
| Raynault VFX C3 | |
| Rip-Tie 67 | |



Clubhouse News

Latest Bulletins From the Society



Left: Barry "Baz" Idoine, ASC. Right: Larry Smith, ASC, BSC.

Society Welcomes Idoine and Smith

New Zealand cinematographer **Barry "Baz" Idoine, ASC** made a name for himself as a talented camera operator before transitioning to director of photography on the popular Disney Plus series *The Mandalorian*, which presented a watershed in moving-image production with its use of LED-volume technology. For his work on the acclaimed *Star Wars* series, Idoine earned the 2021 ASC Award for an Episode of a Half-Hour Series for Television and the 2020 Emmy Award for Outstanding Cinematography for a Single-Camera Series (Half-Hour). He also added another Emmy nomination to his list of accomplishments in 2021.

Idoine's credits as a 2nd-unit cinematographer include the features *Rogue One: A Star Wars Story*, *American Sniper*, *The Master and Vice*. He served as a camera operator on the series *True Detective*, *Westworld* and *Legion*, as well as the features *Jersey Boys*, *The Gambler* and *Wild Horses*. His other camera-department work includes 1st-AC work on *There Will Be Blood*; *Michael Clayton*; *Good Night, and Good Luck*; *Mission: Impossible — Ghost Protocol*; *Traffic*; *Erin Brockovich*; and *Ocean's Eleven*.

His recent credits include the feature *Alone Wolf* and the upcoming feature *Thor: Love and Thunder*, directed by Taika Waititi. Idoine is married to Cynthia Pusheck, ASC.

As a young man, London-born **Larry Smith, ASC, BSC** worked with director Stanley Kubrick and cinematographer John Alcott, BSC as an electrician on the acclaimed feature *Barry Lyndon*, which won a Best Cinematography Academy Award and was honored with a spot on the ASC's list of 100 milestone films of the 20th century. He formed his own lighting company, Highlighting, and worked again with Kubrick and Alcott — this time as a gaffer — on the director's next feature, the influential horror adaptation *The Shining*, which also earned a spot on the ASC's milestone films list. Smith then focused on his company and began lighting commercials, which eventually led to working with cameras as an operator, cinematographer and director.

His first feature as director of photography was Kubrick's final credit, the drama *Eyes Wide Shut*. Smith's other feature credits include *The Piano Player*, *Red Dust*, *Bronson*, *The Blue Mansion*, *Two/One* and *Only God Forgives*. On the action-drama *Trafficker*, Smith served as the project's director, co-writer and cinematographer. His television credits include the Fox sci-fi series *Dark Angel*, the TNT period drama *The Alienist*, and Season 1 of the Netflix adventure *The Letter for the King*. Smith's upcoming work includes the features *The Forgiven* and *Freegard*.



"I use a variety of cameras to shoot stills, but my carry-around camera is a Leica M."

— Dan Laustsen, ASC, DFF

LEICA M 10-P "ASC 100 EDITION" **The M for cinematographers.**

The Leica M 10-P "ASC 100 Edition" continues Oskar Barnack's ingenious idea and translates it into a fitting tribute to the world of cinema on the occasion of the 100th anniversary of the founding of the American Society of Cinematographers.

The M 10-P "ASC 100 Edition" is an exclusive professional tool for aiding cinematographers and filmmakers in their search for the truly exceptional visual experience.



Please contact ASC to order this unique Leica M10-P "ASC 100 Edition" at www.theasc.com/leica



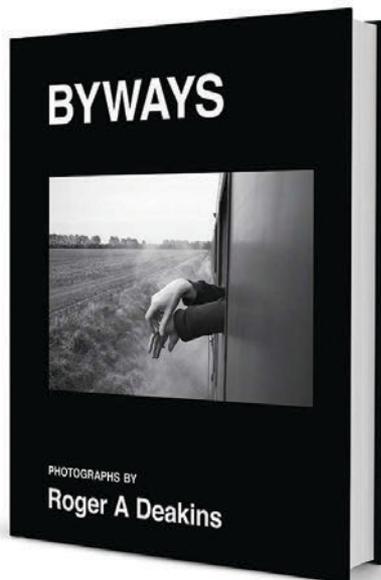
Society Announces 2022 ASC Awards Date

The American Society of Cinematographers will hold its 36th Annual ASC Awards on March 20, 2022. The ceremony will take place at the ASC Clubhouse in Hollywood and will be livestreamed worldwide. The deadline for feature-film and television submissions is Dec. 5, 2021. The ASC will also bestow a Documentary Award and Spotlight Award, and honorary awards that will include the ASC Lifetime Achievement Award and Board of Governors Award.



Churchill to Be Honored by Doc NYC

Joan Churchill, ASC will be recognized by Doc NYC with a Lifetime Achievement Award for her distinguished career as a documentary director and cinematographer during the organization's Visionaries Tribute event on November 10, 2021. Churchill was one of the first documentary-focused cinematographers invited into the ASC (she became a member in 2005). Her many credits behind the camera include *Last Days in Vietnam*, *Shut Up and Sing*, *Down From the Mountain* and *Medicating Normal*. Her directing credits include *Aileen: Life and Death of a Serial Killer*, *Soldier Girls* and *Juvenile Liaison*.



Deakins Releases Byways

Roger Deakins, ASC, BSC has released *Byways*, a book of his rarely shown, previously unpublished black-and-white still photography from 1971 through present day. Of the publication, Deakins says, "My work as a cinematographer is a collaborative experience and — at least when a film is successful — the results are seen by a wide audience. On the other hand, I have rarely shared my personal photographs, and never as a collection."

Further coverage of *Byways* will be included in a piece on Deakins in an upcoming issue of AC.



Goldman, Jensen, Johnson and Mooradian Win 2021 Emmys

Four ASC members were honored with 2021 Emmy Awards in cinematography and directing categories. **Matthew Jensen, ASC** won the Emmy for Cinematography for a Single-Camera Series (Half-Hour) with *The Mandalorian*, "Chapter 15: The Believer"; ASC members **Mark Doering-Powell**, **Nathaniel Goodman** and **Marshall Adams** were nominated in this category as well. **George Mooradian, ASC** won for Cinematography for a Multi-Camera Series with *Country Comfort*, "Crazy"; ASC members **Patti Lee** and **Donald A. Morgan** were also nominated. **Adriano Goldman, ASC, BSC, ABC**, won for Cinematography for a Single-Camera Series (One Hour) with *The Crown*, "Fairytale"; also nominated were ASC members **Jeffrey Jur**, **Baz Idoine** and **Neville Kidd**. **Kirsten Johnson, ASC** won the Emmy for Outstanding Directing for a Documentary/Nonfiction Program for her Netflix docu-feature *Dick Johnson Is Dead*. Johnson was also nominated for two other Emmys, in the categories of Cinematography for a Nonfiction Program and Exceptional Merit in Documentary Filmmaking. ASC members **Dana Gonzales** and **Ben Richardson** were nominated for the category of Outstanding Cinematography for a Limited or Anthology Series or Movie.



PORTRAIT BY OWEN ROIZMAN, ASC.

In Memoriam: Taylor

The American Society of Cinematographers is saddened to report that **William "Bill" Taylor, ASC** has died. AC will publish a full remembrance on his career and influence in an upcoming issue.

Wrap Shot

Cameraperson



Kirsten Johnson, ASC shows a local woman what she sees through the camera while shooting the 2007 documentary *Darfur Now* on location in the desert outside Geneina, Sudan. *Darfur Now* is among several of Johnson's projects showcased in her 2016 autobiographical documentary *Cameraperson*, which surveys her career as a cinematographer.

Among its many accolades, *Cameraperson* won the National Board of Review's Freedom of Expression prize, three Cinema Eye Honors, and the Grand Jury prize at nine international film festivals. It was named one of the best movies of 2016 by *The New York Times* and *The Washington Post* and is distributed by the Criterion Collection.

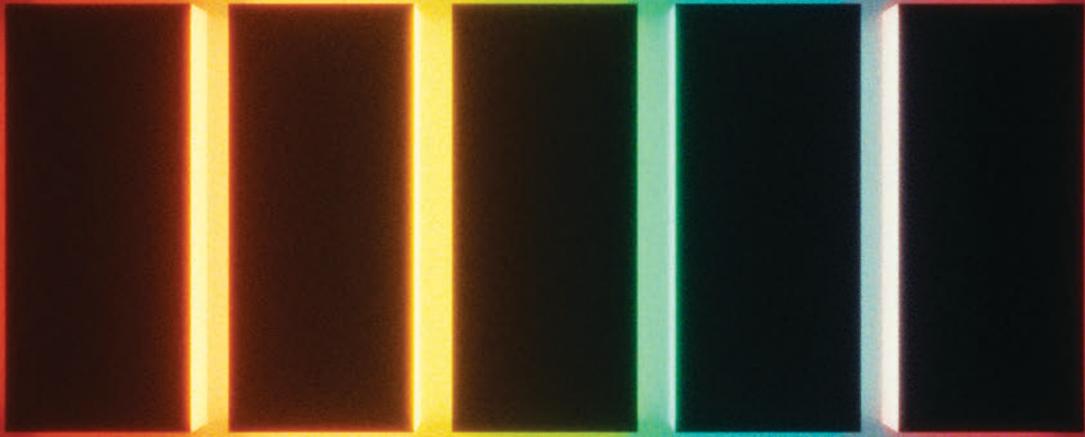
Cameraperson was an influential contributor to the changing of longstanding gendered terms, such as "cameraman," and modernizing the language used to describe camera professionals.

An aerial photograph of a city, likely Montreal, with a prominent body of water. The city and water are mirrored in a dark, reflective surface below, creating a symmetrical, inverted cityscape. In the foreground, a person stands on a grassy hill, holding a large orange and white striped umbrella, looking down at the city. The overall scene is bathed in a soft, golden light, suggesting a sunset or sunrise.

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