

September 2025



The International Publication of the American Society of Cinematographers

American Cinematographer



28 Years Later

Anthony Dod Mantle, ASC, BSC, DFF

American Cinematographer

Contents



Features

14 An Anarchic Aesthetic for 28 Years Later

Anthony Dod Mantle, ASC, BSC, DFF incorporates anxiety-inducing strategies for the horror sequel.

By Iain Marcks

24 Framing a Retro Future for *The Fantastic Four: First Steps*

Jess Hall, ASC, BSC and VFX supervisor Scott Stokdyk discuss the sleek look they and their collaborators crafted for the Marvel Cinematic Universe movie.

By Joe Fordham

36 *Hundertdreizehn*: A Crash's Aftermath

Ralph Kaechele, BVK tackles a complex narrative and daunting logistics for a six-part German miniseries.

By Phil Rhodes

44 Exploring New Paths for *The Eternaut*

Cinematographer Gastón Girod helps director Bruno Stagnaro adapt an iconic Argentinian sci-fi comic for the screen.

By Hunter Lawson Cibula

52 The ASC AI Summit: Visual Artistry in the Age of AI

Filmmakers and technologists convene at the ASC Clubhouse to continue the Society's exploration of AI and the ways it may impact the entertainment industry.

By Jay Holben

Departments

8 President's Desk

10 Tools of the Trade: [Kodak Redesigns Vision3 Film Stocks](#)

60 Global Village: [The Return of the Projectionist](#)

64 New Products and Services

68 Ad Index

72 Wrap Shot: [Night of the Living Dead \(1968\)](#)

On Our Cover:

Jamie (Aaron Taylor-Johnson, top) and his son, Spike (Alfie Williams), anxiously approach the doors of a structure where undead, "infected" creatures may be lurking in *28 Years Later*, shot by Anthony Dod Mantle, ASC, BSC, DFF. (Photo by Miya Mizuno, courtesy of Sony Pictures.)

VISIT [THEASC.COM](https://www.theasc.com)

President's Desk



PORTRAIT BY RUBY BELL.

The ASC's membership consists of cinematographers from all over the world — an asset to our community, as this diversity only enriches our Society and the art it helps to inspire and create.

Welcome to the September 2025 issue of *American Cinematographer*.

This month's theme is international production. I love that our publication has always showcased the varied ways filmmakers in different countries shoot their projects, the different visions they have, and the way they look at landscapes and lighting; it's a great way to convey a sense of place and introduce readers to the experiences of other cultures. The ASC's membership consists of cinematographers from all over the world — an asset to our community, as this diversity only enriches our Society and the art it helps to inspire and create.

Showcasing such global creativity, our September feature articles spotlight the motion pictures *28 Years Later* (shot in the U.K.) and *The Fantastic Four: First Steps* (shot in the U.K. and Spain), the Argentinian series *The Eternaut*, the German limited series *Hundertdreizehn* (aka *One Hundred and Thirteen*), and the Azerbaijan documentary *The Return of the Projectionist* — which won the *American Cinematographer* Award for best cinematography this past March at the Salem Film Fest in Massachusetts. We also have a recap of the ASC AI Summit, held in June, and a tech report on Kodak's recent advancements to their Vision3 film stocks.

I was introduced to foreign films at an early age, when I went to the cinema with my parents and noticed how cinematography could make new worlds and storytelling styles accessible to everyone. As an Australian cinematographer now living in America, I have had the pleasure of shooting in many different countries — experiences that really influenced me during my early days, when I was just starting to navigate my career. I realized that cinematographers can be from anywhere and bring any point of view to their art form. International perspectives help us understand the world beyond the community we individually grew up in, and people's experiences, environments and cultures are invaluable storytelling assets. No two cinematographers are exactly alike in their approaches, because they are drawing upon different circumstances from their own lives. That's what makes the relationship between a director and DP so intrinsic to each individual project: A different pairing might take their own approach and produce an entirely different and unique piece of art.

When I attend international film festivals, I find it fascinating to see

how the movies' distinctive light and color palettes reflect the environments of the countries they come from. Beyond the obvious poignancy of following different characters and their emotional journeys through the filmmakers' personal perspectives, I've noticed truly original uses of lenses and imagery in the creation of a story's settings and tones. All of these variables represent subtle but impactful ways to build worlds onscreen.

We are so lucky to have access to a magazine that showcases and celebrates this kind of far-reaching ingenuity and offers insights into what makes imagery from around the world so special. One of my early memories of *American Cinematographer* is that a copy was always on set in Australia, and everyone would rush to grab it and discuss the contents. I was particularly interested in cinematographers' different approaches to shooting and lighting their projects. A hero of mine was Dutch cinematographer Robby Müller, NSC, BVK, who shot many of Wim Wenders' films; *Paris, Texas* is one of my personal favorites. In reading about his work, I realized that he had mastered a minimalist strategy of using barely any "movie lights." The way Robby used available light and natural light was something I had not seen done before in such an artistic way, and his creative approach has had a lasting influence on me and my own work. I was lucky enough to hear him speak before he passed away, and I feel so fortunate to be part of a community that includes so many generous legends who are willing to share their expertise with up-and-coming cinematographers.

In tandem, the ASC and *American Cinematographer* have fostered a really beautiful and truly international ecosystem where we can all continue to learn and grow. I hope all of you will take advantage of the amazing opportunities these institutions offer and find the same kind of inspiration that reading about Robby's work — and hearing him speak — has had on me.

Best regards,

A handwritten signature in black ink, appearing to read 'Mandy Walker'.

Mandy Walker
ASC President



Hundertdreizehn: A Crash's Aftermath

Ralph Kaechele, BVK details his approach to a six-episode German miniseries surrounding the fallout from a tragic bus accident.

By Phil Rhodes

Hundertdreizehn (aka *One Hundred and Thirteen*), directed by Rick Ostermann and shot by Ralph Kaechele, BVK, follows six unacquainted people after a disastrous bus wreck — the title refers to the statistic that on average, 113 lives are impacted by a single event. Kaechele's involvement followed two previous features with Ostermann, *Der Gejagte* (*The Hunted*) and *2 Freunde*.

Kaechele notes that in some ways, the project recalled his early creative endeavors. “As a teenager, I became a hobby musician and audio-equipment enthusiast, and I discovered that I particularly enjoy the combination of being creative and using high-end technology. The show's scripts offered both: six intense and very personal dramas that required careful and subtle storytelling, as well as something logistically big and technically challenging in this tragic and violent accident.”

As the show's plot inches forward, in piecemeal fashion, toward rendering a complete picture of events, the narrative returns frequently to complex situations at different times. “Each episode comes from a completely different angle,” Kaechele says. “I don't recall any scene that doesn't have a second, third or fourth layer of context. One angle starts with one person who gets to relive this moment five minutes before something else happens, then someone sees a whole 10 minutes. It wasn't just about pointing several cameras at events and being done; the story is told in different fragments of time, and it had to fit together and make sense.”

Kaechele therefore took care to consider his approach in the broadest possible strokes. “What are you going to do in terms of visual language? Are you going to treat each episode differently, or find something that works for everything with slight variations? We realized the whole subtext is that everything is connected. The episodes are grounded in deep trauma and pain and very personal, intimate stories, so we wanted to create a very carefully designed visual language that would be subtle and work under the skin.”

That conception led to a somewhat unconventional approach for television. Kaechele explains, “One thing Rick and I really pressed for from the beginning was to use the anamorphic format, which allowed us to have as much compositional space as possible and dive into the characters' world as much as we could. I proposed true anamorphic — not spherical cropped — to really go for the highest visual quality and texture we could achieve.”

The filmmakers had to sell their strategy to the project's main commissioning producer, ARD, a consortium of Germany's regional public-service broadcasters. “They were initially quite resistant to shooting anything in 'Scope. 16:9 is the TV standard, and they mentioned we could do 2:1, because that's a format Netflix approves as well, but Rick and I really felt strongly about elevating this whole production to the quality of the script. We wrote visual treatments explaining why we would do that, and we made a deal that we would shoot it in 'Scope using anamorphic lenses and frame for both 2.39:1 and 2:1 common top line. If they didn't like 2.39:1 once they saw it that way, they'd have the right to choose 2:1.”



Opposite: *Carnage* follows a horrific bus crash. This page: A stunned survivor (Friederike Becht) eyes the wreckage in a shot that shows the texture and bokeh of an Arri Alfa lens.

Minimizing Optical Complexity

In considering lenses, the cinematographer relied on recent experience. “Over the last three or four years, I’ve only worked in anamorphic, and I had come across the Arri [Rental] Alfas, which were designed in collaboration with [cinematographers] Greig Fraser [ASC, ACS] and Nik Summerer.

“At that time I’d noticed that Martin Ruhe [ASC] had shot *The Boys in the Boat* with Alfas, and I was intrigued. We met and he was kind enough to share his experience. He confirmed what I’d realized: The Alfas have more texture than the [Arri/Zeiss] Master Anamorphics, and they’re designed for a large format, which convinced me to test them at Arri Rental in Berlin. Lens specialist Christoph Hoffsten also showed me the detuning options, and I was convinced that the Alfas were the ideal choice for this particular project. Rick and I opted for the [Arri] Alexa Mini LF because we wanted to shoot large-format anamorphic.”

Given the intricacies of the project at hand, Kaechele was also keen to minimize complexity, and the Alfas assisted with that goal, too. “They are super consistent and have basically no barrel distortion, so on a wider lens, you don’t have the bending in the vertical and horizontal lines. That was important to me, because when we were shooting inside the fully packed bus, I didn’t want any person close to the edge of the frame to be distorted; we didn’t want to make those kinds of aesthetic compromises.”

Another characteristic of the Alfas was equally key. “They don’t streak-flare like many anamorphics,” Kaechele says. “That was important because I knew that for some scenes on the highway, I would be looking into a lot of headlights, and if we had 20 headlights coming at us, the image would just streak out.”

Kaechele largely avoided filtration “because the lenses themselves bring some. I used [Tiffen] Glimmerglass $\frac{1}{8}$ occasionally to create some halation around lights.”

Shutting Down a Highway

Kaechele shot most of the show at a base ISO of 800, a choice influenced by the hard-to-control practical effects in certain key scenes. “Our highway set was quite a low-light environment, but with bursts of light, fire and explosions. I needed a camera that would handle the highlights extremely well. I tested the [Arri] Alexa 35, in particular because of its ES Enhanced Sensitivity mode, which provides cleaner images at high EI

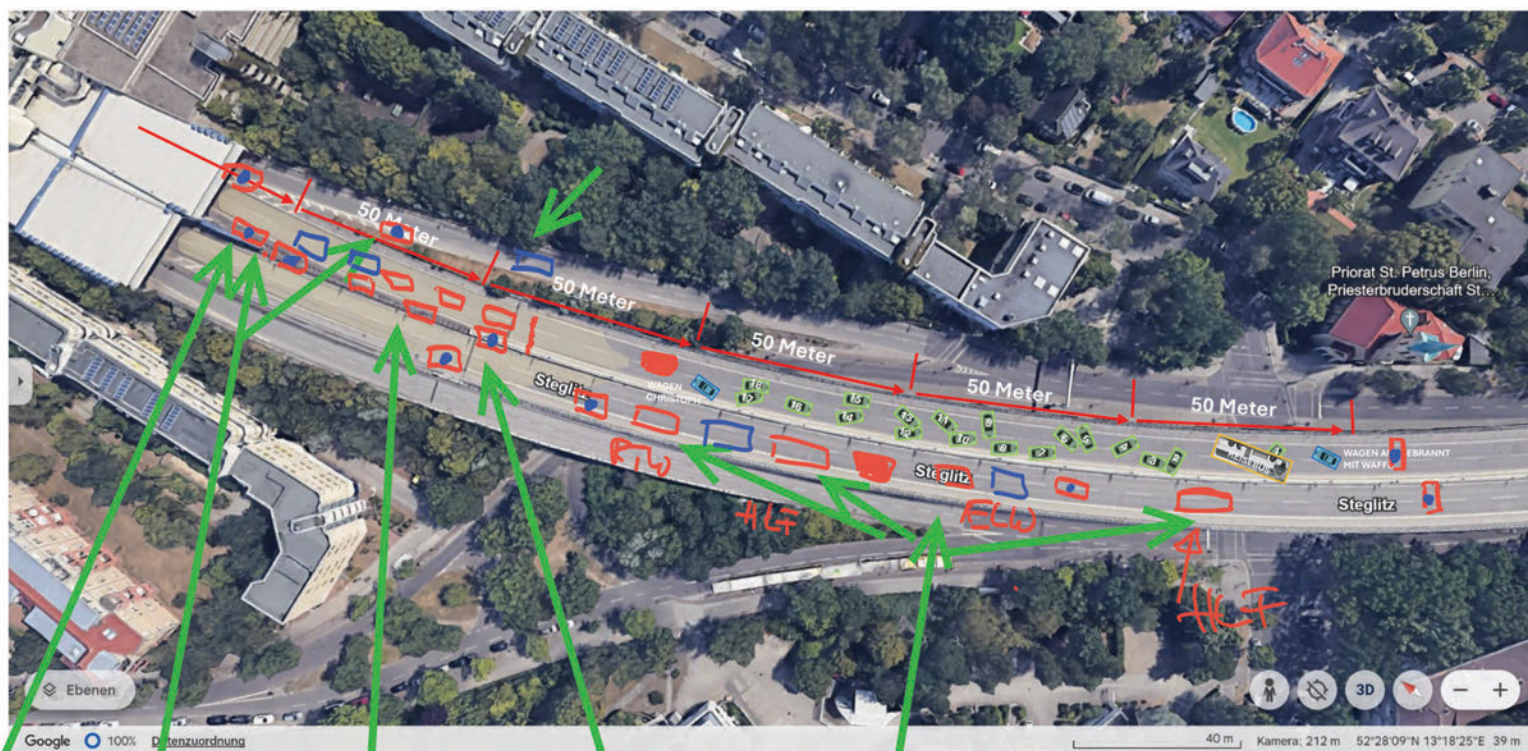
values due to its internal processing, with minimal tradeoff in highlight latitude — which was very important to me. Arri helped us to get two more cameras onto our truck for the last 16 days of the shoot; the Alexa 35 became the A and B camera for the big night exteriors, including the nine nights we shot on the highway. I could shoot it at ISO 2,500 ES and hold all the highlights.”

He adds, “Ute Baron, who heads Arri Rental [in Berlin], was very accommodating during the entire production; we had included the additional Alexa 35 cameras in the overall deal beforehand. Thanks to my incredible 1st AC, Christian Temme, all the logistics of adding or swapping cameras during the production went very smoothly, and I feel we used our budget for equipment in the best and most effective way.”

The highway location had to accommodate big night exteriors with vehicles and special effects, all of which were involved in shooting sequences that were key to maintaining the plot’s complex chronology. Kaechele notes that production’s need for continuous access to a sizable highway location created so many logistical problems during prep that some traditional preproduction tasks overlapped with the first phases of production. “We started shooting in Austria in June 2024, and then the German part of the shoot was split into 20 days in Cologne and nine nights in Berlin, which was the only place we could secure a disused city highway. What city would allow you to shut down [an active] highway? The whole aftermath, the crashed cars ... we couldn’t take everything away every night and come back. It had to sit there for two weeks straight, and we could only find that possibility in Berlin. The highway location was secured while we were shooting other scenes in Austria, and you can imagine the pain we had to go through while shooting and *also* prepping a location a long distance away!”

Typical for disused public infrastructure, though, the location was not in a ready-to-shoot state. “Because it had been shut down for a long time, it had turned into a party location for kids. They’d ripped out the cabling, none of the lamps worked, and everything was tagged with graffiti, so we had to spend some time cleaning all of that up. We had to light 550 meters [1,800'] of completely dark highway — including, because it’s an elevated highway, the environment around it. This particular abandoned piece of highway was in the darkest area of Berlin, and it

Pictured here: The production staged the epic crash scene on a disused highway in Berlin, where the crew deployed a variety of lighting units, including pairs of 1,000-watt Arrilites attached to each of the poles along the roadway's divider. Below: A diagram details the production's general lighting strategy for the highway sequence.



Polizei
2x Polinsken

Rüstzug
"Jasper"
12x FW
1x EL in

Polizei
+
NAW
2 Polinsken
1 Notarzt
1 Sami

Rüstzug 2
15x FW
3x Samis

□ → RTW
◻ Polizi
■ Notarzt

4x
10x
4x
Kerzstee

A firefighter climbs atop the flaming bus to rescue passengers, including an injured child.



would otherwise be in a completely dark space.

“Gaffer Andreas Landgraf and I designed a lighting setup that would use the existing poles in the middle of the highway dividers. There were 32 poles that were approximately 45 feet apart. We rigged each of them with two 1000-watt Arrilites. Each pole was connected to a DMX dimmer, and all units — including all the other units we used on the ground and on the cherrypicker — ran into a GrandMa dimmer board for full control. It was crucial to me to be able to dim or shut off any of my ‘streetlights’ at any time to avoid multiple shadows. For background illumination, we used approximately eight Arri SkyPanel X units, six Astera AX 9s and 16 400-watt sodium-vapor floodlights. The drama lights consisted of an 8-by-8 book light rigged on a 90-foot cherrypicker illuminated by four SkyPanel X units, a 12-by-12 book light with two SkyPanel Xs, and approximately six more SkyPanel Xs and AX9s to enhance practical special effects — fire lighting effects in combination with smoke machines.”

Adding to the complexity, key scenes set within an overturned

double-decker bus on the highway were scheduled — for other reasons — to be shot before the highway itself. Kaechele describes the sequence: “After the bus crashes and flips over, a first-responder firefighter climbs inside and tries to rescue two kids while the bus is catching fire. We knew that doing it on a traditional stage, not knowing what the street would look like or what the ambient color temperature would be, would be a challenge.

“In order to make the cuts between the stage and the highway location more seamless within a scene, I thought it would be cool to hide a lighting element in the narrative. So, on the stage, I simulated a helicopter search beam sweeping across the bus with a moving-head spotlight while shooting our firefighter climbing into the bus. Weeks later, while shooting the exterior parts of that scene on the highway, we used a heavy-lift drone with an adjustable LED light source to do several flyovers with the same timing to create the illusion of a helicopter and tie it all together. In the cut, this moment ended up being perfectly seamless.





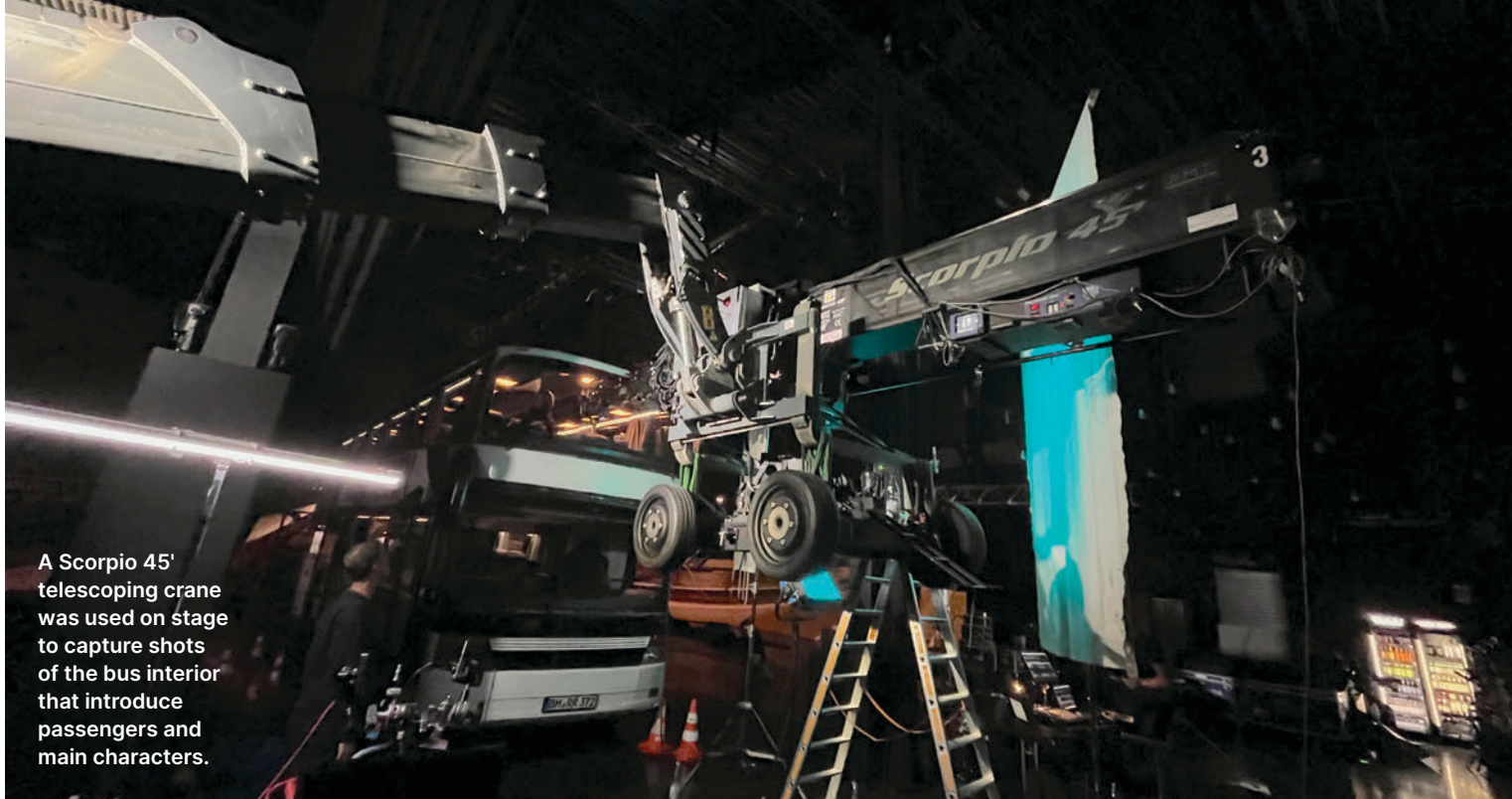
From top: Scenes shot on an ICFVFX stage at LEDcave in Cologne required 6K footage running on the background screen; in a frame from the show, an inspection team examines the burned-out bus; director of photography Ralph Kaechele, BVK on set.

“We also have a bunch of previous shots in the bus driving on the highway at night — big, connecting, telescoping crane shots to establish all of the passengers and main characters. Key grip Rudi Kurth and I therefore got a Scorpio 45-footer, which we hung from the fork of a Manitou lift so we could adjust the arm height quickly. We needed to be able to perfectly level the arm so it could reach from the front of the 46-foot-long vehicle to the second-to-last row of seats. And we had to do that while creating the driving effect, running 6K plates on the LED volume in the background and having a row of 24 SkyPanel Xs mimic passing streetlights. When you look out the 40 feet of windows on each side of the bus, you can’t just [create the driving effect] with small monitors — it had to be a sizeable LED-screen setup.”

The volume was provided by LEDcave in Cologne. “We needed quite a large one, big enough for our double-decker bus. We had limited time, so we had to be really strategic. The screen only had a 180-degree curve, so if we wanted to look the other way, we had to flip the bus and all the rigged lighting around. For a show of our budget, it was pretty elaborate. Since there was no turntable platform to accommodate the flips, gaffer Andreas Landgraf and best boy Kiril ‘Kiko’ Mihaylov had to come up with a smart way to rig 24 SkyPanel Xs on a truss with motors to mimic passing streetlights, so we could take the whole truss down and spin it 90 degrees when we changed the angle of the bus in relation to the volume.”

Story Dictating Style

In other situations, Kaechele used more traditional means to make the best of spectacular locations, particularly in collaboration with A-camera/Steadicam operator Robert Stopfer. “Episode 5 starts with a wedding in a beautiful 15th-century castle,” the cinematographer says. “The incredible production-design department, led by Gerhard Dohr and Katrin Huber, set up tons of candles that we augmented with [2.5] X4 Soft Rodlights rigged to a truss just under the ceiling, pointing straight down and skirted off the walls. I also wanted to have shafts of daylight coming through the windows to counter the overall warmth of the setup; we used an 18K Arrimax with a Maxmover on a 90-foot cherrypicker to reach the windows and create the subtle beams. Using this approach, I



A Scorpia 45' telescoping crane was used on stage to capture shots of the bus interior that introduce passengers and main characters.

created two different color worlds within the ballroom to enhance the storytelling. The feeling of the wedding sequence changes as the bride crosses from the nice, warm area of her family and friends to the colder area, foreshadowing the unease and upcoming drama she experiences when she encounters her ex-boyfriend.

“Rick and I looked at the first couple of scenes for the wedding sequence and thought we could knock them out with a long Steadicam oner. We designed the shot over weeks, rehearsing for most of the day and then shooting it in the afternoon. We did six or seven takes, and I think the second-to-last one is in the episode.”

Other situations called for other tactics. “We also had four days of mainly crash- and stunt-unit work, led by stunt coordinator and 2nd-unit director Christoph Domanski. He and his team utilized a U-crane-style camera arm, a drone, two cameras operated on the ground and inside cars and two cameras in crash housings. Rick and I had story-boarded the whole crash sequence and everything leading up to it because it was so complex. Certain details and story elements should only be seen in certain moments. We had to be careful about not spoiling important plot details too early.”

Additionally, two days of underwater work had to be done for scenes in Episode 3 that take place in a lake. “We had our own floating platform built in order to be able to travel on the lake; support all the crew and equipment; and allow Christoph and our underwater cameraperson, Roland Holzer, to use the different depths of the lake to their advantage, because the scenes involved kids and safety was extremely important. For the underwater footage, we used an Alexa Mini inside a Gates housing.”

“A Small Show”

In terms of lighting, Kaechele calls *Hundertdreizehn* “a small show. Our base package included, on the list of HMIs, a 9K Arri M90, a 6K Arrisun 60, two 4K Arri M40s, two 1.8K Arri M18s and an 800-watt Joker Bug; on the tungsten list, we had two 12K Dino Lights, two 2K Arri Fresnels, six PAR 64s and some smaller units. In terms of LED units, we carried three waterproof SkyPanel Xs, four Astera AX9s, two sets of Astera Titan Tubes, a set of Astera Helios Tubes, a LiteGear LiteMat Plus 8, two





LiteGear LiteMat 4 Spectrums, two LiteGear LiteMat 2L Spectrums and a LiteGear LiteMat 1 Spectrum. Gaffer Andreas Landgraf also opted for a whole array of DoPchoice Snapbags and Snapgrids.”

Some locations required an extra degree of ingenuity. For instance, a bus garage the production secured could not be completely shut down.



Detective Jan Auschra (Robert Stadlober) and special investigator Anne Goldmundt (Lia von Blarer) interrogate Nuriel (Maeve Metelka), a woman accused of initiating and organizing a substantial drug delivery with the help of two young men.

Kaechele recalls, “They gave us four parking slots and the area you see onscreen. There was no way I could light this place and bring in lots of gear, because we shot over several nights and days and I couldn’t disturb the regular traffic. The existing lighting was really horrible and I couldn’t switch it off or gel it. There were approximately 10 poles with either two or three consumer-grade LED units mounted on them. They looked cool-white to the eye but had a heavy green spike, and because they were open-faced, each of the LEDs cast multiple hard shadows. I thought, ‘Why not just turn the lights around and shoot them into the ceiling, into the structure, and not the pavement?’ So, one night during prep, I had two electricians going around with a scissor lift to spin the lights around, diffuse them with Magic Cloth, and there it was. Doing that brought out the architecture so much more and created an interesting base or ambient lighting.”

Coloring the Image

After 63 days (and nights) of shooting, editing began in Cologne. Reflecting the production’s international roots, grading took place at D-Facto in Vienna, where Kaechele had prepared LUTs and arranged for dailies grading with colorist Maryna Niherdus. “Maryna graded the dailies because I opted to not use a DIT. We designed everything together; we had our own WhatsApp group, and she sent me stills of the dailies before they were released so I could comment. Maryna was a fantastic artist and technician. Halfway through, Rick and I thought, ‘Wow, everything comes back from her the way we want,’ so we tapped her to do the whole grading of the show. We really loved her sensibilities.”

Explaining his choice to work without a DIT, he adds, “I had a LUT I knew, and I knew the camera sensor inside out, so I felt pretty secure. I own a Flanders Scientific 22-inch DM220 OLED that’s calibrated so I can make an informed call. I might have specific locations I build a LUT for, but usually I have four to six LUTs — interior day, interior night, exterior day, exterior night. If I know I need a bit more safety and want to view something darker than I’m shooting, I’ll create a ‘minus-1-stop LUT’ so I

Tech Specs: 2.39:1
 Cameras | Arri Alexa Mini LF, Alexa 35
 Lenses | Arri Rental Alfa



To open Episode 5, the production staged an elaborate wedding in a 15th-century castle.

can show it to the director and light for a darker image.”

Kaechele used his LUTs in pursuit of “a color design for every episode. I really believe in giving locations and scenes an identity through color. A lot of times we desaturated digital images to get a more cinematic, filmic look, but I counter that by giving scenes and locations a bold look, and you gain color information in terms of storytelling that you lost through desaturation. The more feeling and mood you can inject into a location, the more you can make it a little bit larger than life, the better it is for the story.”

That story represents six carefully interwoven threads, and Kaechele notes that the sheer complexity of the narrative made for “a very busy script supervisor, but Ulrike Bruckner did a great job and kept all of the strands together. We talked about using different supervisors in Austria and Germany, but it wasn’t practical. There’s an enormous number of really specific moments — we see something once, we see it twice, then from another person’s perspective. Our story’s main detective is a very sensory person, so she feels things, and we had to visualize that. It’s beautiful, because there’s so much visual storytelling without dialogue.”

He adds, “Screenwriter Arndt Stüwe’s scripts were very inspiring from the beginning, and he had already built in many visual elements, layers and transitions. Rick and I took that as an invitation to create something special. After many discussions, we actually opted for hard cuts rather than soft transitions, and a continuous rather than different look every time the story jumped in place or time. Occasionally, we shot in subtle slow motion just to change perception a bit.”

Kaechele reflects proudly on the choices made by the production. “I think it’s contradictory if you’re doing ordinary things and expecting something special. We were focused on pushing for ‘Scope; we wanted to create something really outstanding.

“To me, cinematography has never been about re-creating reality. There has to be an element that is a little ‘designed,’ a bit larger than life. Otherwise, I feel one isn’t really using the medium at its full potential.” ◊

