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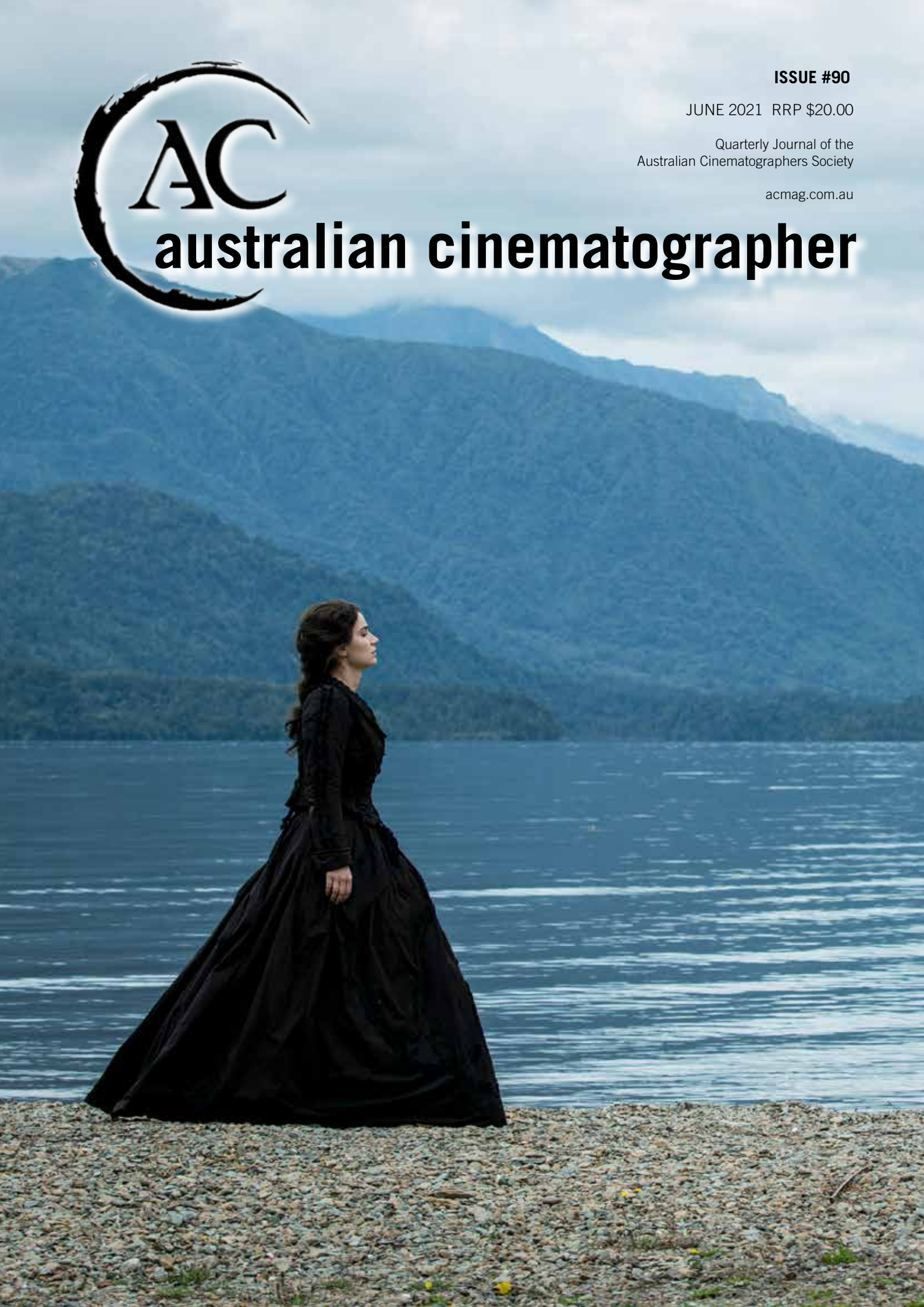

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BY DEFINITION of the Australian Cinematographers Society's Articles of Association, "A cinematographer is a person with technical expertise who manipulates light to transfer visual information by the use of a camera into aesthetic moving images on motion picture film or electronic recording systems."

FEATURES...

DEPARTMENTS...

AC australian cinematographer

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FROM THE EDITOR

Greetings readers from Melbourne's lockdown,

Welcome to the June issue of Australian Cinematographer. Can you believe we're almost half way through the year already? We're proud to bring you another magazine chockablock with great content.

This quarter we start by bringing you an interview with Denson Baker ACS NZCS, who only just picked up the Milli Award for Australian Cinematographer of the Year for his work on *The Luminaries* (our cover this issue). Then we chat with talented Ashley Barron ACS whose outstanding work you can see right now in the SBS Original drama series *The Tailings.* We bring you a behind-the-scenes conversation with Andy Taylor ACS about his work on the incredible, incredible ABC investigative documentary *Exposed: The Ghost Train Fire.* If you haven't seen it, I highly recommend that you do. We also bring you a great interview with cinematographer Kevin Scott on shooting the new Australian feature film *The Flood,* and another feature with Frank Flick ACS about his work on the new Australian thriller *Ascendant*.

And if that's not enough for you we've got ACS Brief, Australian Shorts, New Gear, a quick chat with Oscar-winner John Seale AM ACS ASC, a look back at the recently restored 1988 documentary *Australia Daze* that saw a number of Australian cinematographers work on, a story about a Somali-Australian queer film, an underwater documentary, and not one but *two* articles about virtual production tecnologies.

We'd loved to have brought you more but we literally ran out of pages, so you'll have to wait until the September issue. We've got so much more exciting stories and interviews for you in the works.

Until then... peace.

James Cunningham
Editor,
Australian Cinematographer Magazine

CORRECTION & APOLOGY: In the last issue of Australian Cinematographer we incorrectly attributed Ben Allen, director of short film The Foreigner, as Ben Allan ACS CSI. We apologise for this error.

FROM THE PRESIDENT

Dear members, sponsors and colleagues,

What a wonderful National Awards presentation in Canberra. My congratulations to all the recipients, and our thanks to Miguel Gallagher and the ACT Branch for being our genial hosts this year, and to Ray Martin AM for again hosting with such passion and professionalism. From our Hall of Famers, Terry Byrne ACS, Geoffrey Hall ACS and Michael Edols ACS; what a magnificent trio, to Life Member Kim Batterham ACS, and Ron Windon ACS Award recipient Erika Addis, while not forgetting Megan Ogilvie who was this year's John Leake OAM ACS Emerging Cinematographer and of course to Denson Baker ACS NZCS for his acceptance of the coveted Milli Award for his outstanding cinematography on *The Luminaries.*

To our Award sponsors, the Awards do not happen without your support and your encouragement, which is evident in the individual recognition to members from a number of sponsors.

The most recent ACS Annual General Meeting was an important one for the potential for change in office bearers bringing new ideas to the National Executive that now comprises of National President Ron Johanson OAM ACS, National Vice Presidents Erika Addis and Carolyn Constantine ACS, National Secretary Ben Allan ACS CSI, and National Treasurer Erika Addis.

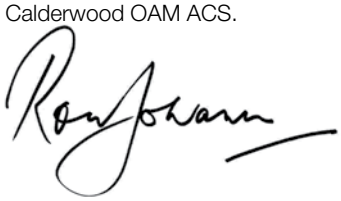
Sadly, two long serving members of the Executive, Vice President Ernie Clark ACS and National Treasurer Mylene Ludgate, decided to step back. I wish to acknowledge their commitment, support and integrity. It would be irresponsible for us to stand on our laurels regarding harassment and bullying.

Some time ago the Society formed a committee to review SPAA's Screen Industry Code of Practice. Justine Kerrigan has taken over the role as Chair of the ACS DIversity, Inclusion & Reconciliation Panel and I sincerely thank all those involved, and refer to your our website for more information.

I thank you for the honour of allowing me to be your National President for over the past thirteen years. I am very proud to be part of such an important Society, its role within our industry and the optimism we all share for the future. I am grateful to have been re-elected again this year. We have challenges ahead but we are privileged to be members of a great Society, steeped in tradition that represents our industry with dignity and mutual respect.

With respect and in memory of Butch Calderwood OAM ACS.

Ron Johanson OAM ACS
National President,
Australian Cinematographers Society



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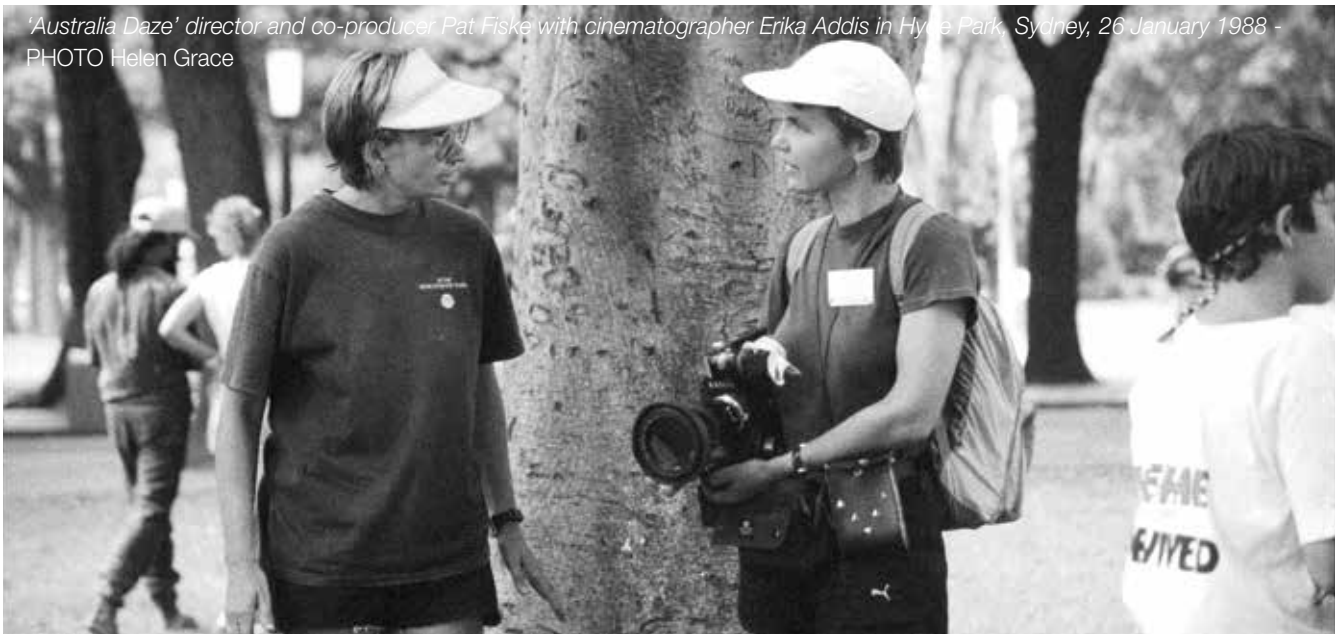
ALPHA

AUSTRALIA DAZE

We look back at the making of, and recent restoration of,
Australian documentary *Australia Daze* (1988) - ***by James Cunningham***



'Australia Daze' director and co-producer Pat Fiske with cinematographer Erika Addis in Hyde Park, Sydney, 26 January 1988 - PHOTO Helen Grace

Rarely did Margaret Pomeranz and David Stratton *both* give a 5-star review to the same film. Even rarer still was when Margaret and David both gave a 5-star review to the same *Australian* film. But in their thirty-two years together on television, it did happen. Those films include Fred Schepisi's *Evil Angels* (1988, cinematography by Ian Baker ACS), Ray Argall's *Return Home* (1990, cinematography by Mandy Walker ACS ASC) and Ray Lawrence's *Lantana* (2001, cinematography also by Mandy Walker ACS ASC). The only other Australian film to receive this honour was Pat Fiske's 1988 documentary *Australia Daze,* which has just been restored by the National Film and Sound Archive of Australia (NFSA).

Australia Day in 1988 was also Australia's Bicentenary, the day we marked two-hundred years since the arrival of the First Fleet of British convict ships at Sydney in 1788. That day, in 1988, twenty-eight film crews spread out across the country to ask people for their reflections on the Bicentenary, contemporary Australia and our history. Those film crews captured what would become *Australia Daze.*

Australia Daze conscientiously involves people of all ages across the spectrum of socio-economic life in Australia; from Sydney's harbourside-dwelling 'elites' to miners working in rural Queensland, homeless people and those living below the poverty line, the broad swathe of suburban and inner-city middle class, retirees, migrants and their children, prominent Aboriginal Australians, media personalities and politicians. Each of these film crews captured something different, and in their own unique way.

The questions Australian's were asked included: What does the bicentenary mean and is it worth celebrating? Can you understand why Aboriginal Australians and others might feel differently about this day? What is good or bad about Australia and what, if anything, needs to change? What we witness in response is an array of patriotism, protest and indifference, as well as sheer relief it's a public holiday.

The logistics involved in shooting the film were impressive. Twenty-eight film crews scattered across Australia under the supervision of overall director Pat Fiske. They shot on 16mm, with additional footage supplied by the ABC and commercial news footage. Other filmmakers contributed super 8mm and video material, and the filmmakers also collected hours of radio talkback. It took twelve-hours a day for a whole week simply to view the unedited material and nine months for two editors to cut the film.

"The experience was exhausting and very depressing, but the underlying humanity and humour heartened us," says Fiske.

One of those twenty-eight film crews was headed up by cinematographer and segment director Dick Marks OAM, who is himself a former editor of this magazine. Marks reflects on his experience on *Australia Daze,* ***"When I received the call asking if I'd like to shoot and direct a segment for*** **Australia Daze,** ***I accepted immediately."*** says Marks. ***"I was only ever going to go in one direction… West. Well, to be more precise, North West, to Mt Isa."***

Marks figured other contributors would film in or around the fringes of the big cities and that there would be much fun in the sun, booze and frivolity. So, to offer a counterpoint to that, he felt the opinions of a few 'bushies' would provide welcome balance to the documentary. ***"Boy, did I get that in the form of Pic Willetts and his mate,"*** says Marks. ***"Willetts was a legendary drover who pushed at least 100,000 cattle over dusty outback trails between 1952 and 1995."***

When Marks knocked on the open door of Willetts humble fibro house, he could just make out the figure of a small man sitting in a big arm chair, watching daytime television. ***"He approached the door barefoot, put on his big ten gallon hat and emerged into the harsh Mt Isa sunlight,"*** remembers Marks. ***"He was lean, fit and very reserved. He said very little; just listened, all the time scanning me for clues of a con. After three cups of strong black tea, he agreed to be shadowed for twenty-four hours on Australia Day, 1988."***

"I wanted to give a voice to the bush," says Marks, who was then just a crew of two, himself and Roly McManus, my old mate and sound recordist. ***"Willetts and his mate couldn't give a rats arse that it was Australia's biggest birthday celebration and he did what he did almost every other day of his life… muster. Willetts offered us the wisdom of the bush, forged from thousands of hours spent alone in the saddle, cocooned in an envelope of bellowing and dust."***

Also far from fierce protests and raucous celebrations reverberating across the country, *Australia Daze* sent cinematographer

Jane Castle ACS and her trusty Arri SR2 into the deeply intimate space of a maternity ward with director Jeni Thornley and sound recordist Sue Kerr.

"The enormity of bearing witness to a new human being coming into the world overshadowed the tumult going on outside and set in stark relief the lives lost in the violent colonisation of this continent." says Castle. ***"It was the first time I'd filmed a birth, and when things started to go wrong, the baby coming out with the cord wrapped tightly around her neck, I instinctively swung the camera away and missed a few seconds of the pivotal moment. Thanks to some masterful editing you can hardly tell I screwed up!"***

"Seeing the restored, pristine print recently on the big screen was a real buzz," says Castle. ***"It gave me fresh perspective on the contested idea of nationhood, the courage and resilience of this land's First Nations people and the mind-boggling miracle of birth. As I watched the scene where the midwife reflects eloquently on the day as she washed the thankfully, healthy baby, I was heartened to see that my camera work was sensitive, gentle, in sync with the moment… and in focus."***

Australia Daze is one of the latest Australian films brought to life by the NFSA Restores program, which digitises, restores and preserves significant Australian films at the highest archival standards. It also ensures that they can be screened in today's digital cinemas.

Shot in 1988, using various 16mm stock, the A and B rolls were lodged with the NFSA by the filmmakers. The original print negatives were then scanned in-house at the NFSA in Canberra, using the Scanity digital scanner, to international archival preservation standards. The scans were sent to Spectrum Films at Fox Studios in Sydney, where the vision was cleaned, automatically and then manually, and fully restored by their expert colourist Jamie Hediger.

The restoration process included ongoing consultation with key creatives wherever possible. Fiske was in the suite to provide advice on colour and contrast. During this process, there were additional insights on offer as memories and anecdotes were freely shared, bringing the filmmaking process back to life.

The NFSA follows a strict protocol in the digitising where they cannot 'change the film'. The aim is to recreate the film as faithfully as possible so fix-ups can only be very small. Guest worked with Fiske and Spectrum Films for colour grading, which was quite protracted due to Covid-19 restrictions. The final DCP was quality checked by Fiske, producer Graeme Isaac and NFSA in May 2020.

Audio restoration was completed in-house by the NFSA and then digitally laid onto the final file by Spectrum Films. Once the final digitally restored file was quality controlled, a digital cinema package (DCP) and subsequent HD file were rendered and tested on a cinema screen. All materials resulting from this digital restoration are now part of the NFSA collection, where they will be preserved for future generations.

"One of our roles is to ensure that our collection is shared with audiences so that they may be empowered to interpret the past, form their own opinions about Australia's history and culture, and make decisions regarding our present and future," said NFSA chief curator Gayle Lake.

Australia Daze screened in multiple cinemas on 26 January this year, thirty-three years after the shoot. The national screening program was a major challenge for the NFSA, and with screenings in six venues across the country to around 600 people, with the reduced COVID-19 capacity of cinemas, it was a huge success. ***"It was the first time I had seen the film since its original release on ABC TV in 1989,"*** says one of the segment directors Erika Addis.

"It was fantastic to see it on the big screen at the NFSA in Canberra, with a full house and very enthusiastic audience."

"The younger audiences loved the film as much as the older viewers," continues Addis. ***"In post-screening discussions, there was terrific feedback including how relevant the film was today and, as it was made before many of them were born, and the objectively presented spectacle of Sydney Harbour juxtaposed against some of the biggest Indigenous rights marches to date, it carried some serious weight in light of the recent Black Lives Matters movement."***

Australia Daze is a snapshot of one day in the millennia-long history of the country. The film is an opportunity for Australians to remember where they were, or to catch a glimpse of Australia's past before they were born or arrived here. It is a chance to reflect on how much things have changed in thirty-four years and, also, how little has changed.

"Films like this one, shot in many formats but mostly on 16mm, with 16mm final prints, don't last forever. They have a time limit; the colours fade, the soundtracks disintegrate. For the past five years, the NFSA Restores program has come to the rescue. I am so thankful to the work they do in restoration," says Fiske.

"Our film archive is our history and extremely important to preserve," Fiske concludes. ***"If only there was enough money available so that the NFSA could restore all of the 16mm and 35mm films that they have in their vaults so we do not ever lose them!"***

Special thanks to Erika Addis, Jane Castle, Pat Fiske, Jaems Grant ACS, Elena Guest, Gayle Lake, Dick Marks OAM and NFSA.

James Cunningham is editor of Australian Cinematographer Magazine.

A scene from 'Australia Daze' - IMAGE National Film and Sound Archive of Australia

16MM FILM: MOVING FORWARD

Shot on 16mm, eletriclimefilm's recent collaboration with fashion brand The Iconic demonstrates the timeless beauty of film - ***by Michael Cobley***

Werner Winkelmann at Neglab Sydney - PHOTO Michelle Jasan

Shot on 16mm film, *electriclimefilm's* recent collaboration with fashion brand *The Iconic* truly demonstrated the timeless beauty of film. After the shoot, I was assigned to drop off our rolls of film to Werner Winkelmann at Neglab Sydney, the last film laboratory in Australia left to develop 16mm and 35mm motion picture negative film.

The charismatic and humorous German turned this simple drop off into an in-depth conversation of his experience and passion towards this craft, instantly piquing my interest. As a creative working towards being a film and media aficionado, I couldn't stop thinking about this fascinating medium and how Winkelmann works his magic. A few days later, I returned to his studio to conduct an interview and gain a deeper understanding.

"The benefit I get out of film is seeing young people with so much interest," *says* Winkelmann. ***"I have seen crap, lots of it. Film requires someone to suffer from their mistakes and have desire; when they come back again and again, improving after every roll. That's what I find rewarding. To see the process of progression. It's something no one can pay me for."***

"It's my way of contributing to help a young generation of filmmakers to understand what's involved to get the exposed image through the chemical workflow and to see the final product!"

Though film processing has become a dying trade, Winkelmann continues to keep the tradition alive and ensures that there's enough workflow coming in. With modernisation, it becomes evident for the artistic process to evolve along with the rest of the film and media industry.

"Technology is constantly shifting," *he says.* ***"The question for us has to be, how can we help film, as a medium, stay alive? In my mind, film must survive to give the next generation of filmmakers the choice."***

As we walked through his laboratory, the one-man operation gestured around and explained how the available equipment he has are set up to allow them to run non-stop around the clock — approximately 20,000 feet per day — instead of developing small amounts at each given time.

"There will be some changes in the future in the way we develop motion picture film but there will always be some chemicals involved," *he says.* ***"I believe that in the future, technical changes will be required, but engineering in combination with innovation will come up with solutions. 16mm film will be around for a long time to come."***

Sydney-based cinematographers such as Andrew Gough and Campbell Brown are setting a standard, establishing themselves as some of the most prolific profiles in the industry for what they've achieved from 16mm film. Their mesmerising frames truly exemplify what this medium is capable of; leading by example to encourage the next generation to keep this aesthetic alive.

"Humans want to create, and experimenting with all different forms and 16mm and 35mm motion picture film will be one of them," *says* Winkelmann. ***"I see more and more young cinematographers with great talent, and what they produce on film is just absolutely great. For me, it's amazing to experience that - what I call - the digital generation is still so keen to work with film. I would only love to see if these talented young filmmakers can follow, improve and advance their talent into the future, even here in their own home country!"***

In this case, it's more apparent than ever that the future of film in Australia lies in newer generations and communities of passionate individuals. The key is to find those with interests in preventing the disappearance of film. Then, what's left is to fashion and build a place where retro nostalgia meets the future; where we can meet, talk and create. The one-stop-shop for young filmmakers.

"If the common interest is there, then it's up to this generation to find a new solution to be able to follow that desire," *says* Winkelmann. ***"I believe that the next generation with entrepreneurial skills will have the interest to allow film here in Australia to survive. These people will not come from the big companies like Kodak or any of the larger Australian organisations associated with the film industry. It will come from grassroots movements, where I can see something like a film hub and a group of people with a common interest getting together."***

The most profound thought that came to me through my interaction with Winkelmann was 'film is discipline'. We live in a world where technology is advancing so rapidly that the quality between an SLR and an iPhone is almost parallel. Imagine in years to come, the qualified and unqualified in this industry will have the accessibility to produce the same quality of work. This could essentially create a standstill, making the digital world feel unauthentic and artificial.

Over the years there has been an undeniable resurgence of film, a return which no one would have predicted coming after the introduction of digital. It's merely impossible to predict what the future may behold, but in the words of Winkelmann, ***"Film has a right to stay."***

Michael Cobley is a junior creative at electriclimefilm.

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EX-HMAS ADELAIDE

Cinematographer Sylvi Soe braves the depths to film a new documentary on the wreck of the Ex-HMAS Adelaide - ***by Sylvi Soe***

Diving The Ex-HMAS Adelaide - PHOTO Lee Emery

Most of my jobs were cancelled when Covid-19 hit Australian shores last year, so I spent a lot of time diving with a friend. There is no Covid-19 underwater. Once restrictions eased around September, most small businesses needed to work harder to rebuild their business.

It was out of desperation, love of diving and wanting to help my local dive shop survive that I approached Chris and Reni Turnbull, owner of Dive Imports Australia on the Central Coast of New South Wales. I pitched the idea of producing a number of marketing videos around one of Central Coast's premier diving destination, the Ex-HMAS Adelaide. One of the projects was that this documentary be launched to coincide with the Tenth Anniversary of HMAS Adelaide being scuttled.

HMAS Adelaide was a 138 meter long Escort Frigate of the Australian Navy. The now Ex-HMAS Adelaide is the most recent wreck dive in Australia. It was sunk in April, 2011, near Terrigal, not far from Sydney to create an artificial reef and a wreck diving site.

Not a coincidence, the dive shop's operations manager Sue Dengate was also the media spokesperson for the Central Coast Artificial Reef Project, a group responsible for getting the Adelaide to the Central Coast.

There are a lot of factors to consider when filming underwater. The main thing is how much natural light penetrates the depths, and how wide or close the shots should be. In addition, I was restricted to using what equipment I already had as my budget was limited.

For all my land-based filming I used Panasonic GH5s. For underwater filming I used a Sony RX100 VA camera in a Nauticam housing and an INON wide macro lens. For underwater lighting I chose the Bigblue 8000-lumen dual-beam video and tech light, and also an iProDive 3500-lumens.

Lights are always one of the biggest challenges underwater. When you drop below five meters, you start losing colour due to the lower intensity of the sunlight penetrating the water. Colour will gradually disappear, starting with red until what's left is only green and blue.

The Adelaide sits between 20-38 meters below the surface of the water, so additional lights are crucial to film closer range subjects as it would be impossible to light the whole ship. Sometimes on a good visibility dive we only had to raise the ISO and open the aperture. I was pretty surprised with what the Sony RX100VA can achieve.

Apart from using the two additional lights, I also 'pushed' the camera to maximum capacity by reducing contrast and manually adjusting the white balance trying to squeeze as much dynamic range as possible.

The Adelaide is a deep water dive, which means there are a lot of additional variables and risk when we film underwater. Some of the precautions we took included safe diving practices. I am not a technical diver and I am limited by my non-decompression limit (NDL) to avoid decompression sickness also known as 'the bends'. With planning, we normally do forty-five minutes on each dive. Maintaining good buoyancy is paramount especially when penetrating the inside of a ship,

Peter Knowles, cinematographer Sylvi Soe and Riley Moore discussing a shot underwater - PHOTO Lee Emery

and always ascending with enough air to do a three-minute safety stop before surfacing.

Because of the limited gear I can take, once we jump in the water, there is no option to change batteries or SD cards or to seal the camera from leaking so it's critical to always double check the gear works properly on land before entering the water.

We had to reschedule some of the dives at the last minute due to bad weather. The Department of Lands controls the Ex-HMAS Adelaide dive site. In their regulations, any time the seas are swelling over five meters they must close the site for a safety inspection.

This involves commercial diving surveyors checking for damage caused by large swells from severe storms to ascertain that is still safe for divers. Every time this happened it would put us a couple weeks behind schedule.

We completed the documentary over ten dives with a crew of two or three each time. I did all the filming and operating myself. On this project, the dive team is an integral part of the production. My dive master Mark Davies took me on most of the trips. His expertise was invaluable to the success of each filming dive.

Prior to each dive I would tell Davies what shots I needed. We planned carefully as we only have forty-five minutes to safely achieve everything. For instance, I needed a shot where the ship settles in the sand, which was at 38m so we need to do this first. While being the talent on the shot, he also made sure we did not exceed our non-decompression limit as it is so easy to lose track of time while filming in the deep.

I particularly love the shot we did at 'King William Street', which is actually the name of the primary passageway on the Adelaide. Each ship's main crew thoroughfare is named after the main street of the city that the ship is named after, in this case, King William Street in Adelaide.

It's a long corridor, about a five minute swim along where we passed many holes opening up to other parts of the ship, providing a safe exit at any point and when we got to the end the view through the three exit doors was just stunning. At that moment, I just thought this shot is going to be something, and imagined the music while we were still diving.

I am what most people call triple threat; producer/director, cinematographer and editor. This worked in my favour on this project since with Covid-19 we had limited budget and staff. I completed editing and colour grading using Adobe Premiere Pro and had my team doing animation and sound mastering.

If I could go back and do it differently, I would use a rig with more flexibility to enable me to use my Panasonic GH5. That would have given me more dynamic range and the ability to use a wider-angle lens. However I am incredibly happy and proud of how the documentary turned out.

Sylvi Soe is a filmmaker based on the Central Coast of New South Wales.

THREE THOUSAND YEARS OF LONGING

Academy Award-winning cinematographer John Seale AM ACS ASC talks to us about a new lens he's been using on George Miller's latest film - ***by James Cunningham***

John Seale AM ACS ASC with George Miller AO - PHOTO Jasin Boland

Rarely would a camera lens generate so much buzz, but such is the case with the new FUJINON Premista 19-45mm wide-angle zoom lens. It was one of only two in the world and was recently being used by Academy Award-winning Australian cinematographer John Seale AM ACS ASC on the new George Miller film *Three Thousand Years of Longing* which recently wrapped production in Sydney. We can't go into details about the film due to non-disclosure agreements and confidentiality, however we can tell you about the lens and how this lens ended up on Seale's camera.

Seale loves Zoom lenses. He'd heard about the Premista 19-45mm and Miller wanted one particular, very specific shot for his new film. A shot that required great technical expertise. The shot had been storyboarded and designed using previsualisation software and Seale wanted to try out the new lens just for this shot. At first, FUJINON was reluctant to let one of these lenses leave the United States, but when they heard that it was Seale who wanted it, they changed their minds and the lens was flown to Sydney.

Miller's new film is shooting on multiple ARRI Alexa Large Format cameras and Seale was immediately impressed with his new lens due to it being able to compliment the full-range of the ARRI sensor. ***"It's a light lens,"*** says Seale. ***"It's got a lovely cinema look with a softer edge."***

It is one of few lenses that not only supports large-format sensors but also delivers outstanding high resolution, natural and beautiful bokeh and rich tonality with high dynamic range. Perfect for Miller's new film, which features a lot of interior Technochrane choreography flowing through rooms, going from wide-shots to extreme closeups.

Originally the production had the lens on loan for three days, however after using it for a short time Seale and Miller decided to keep it for the entire film! ***"We've shot well over 50% of this movie with the lens,"*** says A-camera focus puller Ricky Schamburg. ***"The zoom cogs are precision perfect, and it matches up with our signature primes. The lens is clean without being sterile."***

In recent years, there has been an uptake of cinema cameras equipped with large-format sensors capable of delivering high-quality and richly-expressive footage. When shooting with prime lenses, it is often necessary to change lenses depending on the scene, and there is a growing demand for zoom lenses capable of shooting high-quality footage that requires less replacement.

"It's hard to find good full-frame lenses for the large format cameras," says Seale. ***"But this lens achieves an astonishing level of edge-to-edge sharpness."***

Schamburg adds that Miller's visual effects team were thrilled with the lens too. ***"Metadata!"*** he exclaims. ***"The FUJINON lens speaks fluently with the ARRI technology, saving potentially thousands of dollars in post-production."***

Miller's film was still shooting at the time of writing this article, but I'm sure we'll sit down with the Oscar winning cinematographer for a more comprehensive article, when the time is right.

John Seale AM ACS ASC is a multi award-winning Australian cinematographer. He earned the Academy Award for Best Cinematography in 1996 for his work on *The English Patient*.

SUNBURNT COUNTRY

Behind Woolworth's 'Sunburnt Country' television campaign with M&C Saatchi and Resolution - ***by Vanessa Abbott***

From the 'Sunburnt Country' ad campaign - IMAGE Courtesy Woolworths

Using Dorothea Mackellar's poem 'My Country' as the visual inspiration for a new Australian first fresh sourcing policy campaign for Woolworths, marketing agency Greenhouse tasked production company Resolution with crafting a television campaign that was a visual homage to Australia from 'farmland to field'. ***"This was a commercial that had to be made in the middle of the pandemic in 2020,"*** says Oliver Critchley at creative agency M&C Saatchi. ***"We had no way to film it across Australia at that time."***

This was designed to connect the amazing support that Woolworths offer to Australian Growers. ***"As it was set to one of Australia's most loved poems the visuals had to be a mix of epic and intimate lensing,"*** says Critchley. ***"The diverse locations and characters we 'captured' had to feel authentic and most importantly deliver the emotion of a grower in this land of extremes."***

Because of filming restrictions imposed by Covid-19, creative director at Resolution production company Tim Dyroff, along with editor Etienne Ancelet, brought this story to life using existing footage from Woolworths. They used an experienced film researcher and spent a lot of time in the edit exploring the possibilities. ***"In a sense we became curators of cinematic archives,"*** says Dyroff. The pair crafted a visual journey using spectacular drone footage and landscape cinematography mixed with more intimate hand-held shots, such as a farmer looking skyward as a storm front approaches and mud-stained hands brushing off a freshly picked potato.

Dyroff brought a directorial eye and intention to the storytelling. The creative director worked both as a compositor on commercials such as Qantas' iconic *I Still Call Australia Home* campaign for director Iain Mackenzie, various Tourism New Zealand commercials and was a much sought-after Matte painter and skilled compositor often taking location photographs and rushes, and building scenes from raw layers in post-production. It was this unique background that helped Dryoff in bringing this story to life.

The team chose to select shots which kept the sun as a central figure in the film. ***"Sometimes this was pushed further in grading, or subtle addition of refractive lens flares,"*** says Critchley. ***"Though we trod lightly here with visual effects and really worked on finding material that was already the right time of day."*** Storm scenes were built in post-production from layers.

The VFX are subtle and seamless, incorporating matte painting techniques as well as careful grading. Each vignette was purposefully treated to provide a visually cohesive look and mood to the varied landscapes and what was captured on film.

A lightning bolt shot against grain silos was found and graded. Critchley loves one of the other lightning shots in the film where the grower who looks up at a coming storm. ***"The lighting and performance get me every time,"*** he says.

Many of the filmmakers' chosen shots and sequences that were worked on during the edit ended up being thrown out. The filmmakers had to be true to the fresh produce that Woolworths source, meaning they had some content which while they loved, had to go because Woolworths simply didn't sell a certain variety.

The filmmakers have little regrets in producing what is a beautiful piece of filmmaking. However, ***"I would have just loved to have shot this spot for real,"*** concludes Critchley.

Oliver Critchley works for creative agency M&C Saatchi.

Tim Dyroff is creative director at production company Resolution.

Vanessa Abbott is a writer based in Melbourne.

OEXPO PAINT

Cinematographer Philip Rang ACS films his 'dream job' television campaign in Vietnam for OEXPO paint brand client 4 Oranges - ***by Vanessa Abbott***

From the OEXPO campaign commercial - DOP Philip Rang ACS

Cinematographer Philip Rang ACS has filmed for 4 Oranges paint company, and he was grateful when he was contacted by a production company he hadn't worked with before to ask if he would direct and film their new campaign. It was the client who specifically wanted Rang.

"Truly, the dream client as they trusted and believed in what we were doing," says Rang. ***"4 Oranges are very intelligent in their vision for the brand which is a very softly-softly approach, respecting the beautiful cultures and traditions of Vietnam in bringing out the qualities of their brand and products."***

Unlike the generic perception of decorative paint, OEXPO approaches branding, and advertising in another light by honouring culture as one that needs to be celebrated, valued and preserved. Such values align with the essence of the brand itself, for OEXPO continuously aims to innovate and re-innovate in fulfilling the ever-growing demands of the decorative paint industry.

Rang threw around ideas and concepts and they came up with the very simple and effective idea of respecting Vietnamese culture, beauty and traditions in the UNESCO world heritage site Hôi An. ***"Work with the producers and creatives was collaborative, and we supported each other. If the client had other ideas, we just adapted our approach,"*** explains Rang.

Hôi An is an ancient city, a tourist destination, which has been devastated by the global pandemic. ***"This once bustling city is now dormant,"*** says Rang. ***"The visual concept was with our talent, Helly Tong, alone in the famous city receiving a gift and looking to discover who might have sent it to her."*** Initially, Rang was contracted to make two 6-second and two 15-second spots, but once 4 Oranges had seen the footage they commissioned a 30-second edit. ***"A client really happy makes all the effort worthwhile."***

Rang lived and worked in Paris, France, for the past twenty years and drew upon two French directors who he appreciates as an influence on campaign. ***"French director François Rousselet gave me inspiration for the low-angled tracking shots, as well as the attitude of our lead looking directly into the camera,"*** he says. ***"For more of a beauty reference, I liked the work of filmmaker, photographer and contemporary artist Bruno Aveillan."***

Keeping the look and feel of Hôi An was important to Rang. Production designer Stephen Wang, a friend of the cinematographer, was present during location scouting two weeks before the shoot. ***"We talked about painting some of the walls on exterior which had been damaged by floods but just decided to keep everything authentic,"*** says Rang, who added colour by hanging three-hundred colour lanterns cris-crossing the streets.

"We predominantly filmed the location as it was," he says. ***"We added a bicycle and the lanterns but that was about it. Of courses adding smoke always takes the edge off my image and creates that 'mystical atmosphere'. The 'wet down' is a classic technique that always works well on night exteriors, it just helps to add that little shine to the image."***

Rang is very happy using the RED Cinema products. ***"I like the quality which comes out of the RED Helium 8K. It's really extraordinary. I can push the sensor to its limits in low-light conditions."*** The glass Rang chose for this job were ARRI Ziess Supreme Prime Lenses, as well as the Laowa 24mm F14 Probe Lens for just a couple of closeup shots

Rang did get together with the crew at Lens Pro, the rental company, prior to the shoot for camera tests. ***"The tests were also important to meet in a familiar way so we could get to better know each other before our adventure in Hôi An,"*** says Rang.

The cinematographer operated the

Holly Tong in OEXPO campaign commercial - DOP Philip Rang ACS

camera himself which made the whole process very efficient. ***"Our first assistant director and producer would view and verify selected takes with the client, and we would move on quickly. I find this to be a super-efficient way of working. Of course, all the shots were discussed in detail during pre-production meetings and we were very well prepared."***

Shots and frames were designed in pre-production using storyboards as well as during location scouting. ***"I had basically shot what I had planned and referenced,"*** says Rang. ***"We did shoot a few more shots which never made the cut but with only 15 or 30 seconds you can't use every shot."***

One of the most striking shots in the campaign features the lead on a small boat at night, surrounded by lotus candles floating on the water. ***"That was a little tricky,"*** explains Rang. ***"It was done with a single source of an ARRI Sky Panel with a wide pink spread. I had looked at a frame with a backlit M18 from across the river but it just didn't work. I canned that and ran with a simple light source. I put the RED Helium at 1200 ISO, closed the lens down a touch to T4 on an 85mm lens and with the beauty of the RED camera in low-light. you can see the results. The scene does need to have some light and of course all those candles floating around in the water and in the boat gave a lot of light of as well. I was very lucky indeed."***

"As director and cinematographer, I was 100% involved and present every day during post-production," says Rang. ***"In the off-line edit we only worked off the selected takes from the client. We did have a couple of versions which were not selected and ended up in the final campaign."***

Additionally, Rang made the argument that it was important to have music approved before the shoot, as the cinematographer wanted the music to accompany the images, not just stick on something at the end, much like the way you would edit a music video.

Post-production workflow became very simple and there are only three shots in the campaign which needed visual effects added. ***"Our colourist for this project was a passionate guy by the name of Khao,"*** says Rang. ***"He's an avid photographer from Dude Pictures in Saigon. The grading was very straight-forward with colour balance, skin tones and matching each frame with a saturation of the colours and help with the lanterns and the candles."***

"My favourite shot in the campaign is something you would perhaps see for a car commercial, but the movement really works," he says. ***"At the beginning of the shot we're looking down one different angle on a corner of two different streets following our lead as she turns, looking towards the camera at fifty frames-per-second on a slider as we change angles on the street from one to the other street. It was just a thought to begin with and to put this thought into action and to see it work like a gem is very satisfying."***

"In hindsight, what I would do differently would be to make it clearer with the client every step of the production. When you let something small slide there is no coming back as everyone gets used to the colour or the framing or the idea. You might get a little lazy and drop your standard for a second and then it's like having that error set in stone," explains Rang. ***"As well as using a look-up table*** (LUT) ***even in a television commercial I think would have been useful."***

"For me this was really the dream client," says Rang. ***"A client who trusted and let me get on with the task of making a beautiful film for them. I am very grateful."***

Philip Rang ACS is an Australian cinematographer based in Sydney, working globally.

INANG MAYNILA

Cinematographer Edward Goldner films 35mm in the Phillipines for short film *Inang Maynila* - ***by Drew Wheeler***

A scene from 'Inang Maynila' - DOP Edward Goldner

Inang Maynila is a portrait of director James Robinson's mother, who grew up in the Philippines before migrating to Australia. The film combines sequences with family friends in present-day Manila alongside loosely re-created moments from the past, which were filmed in locations James' mother frequented during her childhood.

This was the first time Robinson had collaborated with cinematographer Edward Goldner. ***"I'd followed his photography over the years and he was certainly someone I had wanted to work with,"*** says Goldner. ***"We both went through the same film school but years apart. There was also quite a bit of crossover through mutual friends, which led to us catching up a few months before the shoot in New York, where Robinson was based up until last year."***

Goldner opted to shoot the film on Vision3 500T film stock, which presented the greatest flexibility for the cinematographer to work across a range of locations, utilising existing light much of the time. Robinson and Goldner did consider S16mm but felt a slightly cleaner image was the best fit for the project. This also provided the cinematographer with a malleable platform to create different looks.

"I wanted to create images with a sense of warmth whilst incorporating a slight roughness, honest to the world the story takes place in," says Goldner. ***"I was also conscious of the flashback imagery feeling authentic. Film was a clear choice for both of us."***

The local crew were incredibly experienced, and the small crew received great support from CMB Film Services who provided them with an ARRI 435 Extreme and lens package. They were told it was the first project to shoot on film in Manilla in around nine years.

The shoot was not without drama. ***"Just before we were scheduled to start shooting, our rolls were impounded by customs,"*** says Goldner. ***"After futile attempts to free them through a broker, our production assistant had to fly to Tokyo, meet someone at a train station with new film and fly back to Manilla, just in time for filming to start the next morning."***

The film blends two distinct visual languages. For contemporary scenes, Goldner ran a set of Zeiss Ultra primes and worked largely with available light. He created a framework for scenes but kept coverage quite loose, following a more documentary approach.

For flashback imagery, Goldner switched to Cooke S4s with diffusion and often heightened their lighting to imbue a bit of 'magic' into the visuals. These scenes were storyboarded and took on a more structured and heightened aesthetic.

"We drew heavily from our locations and generally just accentuated existing design elements in those environments," says Goldner. ***"Many of the spaces were actual places Robinson's mother frequented in her childhood and hadn't changed a great deal over time. Manilla is a cinematographer's dream in terms of texture and colour. We leant into a lot of uncorrected green tones, which felt authentic to the environment and provided a nice mix of vibrancy and dinginess."***

Processing and scanning was completed at Kodak's Queens New York branch whilst the film was graded with colourist CJ Dobson in Melbourne, Australia. Dobson elevated the film to a level Goldner is really proud of. The team behind *Inang Maynila* wanted to give the imagery a vibrancy without feeling overworked. The grade was very much about creating a romantic dinginess.

"I feel extremely privileged, having had the opportunity to travel to the Manilla to work together with Robinson and an amazingly talented local crew," says Goldner.

Edward Goldner is a skilled cinematographer working on music videos, narrative shorts and television commercials including for Bonds, Honda and Samsung. He was awarded the NFSA-ACS John Leake OAM ACS Award for Emerging Cinematographer in 2011.

Drew Wheeler is a contributing writer for Australian Cinematographer Magazine.

ZE GERMAN'S ARE COMING!

Cinematographer Cesar Salmeron on gritty frames, hairs in the gate and cross-continental Covid-safe collaborations - ***by Iain Jones***

Zachari's 'So Fresh' music video - DOP Cesar Salmeron

At the end of 2020, cinematographer Cesar Salmeron was approached by the team behind German rap artist Zachari to collaborate on creating the vision for their new music video 'So Fresh'. Ongoing global travel restrictions threatened to scuttle the project from the outset. Undeterred, Salmeron put forward a treatment that proposed the project be shot on his home soil, suburban Melbourne.

The music video follows the narrative of the hapless protagonist in a drug deal gone wrong. A fast-paced giddy thrill ride that pays homage to 1990s gangster films. Swagger are on display here, albeit Aussie-style, but the expectations of typical flashy over-the-top finger flapping rap video clichés are ignored in favour of an original gritty and parochial Australian treatment while serving it on a 'thug life' platter.

"I believe working with restrictions pushes me to think outside the box and come up with approaches I wouldn't have previously considered," explains Salmeron. ***"I was fortunate to have the freedom to film a European rap video in convenient and familiar locations in my own hometown. Ironically, the unfamiliar environment helped create a unique backdrop for the artist and his European audience."***

Being a European kid of the 1990s and a big fan of French director Mathieu Kassovitz's *Le Haine* (1995, cinematography by Pierre Aïm AFC), Salmeron didn't hesitate to sneak in an Easter Egg as a nod to a great mirror scene created by Aïm. ***"When coming up with the overall look, I also really loved the style of Amor es Perros*** (2000, cinematography by Rodrigo Prieto ASC AMC) ***and the energetic combination of soft and contrasty frames the created by Prieto."***

As the narrative concludes to a dream sequence, it was important for Salmeron to introduce a number of visual signposts along the way. Introducing wide-angle optical distortions helped accentuate perspectives and place the audience in less anticipated situations. ***"I wanted to create a music video that didn't take itself too serious and have some fun with the story and especially the audience. Evoking the pleasingly disorientating joy of watching overdubbed Spaghetti Westerns and Hong Kong action flicks when the sound and vision is slightly out-of-step,"*** says the cinematographer.

Whilst wearing both cinematographer and director hats, this project provided the perfect opportunity to hand some of the smooth operating over to close friend and collaborator Shyam Ediriweera. The camera department was backed by assistant camera Cameron Morley and second assistant camera Lucy Pijnenburg.

To create a somewhat warped and distorted perspective, Salmeron used a 24mm probe lens at close proximity. This also helped give the film its off-kilter style and introduces the tone of the film from the start. To push the grittiness even further, he decided to sprinkle dust particles onto the sensor. ***"Morley had a near heart attack but it really helped pull off the mouldy look and added a third layer of texture to some of the scenes,"*** he explains. ***"Hair in the gate… moving on!"***

A majority of the clip was shot on a Red Gemini. As a lot of the scenes were planned to be shot in low light, and being able to push ISO meant that shadows were safe. For filtration, the cinematographer dug up a number of old school 'mist-filters,' which added just the right amount of 'bloom' for buck. To end on a visual crescendo, Salmeron decided to shoot the closing scene underwater with help of aquaman Sam O'Reilly and extra bonus points if anyone spots him providing more than just underwater photography. His subsurface arsenal consisted of a well-equipped Nauticam housing, armed with a Canon R5.

"This particular set-up was great and easy to use, compact and a breeze to manoeuvre above and below the surface. The camera gave us the ability to shoot C-Log 4K at 100fps and held up great when pushing it through the post pipeline," says Salmeron.

The cinematographer blacked out the pool and used a number of hard light sources overhead, which helped give the scene its eerie and disorientated feel.

Intriguingly, the stylised cinematic flow combined with an unflinching hyper-realistic 'Underbelly' suburban setting, both compliments and contrasts with the German soundtrack to deliver a delightfully strange, hallucinatory and off-kilter experience. This clip works as a compelling cinematic experience, combining gritty and stylised cinematic frames, spectacle, beauty, with a sublime dream climax.

Cesar Salmeron is a multi-award winning cinematographer working locally out of Melbourne, Sydney and Brisbane.

Iain Jones is a writer based in Melbourne.

THE GOLDBERGS

Cinematographer Jason Blount films *The Goldbergs* in Los Angeles while a pandemic rages outside the studio walls - ***by Mev Maxon***

L to R - digital loader Dilshan Herath, second assistant A-camera Gary Webster, first assistant A-camera Tracy Davey, A-camera operator Scott Browner, cinematographer Jason Blount, B-camera operator Nate Havens, first assistant B-camera Jen Bell-Price – PHOTO Matt Mira

Jason Blount is an Adelaide boy. It was during high school work experience at Seven Network Adelaide that he found his love for cameras. This passion took him around the world, shooting sports, politics and war before landing in Los Angeles working for Seven Network Australia. After studying at the American Film Institute he bought his own Steadicam and parlayed that into narrative jobs. He was camera operating on the first season of *The Goldbergs* when he was promoted to cinematographer for the season finale and he has been there ever since, now filming their eighth season.

"The look of the show was established in the pilot and it's been my job to maintain the warm, saturated 1980s look - think big hair and bright colours – while streamlining the process and shooting as quickly as possible," explains Blount. ***"From the start, the look the show-runners wanted was very specific; lots of cross-coverage, seeing full faces of actors, lots of light with bright sets. One of the writers/producers told me that 'dark is not funny'. Episodes often include an homage to American television shows and films from the 1980s. Most of the time, unless we are matching the lighting of a specific movie, there is a lot of light. Sets don't tend to fall off into darkness."***

The Goldbergs is based on the life of American television and film producer Adam Goldberg. Growing up he always had a camera with him and filmed his family. Included at the end of every episode is a home video of Goldberg's that is relevant to that episode's story. Nearly all of the characters in the show are based on real life family and friends of his. The pilot was filmed in more of a vérité style from Goldberg's perspective and as the first season progressed, the camera evolved into almost another family member.

When they air, episodes are twenty-two minutes and yet it is not uncommon for Blount to shoot over thirty-five page scripts, which come to about thirty-five minutes. Every episode is filmed over five days with two cameras, mostly on stage at Sony Studios with a few locations around Los Angeles.

With an ensemble cast skilled at improvising, getting the humour and interactions on camera is important. During the first several seasons many of the actors were minors. With limited filming time shooting quickly was and still is critical. Because of this, Blount shoots most rehearsals and uses a full set of Angenieux Optimo lightweight zooms on A-camera and the Optimo 24-290 on B-camera. This way the actors can improvise and the energy isn't broken by lens changes. He cross-covers a lot for the same reason.

The crew of *The Goldbergs* was fortunate in that they were almost done with their seventh season when Covid-19 shut things down. They only missed one episode and the producers generously paid everyone for that week. Production on season eight was pushed three weeks due to the pandemic. Sony, the studio lot where *The Goldbergs* is filmed, sent out a Covid safety video that had to be watched by everyone on the crew. The Los Angeles unions sent out 'white papers' with safety guidelines on how to resume filming safely. The production also hired two full time Covid safety compliance officers whose sole responsibility is to ensure that all crew members follow safety protocols. There is zero tolerance for mask removal or protocol breaches.

On set, there are different zones with different rules. Zone A consists of crew needed to set up shots: lighting, set dressing, props, etc. Construction and rigging are Zone B. Prior to Zone A, plus crew needed to physically shoot, and cast can go onto a sound stage, all Zone B crew must be cleared and the stage disinfected and cleaned by a professional cleaning crew. Zone C production office staff are not allowed to come to set at all.

The precautions and safety protocols taken by *The Goldbergs* are more stringent than what is happening in some outpatient medical facilities and the testing is rigorous. The entire crew is Covid tested three times a week, originally it was once a week but after there were a couple of non-work related Covid positives production increased testing. The actors, who are the only ones ever unmasked, are Covid tested three times per week and rapid tested on the other two days. Everyone

Sean Giambrone, Wendi McLendon-Covey and Troy Gentile in 'The Goldbergs' - DOP Jason Blount, PHOTO Richard Cartwright

must be masked at all times and there are even separate craft services for each zone.

Blount is not allowed to use smoke, haze or 'atmosphere' on stage and the air conditioning units now have filters. There is a Covid meeting at crew call outside the stages every morning, which is combined with the safety meeting at call if there are any stunts or non-Covid safety issues.

Originally there were only thirty people allowed on the stage at any one time, including actors. This sounds like a lot until you add up the numbers; camera alone has nine crew and *The Goldbergs* has an ensemble cast. Once you include the director, script supervisor, background, dialogue coach, hair, makeup and wardrobe it can easily top fifty. As production settled into the new routine and as the world learned more about Covid-19, protocols were adjusted.

First assistants camera now pull focus off set remotely; no more pulling next to the camera. Blount sits away from video village in a tent with only his digital intermediate technician (DIT). As part of the safety measures due to Covid-19, production added in a password protected Wi-Fi video village system so that any department with the password can access the camera feed, including a rehearsal camera to see the blocking of scenes from outside the stage, which can be watched on crew members' own devices.

Blount's gaffer and key grip access the wireless camera feed as well, instead of sitting with him and the DIT. Other precautions include having one second assistant slate both cameras on set while filming, the production has two second assistants camera but only one is allowed on set at a time.

The traditional video village with the director, writer, script supervisor, ADs, props, dialogue coach, varying number of producers, and set guests has been pared down to just the director, writer, and script supervisor, all separated by plexiglass shields.

Another way the production has adapted is restrictions on the number of background extras. The first episode filmed after lockdown is an homage to the film *Flying High* (1980, cinematography by Joseph Biroc ASC). At first the crew thought it was a joke; a closed airplane set filled with background as their first Covid-era show? Production brainstormed how to make it happen. Blount shot clean plates of the plane interior then shot socially-distanced background actors to be tiled in to fill the seats to make it look like a busy plane. Mannequins and dummies were also used in some deep background seats. Production carries a number of regular background and stand-ins who follow the testing protocols and who don't work on other shows.

One of the series regulars is Academy Award-nominee George Segal who is 87 and therefore in the high-risk group for Covid. When filming with Segal, production shoots his scenes from several episodes in one day. In order to minimise the time he is around other unmasked actors, Blount will shoot Segal's side of the coverage and a locked-off master shot followed by split screen as much as possible.

As a season eight broad comedy with an up-lit look, Covid-19 protocols did not require a massive shift in how Blount lights. His crew was already fast and dialled-in to the regular sets. They have decreased off-lot locations and try to film as much on stage as possible as well as on the Sony lot. Blount has built a very versatile camera department that has been beneficial for shooting during a pandemic.

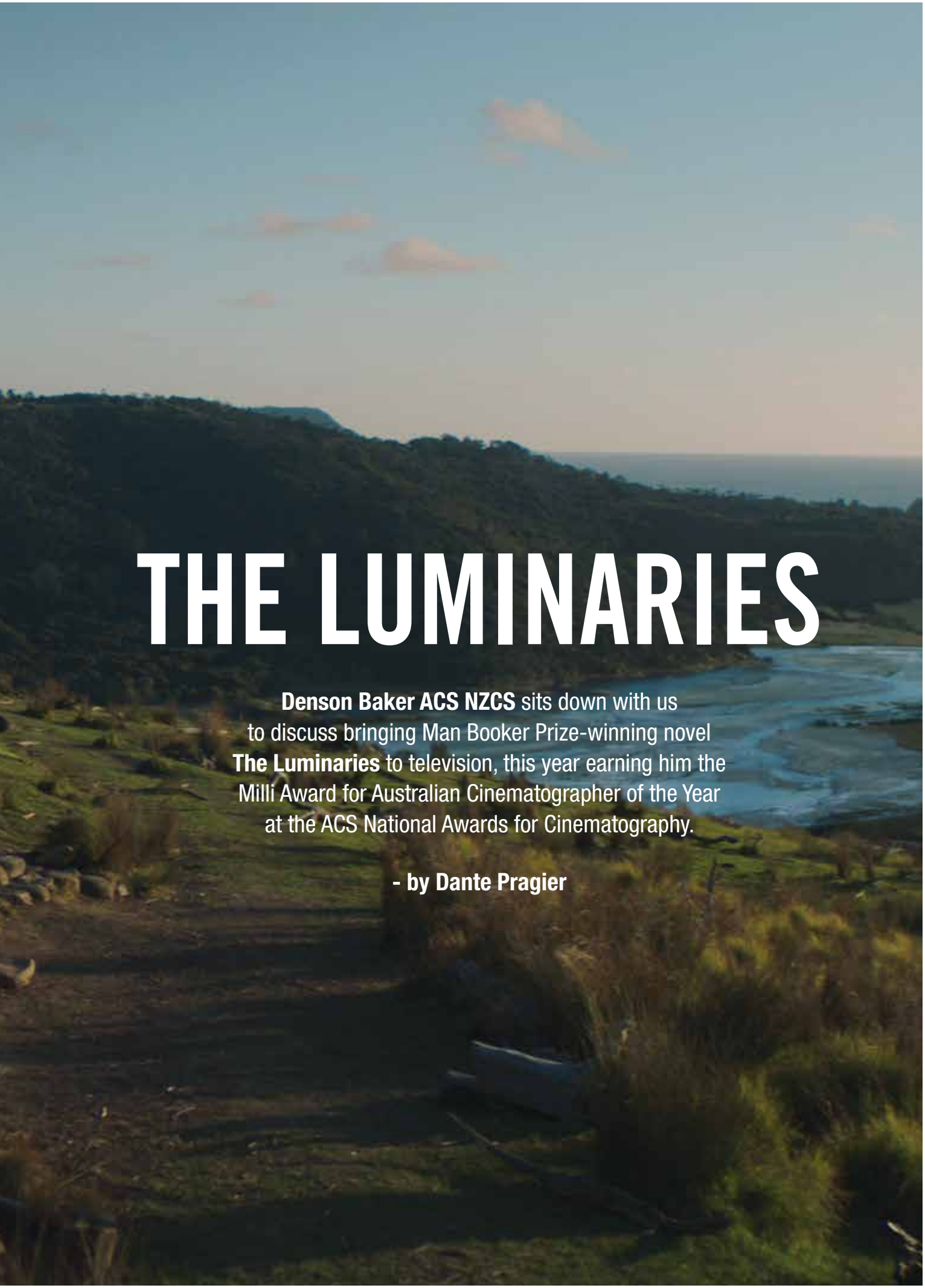
Blount and his crew feel fortunate to be able to work during a global crisis when many have lost their jobs and everyone has been quarantining. To be able to provide new content for those stuck at home, to interact daily with colleagues and to earn a living doing what he loves while feeling physically safe in the Covid-19 hotspot of Los Angeles has been a privilege for Blount.

Shooting an American network television show on the Sony lot, even masked and shielded, is a dream come true for this Adelaide boy.

Jason Blount is an Australian cinematographer based in Los Angeles.

Mev Maxon is an assistant director and former trainee with the Directors Guild of America.

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC



THE LUMINARIES

Denson Baker ACS NZCS sits down with us to discuss bringing Man Booker Prize-winning novel **The Luminaries** to television, this year earning him the Milli Award for Australian Cinematographer of the Year at the ACS National Awards for Cinematography.

- by Dante Pragier

Denson Baker ACS NZCS films 'The Luminaries' on location in New Zealand - PHOTO Supplied

Set in the 'wild west' of 1860s Gold Rush-era New Zealand, *The Luminaries* sweeps through Dunedin and Hokitika in the South Island to unravel mysteries steeped in love, betrayal, greed, and the zodiac.

Its expansive cast, headlined by Eve Hewson and Eva Green, move through a range of location shooting; untamed woodland, craggy clifftops and rugged coastlines, with elaborate sets constructed to portray the mud-soaked settler towns. The range of natural scenery, dependence on weather conditions, and set design requirements all contributed to an ambitious 82-day principal shoot with much planning and scouting in advance.

"We arrived in New Zealand, I think, four months before starting to shoot. That's the longest lead I've had on anything," says Baker. ***"There were still a lot of questions as to how we were going to approach the series, and how much was going to be location. We travelled to a bunch of towns along the coast of the South Island. Oamaru was one which has been shot a lot but it just wasn't really going to work for us. There were elements that would work but it was just going to be too big an undertaking. We realised quite early on that we were going to have to just build so much of the world that was in the book."***

As part of this process, Baker worked closely with production designer Felicity Abbott, as well as director, and Baker's wife, Claire McCarthy. ***"Having that long pre-production time with Abbott meant that we could have a lot of conversation and development quite early on,"*** says Baker. ***"We had the book as our reference so the first port of call was going to where the stories were set. It's Dunedin and Hokitika, which we explored."***

The cities and townships themselves were too developed

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC

Eva Green and Eve Hewson in 'The Luminaries' - DOP Denson Baker ACS NZSC

to resemble their 1860s counterparts, but understanding the topography and distinctive scenery of the region was valuable for research and visual planning. ***"We wanted that authenticity and it's still exactly as it would have been a couple hundred years ago,"*** explains Baker. ***"It's still all very rugged along there. We had a great location scout, Sally Sherratt. She did locations on*** **The Piano.** ***Sherratt has an incredible library of options to go and see. We took flights to both coasts of the South Island. We drove all around the beaches of the North Island and saw the black volcanic beaches, the black sand, then the other sides to see the pristine white sand with less wild seas. It just meant we got to see all of our options, really, and then explore them and see what was going to fit within our schedule and what was possible."***

Beyond scouting the locations directly, Baker and the team researched archival photography of Gold Rush-era South Island New Zealand. ***"We looked at a lot of historic photographs,"*** he says. ***"We went to Hokitika, where the story is mainly set, and there's a great archive there. It's a small shop but it's full, an absolute wealth of imagery from the period. I was fascinated to see that there was so much photography taken in the South Island of New Zealand in the 1860s. They were all photos that you can't come across online, they're only starting to be more seen and archived now. It was such a great visual resource."***

In terms of filmic influence, Baker says that it's hard to look past Jane Campion's Academy Award-winning *The Piano* (1993, cinematography by Stuart Dryburgh) if you're doing 1860s New Zealand. ***"I mean that is the benchmark,"*** says Baker. ***"It is such a beautiful film and Dryburgh's cinematography is just exquisite. That was a really muddy, textured, world where these people coming from Victorian England are really struggling within. We really wanted to***

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC

feel the mud and feel the texture, which The Piano *did quite beautifully."*

But Baker is quick to point out that the team didn't want *The Luminaries* look to be compared to other shows. ***"We really wanted a painterly feel to our wide shots and to our landscape. We wanted it to feel epic and cinematic,"*** he says. To help find this look, Baker turned to artwork. ***"I looked at the paintings of C.F. Goldie. He's a fabulous portrait artist who did a lot of Maori faces in that same era that we're set. Goldie's paintings just have such a beautiful lighting quality with lovely contrast and there's a soft light to it. We've got Maori characters, too, with moko facial tattoos and so we wanted to capture a bit of that style. There are a lot of great landscape artists too that are lesser known that we saw at some of the museums and art galleries in New Zealand that we were influenced or inspired by."***

Taking the time to scout and research during pre-production allowed Baker and the production team to visualise the right atmosphere and tone for the shoot. ***"We didn't want it to be a dusty-musty period drama, we also wanted it to be a little bit contemporary. We also wanted it to be definitively New Zealand. It's not what we've seen in the UK or in the United States. It had to be uniquely New Zealand. When we looked at those photographs, we would just see some incredible international faces but in this amazing landscape which was so uniquely New Zealand, and these rugged coastlines. They became a really great reference point for the textures and the designs of the places. They looked just brilliant, ready to shoot, but we had to build them all from scratch. That was the challenge."***

This led to tricky decisions balancing affordability and achievability. ***"The initial production designs which Abbott produced were exquisite and amazing but just not within our budget,"*** says Baker. ***"It became less about 'what can we shoot' and it was more about 'what's the least we can build to make it look good?' We leaned on visual effects quite a bit."***

Most of the set was built in the Auckland studio, including a square-rigged ship in the carpark, while the Hokitika township was built out at Jonkers Farm to the west of Auckland. ***"There was certainly a great deal of Kiwi ingenuity which really saved our bacon,"*** says Baker. ***"The ship needed to look like it was on a wharf but how do you do that in a car park when you can't dig? We had to elevate and build a wharf and the ship was put on some form of wheels."*** This meant the ship could not only rock, but also be moved if necessary.

This Kiwi ingenuity wasn't just limited to the set design. Baker discovered that the production team had all manner of inventions up their sleeves. ***"Our grip Terry Joosten made a thing that he called the 'scissor fist'. He'd made it all himself in his own workshop. It was an articulated arm that extended. It looked like a piece of steampunk engineering."*** By attaching the camera to the end, they were able to achieve motions and angles that would've otherwise required a mini-Technocrane. ***"It took a little bit of jiggery and pokery but we'd get great shots with it."***

One of Baker's favourite sets to work on was 'The House of Many Wishes', which served in the narrative as Lydia Wells' home in Dunedin. ***"It was just such a lush set and so beautifully designed by Abbott and her team,"*** says Baker. ***"She'd really thought about light. She had the windows in great places and filled with practicals and lovely textures and leather worn-down chairs… just the colour palette in there was beautiful… she'd thought about this opening so that we could get these great shots that could look down into the beautifully-designed floor which had 'pounamu' greenstone inlaid into it. It had a skylight up above it."***

"Because it was a set and not a historic house, it just meant that we were able to do so much with it. We were able to drill a hole in the ceiling for one shot that we wanted to go up with a camera, through the floor, and then up into another set which we shot somewhere else and matched the move to bring the two together. We were cutting holes and drilling plates and able to put LEDs up very quickly for backlights into the set. Because it had this big opening, we were able to get nice big soft light, I had the DoPchoice Octa 5' with a two-foot LED inside it which we could just put on a bar and lower these great soft lights to have as a key light and still shoot two cameras and move around and not have them in our frame. It became this great set to be able to work in and it was such a joy. It was actually quite heart-breaking to see them walk in with the sledgehammers half way through the shoot and start smashing that down and turning it into something else."

For equipment, Baker and the team knew from the start that they'd be working with anamorphic lenses. Working Title producer Andrew Woodhead had expressed an interest in the lens' cinematic quality, and Baker jumped at the opportunity. *"I got to do a lot of camera tests, which was great,"* he says. *"I tested out pretty much every anamorphic set available in New Zealand, went through all the various rental houses and got the lenses out and did flare tests and looked at how faces looked and got to shoot some exteriors to really explore the look that we were after."*

The production sourced their camera kits from Imagezone, a specialist rental company that Baker uses for his New Zealand-based projects. *"We ended up landing on the Cooke Anamorphics which just had that nice balance of being sharp and modern but still having a nice softness and a classic quality to it. We tested a lot of different filters and we ended up using Black GlimmerGlass. That's what we liked the most. It had nice blooms and took the digital edge of the ARRI Alexa Minis. It just gave a nice contrast. I used Classic Softs occasionally, too, because we wanted an 'old Hollywood look' to our starlets from time-to-time."*

As the narrative weaves through time, and the wellbeing of its characters shift, Baker found ways to express these transitions visually, too. *"It jumps back and forth in time from a bright-eyed, crisp, straight-off-the-boat Eve Hewson to her absolute darkest hour, hooked on opium and laudanum and looking worse for wear. We really wanted to have a visual style that tracked that with texture. We were embracing noise a bit to have a bit of a textured and filmic look to it."*

Of course, shooting a period piece on location in New Zealand meant embracing ever-shifting sky conditions and seizing opportunities as they arose. *"We totally embraced the Land of the Long White Cloud. Whenever we could get a nice light or when it was lower in the sky at the beginning and end of the day, backlit all the way,"* says Baker. *"We had a great first assistant director, Luke Robinson, who was happy to schedule around the light as much as he could, or was possible. That's the thing with doing period projects, which I've done quite a number of now, from Medieval to Ancient Rome, to the Victorian era. The light sources are flame or sun or moon. It's really those three. It's cool light through windows and firelight or oil lamps and candles inside."*

But Baker is always up for a challenge. *"I actually quite like working with those parameters. It means that generally the warm light is coming from a lower angle, too. You're not always having light fixtures coming from above because they just didn't often do that."* As a result, the natural lighting became part of the miniseries' visual style. *"We wanted that poetic naturalism that is like a beautified version of natural but with it being all from practical light sources."*

Cinematographer Denson Baker ACS NZCS checks the light before filming a scene on 'The Luminaries' - PHOTO Supplied

Having grown up in both New Zealand and Australia, Baker feels the connection to the land as well as the Kiwi attitude. ***"It does feel like home to me,"*** the cinematographer says. ***"I always feel welcome and I feel like this is somewhere where my heart belongs. I've worked in a variety of film crews around the world, different ways of working, different unions. There is a uniquely New Zealand way – and Australia is similar, too. It's a real 'roll your sleeves up, get in there, get dirty. I'll help you carry the camera cases when we climb to the top of the hill because it's going to take a long time otherwise and why wouldn't I help out?' kind of thing."***

"It's interesting because we worked with crews on **The Luminaries** ***who had all worked on massive, epic, productions from*** **Mulan** ***to*** **Lord of the Rings**, ***and all these big films that have gone to New Zealand. So, crews had this wealth of experience but they were still down-to-earth, wear-gumboots-and-flannel-shirt, get-it-done type of people which was just brilliant."***

Another aspect of note is Baker's working relationship with *The Luminaries'* director, his wife, Claire McCarthy. The pair have worked together across several largescale productions, including 2018's *Ophelia*, with three more collaborations in production at the time of writing. ***"We've worked together long enough that we've got a pretty good shorthand now,"*** explains Baker. ***"There's a lot that doesn't need to be said because we've been there and done it and we know what we like and can snap into certain things. We'll challenge each other, too."***

Having this tacit workstyle is crucial because once the cameras start rolling, Baker and McCarthy have less opportunity to talk. ***"She'll be with all her actors, flying into town, she's doing rehearsals and fittings. I only have a small window with her to run through stuff and get her notes and make changes and focus them a little bit more."***

Plus, technology is always available to bridge any physical distance and keep the crew in sync. Digital viewfinders like Artemis on the iPad proved invaluable for lining up shots, especially when Baker wasn't operating the camera directly. Having that directorial trust, as well as the meticulous research in pre-production, frees Baker and the team up to put the planned shots away and explore opportunities as they arrive on the day.

"We just went and smashed out these three great cinematic scenes".

"We'll always have a shot list, and we'll always have that plan in the back pocket as something to fall back on but you've got to go with the magic. Actors will have new ideas on the day and you've got to be ready to embrace them. Also, the crew comes up with some fantastic suggestions so you've got to flow with those, too, which we did."

Of course, keeping the style cohesive even when accommodating new ideas and opportunities is paramount. ***"The interesting thing with doing such a long-form project, you've really got to track your visual style. We were shooting moments from episodes one through four in the first week. You've got to be ready to improvise a bit but then you've got to keep it in your mind; 'what is this cutting with?' and 'How is that going to work?'"***

Baker also credits cinematographer Kieran Fowler NZCS ACS, who took on the multiple roles of B-camera operator and additional material cinematographer, who could orbit the central production to find additional angles and opportunities. ***"It was brilliant having Fowler as an ally. We were able to splinter off and have him do splinter setups or even leapfrog where we could leave him to shoot some beautiful details and more artistic shots that we might not have had a lot of***

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC

time to do if we weren't able to leave the camera to have a bit more time while we started prepping the next scene. He was invaluable as an ally on that."

Baker describes a day's shooting he was particularly proud of, on location at Bethells Beach; a shoot that the cinematographer initially thought to be unachievable. ***"We really wanted to shoot scenes with Eva Green and Eve Hewson on the beach in this cave at Bethells Beach in the black sand,"*** says Baker. ***"It was going to be quite a mammoth effort to get the whole main unit not only down there, but do it efficiently within our schedule. We were just shooting so many other things. We were being pushed to maybe shoot them in an interior or shoot them on the street but there had been so many scenes on the street already. I think it started when first talking with the actors. They were all up for the challenge, 'yes, let's do it!'"*** And so they headed to the beach.

A splinter crew of just Baker with a camera, mainly hand-held, and a slider, a small second-unit team, and Green and Hewson drove to Bethells Beach with one vehicle so as not to disturb the scene with tyre marks and footprints. ***"We just went and smashed out these three great cinematic scenes. They're the ones in the trailer and they worked well. One of them is the final scene of the whole miniseries, as well, with Eva Green standing there at the beach looking out to the sunset."***

Hearing Baker's stories of pre-production and the shoot itself, it sounds as though he's well at home in the busy, often daunting world of television shoot scheduling. It's surprising to hear, then, that *The Luminaries* was only Baker's second piece of television work, with the long shoot durations, higher-pressure daily shoots, and increased exterior influences relatively new challenges to confront. ***"The thing that I have found is quite different between television and cinema***

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC

Behind-the-scenes on series 'The Luminaries' - PHOTO Supplied

is that, with television, there's still this feeling that it's a producer-writer's medium. Less so than cinema, where a director's calling the shots," says Baker.

"She goes through all the phases of the moon throughout the story".

The nature of the scripting, for example, could create challenges or force the removal of beloved sequences. ***"This often happens with television,"*** he says. ***"Scripts start to get rewritten as you go or aren't finished for the final episode while you're still shooting the first episode. Unlike a feature where you're pretty close to locked with the script when you first start rolling."***

This means that scenes or even whole episodes could change well into production. One casualty of this process was a series of transition sequences devised by Baker and McCarthy. ***"We wanted to design some transitions into the ways where we moved back and forwards in time. Some of them, I thought, were just awesome. We tested some and we even did some cuts during the shoot to see if things were working,"*** explains Baker. ***"However, later structural changes meant these scenes no longer fit together. Sadly, a lot of those clever transitions ended up on the cutting room floor."***

That said, this television process had advantages, too, for example by creating a closer relationship with the writers. For *The Luminaries,* this was particularly fruitful because Eleanor Catton, writer of the novel, had adapted the script herself. Baker was able to discuss ideas with Catton, who would often sit by the monitors on set. ***"Part of the story is about how these characters all link and their paths cross,"*** says Baker. ***"Each of them represents a different planet, star sign, or the***


A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC

Filming on location with 'The Luminaries' - PHOTO Supplied

sun and the moon. Our protagonist, Anna Wetherell, played by Eve Hewson, she's the moon. She goes through all the phases of the moon throughout the story."

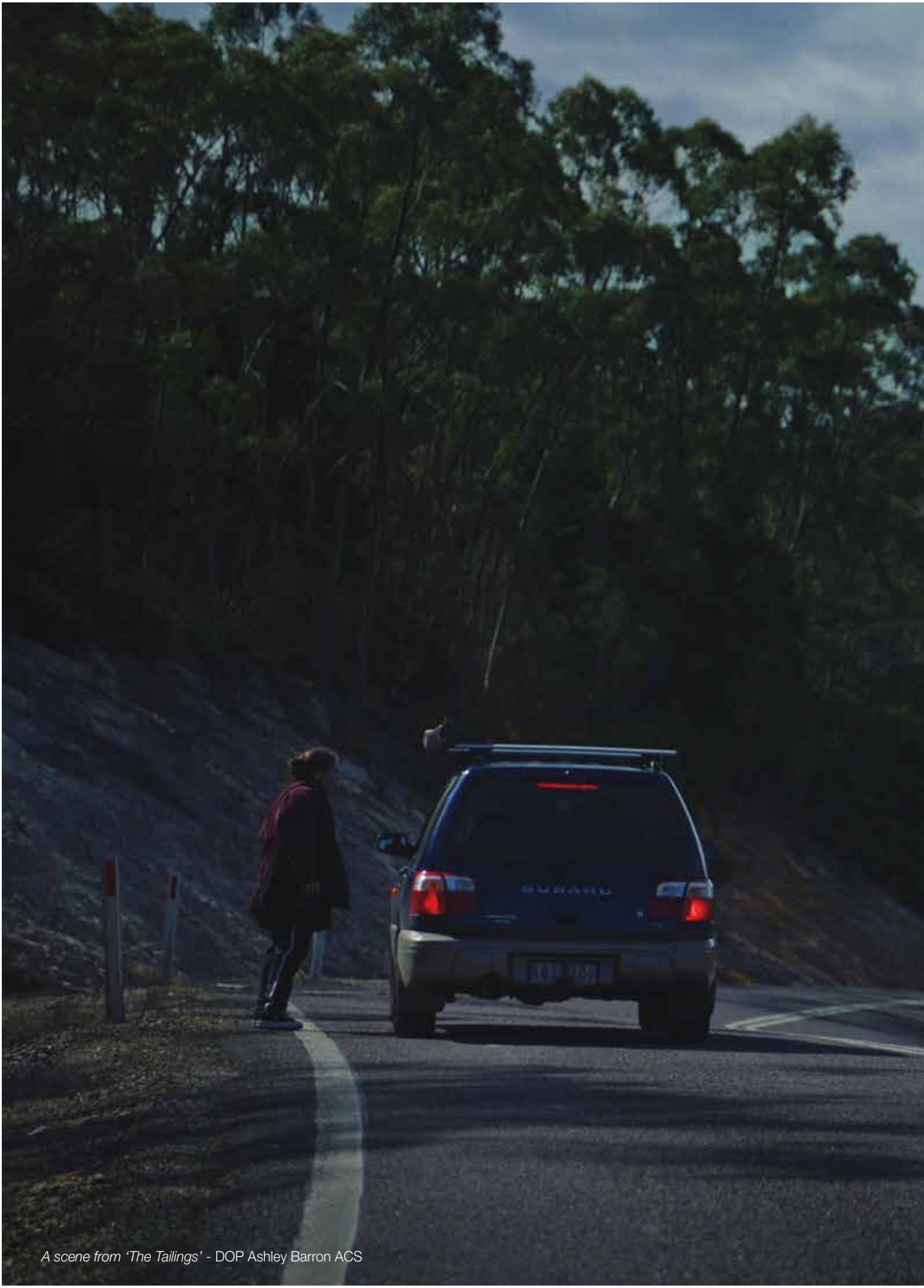
McCarthy, Catton, and Baker discussed the idea of lighting Hewson based on the different phases of the moon. ***"We just thought it'd be a nice little undercurrent. It wouldn't be obvious to the audience but it was a nice little touch,"*** he explains. ***"We asked Catton to put the moon phase of the character into the script. So, the scene headings would say 'waxing gibbous'. Some were based on what date it was set. If you've read the book, you'll see that she's very specific. 'April 27th, 1860' for example. Catton would then put that moon phase in there so we could say, 'okay, cool. She's a crescent moon, it's a new moon, waxing gibbous moon.' That would influence a little bit, I mean it would change depending on the blocking as to whether she stayed in that moon phase but that was a nice little touch that Catton was involved with. She thought it was really cool!"***

The bumps and barriers of the past year don't seem to have held back Baker and McCarthy's plans, with three projects in various stages of production. Up next, they've flown off to Birmingham, England, where they're currently filming *The Colour Room,* starring *Bridgerton's* Phoebe Dynevor and Matthew Goode. ***"It's set in the 1920s which is a really fascinating and fun period to work in, the roaring twenties,"*** Baker says. ***"Again, we're wanting it to be a really contemporary take on a period that we're quite familiar with. So, we really want to push the experimentation of some of the techniques and be a little bit more adventurous with the visual style. It's going to be quite exciting."***

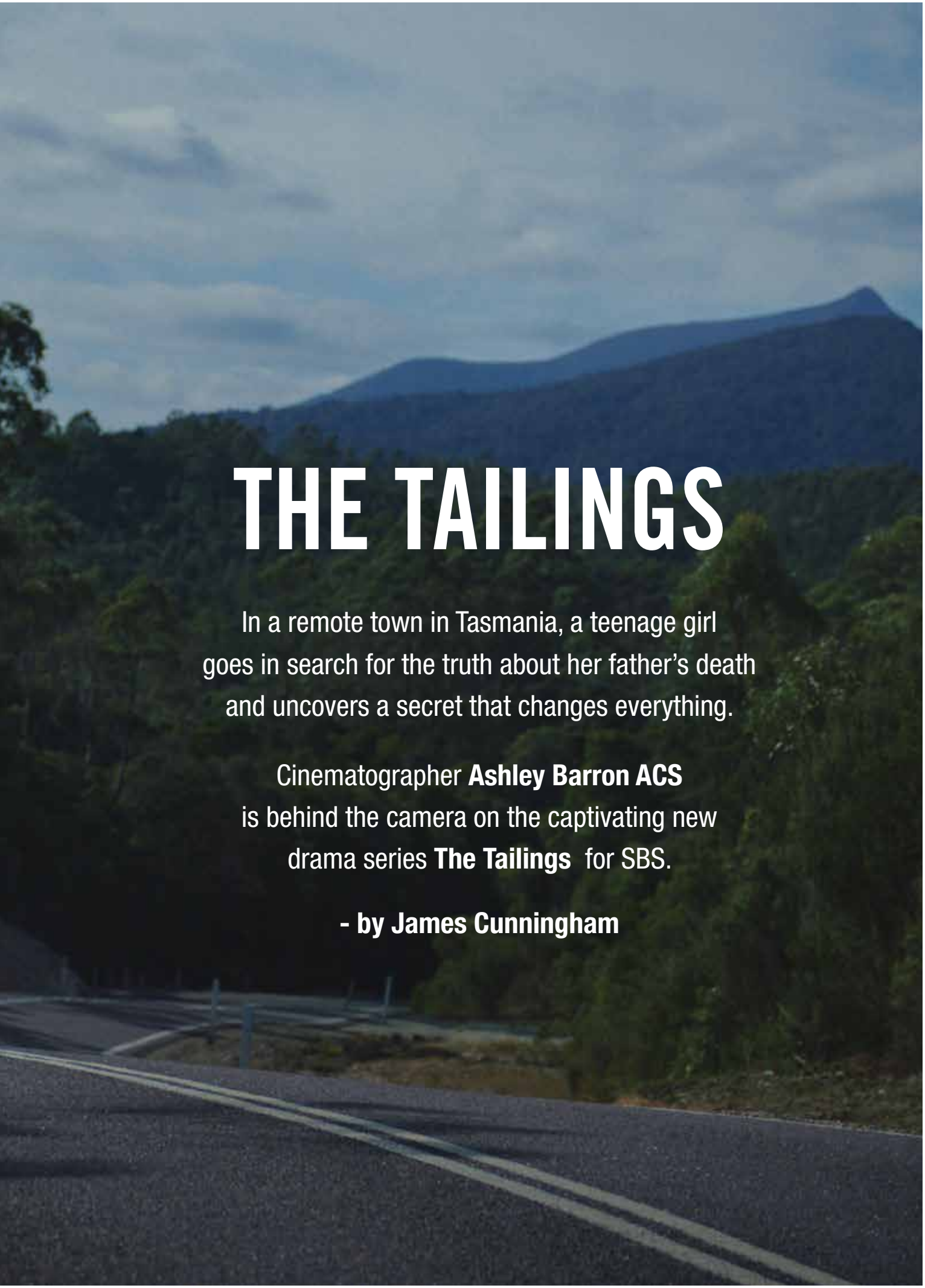
Denson Baker NZCS ACS is an award-winning cinematographer of international feature films, music videos, documentaries and commercials.

Dante Pragier is based in the United Kingdom, and a regular contributor to Australian Cinematographer.

A scene from 'The Luminaries' - DOP Denson Baker ACS NZSC



A scene from 'The Tailings' - DOP Ashley Barron ACS



THE TAILINGS

In a remote town in Tasmania, a teenage girl goes in search for the truth about her father's death and uncovers a secret that changes everything.

Cinematographer **Ashley Barron ACS** is behind the camera on the captivating new drama series **The Tailings** for SBS.

- by James Cunningham

Ruby (Mabel Li) in 'The Tailings' - DOP Ashley Barron ACS

Cinematographer Ashley Barron ACS *(One Less God)* was approached by producer Liz Doran to meet with herself and director Stevie Cruz-Martin. Not having worked with either of them, Barron jumped on a Zoom call with the two of them just before the London lockdowns.

"I'm very much drawn to character driven pieces where setting is as much a character in itself," explains Barron. ***"The incredibly layered and soulful nature of the story was something I had been looking for, but I could also relate to it."*** Barron grew up in a small town and with a small family, with multilayered communities, with stories and secrets, and with a strong father-daughter relationship at its core. ***"Then came my collaborators!"***

Production designer Alicia Clements joined the creative team and provided a visual treatment that was almost word-for-word what Barron and Cruz-Martin had spoken about at length. ***"The director and I had discussed a 'cinematic documentary' aesthetic similar to the HBO miniseries*** **Sharp Objects** (2018, cinematography by Yves Bélanger CSC and Ronald Plante CSC). ***An approach that requires integral collaboration with production design to create a world that the actors can embody."***

Cruz-Martin shared the months of conversations that herself and screenwriter Caitlin Richards had, in order to give Barron and Clements an idea of the background of *The Tailings* and the world in which it's set. ***"The three of us also spent weekly Zooms discussing each scene in each episode, each character, each space,"*** says Barron. ***"I had frequent conversations with Richards, and with costume designer Yolanda Peas that further evolved our understanding of the characters, their world and where each department was coming from. It was exactly how I like to work… 'holistically engaged'."***

For Barron, this 'cinematic documentary' approach felt grounded and meant something that felt textured and lived in. ***"As I was in Tasmania and our kit was coming from Sydney, I had to conduct remote camera tests with the cooperation of our first assistant camera Luke Marriott at Camera Hire,"*** says Barron. ***"He tirelessly filmed himself, by himself, and then uploaded the files over many nights for us to review. I created a blind test for the director and it was a unanimous decision to film*** **The Tailings** ***with the ARRI Alexa, rating at 1280 ISO."***

"I also knew that the sensor would handle the 360° degree world that we'd created, and the uncontrollable situations that were thrown at us at speed. I also knew that the camera's form factor and user features would allow me to focus more on breathing with the actors."

Which is exactly what Barron did. That camera hung off the cinematographer's body on the EasyRig over the course of the fourteen day shoot. ***"I didn't want to take it off,"*** says Barron. ***"Not only did we have a relentless schedule which saw at least two and three daily location moves, but I also feel that a camera on the shoulder renders a dynamic flow on set. I operated myself because that world was in my DNA and my reactions would be natural reflex."***

Barron's camera department was helmed by Marriott, who had worked on many other Tasmanian filmed and produced television shows. ***"It was exciting to be able to bring such a project to Tasmanian crews and give an opportunity to much emerging talent,"*** says Barron.

The Tailings is firmly set in a remote Tasmanian mining town reeling from the recent death of a miner, and follows his

Jas (Tegan Stimson) in 'The Tailings' - DOP Ashley Barron ACS

daughter Jas (Tegan Stimson) who refuses to believe his death was accidental. ***"What is essentially a true crime story also focuses on the mining town and its effect on the natural environment,"*** explains Barron. ***"We specifically worked towards highlighting the delicate balance between the man-made and the natural. The landscape was always featured in our exterior compositions. We didn't just want to feature the landscape in a 'Tasmanian noir' style; we wanted to give the island state a feeling of hope, agency and community."***

With the tight schedule being what it was, Barron's workflow with Cruz-Martin was a 'divide and conquer' as the cinematographer dealt with lighting whilst the director considered coverage. ***"We would spend each morning going over the director's desired shortlist for the day, watch a rehearsal in the space and see what fit best based on what we saw,"*** says Barron. ***"It became quite an unspoken process on set after extensive pre-production. I can count only a handful of times where the director disagreed with a frame or lighting choice of mine."***

Considering all the challenges the production faced, Barron has many favourite scenes. ***"My favourite has to be the night scenes in episode one, and an alleyway scene with character Sean*** (Nic English) ***and subsequently in his home, in episode two,"*** the cinematographer reveals.

The actual location of the alleyway was lit by a single street lamp. ***"The way that we wanted to cover the location, there was just no way to light the alleyway within the budget,"*** says Barron. ***"The council even changed the lightbulb in the streetlight to a brighter one for us."***

Barron shot some additional camera tests and the cinematographer sent them to colourist Trish Cahill who developed a look-up table that reached into the shadows and de-noised the image. ***"All we needed to do was add a little eye light,"*** says Barron. ***"The subsequent scene in Shaun's kitchen had to match to that location in both aesthetic and in texture. I had to apply an approach that was built for an uncontrolled location to a controlled location, continuing to push the underexposure. It worked. It not only represents the story and the mood of the scene but represents me as cinematographer and storyteller."***

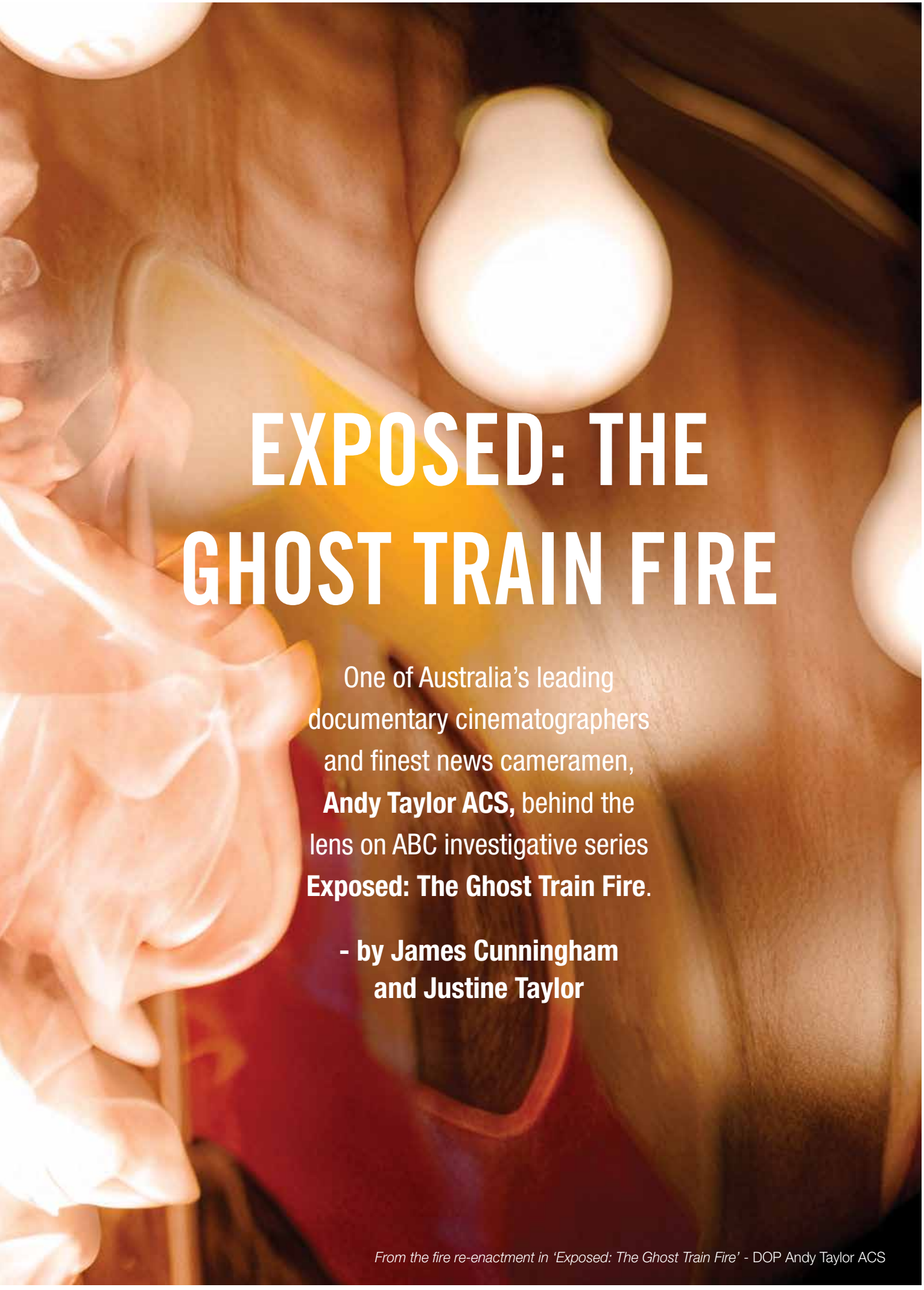
Barron's involvement as cinematographer in post-production started in pre-production as soon as Cahill came on board. ***"Cahill was invaluable during pre-production, building look-up tables and collaborating on tricky lighting scenarios,"*** says Barron. The two discussed frequently their visual approach to *The Tailings.*

"I was sent edits as they happened and was involved in a four-day colour grade, remotely, from a suite at The Editors in Sydney while Cahill was in Melbourne due to Covid restrictions," explains Barron. ***"Our main aim was to tread that balance between coming-of-age warmth and mood of the investigative drama."***

Many of Barron's challenges were outside of the cinematographer's control. ***"I'm not sure I would change anything,"*** concludes Barron. ***"I feel like all of my experience as a cinematographer not only led me to*** **The Tailings** ***but equipped me to successfully approach, manage and handle this project. I'm so proud of what we've achieved."***

Ashley Barron ACS is an international, award-winning cinematographer and accredited member of the Australian Cinematographers Society.

James Cunningham is editor of Australian Cinematographer Magazine.



EXPOSED: THE GHOST TRAIN FIRE

One of Australia's leading documentary cinematographers and finest news cameramen, **Andy Taylor ACS,** behind the lens on ABC investigative series **Exposed: The Ghost Train Fire**.

- by James Cunningham and Justine Taylor

From the fire re-enactment in 'Exposed: The Ghost Train Fire' - DOP Andy Taylor ACS

Filming Ghost Train Fire survivor Jason Holman - DOP Andy Taylor ACS

If you haven't already watched *Exposed: The Ghost Train Fire,* it's available right now on ABC iView. It's probably one of the most important pieces of investigative journalism to be produced in Australia and has resulted in calls for a fresh inquiry into the infamous Luna Park Ghost Train fire of 1979. Be warned, bring tissues.

One winter's night in 1979 squeals of delight turned to screams of terror as the Ghost Train at Sydney's iconic Luna Park erupted in flames. Six young children and one adult perished. What happened? Investigative journalist Caro Meldrum-Hanna, cinematographer Andy Taylor ACS and the Exposed team reveal stunning new information that points to arson as the possible cause of the deadly fire including corruption and a cover-up that reaches the highest levels through notorious Sydney gangster Abe Saffron and former New South Wales premier Neville Wran.

Andy Taylor ACS is one of our nation's most experienced cinematographers. He's won five prestigious Walkley Awards for Cinematography and a whopping twenty-six Australian Cinematographers Society Awards. His thirty-year career has seen him traverse the globe filming in war zones and major news stories to adventure travel documentaries and celebrity profiles. He's dodged bullets in Moscow, interviewed Sir David Attenborough and the Foo Fighters, and climbed the peaks of Mount Everest with his camera. Taylor's start as a cameraman was decidedly more sedate.

"After school I studied film and television at TAFE, where I completed the certificate that was required to get into the Australian Broadcasting Corporation as a trainee," says Taylor. ***"I started at ABC-TV in 1986 as a cameraman at the studios at Gore Hill, New South Wales, working on shows like* Play School, Mr Squiggle *and* Countdown."**

The Ghost Train Fire was the second series of Exposed for the ABC, the first was called *The Case of Keli Lane* which was shot by cinematographer Ron Foley in 2018. ***"I was asked to film the last few weeks of the first when Foley had to start on another project,"*** explains Taylor.

For the second series, both producer Jaya Balendra and journalist Caro Meldrum-Hana had a very strong visual sense of what they wanted the *The Ghost Train Fire* to look and sound like. ***"We all wanted it to look and feel different,"*** remembers Taylor. ***"We watched quite a few true crime documentaries searching for an interesting way of filming the interviews, sequences and re-enactments,"*** he says. The visual style they settled on for the interviews was inspired by *Murder in the Bayou* (2019, cinematography by Jeff Huchens) but overall Exposed has its own very distinct style compared to other Australian documentaries.

"I wanted to shoot the highest quality possible because this series would end up streaming on ABC Television, iView as well as Netflix," says Taylor. ***"We filmed the entire project in 4K, full frame in C-log3 on my Canon C500mk2 and C700FF with cine-primes. I was very fortunate to have the opportunity to shoot this entire series, including the interviews, sequences, re-enactment, drone vision, the opening titles and all of the stills photography."***

Taylor is no stranger to news and documentary cinematography. In 1991 he was sent to cover the first Gulf War in Israel, Saudi Arabia, Kuwait and Iraq for the ABC. ***"I lost count of how many times we were shelled, shot at and attacked,"*** he says. ***"We were the first crew to stumble across the so-called 'highway to hell', that infamous road between Kuwait and Baghdad. The battle had just finished as we arrived, and we were greeted by the most post-apocalyptic scene I've ever come across."*** Despite the high-

Filming journalists Patrick Begley and Caro Meldrum-Hanna for Exposed: The Ghost Train Fire - DOP Andy Taylor ACS

stake shooting conditions, Taylor persevered.

In 1992 and 1993, Taylor was posted to the ABC Moscow bureau where he covered the Moscow uprising. ***"Tanks were literally firing at the Russian Parliament building as rebels attacked the television station,"*** says Taylor. ***"Seven journalists were killed that night, including the legendary British combat cameraman Rory Peck. I was standing right next to him when the shooting started. As I hit the deck, he ran straight towards the action and, sadly, was shot and killed."***

Today the Rory Peck Award is one of the world's most coveted accolades. Given to exceptional freelance camera operators who have risked their lives to report on newsworthy events. Taylor filmed *Four Corners* in Sydney for twelve years, including ninety-eight complete episodes of the revered current affairs show. Each *Four Corners* shoot lasted about a month, and Taylor covered everything from US elections to the boxing day tsunami in Aceh and the war in Afghanistan.

There were a number of elements that required a lot of planning and consideration in order for Taylor to maintain a consistent style, especially creating an abstract and impressionistic look for the re-enactments in the series, but that's where the similarity with other documentaries ends.

"This investigation played out in real time as each part of the puzzle came together, so we had no idea where this story was going to take us until the very last interview," says Taylor. ***"The people we interviewed would be presented with documents and photos, then question each piece of evidence which would often reveal new information to help tell the story. All of this was glued together by journalists Meldrum-Hanna and her co-investigator Patrick Begley, sometimes they would investigate new leads in their office at the ABC. There were also several 'pieces to camera' in the car while travelling to meet some of the key talent, which explained where we were going and any new developments."***

Taylor filmed all three of the ninety-minute episodes over fourteen months in 2020 and 2021, meaning Covid was a major obstacle, especially as many of the on-screen talent were now elderly. The ABC was very strict on how we operated, we worked in a small team of four in the field, with journalist, producer, sound recordist and my-self, using minimal equipment which had to be cleaned and positioned away from anyone we filmed. Even locations within the ABC Ultimo headquarters and Studio 26 at Gore Hill required special permission from the ABC Managing Director.

"Our main set was the production office in Ultimo, it was a secure room hidden away with two desks and a cork board which became this kind of work in progress evidence board," says Taylor. ***"I had permanent lighting set up in this office which was very simply; two Kino Diva 400 and a flexible 2x1 LED in a dome mounted on the ceiling."***

All of the re-enactments were shot with a very limited budget and filmed quickly but carefully, with a few basic props and extras. Mainly ABC staff, friends or interns. The only real expenses were hiring an old bus, ferry and various period cars. Most of the props, the wardrobe and locations from the 1970s were sourced from within the ABC. The filmmakers used rehearsal rooms, training rooms, technical areas and empty offices, which Taylor says he filmed in a 'very stylised way'.

"I shot most of the re-enactments on my own with my own Canon C500mkii full-frame at 50fps and a 50mm cine-prime lens," explains Taylor. ***"Shooting with a very narrow depth of field*** (T1.2) ***helped me to disguise faces, locations and other details which might date the re-enactments. Other than the fire scenes, most of the re-enactments were***

Journalists Patrick Begley and Caro Meldrum-Hanna fin 'Exposed: The Ghost Train Fire' - DOP Andy Taylor ACS

directed by either myself or series producer Jaya Balendra. Our editor Lile Judickas did a fantastic job cutting these scenes, especially with the audio effects and amazing sound track by Mitch Stewart from music composition and production company The D.A's Office."

Andy has relied on his impressive collection of Canon cameras and lenses to get the job done for the majority of his thirty-year career. ***"Whether shooting for Netflix, television news or Instagram, I shoot everything on Canon cameras with prime lenses,"*** explains Taylor. ***"I have three cameras; Canon's first RF-mount cinema video camera, the EOS C70, and two full frame Canon EOS Cinema cameras, the EOS C700 full frame and EOS C500 Mark II. All of them are Netflix approved cameras, which is impressive. I work on the assumption that each client wants the highest quality output possible, so I shoot almost everything in 4K C-log3."***

The fire re-enactments on *Exposed: The Ghost Train Fire* were shot in a studio and required plenty of planning because the filmmakers wanted them to look as authentic as possible. ***"The replica ghost train was designed by Andrew Raymond and constructed by the ABC's scenic art department at Gore Hill, then assembled right next door in Studio 26,"*** says Taylor. Over five days inside the studio, with the guidance of safety adviser Gordon Waddell, pyrotechnician Lou Stefanel slowly and carefully burnt down the set. There were many specific shots that Taylor needed to cover in order to match eye-witnesses accounts of the actual fire back in 1979. ***"These sequences, which really helped tell the stories from the survivors, ride operators and eyewitnesses were directed by John Mavety."***

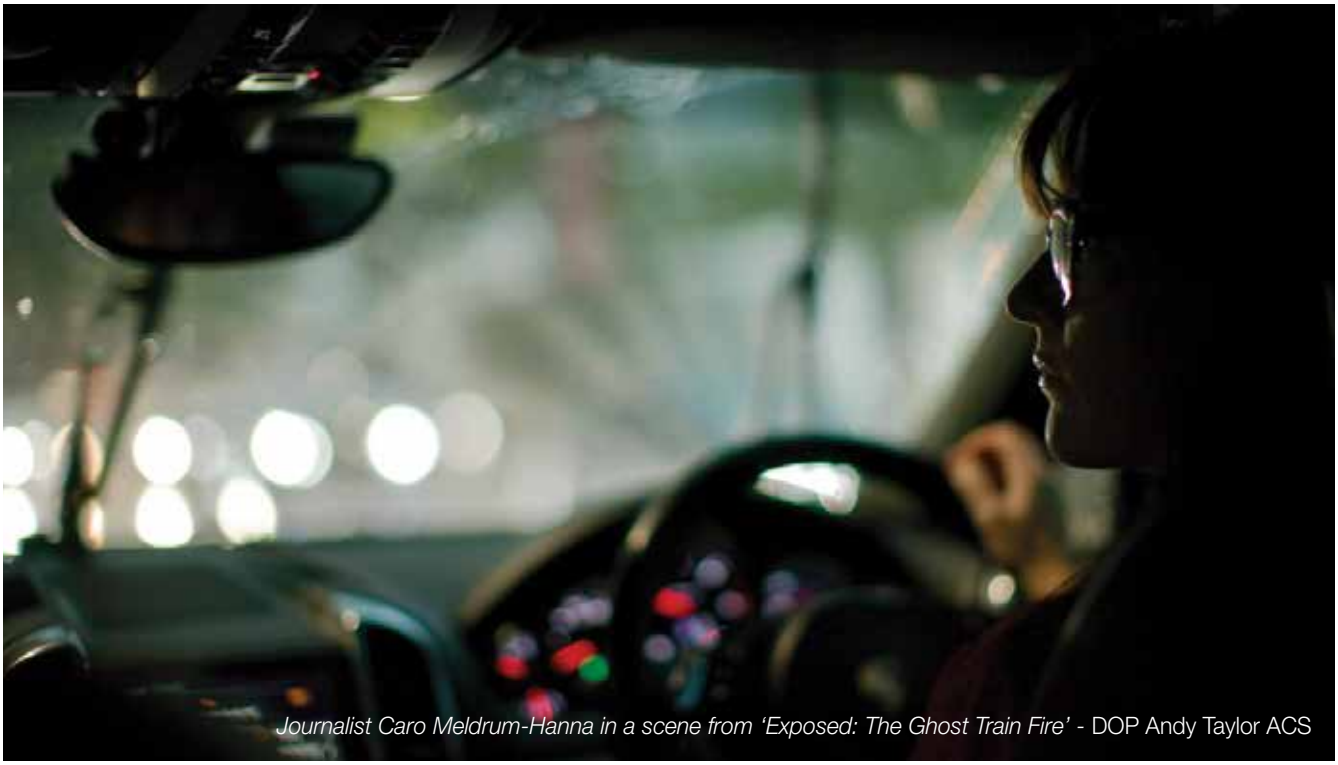
The fire re-enactments sequences worked out really well for Taylor, and after five days of burning the ghost train set in the studio they took the façade out to a quarry and blew it to pieces. ***"Those explosion shots are probably my favorites,"*** he says. ***"I especially like the way that some shots and scenes are played in reverse to give the impression of 'winding back the clock'."***

The cinematographer alongside second camera Andrew McClymont filmed all of these fire re-enactments using Taylor's C500Mkii and C700FF with primes. ***"We wanted to make sure that the flames and explosions weren't over exposed, keeping that deep orange colour,"*** says Taylor. ***"To achieve this and disguise the faces of the actors, I pumped in plenty of back-light using my Creamsource Micro LED lights and Aputure 300D Mk2, along with various coloured theatrical lights and strings of fairy lights to emulate a showground, which were provided by our gaffer Ben Viney."***

Taylor filmed at least seventy interviews for *Exposed: The Ghost Train Fire,* most of these people had never spoken publicly about the fire and some were extremely reluctant to talk, so the filmmakers tried to use minimal gear for the interviews. ***"Each interview was filmed using two cameras, one wide and the other tight, both low camera angles with lots of depth and a soft, blown-out window in the background,"*** explains Taylor. ***"Many of the interviews were four hours long. In fact, you might notice in some that it was nighttime outside by the time we finished! I was operating both cameras and data wrangling on the run."***

"The interview locations were all a bit weird, often sitting on a bed in my motel room, or at the kitchen bench. To establish each of the talent we filmed them hand-held from behind, walking through their house or down a path, then sitting down to be interviewed. The talent would introduce themselves in voiceover during these shots."

For Taylor, it's a question of thinking about what he is filming



Journalist Caro Meldrum-Hanna in a scene from 'Exposed: The Ghost Train Fire' - DOP Andy Taylor ACS

and making sure lighting is spot on. Selecting gear that an operator trusts and is familiar with is half the battle. Taylor always films with the aperture wide open and rarely zooms or uses zoom lenses. He relies heavily on Canon's powerful autofocus technology when shooting interviews.

Whether shooting interviews, b-roll, fly-on-the-wall footage, or landscape glamour shots, Taylor says the most important thing is to know your camera inside out, ***"I operate my camera now without thinking about it. After thirty years, it has become second nature, allowing me to think about what to shoot, where to position the camera and the lighting,"*** he explains.

The subject matter here is sensitive, and the crew try to be very respectful. ***"I think I approach most interviews the same way,"*** says Taylor. ***"When your eye is effectively in the viewfinder of two cameras at once and you're reacting to documents and photos being passed around, and data wrangling two backup drives at the same time, there is limited time to become emotionally involved, even though I do appreciate how distressing it is for the people we are filming."***

"I try to not let it affect me personally, which probably comes from shooting lots of very sad and upsetting stories over the past thirty years for **Four Corners** ***and*** **60 Minutes,"** he says. ***"Even though I do listen to every word, I guess I just detach a little and concentrate on my camerawork and lighting. My wife Jo was the sound recordist on the last few crucial interviews for this series, she found it very difficult to listen to the family's reactions when they were told what we had uncovered. Although, as a viewer, watching these interviews back in the fine cut, I did get a little emotional, I guess that's because I now had time to take it all in. Some of my friends found these interviews too upsetting to watch."***

Taylor had very little to do with post-production on the series, other than some data wrangle and sitting in on the colour grade which was done by Simon Brazzalotto at the ABC. ***"He did a fantastic job,"*** says Taylor. ***"I feel like he fixed up many of my lighting mistakes and really enhanced the archival shots and re-enactments, especially those flames."***

Even though Taylor and the Exposed team have received plenty of fantastic feedback and some great reviews, when he looks back at what he's shot all he see are his own mistakes. ***"Small things that nobody else would notice like inconsistent lighting on interviews that we couldn't fix in the grade,"*** says Taylor. ***"Mainly because the sun had gone down by the time the interview was finished!"***

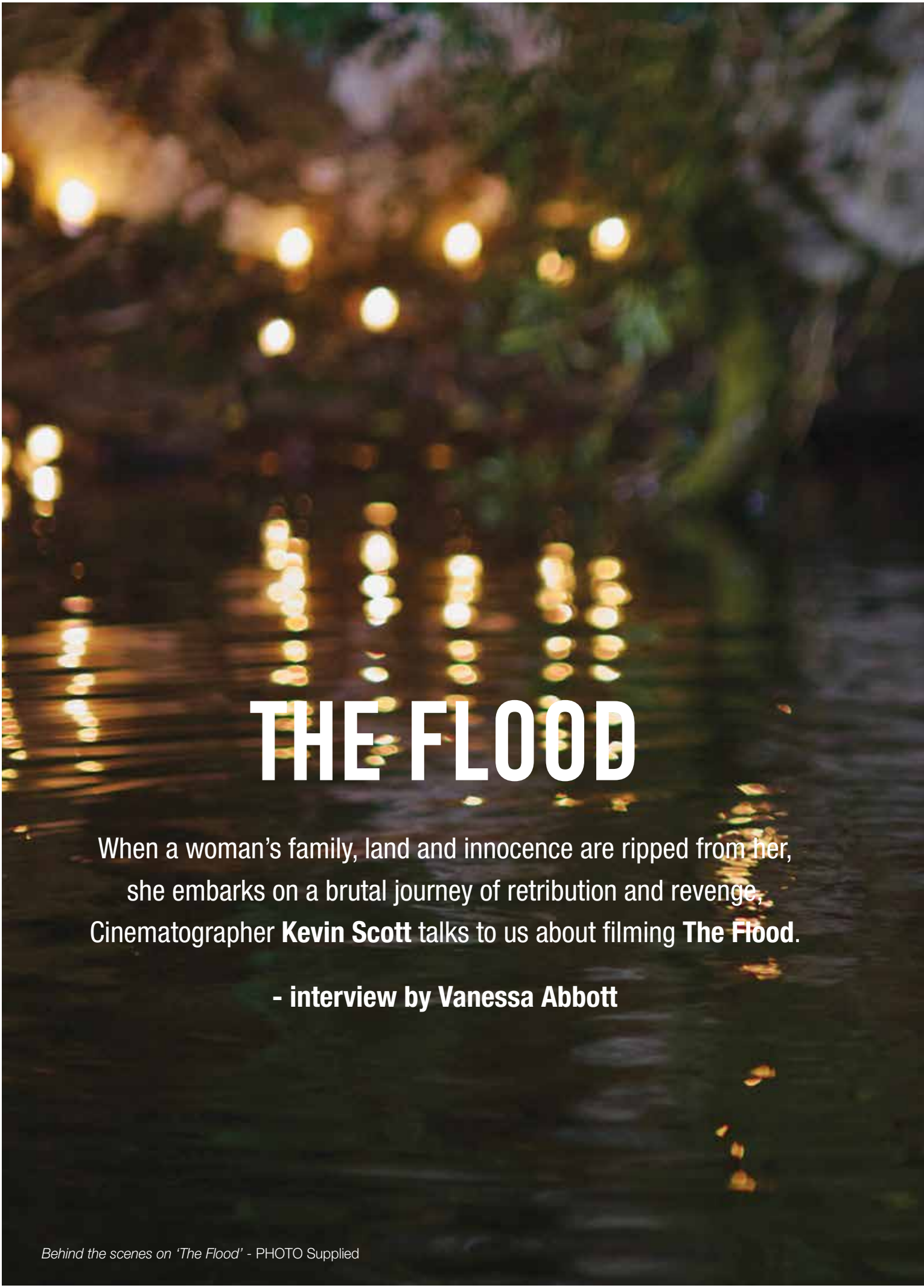
Around 250 research interviews were conducted on the phone and these were filmed in the office with GoPros. ***"Obviously not ideal,"*** says Taylor. ***"I would have preferred to shoot them properly. Due to Covid, on at least one occasion I had to shoot, record sound and produce remotely with the journalist conducting the interview via Zoom."***

In the end, Taylor is super happy with the result. ***"I think that this is a masterclass in storytelling from Caro Meldrum-Hanna, Jaya Balendra and executive producer Sue Spencer, along with a small but amazing team managed by production manager Susan Cardwell,"*** concludes Taylor. ***"It is a very sad and confronting story, especially for the families involved, but really well told with fantastic production values."***

Andy Taylor ACS is one of Australia's most experienced cinematographers.

James Cunningham is editor of Australian Cinematographer Magazine.

Justine Taylor is a manager at Canon Australia.



THE FLOOD

When a woman's family, land and innocence are ripped from her, she embarks on a brutal journey of retribution and revenge. Cinematographer **Kevin Scott** talks to us about filming **The Flood**.

- interview by Vanessa Abbott

Behind the scenes on 'The Flood' - PHOTO Supplied

Cinematographer Kevin Scott describes a shot to director Victoria Wharfe McIntyre and script supervisor Michael Wray, with Jake Iesu on Steadicam - PHOTO Supplied

AC **Can you describe *The Flood* in your own words?**

KF *The Flood* is a WWII, female-driven Australian western. It's a film with an important message and a story that most of us needed to see. It is not strictly a true story, but it is based on actual events, which is really quite astonishing and worrying looking back at it now.

It has very funny moments, some points when the cinema is silent, other times when people are in tears and some scenes where the audience simply cannot believe what they are seeing. It was filmed in and around Kangaroo Valley in New South Wales, which has stunning landscape that becomes an important part of the film, almost another character at times.

Told from a female perspective, Jarah (Alexis Lane) is out to seek revenge after her husband, daughter and land are taken from her during the war. Jarah is tasked with tracking down her husband who is in turn being tracked by a gang of local landowners.

AC **How did you first get involved on this film? Had you worked with any of the team before?**

KF I've been working with director Victoria Wharfe McIntyre for the past ten years. We've shot a few short films together that have done really well in Australia and overseas, so this film has been the natural progression of this partnership.

AC **What were your initial thoughts, in terms of cinematography, when you first read the script?**

KF McIntyre approached me with the script about eight months before shooting. We had time to work together and throw around ideas regarding the look of the film even before we officially started pre-production. We'd created a style on a film we shot together called *Miro* (2016) which we wanted to continue and explore. It was all about filming with

A scene from 'The Flood' - DOP Kevin Scott

Jarah (Alexis Lane) in a scene from 'The Flood' - DOP Kevin Scott

wide lenses only, a constantly moving camera and as many one-shot scenes as we could manage.

AC **What was your collaboration like with production designer David McKay and his team, early on?**

KF I've worked with David McKay before on a few films one of which he directed, so we knew each other well. He's one of those designers that has a knack of creating something out of very little. I'm not sure how he managed with the budget he was given but always seemed to come up with an incredible location where we could shoot in all directions. I love it when you are on a set and there's nothing you can't shoot, including outside windows. The detail was amazing, that really helped with *The Flood* just because of the fluid nature of the way it was being filmed.

AC **What factors did you take into consideration when choosing what cameras and lenses to use?**

KF We'd been working on filming predominantly with wide lenses. A couple of downsides to this are that sometimes the camera ends up physically very close to the actors, sometimes only inches from their faces. Eye lines had to be extremely accurate as they were so exaggerated. We'd already experimented in this style with Cooke anamorphic/i lenses and loved the look of them, however it did create real headaches with close focus, just from the very nature of being

Waru (Shaka Cook) in 'The Flood' - DOP Kevin Scott, PHOTO Supplied

anamorphic.

We decided to shoot *The Flood* spherical to take advantage of better close focus distances on the lenses. That meant we could really get close to the actors. After testing a few options we opted for vintage Leica R lenses which had been re-housed. The Leicas have terrific character and flare beautifully, in really rich colours. The vintage look would also help the fact that this is a period film. I would say we filmed 95% of the movie on the 28mm and the other 5% between the 19mm and 135mm.

To enhance the intimacy of our shots we also decided to shoot in full-frame and opted to film with an ARRI Alexa Large Format (LF) in open gate. The Alexa LF has such an amazing sensor and really lends itself to faces because it has such a natural look. So many cinematographers love the original Alexa sensor and the Large Format has all the advantages but because it's twice the size has an intimacy that the S35 sensor can't compete with. It also has virtually no noise in the blacks, even when you push it to the extreme. We filmed in ARRIRAW at 4.5K open gate with a 2.39:1 finish. We went out with the aim to film as many of the scenes as we could in one shot, even scenes with multiple characters which ran for multiple script pages. 90% of the film was on Steadicam.

Sometimes *The Flood* is subtle and other times it's really in your face. That meant that the occasions when the camera doesn't move, it creates a real point of difference. There's one scene in particular which is very harrowing; a four minute, eight-hander which plays out on a locked off 28mm. It's like watching actors on stage, but when I saw it in the cinema, the audience were deathly silent. You could have heard a pin drop so I think it worked.

We pushed our Steadicam operator with the big Alexa LF.

A landscape shot from 'The Flood' - DOP Kevin Scott

I feel that Steadicam is the perfect tool to film single-take scenes. We could design the shots to include wides, close-ups, horses and gun-slinging action all within one move and we could still see the landscape we were in, even on the close-ups. It was really enjoyable to do, if a little frustrating for the first assistant director, who would be putting the pressure on when we were two hours into filming a scene and the camera hadn't rolled yet. But just ten minutes later we had everything we needed.

AC **Can you speak about your own crew in the camera department?**

KF It's always the way with this type of film; you're trying to do things with not enough money and less time than it should take. You need really experienced crew. Jake Iesu did most of our Steadicam work and he was just great. He threw the rig around like it didn't have a full size Alexa LF on it. Between us, we could work through the shots which we needed but also tell the story and create the emotion which the director needed. We developed a great short hand which made things a lot easier.

Our first assistant camera was Drew English who I've worked with a number of times before. I sat in post-production and wondered how he ever managed to keep the film sharp with the depth he had. Being a full frame sensor, Steadicam and wide open we didn't help him much. Looking back it's a wonder he got anything at all, but he nailed virtually everything. Andy Robertson came on board as gaffer and he was up for it from the moment he read the script, which was great. I really lucked out with my crew.

AC **Were you filming mostly location work on *The Flood,* and how did you approach lighting?**

Waru (Shaka Cook) in a scene from 'The Flood' - DOP Kevin Scott

KF Yes, the entire film was shot on location. We scouted for several weeks prior to shooting, the director and I were hunting around way before we were officially in pre-production. It was all eventually filmed in and around Kangaroo Valley. It was trickier than we expected to find exterior locations. It sounds strange, but we had an awful lot of scenes in the bush and needed to make each location look very different from the others. They had to be individually very different places and spectacular enough that they are recognisable when revisited later in the film. That was crucial so our audience can follow where characters are, in relation to each other.

We avoided building sets as much as possible to keep costs down but were forced to build a pub, a gaol and a stockman's hut for the final shoot out. Everywhere else was found and dressed. I decided to make day scenes warm, vintage warm, so I used full-cover coral filters in camera of varying strengths on everything. Night exteriors were cool but always had warmth, looking onto windows or firelight etc. I didn't want any huge lights powering through windows for interiors so basically looked at the location we were in and what was already there, then just embellished that.

We pre-lit the interior of the pub set for day and night together so we could just switch between them. Scheduling and cast availabilities didn't work in our favour, so we had to switch between the two. All the hardware had to be hanging because in most shots we found ourselves seeing everything in the room, 360° degrees of it. That's what happens when you need wide shots and close-ups of everyone, all within a single take. It meant that lighting time was extended a little but once we were ready, we were ready for most things. The good thing was that the gaol and the pub were built in the same location. We lit the gaol then filmed there for three or four days. Whilst that was happening the pub build was completed and gaffer Andy Robertson was able to get in to start lighting it.

AC **How did you approach coverage, and how do you shoot for performance?**

KF McIntyre wanted to see the emotion on our character's faces. We'd already decided on getting in close to actors on wide lenses and this meant we would see the subtlest reaction in their expression. It took a little getting used to because very often we had to create close-ups by people either entering shot, us moving into them or simply by spinning 180° degrees to get a reaction. When that happened in such close proximity it was interesting.

Uncle Jack (Paul James McLeod) in 'The Flood' - DOP Kevin Scott

A scene from 'The Flood' - DOP Kevin Scott

We also had to be aware that if we put the camera in certain areas, it had the potential to affect the performance. We certainly didn't want to have the actors working around us so that was a juggle as well. We were lucky that everyone was really on board and excited about the style, which made things easier.

"Yes, the entire film was shot on location."

AC **How involved were you in post-production? Who was your colourist, and what was your intention in the grade?**

KF Although everything you see in the film actually happened, in the context of McIntyre's story it didn't have to look real. Consequently *The Flood* is heavily stylised. We had a good amount of time to grade the film and we were really lucky to have Billy Wychgel on board who has a terrifically creative eye. He got the idea of the film right away.

AC **Do you have a favourite shot or sequence in *The Flood*? Why?**

KF I would have to say the shootout scene in the pub. It's the very first time we see Jarah start to get her revenge. During pre-production, McIntyre said 'think Tarantino' for this scene. That certainly was taken on board and comes out in the edit. Petra Salsjö also wrote some brilliant music for Jarah to enjoy her moment. It all comes together really well.

AC **Looking back with the benefit of hindsight, what might you have done differently?**

KF Apart from fight for an additional three weeks in the shooting schedule, not much!

AC **Finally, do you know what you'll be working on next?**

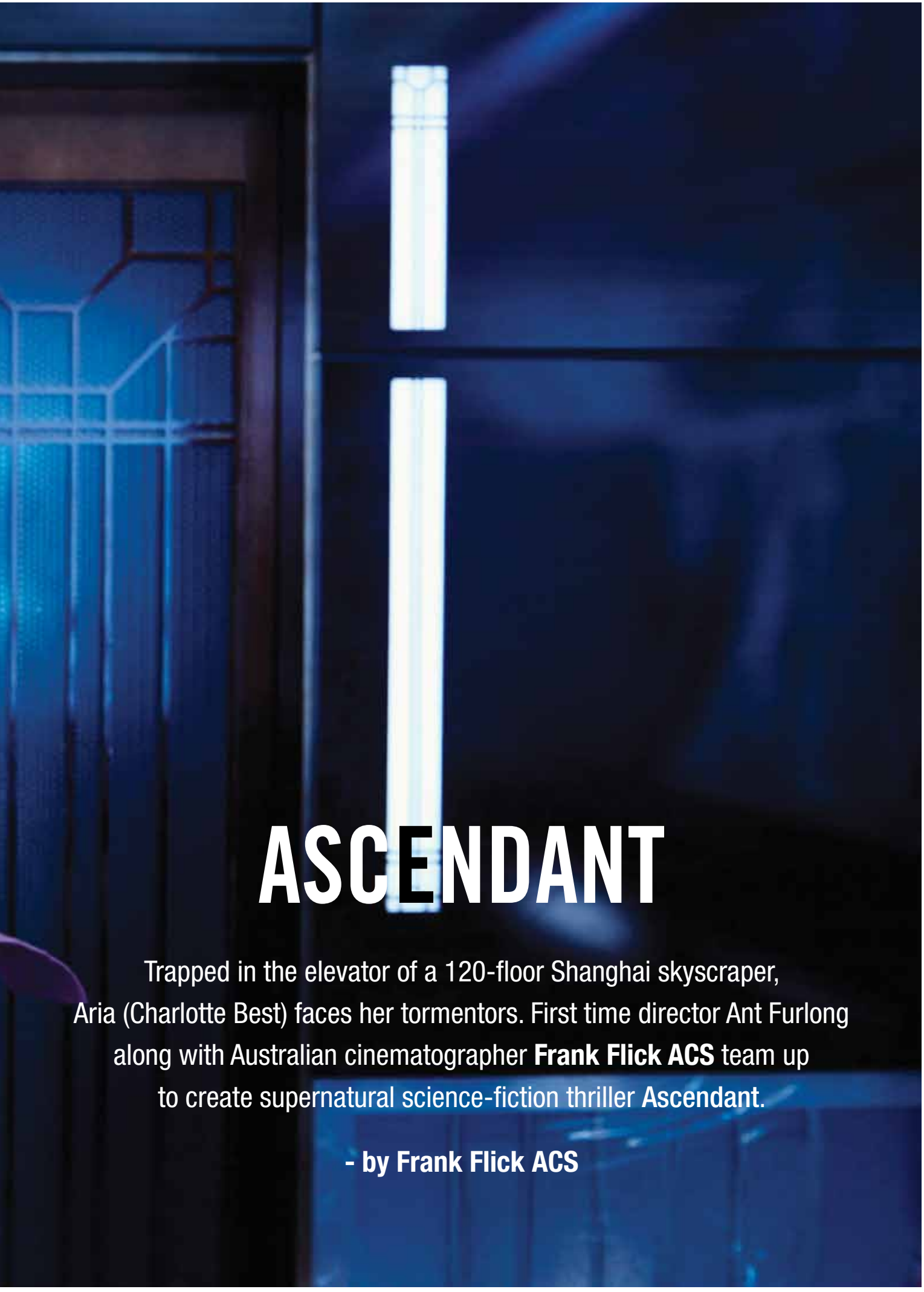
KF At the moment I'm shooting a documentary about Australian Country Music with Kriv Stenders. A bit of a contrast to *The Flood* but really enjoyable. The vintage Leica lenses are getting another go.

Kevin Scott is an award-winning cinematographer who has been working in the film industry for over twenty five years. He has worked on over forty feature films, and hundreds of commercials and documentaries.

Vanessa Abbott is a writer based in Sydney

Waru (Shaka Cook) and Jarah (Alexis Lane) in 'The Flood' - DOP Kevin Scott

Aria (Charlotte Best) in 'Ascendant' – PHOTO Simon Cardwell



ASCENDANT

Trapped in the elevator of a 120-floor Shanghai skyscraper, Aria (Charlotte Best) faces her tormentors. First time director Ant Furlong along with Australian cinematographer **Frank Flick ACS** team up to create supernatural science-fiction thriller **Ascendant**.

- by Frank Flick ACS

Front row: camera attachment Rocky Sovechles, cinematographer Frank Flick ACS, second assistant camera Carolina Duarte Izquierdo, digital intermediate technician Michael Easter, Back row: first assistant B-camera Hilary Crombie, video split Davide Carta, camera operator Ricky Schamburg, grip Isaac Conyers, first assistant A-camera Adrien Seffrin - PHOTO Simon Cardwell

Kidnapped and held hostage in a high-speed elevator of a 120-floor building in Shanghai, Aria (Charlotte Best) has no memory of her past, who her captors are or what they want from her. Pushed to her limits, she begins to realise she has incredible powers within, kept secret to protect her and her family. Unlocking these powers is her only chance to save both herself and her father (Jonny Pasvolsky).

The *Ascendant* shoot was scheduled for twenty-six days, with three days of additional photography done later. The skyscraper's interior sets and a Shanghai back lane set were built at Fox Studios in Sydney. Other locations included the Northern Beaches and Centennial Park.

I was brought onto the film by director Ant Furlong, who I had worked with ten years prior on a short film. This was Furlong's first feature film as writer, director and producer.

I was fortunate to collaborate with various key crew members that I have worked with for many years; gaffer Michael Adcock, key grip Gary Lincoln, first assistant camera Adrien Seffrin and stunt coordinator Glenn Suter. They are all highly experienced and awesome at their jobs.

The script for *Ascendant* and Furlong's approach to it meant that approximately 85% of the film plays inside an elevator. The way the kidnappers reveal themselves and communicate with Aria is via the elevator's large advertising screen. For all

Aria (Charlotte Best) searching for a way out – DOP Frank Flick ACS

Director Ant Furlong discusses a shot with Charlotte Best. In background, cinematographer Frank Flick ACS, camera operator Ricky Schamburg and first assistant camera Hilary Crombie – PHOTO Simon Cardwell

these interactions Furlong wanted the camera to stay within the elevator, only showing the tormentors on the screen, more or less from Aria's perspective. Whilst I thought this approach could be great to emphasise the terror that Aria endures, I also felt that shooting so much in a 3x3m box was an extra challenge in terms of keeping an audience engaged.

One of our references for a similar, even more constricted, scenario was the film *Buried* (2010, cinematography by Eduard Grau), which plays entirely inside a coffin showing only a single character Paul, played by Ryan Reynolds, for the entire film. *Buried* is a great example of how to effectively enhance a story visually within the most restrictive setting.

As for our film, Furlong and I felt the elevator should appear like one of the villain's collaborators. A character with changing moods and looks, occasionally cozy and warm and at other times threatening and scary. I also wanted to be able to let the elevator walls fall into complete darkness at times, to help us feel Aria's isolation.

Our production designer Fiona Donovan sketched an elevator that looked sleek and high-end. Most of all, Donovan's design allowed me to stick with my early plan to use very little film lights inside the elevator, but instead to rely almost entirely on the elevator's practical light design.

We had Astera Titan LED-tubes within the wall sides and LED

Charlotte Best and Jonny Pasvolsky in 'Ascendant' – PHOTO Simon Cardwell copy

Charlotte Best in in a scene from 'Ascendant' – DOP Frank Flick ACS

strips along the floor and ceiling peripherals. The dark bronze and brown elevator panels were mainly illuminated with the Astera tubes running at between 2300K right up to 9000K, depending on the scene. Above the opaque set ceiling we suspended two Skypanel S360s, which we ran at between 4000K and 6000K. The cameras were balanced to 3200K. Everything was run through a DMX-board and almost all sources allowed total RGB control.

Within the story, the building is still under construction and the film's villains have hacked into the elevator to control it and to torment Aria. This narrative gave us justification to frequently and dramatically change the look of the elevator. DMX-board operator Scott Rogers created awesome in-shot lighting changes that always suited the mood of a scene.

"For the scenes between Aria and her father, it helped to convey their connection despite their real physical distance to each other."

For the shots inside the elevator that involve the large advertising screen, we decided to shoot all screen footage of the villains first and then live project it onto the screen as we shot Aria inside the elevator. Having the light of the real screen footage fall back onto Aria and onto the reflective elevator walls was for me a much more sensible approach than, as one pitching post-production house suggested, using the monitor wall as a chroma-screen and having all this done as composite shots.

I had done tests earlier and knew that even for the reverse shots away from the screen it worked well to use the screen projection as a light source. All we needed to do was apply brightness adjustments to the projected material. Playing the real footage also had the big advantage that our lead actress could work to the performances of the other actors appearing right in front of her.

The screen footage was meant to look stylised, as if the feed came from an amateur video camera that would often suffer from interferences. Our fabulous digital intermediate technician (DIT) Michael Easter was quick to establish a look for this footage and test the whole work pipeline for the screen feed within the little test time we had. This included transcoding all original screen material, which was shot on a RED-Dragon in 6K - to enable later blow ups if needed - feeding into the on-screen graphics computer, outputting onto the screens and monitoring through our production cameras - ARRI Alexa Minis - within our elevator environment.

Ascendant was filmed using ARRI Alexa Minis in 3.4K ARRIRAW and RED Dragon 6K cameras, with spherical Zeiss Ultraprime and Panavision anamorphic G-series and T-series lenses.

Another projection solution needed to be found for the shots seeing out of the partly see-through elevator door. We decided on back-projecting in 2K resolution onto a 12x12ft screen rather than using LED panels. As the elevator is often moving, occasionally free-falling, a wide variety of computer generated plates were created for various scenarios and camera angles. At times, we converted the back-projection system into a blue screen and had certain shots become visual effects composites.

With the recent developments in virtual-background solutions, such as Industrial Light & Magic's StageCraft Volume set, I hope we will soon see more sophisticated projection options that can also be considered on lower budget films.

In terms of framing and camera movement we wanted to consider Aria's isolation as well as the geographical connection to her tormentors. I did not want a handheld-observational feel, but rather controlled moves that did not distract. We used a combination of sliders, dolly and a 10ft

Richard (Jonny Pasvolsky) finds himself in deep trouble - PHOTO Simon Cardwell

Alex Menglet as Yaro and Justin Cotta as Anton in 'Ascendant' – DOP Frank Flick ACS

Scorpio crane, which gave us a lot of flexibility.

Donovan's elevator design gave us the option to remove single panels of the small set or take out a whole wall for greater flexibility. The second option was more time consuming and therefore only utilised during the last week of the shoot when we put our set onto a hydraulic gimbal. Here we filmed all of Aria's wire stunts with the simulated elevator falls.

We had plenty of intense scenes to shoot that only involved our lead actress. Best's workload was immense, emotionally and physically. In order to not exhaust her performance Furlong wanted to run two cameras at all times. Occasionally we would shoot close-ups before a scene master so we could capture Best's strongest performance in tighter coverage.

I was grateful for having Ricky Schamburg as second camera operator. His creative input was outstanding. Many of the shots looking back at the villains on the screen were set up as 'dirty', over-the-shoulder shots. I thought this worked particularly well to bring the villains closer to Aria, making them appear even more threatening. For the scenes between Aria and her father, it helped to convey their connection despite their real physical distance to each other.

"I was thrilled when asked to help light some of the computer-generated images."

We also shot all screen footage from a neutral perspective as well as Aria's point-of-view 'clean' from relevant angles. This gave valuable options in the edit. Furlong likes to sell performances in big close ups and did not always want to use the wider 'over shoulder' shots in the edit.

There are quite a few flashback scenes in *Ascendant*, also, which leave clues about who Aria really is. For these scenes and for the ending we wanted to give the audience a chance to 'breathe' and to give them some visual relief. Apart from

One of the many lift shaft computer generated shots created by Stage 23 – DOP Frank Flick ACS

Lily Stewart plays Zara, Aria's sister in 'Ascendant' – DOP Frank Flick ACS

shooting wider shots, I suggested to switch to anamorphic lenses. We shot tests with Panavision's G-series lenses and Furlong loved their look, the different bokeh and flare characteristics. Panavision Australia did a wonderful job chasing down Gs and Ts for us at a time when they were hardly available.

Another visually important element in the film, but also in terms of storytelling, is the vast elevator shaft that makes up part of the 120-floor building. The script includes scenes where Aria briefly climbs out of the elevator through a broken wall panel. For these scenes a shaft-set was built, 20ft high by 30ft wide, later to be extended with CGI to show the vastness of the building's structure. We used the 30ft Scorpio crane to follow Aria as she negotiates the beam structure of the shaft.

On top of that, visual effects company Stage 23 in Sydney, headed by visual effects supervisors Jonathan Hairman and Christian Debney, created a great number of spectacular computer-generated shots showing the elevator slowly moving through the enormous shaft or plunging at breakneck speed. The quality of their work was outstanding.

I was thrilled when asked to help light some of the computer-generated images. Lighting in an environment where you don't have to worry about the physical limitations of your location is a treat. And then there is the magic of the - what I call - 'perfection and imperfection layers', adding elements like flares, smoke, lens dirt or depth-of-field to simulate the real world.

It was simply fantastic to join Furlong and help make his project a reality. He is an extremely passionate filmmaker, and a great collaborator who knows what he wants but is also open to new ideas.

Ascendant was released in Australian cinemas in April.

Frank Flick ACS is a Sydney-based cinematographer and camera operator who works in feature films and other long format productions as well as television commercials.

Young Aria (Tahlia Sturzaker) embraces her father (Jonny Pasvolsky) – DOP Frank Flick ACS

NEW GEAR

Peter Falk ACS shoots week of tests at a new LED virtual studio in Melbourne called 'Dreamscreen' - ***by Peter Falk ACS***

Behind the scenes on the Dreamscreen promo shoot - PHOTO Supplied

Since Disney's *The Mandalorian* burst onto screens with great fanfare, filmmakers around the world have been familiarising themselves with the notion of virtual studios and accustoming themselves to the new terminology that has followed. I had the opportunity to experience it first hand late last year, when a company called Dreamscreen, led by director Clayton Jacobson, was formed to create a virtual studio in Melbourne.

A five day shoot was planned to produce a demo reel for the company. The LED Volume to be built comprised a 17.5m wide by 4.5m high wall with a five degree curve, and built from 306 LED panels with a matching LED ceiling and two 4m by 3m floating LED walls.

There is a head spinning amount of technical and promotional material about virtual studios or "Volumes" on the internet but I can assure readers that the approach from a cinematographer's point-of-view is a familiar one.

The Dreamscreen project was to be a short reel comprised of various scenarios filmed with virtual environments. The first step was to find those environments. In other words, a location survey. It's just that in this case it was a virtual one. The virtual environments could be computer generated, could be footage filmed on a real location, or could even be still photographs.

For the Dreamscreen project, we primarily used computer generated environments initially designed for computer game creators, available for purchase through the Unreal Engine Marketplace. These environments are purchased as kits that can be configured to the user's design. A kit might include buildings, landscapes, trees, vehicles, props, and so on.

What is interesting from a cinematographer's perspective is that not only are the components configurable in multiple ways, in most cases so is the lighting and the light sources. For example, the sun's position could be moved across a sunset skyscraper view at my whim to choose whatever mood or effect I wanted, with the shadows and the exposure changing as the sun was repositioned around the sky. I don't have the experience with Unreal Engine to do that myself, but the director and I talked through the image as a third person made the adjustments as we were discussing them.

From there the environments were sent to one of Dreamscreen's partners, visual effects house Method Studios, where the talented artists enhanced them to photo-real quality suitable for presentation on high resolution screens.

The fact that the cinematographer can contribute to the choice and the look of the virtual environments is one of the key benefits for a cinematographer of using an LED volume versus green or blue screen. When the VFX work is done in post, the cinematographer is often no longer much involved and the resulting CGI content might not be continuous in style with the rest of the production. Here, the cinematographer can offer their input as part of the preproduction process and maintain control of the look.

Once in the virtual studio and preparing to film, if any of the setting up tasks seemed new and a little daunting, I didn't have to worry because the company's team was made up of people who were experts in their fields and I was doing none of the pre-production just by myself.

An early task was to get the colour temperature of the LED panels as close to 5600°K as possible, so that there was a common base for any supplementary lighting. I did this in a very low tech way by having the LED panels emit a white light, taking readings with the camera's in built white balance tool and then adjusting the colour of the 'white' LEDs until they registered as 5600°K.

When filming in a large LED Volume, the entire virtual environment is not usually shown at full resolution, as that requires massive amounts of computer processing power. Instead, only what the camera sees in the frame is at full resolution and with correct parallax. The term for this area on the LED wall is the 'frustum'. The frustum is just slightly larger than the lens' field-of-view, to allow for any minute lag in the movement of the virtual environment in relation to the camera movement.

To pair the frustum with the field-of-view, the camera was tracked by twenty four tracking cameras placed at points above the set. These tracking cameras sent my camera's position on the set back to the software controlling the frustum. To accomplish this, a rig dotted with reflective spheres was attached to the camera above the lens and some additional reflective spheres were attached to the camera body. These did not impede my operating or the rigging of the camera.

Also sent back to the computer was the lens focus information. To determine the

frustum and the nature of the image within it, the software needed to be told the focal length, the iris and the focus point of the lens. Traditional lens encoders cannot be read by the Unreal Engine software, so we used a Glassmark Lens Encoder, designed specifically for this purpose. If a background object in the virtual environment was 100ft away from the foreground subject in the real world, and the foreground subject that the camera was focused on was 20ft away from the LED wall, then the camera lens would capture the focus drop off for the first 20ft and the computer software would create the focus drop off effect for the remaining 80ft. The data being sent to the computer from the encoder is just a number and not the actual focus measurements, so each lens had to be 'mapped' so that the computer knew what number related to what distance for each lens.

The total resolution of the curved wall was 5712 x 1512 pixels. Framing for 2.39:1, the highest number of pixels that could possibly be in frame at one time would be 3614 x 1512. I used the theory that filming with a camera with greater resolution than that would remove moire on any shots that showed the whole height of the curved wall. Our principal camera was the Sony Venice at 6K, paired with Cooke S7/i Full Frame prime lenses, generously provided by VA Hire. We also filmed with a Phantom VEO 4K paired with Cooke Mini S4 primes on a Bolt motion control rig, and also with a Sony F55 at 4K paired with Sony CineAlta primes. The camera and all the computer systems were gen locked via an external sync generator.

In lighting the set, I approached my job as I would in any filming situation; I assessed the light that was there, some of which I had chosen in pre-production as part of the virtual environment choices, and then chose what I would use of that and what I would augment or cut. The difference was that sometimes augmenting or cutting was with virtual tools and other times it was with traditional filmmaking tools.

With most of the scenarios, the main source of light was the virtual environment. In some instances, it was the only source. When I added supplementary lighting, it was either to create a harder light, some gentle fill or to mimic some aspect of the virtual environment. It was also a joy to watch the reflective surfaces of the real subjects interact with the virtual environment. No more green spill!

"A fascinating and new phenomenon for me was the use of real-time human avatars."

Using the ambient light from the virtual environments was appropriate for the Dreamscreen reel, especially seeing as how I had been involved in their choice, but there would be times when a cinematographer might want to override the lighting in the virtual environments. Just because the virtual environment has a green hue, doesn't mean that your foreground subject has to be green.

Similarly, whilst the virtual environment creates ambient light for the Volume, one might still choose to sculpt the subject with film lighting or even to just add extra fill, negative fill or an eyelight. And if the virtual environment is dark, it might not provide any ambient light for the Volume at all. In other words, your approach to lighting the subject would be similar to what you would do on a real location. Accordingly, access for lamps around the Volume is a consideration.

Any supplementary lighting had to be flagged off the LED walls because spill would lighten the black levels of the LED panels. We also found that we rarely used the ceiling LED panels closest to the walls because they too affected the black levels of the LED walls.

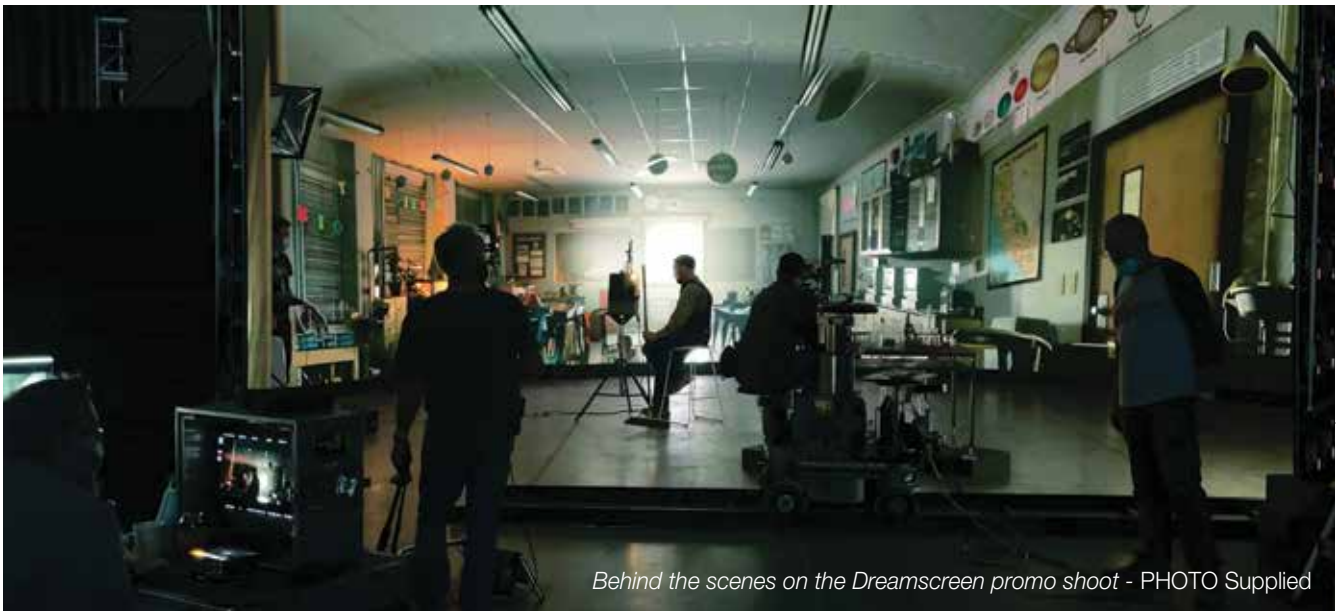
Many of the demo reels of virtual studios are similar; a person filmed in mid-shot in front of an out of focus background. Clayton Jacobson, the director, was resolute in proving we wouldn't impose such restrictions on a director in a real filming situation. For the Dreamscreen reel, foreground sets were built that blended into the virtual environment and which allowed head to toe filming of the actors. These sets were built on large rostrums with wheels, so that we could change from one scenario to another quickly. We filmed in four different environments per day.

A fascinating and new phenomenon for me was the use of real-time human avatars. The movements of any CGI human characters in the virtual environments were controlled in real time via performers wearing motion capture suits just off set. The team from Tracklab made this work flawlessly.

The obvious attractions of virtual studios include having lighting and reflections that interact with the subject and the props live, the ability to travel to far flung or extreme locations without leaving the studio, to film on a wide range of locations in one day, for cast to see what they are interacting with and for the cinematographer to regain a degree of control in the look of visual effects.

Filming in a virtual studio is an exciting proposition for cinematographers and filmmakers in general and it will get more enticing as the technology adapts to the growing demand.

Peter Falk ACS has had a long career working as a cinematographer, with credits ranging across some of Australia's most popular drama productions and award-winning music videos.



Behind the scenes on the Dreamscreen promo shoot - PHOTO Supplied

AUSTRALIAN SHORTS

Somali-Australian writer and director Kulan Farah shoots short film *Hakuumacaato* on 35mm alongside cinematographer Daniel Tan - ***by Vanessa Abbott***

Behind-the-scenes on 'Hakuumacaato' - PHOTO Tavis Pinnington

Hakuumacaato is entirely based on a theoretical conversation that Somali-Australian writer and director Kulan Farah had with his Islamic father. ***"It was asking about his ideas on homosexuality and the response made me want to explore what or how our relationship could look like if I identified as LGBTIQ,"*** says Farah. ***"From there the character of Liban and Imran were born, fictional characters based loosely off my father and I, and thus the story of this film."***

In 2016, Farah had written and directed a short film called *Seeker*, a film set inside the Nauru offshore processing facility for refugees, off Papua New Guinea. ***"One of the darkest parts of this country we live in,"*** he says. ***"I had shot the film on super 16mm and fell in love with the process as well as the results."***

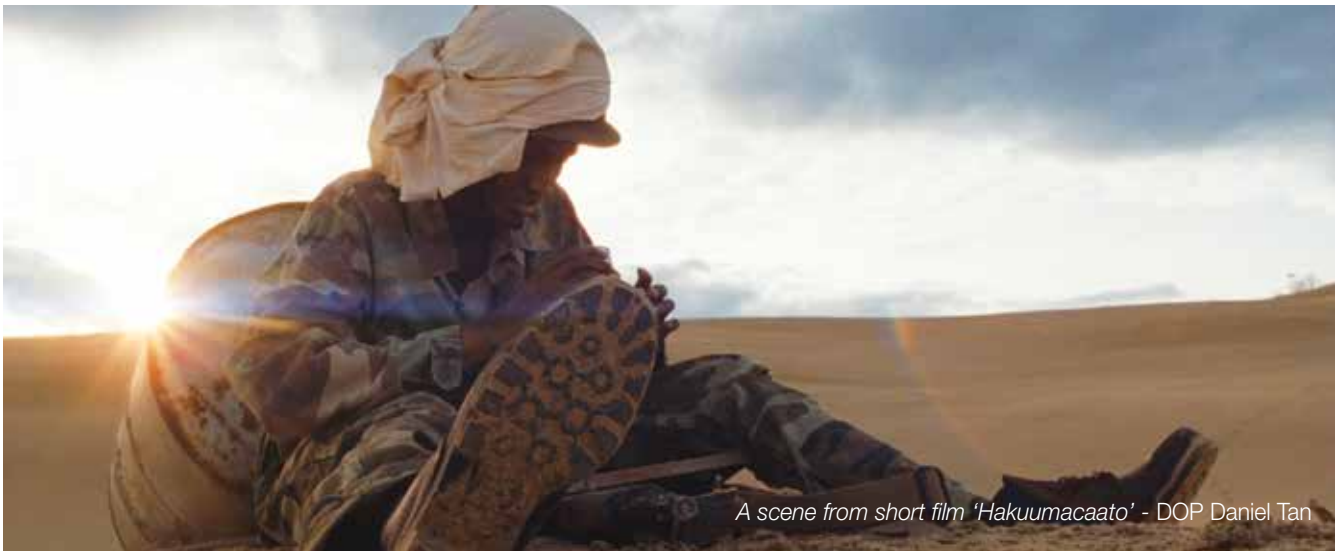
Farah knew he had to shoot his projects for the foreseeable future on film. After they were able to raise adequate funding for the production, Farah along with cinematographer Daniel Tan knew the only way to authentically tell this story was to go all in and shoot it on 35mm.

"The decision came down to a few elements," says Farah. ***"One being the mutual love for the films we grew up on. For people my age, most films we grew up on were shot on film, and a majority of those films on 35mm. The same goes for Tan who is older than me. We felt a certain nostalgic quality could help aid a story dealing with time, jumping back and forth between the 1990s in Somalia and modern day Melbourne, Australia."***

In terms of camera, Tan shot the film on an Aaton Penelope (2-perf) and an Arricam Lite (3-perf). ***"We knew that the aspect ratio of the film was going to be 2.39:1 based on the storyboards, so this was key in terms of picking what camera body we were going to use,"*** says Farah. Sometimes you just find a tool that works well for you and you run with it, that was the Penelope for Tan. It was lightweight which helped with all the fluid camera work which Tan pulled off by himself. ***"We had no problem using this beast of a body, and before I knew it Daniel was running-and-gunning with it despite the weight."***

The pair chose Zeiss Super Speeds MK II and Zeiss Ultra Primes based on aesthetic influences. ***"As the film was going to be jumping back and forth across multiple time periods, we knew we wanted a slightly more vintage look to the overall film,"*** explains Farah. ***"That instantly drew us back to the Zeiss superspeeds MKii's for the majority of principle production."*** They also used Zeiss CP2 lenses and Bausch & Lomb Super Baltars for selected sequences.

This opening desert sequence is the foundation of the entire film. Rough storyboards of the scene were the first thing Farah had brought to Tan even before a final script was written. ***"We spent two location scouts of the desert where Tan and I brought a 35mm stills camera and shot the entire sequence from start to finish to nail down our framing,"*** says Farah. Originally it was designed as one continuous shot but was eventually cut down in post-production. ***"It gave us the fluid, almost spiritual approach to the camera movement that we had hoped for, to most people's surprise we didn't use a Steadicam for any of those sequences. That's all Tan's operating with an Easyrig. The end result definitely puts you in the environment, especially on the***



A scene from short film 'Hakuumacaato' - DOP Daniel Tan

***big screen.*"**

In terms of finding frames within the interior locations, Farah and Tan first approached it by looking at a dinner conversation between father and son. **"*I knew that I wanted that scene to be a locked off wide and simply let the performance play out, almost like theatre,*"** says the director. **"*We used this frame as a reference and built outwards to decide the overall coverage and feel of every other interior scene within the house.*"**

From there, it was also a decision of what film stock and colour pallet evoked the right emotions. **"*We very much wanted this film to be immersive, so we made sure every location used its own ASA and colour pallet without making it look like a completely different film,*"** says Farah. **"*For this, I had to really put my directors hat on to make sure the supermarket and nightclub sequence didn't feel like a completely different film compared to the desert and other interior sequences. I feel being consistent on camera movement and focal length helped immensely not to take the audience out of the story and sticking to a singular vision.*"**

The nightclub scene is where audiences witness Imran (played by Farah) get high on a dance floor with his partner. **"*We knew we wanted this to feel euphoric in elements but with a hint of melancholia due to the voiceover that was happening underneath from Imran's father,*"** says Farah. **"*I wanted this scene to be shot entirely at 120fps, as this would immerse the audience and make them feel as though they are with my character in this circumstance. We shot the scene in a real, operating nightclub and hired a stack of background extras to be on the dance floor. A big part of it was using the available club strobe lighting that was built into the ceiling. We took it a step further by deciding we wanted blue and purple to be the two predominate colours of this sequence. It created quite a cool effect when at 120fps.*"**

In terms of coverage, Farah approached this film with a rigorous shortlist that he and Tan spent six months perfecting. The director then storyboarded the film, carefully choosing the colour pallet with his cinematographer. It was a very methodical approach within pre-production, but it gave the filmmakers freedom of being able to watch the film via storyboard before we filmed it.

"One of the darkest parts of this country we live in."

There were of course other factors at play, for example this methodical approach in pre-production gave the filmmakers freedom to know what they could explore on set and if we needed to push or pull their shotlist. **"*There is a frame of the film that made the cut that I'm very proud of, which we got completely on the fly,*"** says Farah. **"*Within a montage sequence when we see Liban*** (played by Noray Neberay) ***praying in his lounge room as a voiceover of Imran talking is heard. We see a close up of Liban pointing directly into the lens. I saw the actor on set do this prayer, I asked him about it and it was essentially a point to Allah towards the end of the prayer. I knew we had to capture it, even if it never made the cut.*"**

The film was developed by Werner Winkleman at Neglab Sydney. **"*He's the only one in the country I trust to develop my film and to my knowledge the only one who develops film at Kodak lab standards,*"** says Farah. **"*In terms of being involved in the photochemical process, the man has multiple decades of experience behind him, so it's very much a send to him scenario and he does his magic. He's developed all my projects over the years and he never misses. The man is a genius.*"**

Farah and Tan's intention going into the grade was to work with colourist Nick Hower to bring to light as best we could what we had already filmed. **"*We tried to stay as faithful to our story as possible,*"** says Farah. **"*Hower had a lot of prior experience grading film to begin with, so it was an extremely easy and fun part of post-production.*"**

The director says he's about 95% happy with the end result. **"*It took us three years from the writing process, through production and to post-production,*"** he says. **"*Only now, is the film starting to see the light of day within the festival circuit. I'm extremely happy and proud of Hakuumacaato, and I'd change very little about it!*"**

Kulan Farah is an Australian actor, writer and director known for *Shelter from the Storm* (2019) and *If I Quit Now* (2020).

LAST LOOKS

Getting to 'final pixel' in a virtual production workflow –
by Kevin Nguyen and Alex Shingles

Virtual production workshop in Brisbane - PHOTO Mark Broadbent

Even before behind-the-scenes photos of Disney's *The Mandalorian* got filmmakers all over the world geeking out over the technology's potential, the concepts behind virtual production have found their way into the cinematographic process. From pre-visualisation of key action scenes during pre-production to monitoring low-poly renderings of motion capture performances on-set, the scope of virtual production in filmmaking has only begun to open up. One area of pre-visualisation that seems to be the most natural use of the technology and simultaneously confounding in the scope of it's application is the use of LED screens to display virtual set extensions in-camera, allowing actors to deliver performances in a living, breathing environment and to break beyond the realm of 1s and 0s that would traditionally contain them.

Usually this technology is locked away in the dungeons of mega-visual effects houses, but this past month, Cutting Edge in Brisbane, in collaboration with Big Picture Technologies and ARRI Australia, allowed us into Edge/Lab, their research and development space, and hosted a live demonstration of this technology in action. Attendees, who included members of the Australian Production Designers Guild (APDG), Visual Effects Society (VES) and our own ACS, were able to get literal hands-on experience with Edge/Lab's virtual production setup, complete with truly giant LED screens, an Unreal Engine system and the ARRI Alexa Mini LF with Signature Primes, all hooked up in synchronicity. The discussion was spearheaded by award-winning cinematographer Jason Hargreaves ACS, along with head of virtual production at Edge Labs, Tim Schultz, and national sales manager at ARRI Australia, Sean Dooley.

Hargreaves, who had recently filmed the Screen Queensland assisted short film *Decommissioned* on the Griffith Film School sound stage, utilised the Unreal Engine to create parallax-correct rear-projection elements for the film, instead of relying on greenscreens. Now that the space is able to use HDR, low-pixel-pitch LED screens provided by Big Picture, he believes that for certain applications, this will be a key step towards breaking down a vast amount of creative barriers.

"I think the exciting thing about this technology, from my perspective as a cinematographer, is the fact that you can kind of use the interactive lighting that is coming off the screens," says Hargreaves. ***"I think that is an amazing aspect because you get the real reflections in people's eyes, and in objects, and glass and things like that. But it also allows you to shoot in places that you potentially could never afford to get to."***

Additionally, the quick and seamless

transition from a basketball court to a moving subway train demonstrates that the cost associated with allocating resources to locations at certain times of day is no longer a burden on creativity, since any natural environmental factors are entirely within your control in the studio. ***"This technology has the ability to streamline some production in terms of scheduling. You could potentially be shooting a desert scene in the morning, and then you could be shooting an Antarctic scene or a city scene in the afternoon. So in that aspect, it saves travel time, location costs, location fees, getting trucks there, all that sort of stuff,"*** he continues.

Streamlining the scheduling of productions won't be the only time-saving measure with this kind of capture method. ***"Having all key collaborators on-set able to see and approve of virtual production elements will also save a great deal of what would be usually spent in post-production,"*** says Schultz. ***"I think what this type of shooting offers is the interactive lighting and being able to see everything in camera. I think that what we are trying to achieve here is to be able to do in-camera visual effects and to get what you might call 'Final Pixel', or to get everyone on-set to make decisions and changes and be happy with the way it looks in-camera."***

One element that Shultz strongly indicated about this 'Final Pixel' concept was the inherent shift from what would typically be a post-production-heavy workflow towards one with significant weight in pre-production. ***"Decisions that might have happened in post might have to move into pre-production, but I don't think that's a bad thing,"*** says Shultz. ***"What we're going to start to do is we're going to have cinematographers, visual effects crew, production designers and directors all working together in pre-production to work out what they need to happen on-set. Obviously, there is going to be work that needs to be done in that early stage, but I think by doing that you're all going to work together virtually scouting and using virtual production technology, which is not just these LED walls."***

Both Hargreaves and Schultz indicate that cinematographers and production designers would need to work more closely with each other and their respective departments in pre-production. Having collaborative discussions as early as possible are key to ensuring the virtual environments are up to their technical standards in supporting their director's vision.

"Integrating production design, real sets and real props into the virtual environment, is essential for marrying up the reality and the believability of the scene I think. So the relationship between the production design department, production designer and the cinematographer is going to become even closer with this technology," says Hargreaves.

"If you're going to need ten different locations to go up onto these screens, then you're going to have to make those decisions about what those locations are, what time of day they are, who goes out and captures photogrammetry data, LiDAR scans or HDRis, and all of the technical things you then need to recreate that on the screens," adds Schultz. ***"Obviously, there is going to be work that needs to be done in that early stage, but I think by doing that you're all going to work together virtually scouting and using virtual production technology, which is not just these LED walls. It's real time animation and rendering so you can play out the shots before you film them."***

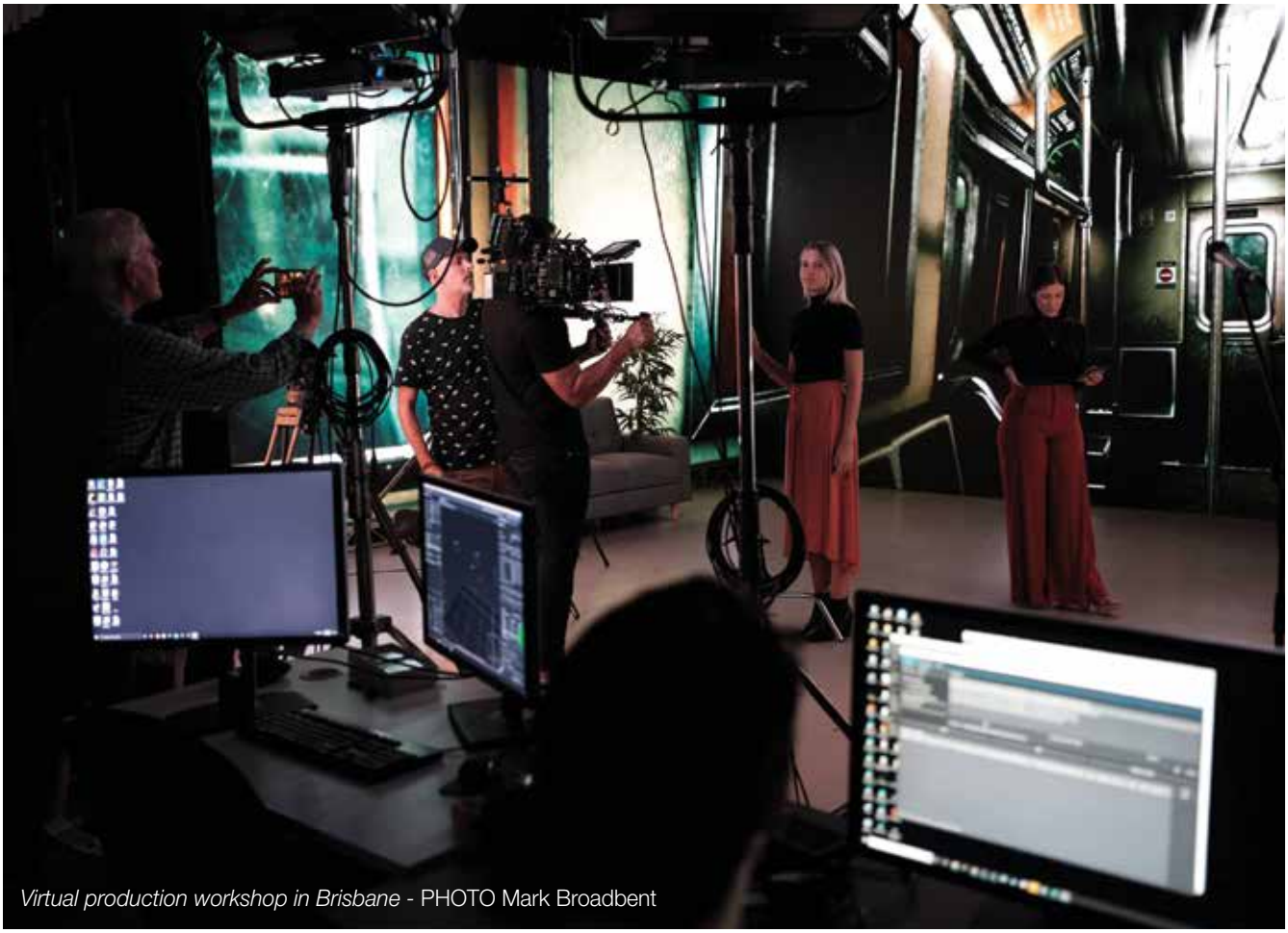
In regards to how to turn this strategy into an actionable pipeline, Schultz replies, ***"We were just talking to the APDG, some of the members there, about their creating all their sets virtually before they design them physically, so there are workflows that we can start to take those assets from them, while they build the physical one, we can start building virtual ones; then we can meld those on set so that they are extending sets."***

This technology is not the be-all and end-all solution just yet. ***"Some of the limitations that we are looking at currently with LED screens is obviously moiré; focusing close to the screen, the resolution that you're getting out of screens looks great when there's a soft focus to it, but when you actually pull focus to the actual screens you start to see the actual diodes themselves, which creates moiré patterns."*** Schultz continues, ***"You've also got the size of screens, and how big you need to build them if you want to get quite wide shots with sweeping camera moves. So yeah, you tend not to be focusing on the actual screens themselves, mid-shots and close-ups work really well, while if you want to do big, establishing wide shots, the screens don't really have the resolution and the size really, to be able to do those."***

Due to border closures between Queensland and New South Wales as a response to the Covid-19 pandemic, Big Picture's LED screens were unable to be delivered in time to shoot *Decommissioned*. Hargreaves opted to shoot using the Unreal Engine but projected through the gaffer's 20x12 silk. This flexibility allows the technology to be scaled up or down based on the production's budget and scope.

But the screens are only one part of the equation. The studio also needs a camera to capture all the content and sell the believability of the environment. For this demonstration, Cutting Edge had partnered with ARRI Australia to showcase how well the large-format sensor, paired with Signature Primes, can fool even a room of onlookers into believing what they see on the live-feed straight from camera is the real deal.

"I think we have a natural advantage in that the large format cameras that we have, have a lower resolution than other cameras on the market," says Dooley when asked about how the Alexa LF Mini's lower pixel density actually works to this technology's advantage. ***"So unlike having a 6K***



Virtual production workshop in Brisbane - PHOTO Mark Broadbent

or an 8K large format camera, we have a 4.5K camera, which clearly meets all the delivery guidelines for Netflix, but we have larger pixels which means that you can be closer to the screen without seeing moiré. I think the large format cameras are naturally suited to this type of production. They're already the ones being chosen for all the big shows like* Thor *and* The Mandalorian *who are using this technology, and it's a lovely position to be in where the tool that cinematographers are most comfortable with and is already chosen suits this technology so well, and so we don't have to have a massive change in the industry."

Lens engineering has increasingly become more important with the advancement of LED technology, and focus falloff is one of the key elements one must consider when choosing the right lenses for shooting against an LED volume. ***"One of the things we brought tonight are the Signature Primes, and we're about to release a bunch of tests that look into how focus fall-off is different between different brands of lenses,"*** Dooley explains. ***"You might think that if you have a 50mm lens at a certain focus distance, say six feet, that the depth-of-field would be the same, or rather the focus fall-off into the out-of-focus areas would be the same. But it's really not, and one of the ways that the Signature Primes were designed was to accentuate a really steep fall-off of that sharpness. You'll have an area that's sharp, and then it very quickly becomes out of focus, and that's really great for LED volumes where you need to throw the background out of focus in order to minimise moiré problems."***

Despite the uncertainty of how far this technology can go, and what limitations can and cannot be easily overcome, the one element that shone through from all three perspectives was how this technology will benefit creative expression.

"We've been a part of quite a few demos now and I think the thing that people take away the most from it is the realism within the space," says Dooley; ***"Especially in terms of an actor's performance, because they can really kind of see what environment they are reacting with."***

"What it allows for is a collaboration that probably has not happened before because you need to get it all done in camera and that's going to be the interesting thing: how we all work together, to collaborate, to make it look good," adds Schultz.

All in all, this technology will only continue to grow and undergo constant refinement as it makes its way to becoming an integral part of the filmmaking process. As for when we can expect to see our own dedicated LED Volume in Queensland: ***"I think it's only a matter of time before someone sets up a stage here in Queensland,"*** says Hargreaves. ***"It really is at the pointy end of technology and innovation. It is going to be a part of every filmmaking process, I believe, in the future. A film will shoot one or two scenes on the screens at some point, maybe not the whole film, but it'll become integrated into all films at some point, I reckon."***

Kevin Nguyen is a cinematographer and editor of the ACS Queensland newsletter.

Alex Shingles is a cinematographer and secretary of ACS Queensland.

The Cooke Look®
The Original Since 1894

Photo: Cate Cameron

"The project came up through my agent while I was in Australia. For me, it was great — a high profile comedy with Kristen Wiig.

We decided to use Sony's Venice camera loaded with the latest firmware update. When it came time to selecting the lenses for the project, Director Josh Greenbaum made it very clear from the beginning that he wanted to shoot in anamorphic 2.39 to capture the vistas in the film. We blind tested various anamorphic lenses and just kept going back to the Cookes.

With the Cooke lenses, I had a consistent look throughout the entire project. The 'Cooke Look®' is a number of things, some more tangible than others. What I really like about Cooke lenses is that they are not overly harsh. They give you ways to take the digital edge off the cameras, which are so sharp in higher resolutions — sometimes being too digital looking is somewhat unflattering. That's a concern of DPs worldwide. Cookes are sharp, but with a certain gentleness and are more flattering than other modern lenses... but it's not a vintage kind of look. It's sort of how they are made. They're infused with a hand-made quality that extends to the image as well.

Anamorphic/i

Primes & Zoom
From T2.3

Available in Standard and SF "Special Flair" versions

Primes focal lengths:
25, 32, 40, 50, 65 MACRO,
75, 100, 135, 180, 300mm.

Zoom: 35–140mm

We shot with high key lighting and lots of colour — bright ocean blues, oranges, and pinks. Those saturated colours handled well with the Cookes and I was able to use some mild diffusion with Schneider Radiant Soft Filters – they combined well with the Cooke Look®. I want to applaud Cooke because they have a lovely consistency across all their lens families. Having a similar look is really important to DPs, but I know when I put on the Cookes and I'm testing, that's what I get, and that's quite nice. It's a look that is carefully considered and flattering for the actors... and that can be the most important thing."

Toby Oliver ACS
Director of Photography
Barb and Star Go to Vista Del Mar

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FILM REVIEWS

In a year where a pandemic ruled, we look at the five films nominated for best cinematography for the 2021 Academy Awards - ***by Dash Wilson***

A scene from 'Judas and the Black Messiah' - DOP Sean Bobbitt BSC

JUDAS AND THE BLACK MESSIAH

- 1968, a petty criminal is arrested in Chicago after attempting to steal a car. Approached by FBI Special agent Roy Mitchell, he is assigned to infiltrate the Illinois chapter of the Black Panther Party and its leader, Fred Hampton (Daniel Kaluuya, *Get Out*).

Based on actual events, Director Shaka King in only his second feature film, has created a powerful and fresh film that is full of life. Teamed with renowned cinematographer Sean Bobbitt BSC (*12 Years a Slave, Widows*) the combination of colour and closeups for visual storytelling works a treat. Using an ARRI Alexa camera with DNA lenses, it brings a period look to each frame and also a touch of softness. On the performance front, Daniel Kaluuya is brilliant in his role but so too is Lakeith Stanfield as William 'Bill' O'Neal. It is a masterclass of acting that lifts the film well above the norm. Mark Isham's underrated score should also be noted here, its highly effective in its approach and execution.

Made on a budget of 26 million and sadly, only taking about 6 million, *Judas and the Black Messiah* will be a substantial loss to the studio. It is however, exactly what a film should be. Entertaining, informative and deeply emotional.

A scene from 'News of the World' - DOP Dariusz Wolski ASC

NEWS OF THE WORLD

- Tom Hanks's really is that actor who makes you feel like home. Whether it be *Forrest Gump, Castaway* or even *Sully*, Tom Hanks' films feel old fashioned and hearty and his latest, Paul Greengrass's *News of the World*, is no different.

Set in the 1870s at the end of the civil war, Captain Jefferson Kyle Kidd (Hanks), crosses paths with a ten-year old girl (an excellent Helena Zengel) taken by the Kiowa people. Forced to return to her only known family members, Kidd escorts the child across the harsh and unforgiving Texan desert and along the way they form the most unlikely of friendships.

News of the World was another Netflix release that went relatively unnoticed during the pandemic. Teaming with Greengrass, cinematographer Dariusz Wolski ASC (*The Martian, Prometheus*) has created a stunningly realised cinematic work. Using old-fashioned westerns as influences, as well as Roger Deakin's work on *The Assissination of Jesse James*, Wolski has filmed sweeping vistas of mountains, canyons and plains to great affect and whilst the story itself is entertaining, *News of the World* really is truly about its visual aesthetic.

A scene from 'The Trial of the Chicago 7' - DOP Phedon Papamichael ASC

THE TRIAL OF THE CHICAGO 7

- Written and directed by Aaron Sorkin (*The West Wing, The Newsroom*), *The Trial of the Chicago 7* was released back in September 2020 and has been gaining traction during awards season. Shot by veteran cinematographer Phedon Papamichael ASC (*Ford vs. Ferrari, Nebraska*), the film is broken into two major parts - the court case itself and the infamous Chicago riots.

While this is a film that is really well made on a techincal level, it is also one that I found considerably difficult to enjoy. Netflix has released this film with Oscar in mind. The cast is full of a-listers; Jeremy Strong, Michael Keaton, Sascha Barron-Cohen and Joseph Gorden-Levitt, just to name a few. All are fine in their roles but that's exactly the issue... it is just fine. The script is lacking something special. It is long, well-worded as always for Sorkin and there is a stirring, albeit cliché courtroom ending.

In terms of the cinematography, Papamichael does elevate the courtroom and riot scenes; especially through the clever use of varied light. He has applied the Alexa LF with expanded, anamorphic lenses to provide a period of distortion and grainy look. Just like the script, the shots here are interesting enough, but nothing we haven't seen before. There is nothing overwhelminglyh wrong with this picture, it is just very forgettable. If I was you, i'd watch Sorkin's directional debut *Molly's Game* instead.

A scene from 'Mank' - DOP Erik Messerschmidt ASC

MANK - David Fincher is such an interesting director. From Seven to The Social Network to Fight Club, Fincher has created some of the most entertaining and iconic films of the last thirty years. Mank, written by his father Jack Fincher, is his latest.

With an all-star cast including Gary Oldman and Amanda Seyfried, Mank was shot by Erik Messerschmidt ASC (Mindhunter, Raised by Wolves) who up until now has mainly worked on television. Filmed entirely in black and white while using RED cameras to pay homage to the films of the 1930s, Mank successfully transports us to the era of Orson Wells.

From a visual standpoint, there is no arguing that this is an outstanding technical achievement. The film's biggest flaw however is whilst it is incredibly well made, it is also monotonous, unexciting and at times incoherent. The performances are solid, it's pretty to look at but what was an excellent opportunity to teach and inform the audience of an important part of history, instead bores the audience because it fails to be compelling. The fault it seems is the screenplay.

Distributed once again by Netflix, this is another motion picture that seems to have all the right ingredients but someone feels completely manipulated and forced because it comes across like it's trying to win awards.

In terms of winning these awards, yes the production design will win an Oscar - its sublime, and to be honest, because it's an old Hollywood biopic it will likely win for best cinematography. However, the question should be, does it deserve to?

I truly hope over the next few years that more films are produced to be well made and entertaining because at the end of the day that's why people go to the cinema and arguably might go to explaining why less and less people are.

A scene from 'Nomadland' - DOP Joshua James Richards

NOMADLAND - *Nomadland* chronicles the life of a woman (Frances McDomand) who loses everything in the great recession and embarks on a journey through the sparse American West, living as a van-dwelling nomad.

Writer, director and editor Chloé Zhao (*The Rider*), has paired with partner and cinematographer Joshua James Richards (*God's Own Country*) to create a quiet, deeply affecting film that is stunningly realised. Using a highly effective mix of hand-held cameras, realistic lighting, natural tones and close ups, Richards has created a realism that grounds the entire picture.

"Whilst extremely difficult to summarise in just a few paragraphs, I was quietly blown away by this film."

With every single shot in this film, the characters and great American landscapes are brought to life.

Filming for *Nomadland* took place over four months in 2018, with Zhao splitting time between the set and pre-production on another film. McDormand, Zhao, and other crew members lived out of vans over the course of production. Oscar-nominee David Strathairn, along with real-life nomads Linda May, Swankie, and Bob Wells, also star.

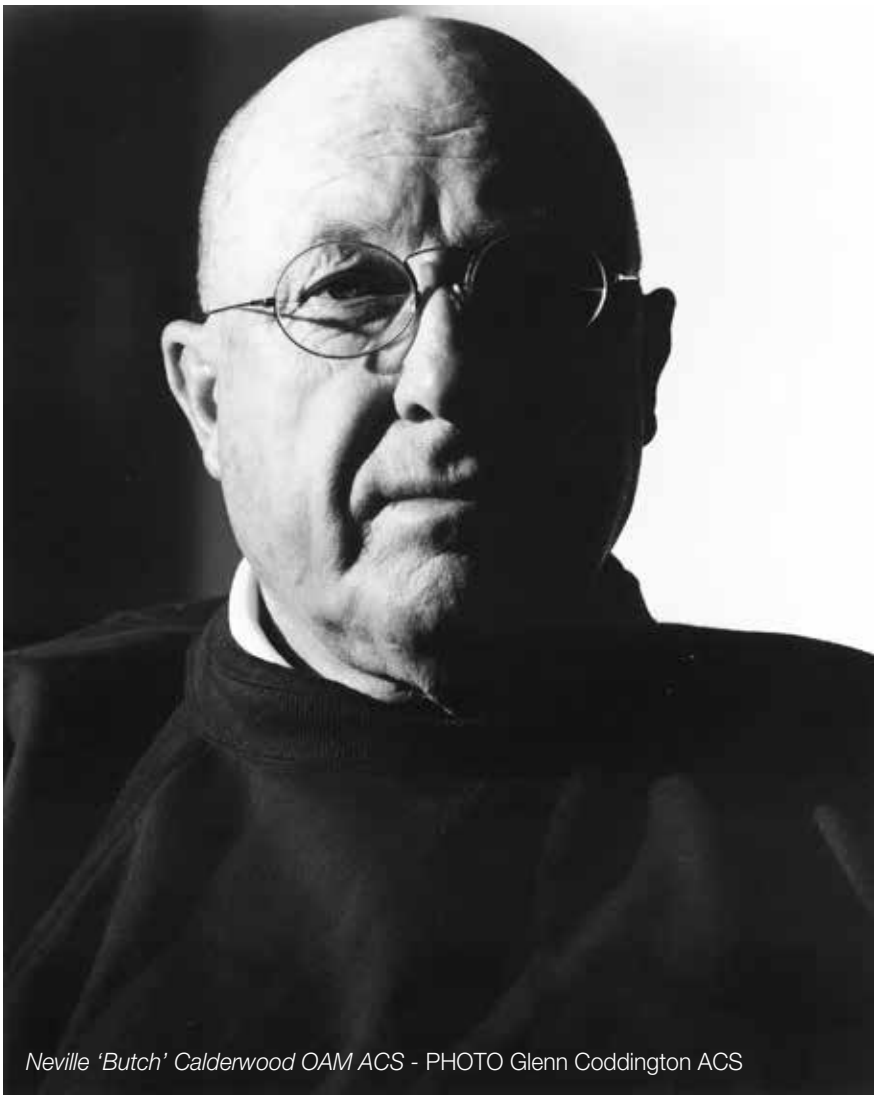
Whilst extremely difficult to summarise in just a few paragraphs, I was quietly blown away by this film. There is one particular scene of birds flying around in a cave that is so exquisitely beautiful, you completely forget you're watching a film.

Narratively it is extremely simple, but it is one that will get under your skin and make you question not only what it means to be alive but also what it means to be human. It is truly sublime work.

Dash Wilson is a film-lover and reviewer based in Brisbane.

OBITUARY

Neville 'Butch' Calderwood OAM ACS
17.06.1929 ~ 08.05.2021 - ***by Heidi Tobin and Craig Pickersgill***



Neville 'Butch' Calderwood OAM ACS - PHOTO Glenn Coddington ACS

Intrepid cinematographer and true professional, inspiration and mentor to many across the globe, Neville 'Butch' Calderwood OAM ACS is the longest serving editor of Australian Cinematographer Magazine, from September 2002 to December 2011. It is a part of his legacy of sharing pictures and stories to enlighten those around him to access information about the industry and the nature of this world witnessed through his lifetime.

Butch has been interviewed many times about his experiences, here we share his own words.

"I first got interested in pictures when I used to visit the Arcadia Theatre in Chatswood on Saturday afternoons. The first film that I can remember what happened in the film was The Prisoner of Zenda (1937) ***and it fascinated me. I thought that's what I would like to do when I grow up. I thought it was magic, and I wanted to be part of that magic."***

"I first got a job with BBC in London in 1952 with the General Overseas Service Shortwave Radio and managed to transfer to television. My first job in television was to polish the seals around the door that entered the control room and twiddling knobs to make sure the pictures were the right level or shape whilst on air. I then became the first film camera trainee with the BBC Television in 1955. I was influenced and mentored by a BBC senior cinematographer, who had the wonderful name of Tubby Englander, who used to turn out the most beautiful pictures. He was a bit temperamental, but I picked up a lot from him about how to take nice pictures and what goes into lighting a big set, it was absolutely fascinating."

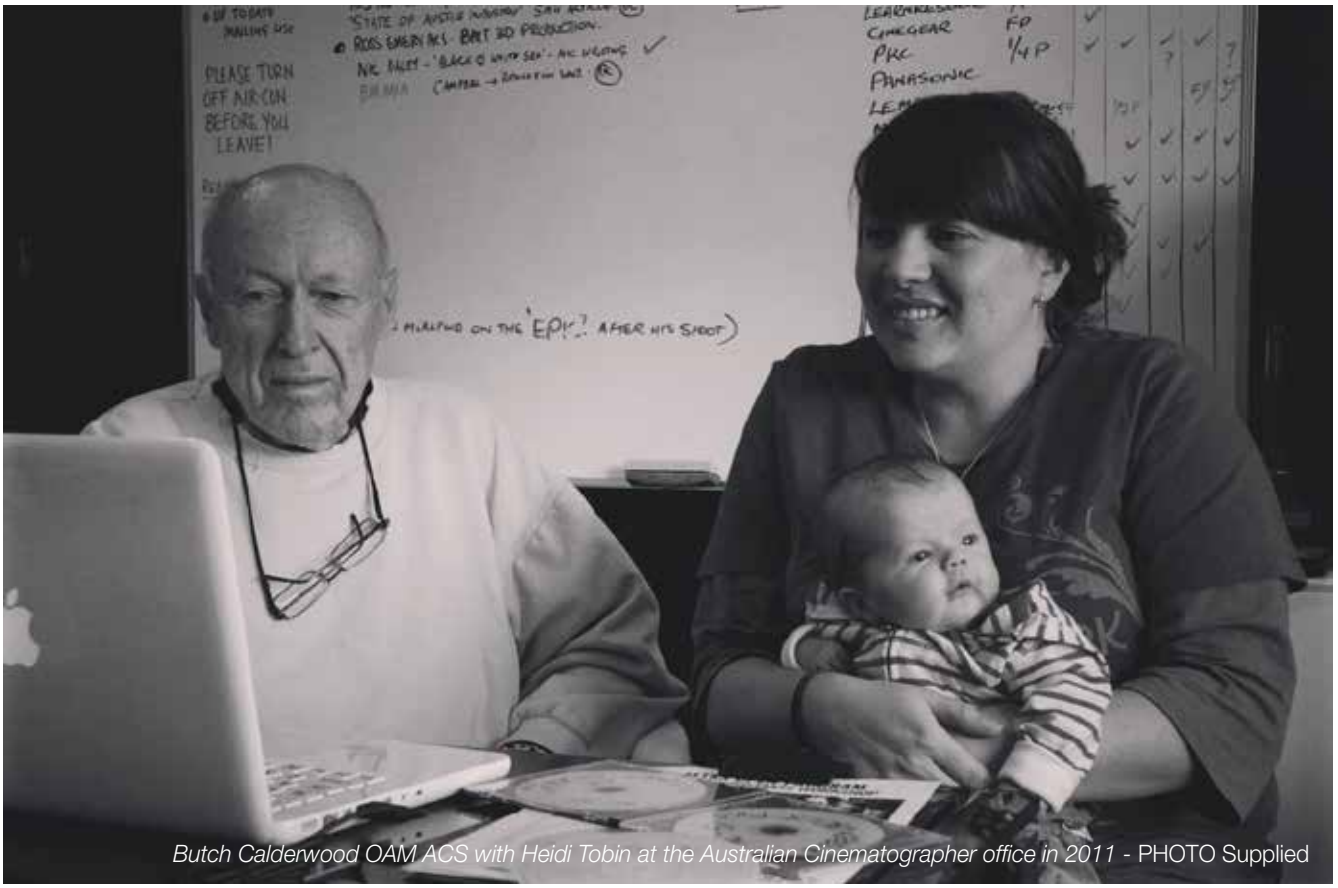
"One of the best lessons I learnt was to remember exposture readings and to be aware of how each scene was lit, or what the lighting conditions were. If you drop the exposure meter or break it or somebody steals it, you've got to keep shooting. I found that very important in my life because quite often I was working handheld during the war and had no time to take the exposure readings."

During Calderwood's extensive career, mainly with BBC's political program Panorama, he covered conflicts in Vietnam, Cambodia, India, Northern Ireland and throughout Africa and the Middle East. He worked at the 1968 Mexico Olympic Games, filmed wildlife documentaries in Africa and royal tours in the United States.

"In Vietnam you had to get right in there, you didn't have any option. Filming war from afar made it look like Hollywood. We would send our film cans back to London for processing by paying someone's excess baggage fees and someone would be waiting to collect them at the airport. I only saw some of them recently, including sequences from 1966."

"When your eye was on the viewfinder, you'd get that feeling of being perfectly safe, watching what was going on. You only knew what else is going on once you opened your other eye and sometimes you wished you hadn't. The thing I took away from it all was that war goes on, there will always be wars, they move across parts of the town and just around the corner from a street fight or a demonstration people can be carrying on with their normal life. Particularly in Vietnam, you could be out all day and then catch a taxi back to the hotel and have a nice French dinner and it would hit you."

In the United States, Calderwood once filmed a story with Andy Warhol who was directing his own film in an



Butch Calderwood OAM ACS with Heidi Tobin at the Australian Cinematographer office in 2011 - PHOTO Supplied

apartment on the east side of New York City.. ***"All these people were there, all the ones from the factory, the famous ones. I have no idea what the film was about because he made it up as he went along. Totally off the planet, totally different. Who today would make a fortune out of pictures of soup cans?"***

It was an exciting time to be working in the United States, the Apollo missions were going on and mankind was working towards people walking on the moon. Calderwood got involved by way of shooting a story on reduced gravity training flights called the Weightless Wonder.

"It was weird. You just did not know what was going to happen. If you had a meter on a string the meter would float up past your face. Everything had to be tied down and locked off; there was no panning, no zooming. My feet came off the ground when we went weightless. James Burke, the journalist, wanted to convey to the audience the new idea that in a weightless condition there is precisely that; there is no weight to anything. He wanted to get it across that it had never been done before, the thrill of weightlessness as he floated away. It wasn't funny when he tried to drink a glass of water, he held it up to his face and you can see the water just floating. Globules of water floating around. Nobody had ever seen that before."

Calderwood would come back to live in Sydney in 1981. ***"Shortly after that, I was headhunted by Channel 7. That was a whole new experience. Commercial television. I was doing news which I've never done. Channel 7 had the 11AM programme which was documentary stuff and I shot a lot of that for a few years, and then I got headhunted again by Channel 9 on a two-year contract, and then went back to Channel 7 and finally finished in 1995."***

"I joined the ACS in the early eighties. I got involved in all sorts of stuff, not just the magazine. I did awards judging and served on the NSW and National committees. The Society has changed so much since I joined, John Leake and I used to have a storage unit where we would collect interesting things and today you have the HQ with an archive, and a library. It's a wonderful place to come and visit."

"I got involved in Australian Cinematographer Magazine with Craig Pickersgill right at the beginning, we wanted it to be chatty and have lots of news pieces as well as articles that people would want to read and think about. You look at the magazine now, it's a very high-class production standard and the articles are contributed by the members. Its excellent and I love it."

Heidi Tobin is associate editor of Australian Cinematographer Magazine.

Craig Pickersgill is a founding Editor of Australian Cinematographer Magazine.

ANECDOTES

Oscar-winning cinematographer Dean Semler AM ACS ASC (*Dances with Wolves*) shares stories from an illustrious career - ***by Dean Semler AM ACS ASC***

Ingrid Semler and Jim Carrey with the fake Panavision magazine whilst filming 'Bruce Almighty' - PHOTO Supplied

Blockbuster film *2012* directed by Roland Emmerich (*Godzilla, Independence Day*) and costing US$200 million was at the time the biggest budget film I have ever undertaken as cinematographer. Filmed in Vancouver where tax incentives and low crew costs had already saved the production a lot of money, the film went on to make almost US$800million. Here's just one example of where the dollars went.

The interior of a gigantic building where ocean going catamarans used to be made was covered wall-to-wall with blue screen. 900 feet by 150 feet and 80 feet high. Jim Gilson, my gaffer, had drained every rental house in Vancouver of space lights and ordered enough blue kino flows to line the hundreds of square feet of blue walls top and bottom, while I used four 12k balloons plus regular lights for floor lighting.

A large section of the film was shot there with huge mechanical special effects also requiring a lot of power. We had thirty seven generators, five miles of cable, and god knows how much fuel was used every day.

I would stand and stare at the humungous set and have flash backs to my good old Film Australia days, in particular to ethnographic work in the highlands of New Guinea. Small crew, no assistant, gaffer or grips, just me with my trusty Eclair camera, a couple of small lights and a 1K Honda generator.

New Guinea was the only location I have filmed where there was no evidence of us. No tea or coffee cups, or phones… a truly happy and healthy strong race of people in a spotlessly clean village where not only had they built a traditional house for us to stay, but also a very small house right next door. Curious, I asked our guide "*Hey what's this little house?*" He answered me in that wonderful pidgin language, "*This house belongs to the machine that makes the electricity.*" Bingo, the generator!

Another wonderful memory is from when I was working with the legendary Jim Carrey on *Bruce Almighty* (2003). As well as being a great actor, Carrey is perhaps the best physical comedian there is today, maybe of all time. What a privilege it was to be close to the camera watching his genius at work.

Some actors don't change performance much after the first few takes, but he loves to keep going and going, changing and improvising without cutting the camera. Needless to say he doesn't like it when a magazine of film runs out. Carrey doesn't get mad, he just doesn't like to hear the 'fwup fwup fwup' of a magazine running out and the call to "*Reload!*" when he is approaching his best takes. With thousand foot magazines he's got a good nine minutes but with Steadicam it was down to about four… yikes!

I had to come up with a plan that would lighten the moment. The grips and props team had built me a massive fake Panavision magazine out of poly, like an eight thousand footer! As Carrey impatiently waited for us to reload during a scene, I called to my daughter Ingrid who was the loader "*Go get the new magazine, Ingrid please!*" She returned carrying the massive fake Panavision magazine, pretending it was really heavy. Carrey fell about when he saw it. He loved the moment, and loved the gag. I believe he has the 'super mag' on his wall at home.

Dean Semler AM ACS ASC was awarded an AM (Member of the Order of Australia) in the 2002 Queen's New Years Honours List for his services to the arts as an Australian and internationally acclaimed cinematographer.

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