CINEMATOGRAPHY ART

A Quarterly Magazine

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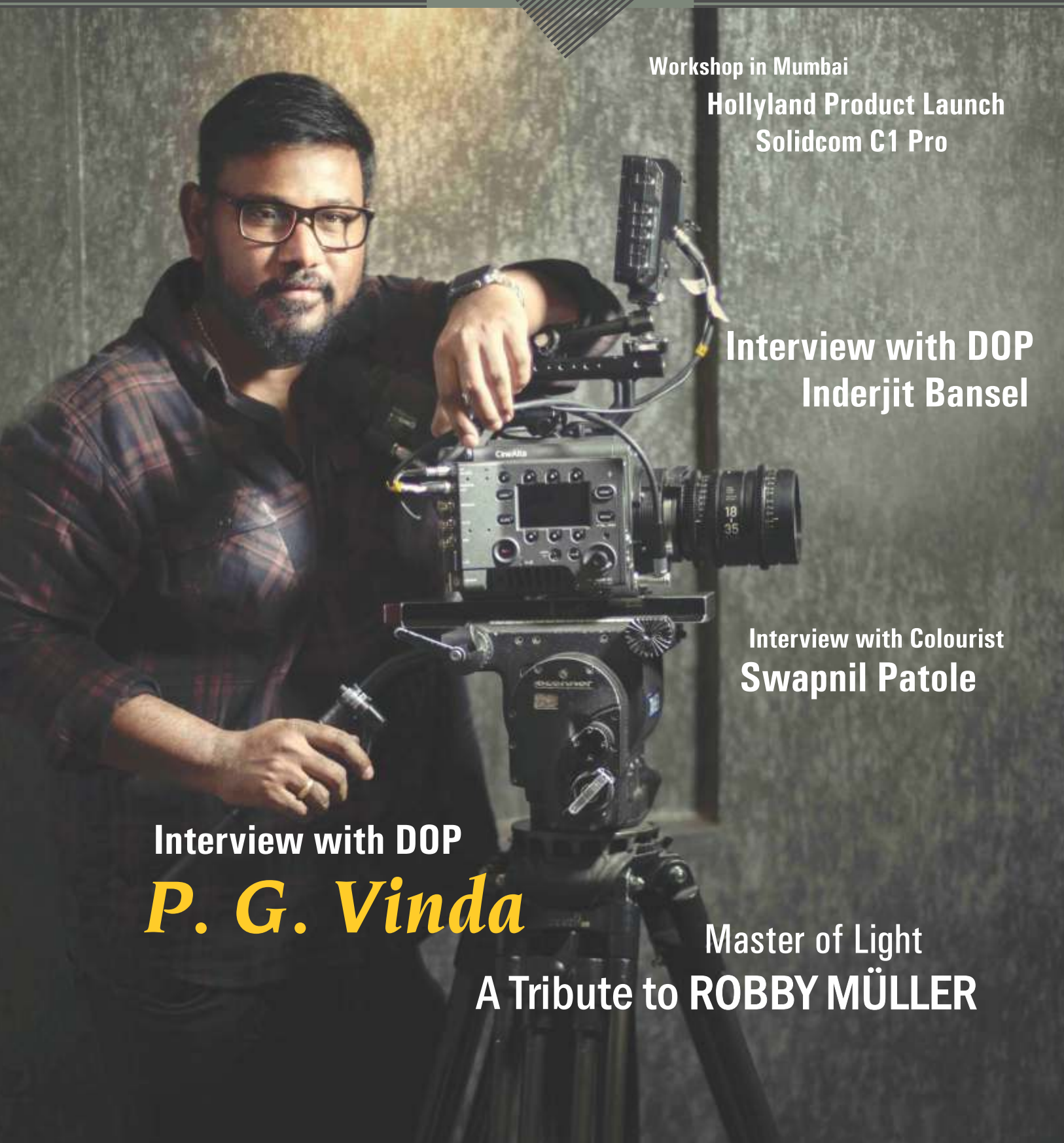
Interview with Colourist
Swapnil Patole

Interview with DOP
P. G. Vinda

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Interview with Colourist
Swapnil Patole

"
    Swapnil is a Chief Colourist based in Mumbai. Since starting his career 20 years ago, he has graded a uncountable TVC in all genres and for brands such as Amazon, Honda, Ponds, L'Oreal, Garnier, McDonalds, BMW, Mercedes, Tata Motors, Mahindra, Pepe, Levi's, Lee jeans, to name a few.

    Recently Swapnil has won Animation Express VAM Awards TV serial 2022 Digital Intermediate Colorist Award for RaftaRafta series (streaming on Amazon Prime),

    Swapnil is Only Colourist Nominated Twice from India as Best Colourist in Feature film category (code name Tiranga) at Independent Colourist Guild awards year 2022 Globally & for Web Show "Paurashpur" (alt Balaji) at Independent Colourist Guild awards in year 2020 globally.

    His Recent Colour Graded Series 'Half Pant Full Pant' on Amazon prime has been huge success & globally appreciated with IMDB Rating of 9.3.

    Very soon he is gonna work on Web Series which is based on Historical Periodic Events of India. He has more recently worked on feature films & OTT web shows for Netflix, Amazon Prime, Disney Hotstar, Sony Liv, festival short films and music videos for Tseries, Sony Music India.

    Today he is Regional Head of ICG INDIA Association & Chief Colourist/DI Head of Department (HOD) at Famous Studios in Mumbai.
"

How did you learn the basics of Colour Grading ?

For me, the teaching came through hands-on experience on the job itself. Consequently, I joined Prime Focus through the recommendation of a friend and was placed in the machine room. "This is where you may start learning your foundation," my senior explained, "and subsequently decide whether you want to be a part of color grading or whether you want to be an online or offline editor."

I started in the machine room as a tape operator. Back then, it was referred to as "dumping the footage." After six months, I gathered everything, and I went down to Telecine to work as an assistant doing "film can loading." After mastering the technical aspects of the color grading process, I began assisting senior colorists at Telecine. Because Indians were not well educated in the color grading process in those days , many foreign colorists worked in India.

I began learning under them by doing a very practical job, just looking at them and observing what they were trying to accomplish, how they spoke to the client, what kind of thought process they had, and so on. It was a remarkable two-year journey in Prime Focus, where I had taken off from the base, and then I joined Pixion, one of the largest studios in those days.

It was there I met my mentor, Mr. Albert Gu, a Singaporean colorist who worked in India for nine years. He was looking for a junior colorist to work under him who could do his layering job. He trained me in colors, so that is where my actual career as a colorist began. He taught me the aesthetics of what cinematographers and directors look for. He gave me insight on how to do post-production lighting once the footage was shot and how to deal with various issues that arose during the shoot, such as DOPs not having enough time to light the scene properly. Thus, we had to handle it and make it better in post-production.

He explained that as a colorist, we are not only responsible for adding tonality to the film, but we are also second cinematographers throughout the process. Therefore, we must consider things from their point of view. Hence, I learned a lot from him.

How many other studios have you worked with since Prime Focus to Pixion up until now?

I worked at PIXION for seven to eight years before relocating to the "AFTER" studio, which had just been established.I worked as an individual colorist for two years down there.Then, Famous Studios presented me with a major opportunity in my career by offering me the role of department head. It was a big deal for me to be the department head and set up all the pipelines for color grading. I faced a significant challenge because I had never done that before. I was merely an individual colorist working on a couple of jobs.

At Famous Studios, my primary responsibilities were to bring in clients, handle marketing, manage the color grading

business, and position myself as a competitive colorist in the market. I am grateful to Mr. Arun Roongta, who has been a tremendous help to me. Since then, I've been here for ten years.

When a DOP or a Director chooses to work with you as a colorist, what brief do they typically provide to make the colorist's job easier in advertising films or feature films?

Both the director and the DOP provide the brief. The DOP explains how he shot and what he wants to achieve in terms of lighting and color palettes in the grading, and he walks me through it. He informs me if he is unable to light up certain areas properly due to the crisis he was experiencing.

When a director creates a storyboard, they have a vision, an idea of how they want the final film to look. Therefore, they provide me with access to the storyboard and color schemes. Once I have a good understanding of the color scheme, storyline, plot, and how it's being shot, I begin processing the grade and creating a few looks.

They pick it up from a couple of places and put the stills in the storyboard, saying that this is the look we're going for. This is the costume colors or the art that must be used, whether exterior or interior, and from there, we begin. Then I start creating a few grade options and color options, and from there, we proceed to the next step and finalize an option that we like and work on it and fine-tune it. If we need to bring in a little sun, the entire layering process begins. Desaturating the skin or pushing it a little bit, bringing up the costumes, and so on.

How do you handle different footage formats that may be coming from various cameras?

I first match it as closely or evenly as possible to the primary camera, say Alexa, and then secondary cameras like GoPro or DJI. I have metadata of each camera that I can modify. Suppose certain color temperatures were not properly set. In that case, I still have the metadata to change the color temperature of that shot, and that is how I begin the first base layer of matching a shot to a shot right from the metadata. Then I start grading from the primaries and move on to the secondaries.

In what other ways does the camera's metadata assist you in the color grading process?

When they shoot it, the standard ISO level is 800. If it is a little dark, we can still push it to 2400, depending on how you have to match it. Hence, the first is the ISO level, which we can change. The second factor is the color temperature, which is usually 5200K or 3200K but can be manipulated. The third factor is the tint of the shot, which you can bypass by going green, red, or magenta. Thus, you have numerous levels of metadata from which you can fine-tune it. The digital medium provides excellent flexibility.
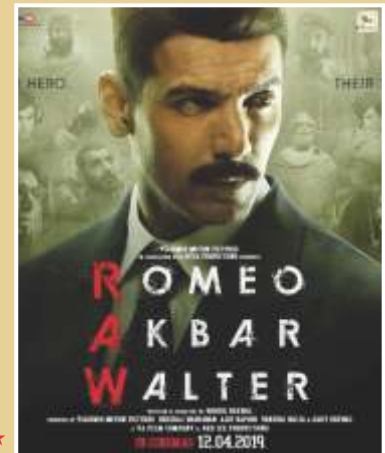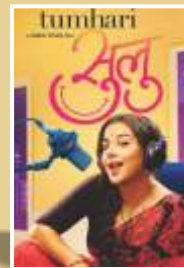
What are the issues that cannot be resolved in DI?

Suppose there are artifacts that must be

removed—probably in CG or online—or there is some sort of dust on the lens that cannot be removed during grading. VFX must once again be involved. There is no way out if it is truly poorly filmed. All that has to be done is replace the shot.

Given the availability of various types of machines, both expensive and inexpensive, such as Baselight, how much does the machine aid a colorist in achieving their desired results?

Every system now has its own advantages and disadvantages, whether a Baselight, a "Black Magic Resolve," or any other grading system. The system's features for color grading, adaptability, and ease of use each have pros and cons. I used to grade on Lustre, an Autodesk-based system at that time. But, in terms of the power of the color grading system, I think Baselight is fantastic. It can handle all types of metadata from any camera with ease. Raw files with 6K and 8K resolutions and multiple unreserved layers can be processed smoothly. Baselight'scolor stands are strong compared to Resolve or Lustre. We have a lot of budget crises, so I prefer Baselight because it's faster and can finish the job in the allotted time. Nowadays, metadata is so heavy in digital media that you need a very powerful system, and it is designed in such a way that you cannot work on a low-end system.

Can you explain your process for grading films which involves heaving VFX ?

The first thing I do for VFX films is export a raw DPX from a system or a raw EXR file recommended for VFX. I have a developed LUT, which helps the VFX guys when they work on the background or any other type; they can apply those LUTs and begin creating the required VFX world. Simultaneously, the director and DOP tells me, "Okay, this is how the background is going to look, this is how we shot, and this is the kind of look we're trying to achieve post-VFX." Thus, the first thing is the raw files I export to the VFX guys. Then the entire compile file comes back to me in raw format because they send me back the same color space and color gamut that I used in my raw, and from there, I start grading as per the tonality required with all of the alphas that the VFX guys provide, and I start blending things. I inform the VFX guys of my requirements if I am missing something. Therefore, it's a back-and-forth process for me whenever I grade VFX-related jobs.

Can you discuss the importance of LUTs in the context of DI and what potential issues can arise when applying LUTs in DI?

Lookup tables (LUT) are typically used to provide a reference for how your image will appear. It's not the final look, but you can use it as a reference. However, I do not grade with LUTs in the first place; instead, I grade from the raw.

When it comes to having a reference for cinematographers, I guess I do create a LUT based on their

requirements and what kind of look they're looking for in their film so that they can use it on their monitors while they're shooting and have a reference, "Okay, this is how it's going to look but much more enhanced when it comes to DI." Nowadays, many people use LUTs as presets for color grading, so a base kind of look has been set up. I don't prefer to go that route because it comes with many restrictions and sometimes puts you in the wrong place if you want to tackle some other colors or in terms of exposure. Therefore, I believe grading from the raw base is the best way.

How do you determine if there is an issue with the software when performing color correction and other tasks? Can you explain the level of support provided by the company that sells the software?

These days, the software has such advanced intelligence that it will alert you if there is a problem. Regardless of the commands you give, it begins to lag, hang up, or does not respond to them. We check to see if the system has identified the error in the plugins. If there is a bug or malfunction, we immediately shut down the system and notify the IT department to rectify the problem.

The support system is perfect. I'll say that whenever we have any issues, we simply put our system into the tunnel, through which they can actually look into our system and diagnose whatever the problems are. We only need to notify them and provide them with the tunnel channel password and codes, which our IT guys will do, and they will enter our systems and fix it.

When selecting a monitor for color correction and other tasks, what factors do you consider to ensure it meets your needs and allows you to view the final product accurately on various types of users screen?

Numerous companies manufacture broadcast monitors, such as TVLogic, Eizo, Acer, and Sony. I have a clear preference for Sony, as they have the best color-grading monitors, which I have tested and been working with for many years. Therefore, Sony provides colors, contrasts, the kind of blacks, the kind of PSI, the type of highlights, or any type of color gamut that is necessary on any type of resolution from 2K to 4K, or any type of color space from Brick79 to HDR to Rec. 2020, which are the best in the world.

Can you recollect any instances where the final result of your color grading did not match your intended outcome, and if so, what could have caused this discrepancy?

It happens all the time. Since we work on broadcast standards, everything has been so well organized and calibrated that you cannot expect the same visuals to be on television or even phones. For example, if you take two similar phones, the latest iPhone and iPhone X, and place the same image on both, the image will appear differently.

When working on web series that will primarily be viewed on phones, how do you take into account factors such as limited brightness and contrast range?

I consider those factors, especially if I work on a long format like OTT, which consumers mostly watch on phones. My assistants use Android, but I use an iPhone, so when I grade something, I load the images into my phone to see how they look on different phones.This is a very manual process, and nothing is technical about it. I grade according to the broadcast standards, but if that doesn't look good on phones, iPads, or even television, I manipulate the image in such a way that it looks very close on all devices. Thus, that's what I do; once I'm finished, I add one more layer on top to ensure everything looks correct. If I am unsatisfied with the image, I add another layer on top of it and increase the brightness, decrease the contrast, or increase the saturation to make it look correct and push it across.

Is there any specific experience or topic related to grading that you would like to share and discuss?

When I started grading, I realized the console, its resemblance to a spaceship, or the interface of the color grading would be difficult for a novice to understand. But a ten-year-old kid can learn how to use the console, the user interface, and the buttons in about a month. In the sense of colors, grading is not technical.Colors will only come to you if you have passion and love for them. It also comes with experience, how your eyes look at it, and how your heart and eyes connect simultaneously to your brain. A brain can tell technical facts, but your eyes and heart can speak for the colors you adore.

Therefore, to become a colorist, you must also have experience and a great deal of love for colors. To become a skilled colorist, you must go through the process.Technically, you can learn things, but aesthetics and color principles can only be learned through experience. It cannot be rushed.

Can you name any colorist that you admire and respect in the industry?

I admire and respect my mentor Mr. Albert Gu. I still learn a lot from him. I have a lot of phone conversations with him. He calls me after looking at my work. "What on earth have you done? "Why do you have to do that?" He still yells at me and chastises me. He calls me and says, "Great Job!" if he likes my work. That makes me very happy.

Feedback: swapnilrpatole@gmail.com

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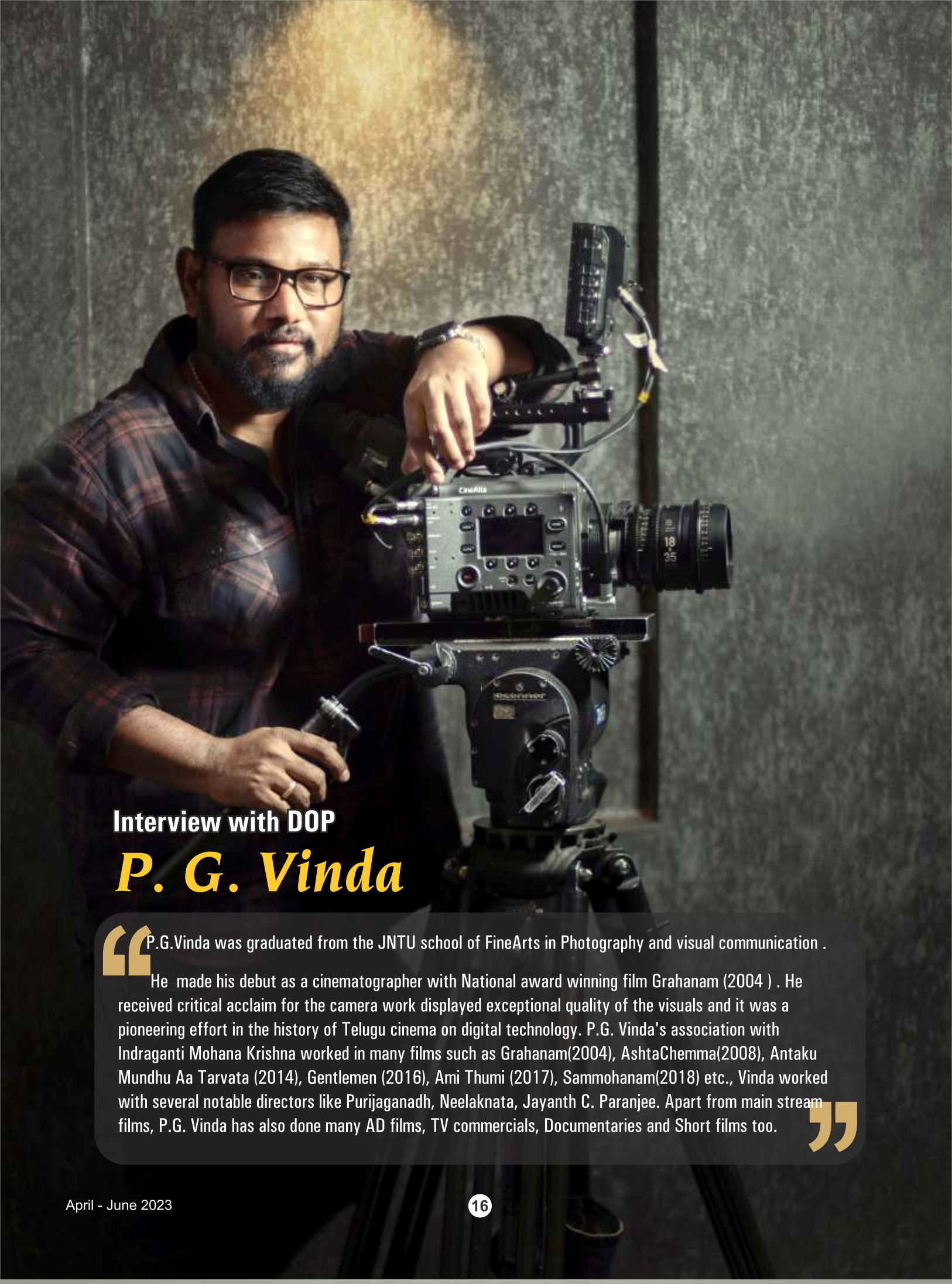
Interview with DOP
P. G. Vinda

"P.G.Vinda was graduated from the JNTU school of FineArts in Photography and visual communication .

He made his debut as a cinematographer with National award winning film Grahanam (2004) . He received critical acclaim for the camera work displayed exceptional quality of the visuals and it was a pioneering effort in the history of Telugu cinema on digital technology. P.G. Vinda's association with Indraganti Mohana Krishna worked in many films such as Grahanam(2004), AshtaChemma(2008), Antaku Mundhu Aa Tarvata (2014), Gentlemen (2016), Ami Thumi (2017), Sammohanam(2018) etc., Vinda worked with several notable directors like Purijaganadh, Neelaknata, Jayanth C. Paranjee. Apart from main stream films, P.G. Vinda has also done many AD films, TV commercials, Documentaries and Short films too."

When a director decides that he would like to have you as a cinematographer for his film. What was your first interaction with the director after reading the script?

Some of the directors give the bound script, and after reading it, I make some notes. Later on I start imagining how it is going to be. Most of the directors have their typical style. In a meeting with the director, I will find out about the location where the film is set, the atmosphere, and the mise-en-scene. Once I have that information from them, I will give them my feedback. That way, my relationship with the director becomes stronger. I try to listen to them to find out how the director is thinking and will try to be closer to their imagination rather than just thinking away from his vision.

How do you decide what are going to be the locations where a particular scene should be shot if it is not going to be a set?

The premise of the film will determine what kind of location we need to choose. The atmosphere and the ambience will help zero in on the exact location. Based on that, I make some notes, and we do recee of couple of locations. From there, we check out which scenes can be filmed where and what are the natural sources of lighting for that location. Will the location also require some pep up or some changes to suit the scene? If yes, how can it be done? We also need to figure out the actor's movement and the height of the location where I can rig my lights.

I also check what the daylight transition conditions are and in which direction the sun will set. What is the ambience light level, and how could it be boosted if required? We also take certain stills and discuss in the office, then revisit the location and figure out how a particular scene should be shot at that location.

Three important people with whom a cinematographer interacts are the art director, makeup artist, and costume designer. What kind of brief do you give to them during your preparation?

After checking the recee and the location stills, I again make some notes about the texture of the movie and accordingly make a certain Color Palettes and then share it with the director to seek his approval.

If the director is okay with that or suggests some changes, I incorporate them. Afterwards, I will interact with the production designer, costume designer, and makeup artist to give them the palette we are looking for and how with the help of properties and the costumes, we can bring the visual palette into the film.

Next, we come to the character's make-up: Is he a very realistic character, or is he a glamorous one? I also check what kind of drama it is. If the film is a romantic comedy or a social drama, then accordingly we go for a more realistic look for the make-up.

Sometimes there are genres like thrillers, or occasionally there is an element of horror in a story, so we suggest the

Important Films of P.G. Vinda as DOP

make-up accordingly. We also show some reference images to convey our ideas to them.

In your filmography, there is a particular film called Ninnindale where there are some skydiving shots, and in 2014 drones were not there. How did you take those shots?

Drones were just being introduced at that time. We shot this film in New York and with a helicopter. We hired a helicopter Pilot Mr.BOB(Robert)who shot forM. Night Shyamalan's films like Signs and The Village. He has a huge place close to New York City, where we shot it.

What were the problems you encountered in that particular kind of shooting? How did you instruct people who were in the air?

Usually, what happens like this helicopter Pilots fly 24,000 feet high along with crew and sky divers. They open the door of the helicopter from there. The moment you open the door, massive airflow comes in, and we are in the clouds.

We were getting ready A - camera I'm operating inside Helicopter on the shoulder and there was another cinematographer JoeJennings a skydiver and Cinematographer. who was actually doing the skydiving part. Another person from the ground andone more camera Cineflix HD from a helicopterwas filming and we rigged couple of Go pros on helicopter and skydivers. It is very risky, but we shot for more than 7 to 8 days only for the skydiving sequence. The first and second days were tough, but the third day we were literally just having fun.

Some of your films are very action-oriented in terms of fight sequences and those kinds of things. What are the precautionary measures you took while shooting those sequences?

We shot some sequences action sequences for Ninnidhale movie with highway bikers teasing actress and

hero fights with them stunt master Kecha Khampheakdee in Thailand. Also shot some fight sequence for "V"movie by Ravi Varman very realistic stunts with fire and dust and other on location special effects we take safety measure precautions with lot of prep work with stunt team .

Do you recollect any other sequences or shooting experience that made you pause for a bit and then say, "Okay, how do I solve this issue which the director has asked me to solve?"

We had this kind of experience while shooting for the film called, "V" . The movie we shot in 2021, during the covid time OTT release on AMAZON PRIME got very good response. We shot this film an action sequence at Bombay, VT station and closer to the Marine Drive beachside area. It was a long chase sequence with a running all -Terrain Vehicle (ATV) a Quad bike. We had street lights only as Practical sources which occasionally went dark and bright. Other areas we were trying to control with the camera aperture were realistic running and chasing on the streets in the middle of the night, and that was a great experience for me. The stunt choreographer was Ravi Verma.

You must have done some of the sequences that have VFX and other special effects. What is the brief that you expect or give it to the VFX supervisor so that everything goes smoothly?

Yeah, typically the special effects, like a fire, rain, wind - dust similar things are done at the location. Sometimesbackground fire simulation and extensions done by VFX team. Most of my films are shot with less CG and more real on location special effects& a few shots involve only the chroma keying and matt painting,mostly I've done realistic shots only.With VFX supervisor will expect strong coloration and visual references like pre – Visualization docs and storyboards and perfect execution of the listed shots and break down layers.

What are the advantages that you see in digital cameras?

My first film, which I shot in 2004, was a digital film called Grahanam. The film that won a national award 2005 for the Best Debut Film of a Director. Grahanamwas shot on MINI-DV, and at that time there were no digital DSLR cameras. There were only SLR still cameras. We were anticipating that, and soon digital was going to overtake

We shot on Panasonic AG- DVX 100, and we had a seven-lakh budget and the film been to many international festivals and won various awards. The evolution from 2004 to 2023 shows a massive difference.

Digital cameras present day the kind of quality it is producing, the kind of comforts digital cinema was giving is quite amazing. Now you can get any kind of look you want by switching one button.

There was a slogan in high school days by Kodak: "You press the button; we'll do the rest." Now with the digital "what you see is what you goanna get it" the mystery unveiled now.

In this present eraof 8K resolution camera and Television digital cinematography really what you see is what you get is phenomenal. If you apply any "LUT" you're going to see almost 80% closer to the final output and we are pretty much happy.

One discomfort is that the client and the producer are all sitting in a row, and it's becoming like a video village. Some directors dislike this "video village," where one monitor is for makeup, one for the hero, and one for the producer, as so many Monitor outputs High speed WIFI Signals actually giving a lot of radiation in the location.

We are happy with the comfort level it is giving us because we are checking the final output of the data on the set itself. Otherwise, we used to go and check the "daily rushes" in the laboratories once in a while. All this burden is gone with digital technologies, and you just do the grading online as well.

Now we are coming with virtual production studios, VFX also mostly done on the shoot day on real lotion with digital assets on LED screen with Unreal Engine technology.

Among the various lens manufacturing companies in the market, one of the oldest is **Carl Zeiss.** *They have come out with a new series of Supreme Prime Radiance lenses. What is your opinion about the Zeiss lenses?*

Zeiss lenses are very close to the human eye's experience. They don't give a high contrast, not too sharp image, a greater skin tones, nice fall off, less distortion, natural color rendition which is pleasing to the eyes. They are very good on softer and closer to a natural look.

Feedback: vinda pg <pgvinda@gmail.com

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Important Films of P.G. Vinda as DOP

HOLLYLAND
Workshop in Mumbai

On March 18, 2023, Qizar Solutions Pvt. Ltd. had the pleasure of hosting a HOLLYLAND workshop in the Marriott hotel's Mumbai courtyard. HOLLYLAND wireless solutions are expressly designed for, wireless audio and video transmissions, wireless lavalier microphone with noise cancellation range of 200Mtr and wireless intercom systems for real-time team communication.

Rapidly becoming the most competitive global wireless device and solution providers, HOLLYLAND products are redefining the way people interchange and share ideas, visions, and creativity every day around the world.

All HOLLYLAND's technological advancements and innovations are driven by great passion, perseverance, and an open culture that encourages curiosity and ingenuity.

The main objective of the workshop is to inform everyone who attends about the HOLLYLAND products. Where we are invited to Mr. Kshitij Sheetal, a professional workshop lecturer from India known as Shoot GURU, to provide participants a detailed explanation of each of our

goods through live product demonstrations. The Carft Film School's director, Mr. Naresh Sharma, has also been asked to narrate the items.

For two hours, we've presented the participants a hands-on training so they may operate and physically interact with our product to understand how it operates

Following a delectable lunch, Mr. Kshitij Sheetal started a master workshop. He gave an overview of all HOLLYLAND products, including the recently launched Solidcom C1 Pro.

The Solidcom C1 Pro, HOLLYLAND's first-of-its-kind full-duplex wireless intercom headset system featuring dual-mic Environmental Noise Cancellation (ENC) technology, is incredibly lightweight and easy to use. It is a true game changer with built-in ENC, ideal for production teams working

DOP Amitabha Singh Attending the workshop

Lucky Draw Winner

in loud environments where exceptional communication clarity is essential.

This new-generation headset system features advanced DECT 6.0 technology, a wideband audio range of 150Hz to 7kHz, and a reliable LOS communication range of up to 1,100ft (350m).

Following the workshop, there is a lucky draw. As the winner, Samar Mukherjee won noise-cancelling wireless headsets from HOLLYLAND.

We were able to promote the HOLLYLAND in the Mumbai Region thanks to the assistance of our partners Multisolution, Pooja Electronic, Mafceecamera, Begzone,

Protech Solutions, and many others. Dealing with them is something we value greatly.

Feedback: santosh@qizarsolutions.com

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Qizar Solutions Pvt. Ltd

Interview with DOP
Inderjit Bansel

When collaborating on a project, how do you and the director initially communicate, specifically regarding the project's desired visual style or "look"?

The creative process in filmmaking starts with a reaction to the script, followed by the look. Most of the time, you can only make some suggestions & the modifications to the script's content and cannot reject it completely. If any scene or idea according to the cinematographer is of less significance in the script, than the cinematographer has to suggest the alternatives to the director& provide the logical reason or solutions. Most of the time the Directors do listen & take the suggestions in there stride & incorporate the suggestions in the script as well.

The look, most of the time is dictated by the script, the location too plays a very important part in deciding the look. The content of each scene too is important & is kept in the mind to decide the look. The director sometimes have a particular look in his mind & after discussing all pro's & con's the colour palette is mutually decided. Sometimes earlier it was very important to very carefully decide the right kind of the filter to be used in front of lens. These days we avoid using the filters& record or capture the optimum raw data so that one has maximum latitude to play around in vfx as well as in the DI without losing the quality & one can get the desired effects with much more precision.

For Kurkshetra, the tv show, the brief was that it should look like the old famous"bold & beautiful series", I told them, I shall make our series look better than that & discovered the new filter called "Pro-Mist" available only in America.

As the Pro-Mist was not available in India at that time, I had it shipped here. There was no provision to fix the filter on the lens, as it had odd size, design to be used for still photography only, so my assistant use to hold it in front of the lens.

The use of certain calculated amount of backlights to the visuals can only be effectively seen using the Pro-Mist filter; otherwise, if it's all front lit, the face will appear as hazy, de-focusdistorted, and the quality, will be lost, resulting in a very soft, less contrasty image that cannot be blown up on to a larger screen.

The first sequence I shot with the Pro-mist was a night outdoor garden party. The garden was not well-decorated, so nothing was available in the black sky, to help me compose the frame, especially the close ups of standing actors. Therefore, I use to change or adjust the camera's height slightly, or perhaps I composed it in such a manner so that far away in a corner, I could see& compose a lamp post glowing bulb well in the frame, which enhanced the Pro-Mist effect, creating the desired depth.

What is your primary approach to lighting when working on a set? Do you light up the entire scene and then make adjustments for each shot, or do you go shot by shot and light each one individually?

In television daily soaps, the lighting is set up first for the background and then adjusted for the foreground keeping the actors movement etc in mind. Nowadays, inside the studios to save the time, the lighting has to be innovatively done in such a manner that by adjusting few lights during shooting, one shall be able to create the desired day or night effect regardless of the actual time. If you turn off one set of lights& switch on another set of lights, you are able to give the night effect & vice-versa, the background will turn & give the day effect. We also use to light up the foreground separately.

The creative part was determining how the shadow should appear in one camera versus another, in multi camera setup. Essentially, rather than being innovative in terms of mood lighting, it was more off technical juggling act to ensure everything is shadowless & looks good. The frame was designed to look glossy and glamorous.

But for films we have to light up each & every shot separately keeping the consistency of lighting in mind,

maintaining the source of light. It's equally important to maintain the source while in day as well as in the night scenes so that the geography of the location looks same & the image appears closer to real. Some times if there is no source like window etc available in the location than one has to create an imagery source, creating an illusion of a window etc so that it looks more effective & real.

During your more than thirty years of career, have you ever encountered challenging situations where you had to pause and think of a solution?

I have often found myself in situations where the budget for lighting is limited. In these cases, I have to carefully decide the number & quality of lights, keeping the whole script & location in mind, so that I fit well my light requirement in the limited budget given by the producer. Moreover to overcome these kind of challenges, I have to come up with creative solutions.

For example, in the film "White Noise," though the director was Vinta Nanda but Mahesh Bhatt came as a guest for a day&asked me, if I have enough lights to match the interior light with the bright sun in the exterior? The location was on 19th floor in Nariman Point area & there was no way I could have carried the bigger lights up to the 19th floor. I could not refuse Mahesh ji because the way he asked me, so I had no choice but to evolve the new method & style of lighting. Despite the limited lights, I was able to find an innovative style to match the lights and achieve the desired effect.

When you are working on a location that is not under your control, what are the things you look for in the location to make your work easier?

On location we look for some window, ventilator or an open space etc so that one can take a hint from & use it effectively to treat it as a source & creatively maintain it's effect in all the angles of a scene. Also preferably one tries to, while selecting the location to be large enough to make the shoot happen comfortably. Moreover the script is the most important factor to consider when working on a location. We determine whether the scene can be executed in the original location decided by the director and then suggest to the director whether a scene can be converted to a different location within the premises of the location where director hasn't imagined so that it looks better, the director may or may not have considered.

We also look& suggest the director for the exterior lighting conditions in the vicinity of the same location during the magic hours and the possibility of adapting or shifting the original location of a small scene to be shot there. I collaborated closely with the directors, who are open to suggestions. When we don't have a choice, we have to work with what we have and devise creative innovative solutions, such as shooting a scene on a terrace or in an open space in front, back or sides of the same location so that one is able to exploit the location to the optimum, when the lights inside a huge haveli may be insufficient.

As you came from a time when film was the medium, and then video came along, can you talk about your experience with the transition from film to video?

In my film school, FTII, our seniors instilled in us that film was superior and television was inferior, so we did not bother much to learn the television then while in the institute. So we concentrated majorly learning the film technics. We have never imagined that the Television would grow so quickly, but we had to change our orientation & learn the new technics to survive, so we changed with time learning & up grading ourselves to the latest technologies as they keep growing from time to-time till the latest digital technology.

What were the changes you made in your lighting scheme during the transition from film to video, and how did you adapt to these changes?

Even today, we must adapt our lighting techniques to keep up with digital technology. Earlier on film we needed more kilowatts of light. Nowadays with the new digital innovations, the amount of lighting required has been considerably reduced. The Camera& lenses have become more faster & sensitive to the light, effectively reproducing the image closer to reality with much less number of lights as well as the kilowatts.

When U-Matic arrived, we have to soften the lighting otherwise the harsh lighting sometimes use to create the unwanted ghost image. There were certain other new peculiar challenges like the drop-outs and the jitter, we had to learn & avoid the dusty locations, heat was another issue, one had keep the recorder as well as the camera cool. To avoid the Jitter issues we had to learn to avoid certain clothe materials& designs, especially the patterns with the vertical & horizontal lines. We learned how to get rid of those issues while working on the job.

Earlier, the equipment suppliers would nots end the proper SD cable & often the proper seven-pin cable was not provided as it costed more. The BNC cable use to often get loose and caused flickers. If the BNC from the camera or the recorder shakes slightly, there will be a jitter, and you will have to retake the shot. Crossing of the BNC on other electric cables use to disturb the magnetic field creating poor image. When Beta came in, these issues got considerable reduced.

The transition to digital technology altered the director's& DP's thought process and their approach to the treatment & the lighting style as well as the filmmaking. Even the lights have changed with the time, earlier we had big, bulky lights which use to generate lots of heat etc & were harsh, we all the time use to evolve methods to soften them. Whereas now days with LED Lights coming in, the lights are much lighter, softer & do not produce heat. We had to learn & adapt to these lights, evolve new styles of lighting effectively to create moods& achieve the pleasant new real look.

During FTII days we used to call Mr. Yash Chopra jokingly of course as "Zoom Chopra" because he use to use the zoom lens very often. I learned an important lesson from one of his quote: if you have to survive in the industry, you must adapt and change with the times. Look at his work, his subjects were the same or similar but his treatment& look changed drastically and the way Anil Mehta shot Veer Zara and Jab Tak Hai Jaan are totally different from his earlier work.

How does the advancement in digital technology, specifically the use of high resolutions such as 4K, 6K, and 8K, affect a cinematographer's work, and how does DI technology aid in this?

Cinematography is not just about capturing images but also adapting to new technologies and innovations. Today, while most broadcasts are in 2K or 4K, cinematographers often shoot in 8K to prepare for future advancements in screen resolution. Therefore, your raw data should be of sufficient high resolution quality to allow for the vfx person to play around, if necessary, certain things can easily be corrected in DI which otherwise are time consuming while shooting.

Many things in digital technology are on the horizon but have yet to be discovered or invented. If cinematographers are shooting at 8K, you have an advantage &can alter the resolution to change the composition a bit without changing the lens or the distance of the camera from the subject and acquire the desired composition, which is within 4K range or possibly much more. It could be 5.5 K, and you still get the desired composition.

You can do some juggling in the resolution from 8K to 6K or little less & ultimately, your recording will give an output in 4K, which most of the broadcasters are using these days. However, it will assist you in obtaining the desired composition without wasting time. Therefore, it is important for cinematographers to stay informed& know about digital advancements and know how to use the latest equipment to its fullest potential.

*We have been introduced to **Carl Zeiss** Block lenses in FTII as a students. Since then they have come out with many series. What is Your Opnion about Zeiss lens quality?*

We have been lucky to get hold of the Zeiss lenses in the Institute as probably they are one of the oldest & the best ones. If I am not mistaken decades back they made the world fastest lens for the night vision which were used by NASA. The colour rendition of these lenes is quite soothing & neutral, effectively these lenses doesn't favour any particular colour on the spectrum, thus reproduce colours that look original, feel natural & realistic. The clarity and high contrast of these lenses I believe is unique, which helps us the cinematographers to achieve ultra-sharp image.

Because of their anti-reflective coating, the Consistency, the quality& the amount of flare is very calculative, desired of each Zeiss block Lens when inter cut with other Zeiss lenses. The resolution of course is much higher as compared to other few makes of the lenses today. Contrast& the micro-contrast is another very important factor which measures the quality of the crisp image, in fact probably because of this quality some mobile smart phones too have the Zeiss lens today. I have heard of the Supreme Prime Radiance lenses but haven't got the chance to use them.

Feedback: Inderjit Bansel <inderjitbansel@gmail.com>
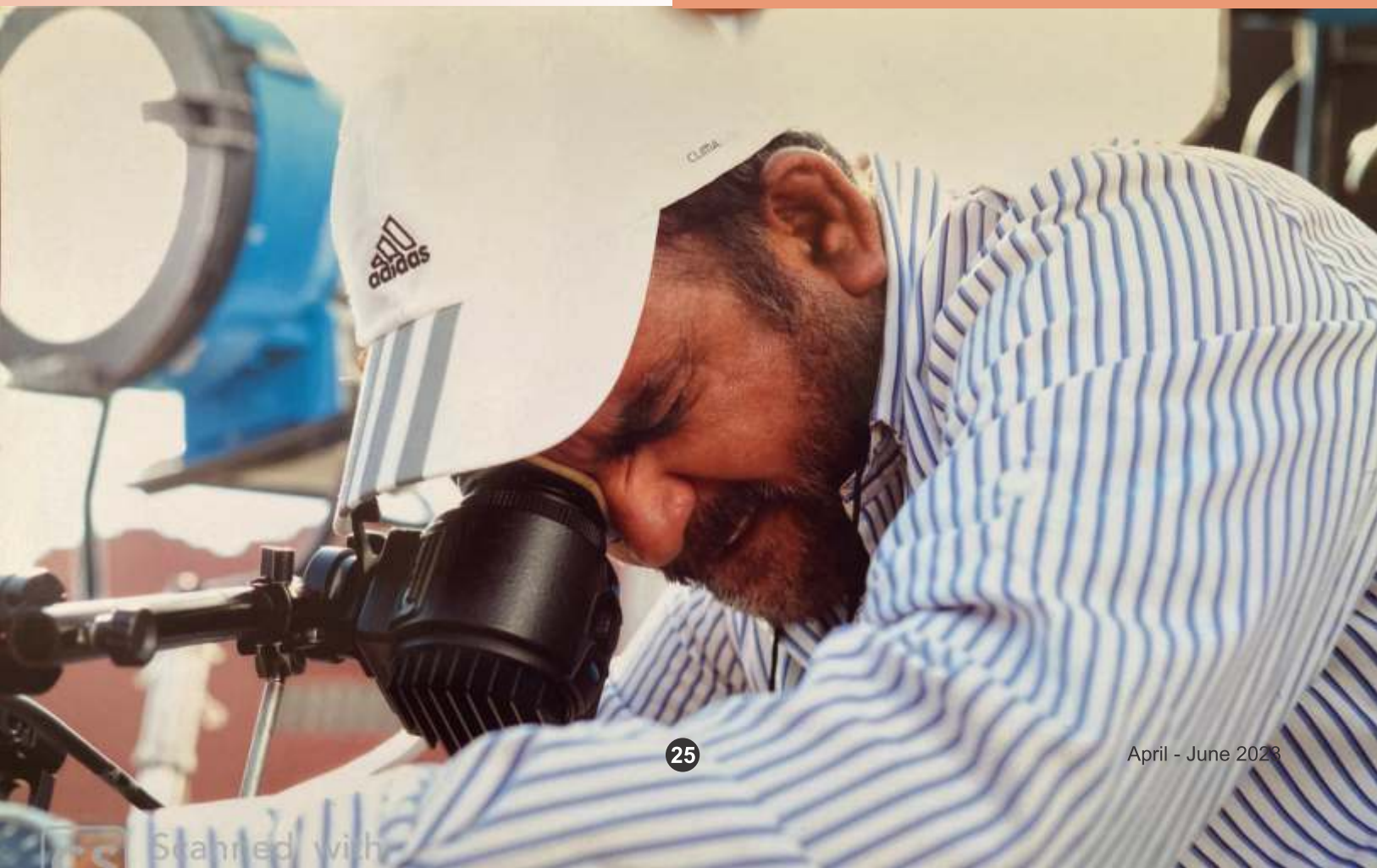
Master of Light

A Tribute to
Robby Müller
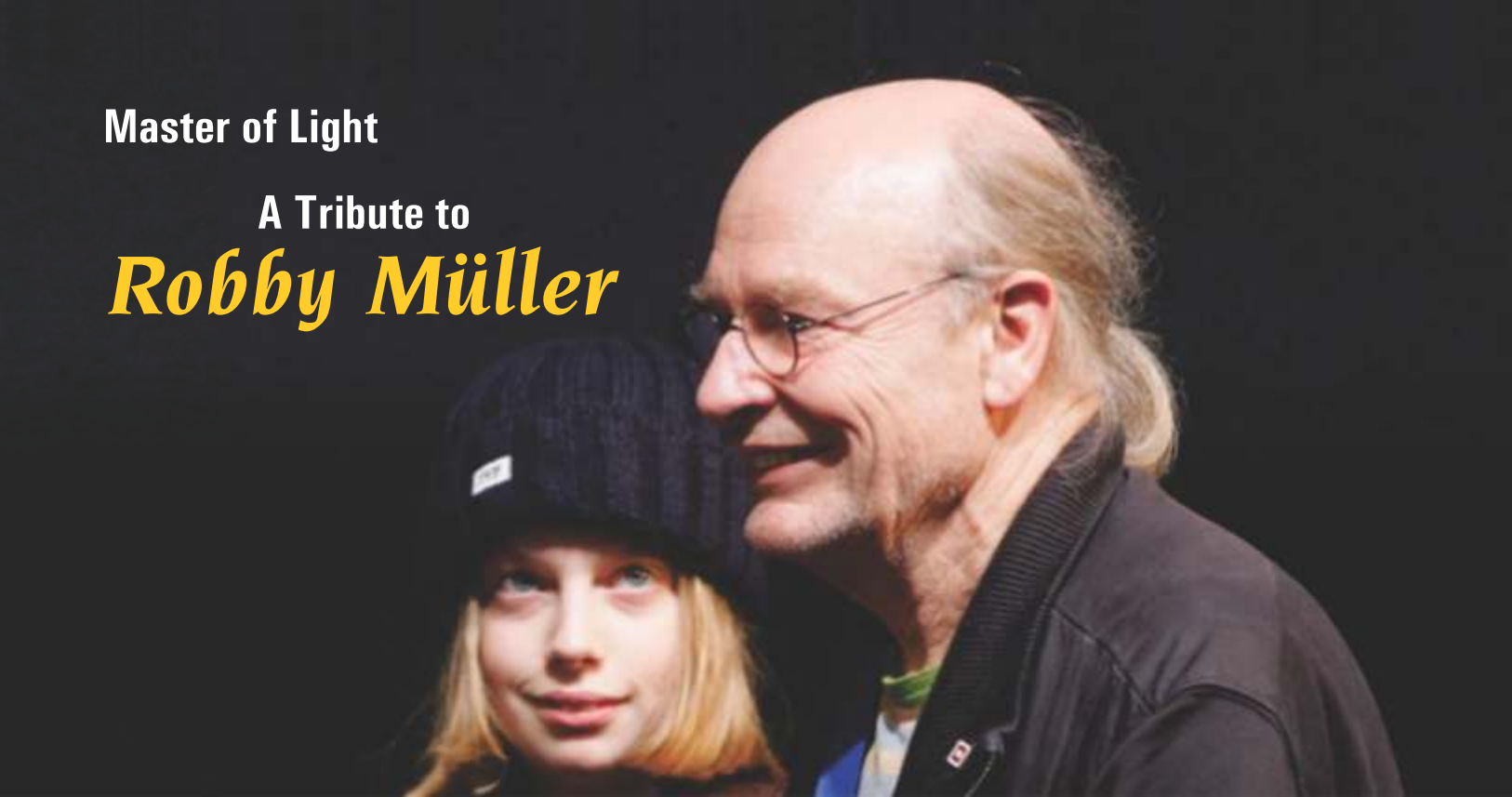
Robby Müller (1940) is considered one of the bestknown cameramen – internationally: "Director of Photography" – in the world. The Dutchman has won numerous awards for his camerawork and contributed considerably to the success of an entire generation of independent film authors since the 1970s. His international career started soon after he graduated from the Nederlandse Filmacademie in Amsterdam in 1964. In Germany, he not only shot numerous early films by Wim Wenders, but also worked alongside such directors as Edgar Reitz, Hans W. Geissendörfer and Peter Handke. Müller would eventually be responsible for the cinematography of fourteen of Wenders' films. In the USA, he was discovered in the late 1970s by Peter Bogdanovich and, among others, shot DOWN BY LAW (1986) for Jim Jarmusch in the 1980s. Under Lars von Trier, he experimented with the use of the handheld camera in BREAKING THE WAVES (1996) and with new video techniques in DANCER IN THE DARK (2000).

Cameraman or Director of Photography

What is a Director of Photography, or "DoP" for short? He translates the vision of the director and the screenplay into visual images. He does this by creating the right atmosphere, not only with the help of existing and supplementary light, but also through the choice of camera, film stock, lenses, framing, camera movement and actor choreography. "Director of Photography" is a standard term in British and American cinema and in major international film productions. Within the American studio system, the DoP is even forbidden from directly operating the camera. Robby Müller only adhered to this rule in exceptional cases. This is because camera movement is at least as important for Müller as framing and lighting. As a matter of principle, Müller views the division between DoP and cameraman as unnatural. In Germany, the term cinematographer is in fact used as a synonym of DoP. In the final analysis, the terminology depends on the specific production conditions. It is important for both the DoP and the cinematographer to take joint responsibility with the director for the overall image creation.

Robby Müller's image creation

Averse to inflexible systems, unnecessary regulations, and conventional ways of working, Müller kept faith with his own approach throughout his career: no unnecessary technical aids, no excessive lighting, and no conspicuous "camera acrobatics," as he himself puts it. Even so, his method results in breathtakingly beautiful shots, and he is admired all over the world for his visual ingenuity. Müller became a master of working with natural and available light. He is one of those exceptional cameramen who knows how to work with the existing conditions. Müller intentionally refrains from theatrical or expressive lighting effects. You could say he's more Vermeer than Caravaggio. In his camerawork, too, as well as his framing and in the way he captures a story, or the plot, in images, Müller shows restraint.

Sparing in his use of close-ups and avoiding the zoom lens for the most part, he handles the camera more like a tool that "serves" and "observes," offering space not only for the actors, but also, through long takes and wide shots, for the viewers. Müller does, of course, deploy close-ups and – very occasionally – a zoom, but only when the story demands them.

Early years

Robby Müller enrolled at Amsterdam's Film Academy in 1962. At this time, a younger generation of filmmakers had begun to rebel against the conventional studio film and its aesthetic of artificial lighting and camera work. Instead, young filmmakers wanted to capture everyday existence in a realistic and authentic manner. This development had already been pioneered by Italian neorealism, and the Nouvelle Vague and Cinéma Vérité movements were attracting a great deal of

attention in 1962. In the United States, the first exponents of New American Cinema, who would also turn their backs on the artistic limitations of the studio, had come onto the scene as well. It quickly became clear to Müller that this was the approach he felt most at home in.

Technological developments played an essential role here. A black and white film with increased light sensitivity had come onto the market, for example, making it possible to film with a minimum of light. However, this stock was not favored by the commercial film industry, as its low resolution and graininess resulted in blurrier images. In any case, color film had already become the new standard. Another innovation was the use of relatively small, portable 16mm and 35mm cameras, which made it possible to film on the streets or from a moving car. The camera could thus record everyday life in a manner that seemed hitherto impossible. MEGALOPOLIS 1, which Müller made while still at the academy, with classmate Pim de la Parra, is a good example of this.

Escape from the studio and the use of new film stock had far-reaching consequences for lighting. Dramatic lighting by means of directly aimed light sources was now abandoned for more realistic effects that at times managed with a minimum of light and frequently used diffused, reflected light. At the time Robby Müller was studying at the academy, there were actually no examples for him to follow. His first films are therefore highly experimental and reflect simultaneously the zeitgeist of the sixties and the new freedom in filming.
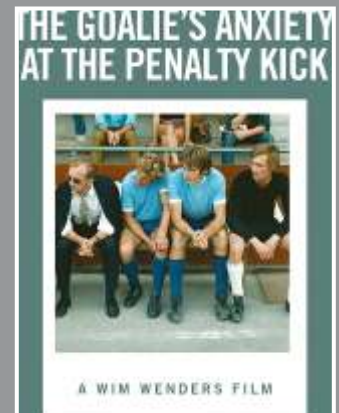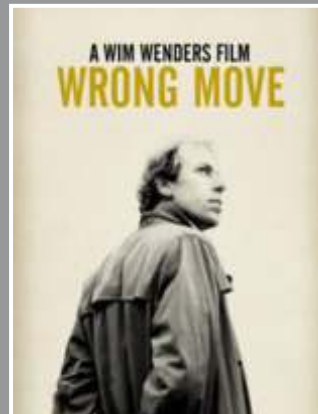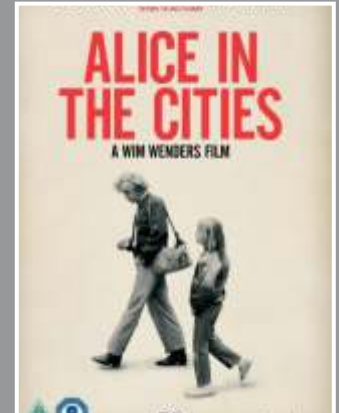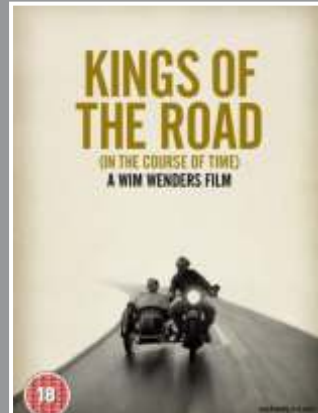
Wim Wenders

In 1966, Robby Müller journeys to Germany for the first time as Gérard Vandenberg's camera assistant. There, he makes the acquaintance of Wim Wenders (1945), who in 1968 hires him for his Munich student film ALABAMA: 2000 LIGHT YEARS. This marks the beginning of a partnership that stretches over many years and that yields such unusual films as WRONG MOVE, KINGS OF THE ROAD, THE AMERICAN FRIEND, and, ultimately, PARIS, TEXAS.

With Wenders, Müller developed a unique style of film that strongly influenced the typical Wenders road movie, in which the journey is a metaphor for an existential search for oneself. These films were made in many different locations, so that the cameraman had to respond rapidly and efficiently to a given situation. For Müller, this meant making maximum use of the available natural light. The scenes were shot chronologically as much as possible, and Robby Müller respected the available light. His intention, in his own words, was to "remain true to the geography of light." Müller does introduce accents with supplementary light, but only if it really enhances the plot. He never lights a scene in an artificial manner, as he would in the studio. He would also never consider "destroying" the natural light to get a perfectly illuminated picture. Rather, Müller aims to create natural, discreet lighting situations.

What also typifies Robby Müller is his use of the color variations resulting from the use of different light sources. Film stock reacts differently to the color temperatures of artificial light and daylight. Fluorescent light comes out extremely green on film. Müller sees in the "unfortunate" situations with which available light confronts him – not only with differences in color, but also contrejour effects, "underexposed" faces, reflections, or a flickering TV picture – precisely the requisite tools to create an atmosphere and add visual power to the narrative.

THE GOALKEEPER'S FEAR OF THE PENALTY, 1972, 6'20"

This was the second feature that Wenders and Müller made – with a "real" crew and somewhat more in production tools available to them. How it is framed and structured still is rather traditional, but it clearly already contains the germ for the later road movies. One scene that, in the script itself, consisted only of two lines, grew via improvisation into a scene lasting ten minutes like one in a road movie. Although this was an adaptation of a thriller by Peter Handke, very little happens. All of its suspense is contained in the shots: the tension between light and dark, daylight and artificial light, motion and stasis, and close shots and long shots.

ALICE IN THE CITIES, 1974.

First film in the road movie trilogy. Natural locations and natural light give the film its documentary like character. A salient aspect is the fascination of Wenders and Müller with such typically American cultural components as wayside restaurants, large billboards, and neon signs. This is also the first film for which they shot a substantial part in the U.S. In the film's second half, Müller and Wenders are clearly in search of a German parallel to the American road movie. Müller demonstrates that he is a master of filming from moving vehicles and the use of available light whether by day or by night.

WRONG MOVE, 1975.

Part two of the road movie trilogy. In this film, the protagonist travels somewhat aimlessly from northern Germany to Bavaria in the hope of finding himself. In the course of his journey, he meets people (a street musician, a deaf and dumb girl, a poet and an actress) who, just like him, are wandering aimlessly through life. For the film's impressive opening shot, Müller devised a special mechanism with which he was able to execute precise camera movements while flying in a helicopter, undisturbed by the vibrations of the aircraft A number of times, Müller also filmed scenes in the evening that unfold simultaneously indoors and outdoors, and on occasion even dared to leave the actors in the dark, without extra lighting.

KINGS OF THE ROAD, 1976.

The last road movie of the trilogy of Müller and Wenders. The budget made it possible to produce the film in a cinematic manner. For example, there were crane shots and an intricate mechanism for fastening the camera to the lorry itself. The inspiration came from the work of American photographer Walker Evans, who, in the 1930s, had documented the Great Depression in unique shades of black and white. This influence is clearly observable in the strongly photographic settings in which Müller portrayed people in a (desolate) industrial environment.

THE AMERICAN FRIEND, 1977.

Inspired by the serene canvases of Edward Hopper, the colors are heavily and intentionally applied. This is evident not only in the use of intensely colored props such as a deep orange Volkswagen Beetle, a bright red coat, ultramarine blue nameplates, or ruby red seats in the Paris Metro, but also in garishly colored neon lights in tunnels, on the street, and even in the billiards room of a pub, Müller leaves no opportunity

unused – including the use of special light foils, filters and lenses – to ensure that color played a substantial role in this film.

PARIS, TEXAS, 1984, 14'37"

Following a sevenyear-pause, Wim Wenders and Robby Müller joined forces again to make PARIS, TEXAS. For the first time, they were to shoot a film chronologically without employing a precise plan. The film's characteristic, vast landscapes, the unique lighting, and the intense colors made PARIS, TEXAS into an iconic film in which Wenders once again used the disjunctive nature of travel as a metaphor for the quest for oneself.

PARIS, TEXAS is the story of a taciturn man who resurfaces in the world following a long disappearance. After he is collected by his brother, a tragic narrative slowly unfolds of an impossible love, his lost son, and the search for his mother and ex-wife.

The film's opening shot, taken from a helicopter, provides the viewer straight off with proof of the masterful abilities of Wenders and Müller. Following the helicopter shots in ALICE IN THE CITIES and WRONG MOVE, they now produced the perfect opening shot for PARIS, TEXAS, which positioned the protagonist in a seemingly endless emptiness. The sequence filmed in the car with threatening light and rain outside is another example of how perfectly attuned Wenders and Müller were to one another. While the American crew members were busy eating, Wenders and Müller jumped into the car with a camera in order to capture that moment.

The scene in the peepshow is now regarded as a classic. Müller's use of a real one-way mirror was highly intentional, in order to obtain a realistic effect, in terms of both acting and the setting. Also unusual are the images Müller shoots during the car ride, in which close-ups of the two brothers alternate. Half of the frame in each case is filled by the landscape. To ensure that the background was also in focus, the scene was shot with a half lens. But even more important is the fact that, for the entire film, Müller succeeds in creating an atmosphere that perfectly fits the narrative, an atmosphere that draws the viewer – often subliminally – into the story. With Müller, the images must always be in the service of the story.

Working in Germany

Robby Müller worked with a large variety of other directors on numerous occasions during his career. In the 1960s and 1970s, for example, he filmed with a number of German directors, among them Peter Lilienthal and Edgar Reitz, as well as the Austrian director Peter Handke. He made eight films with Hans W. Geissendörfer, including the Patricia Highsmith adaptation THE GLASS CELL.

THE LEFTHANDED WOMAN is a film by Handke, who had already written the script for Wenders' WRONG MOVE. Some of the people working on the film had already had experience working intensely with Wenders. The film concerns a woman who decides to leave her husband and start a life of her own. The film is notable for its tightly
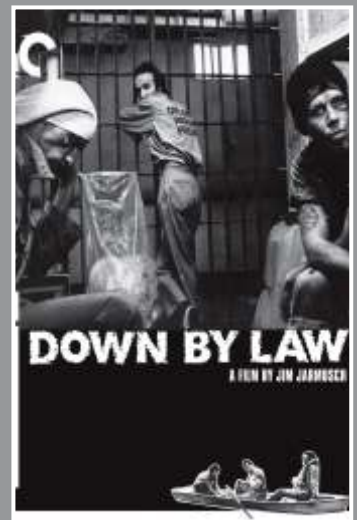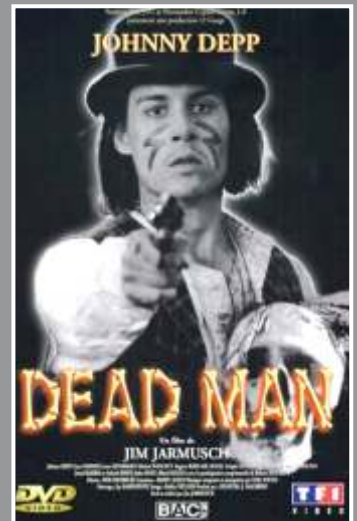
framed shots that seem the very opposite of the images that Müller was shooting at the time with Wenders. But here, too, Müller's choice is determined by the essence of the story that Handke wants to tell. The cool, bleached colors, the wide and static scenes in which the characters are often filmed from behind, and the motionless camera result in detached, almost neutral images that emphasize the isolation and loneliness of the woman.

THE GLASS CELL.

Frankfurt architect Phillip Braun was wrongly imprisoned for five years, convicted of a crime he had not committed. When he is released, he tries to take up his old life again. But his wife and his son have become estranged from him after the long separation. As a result of this situation, Braun again becomes involved in a crime.

For this thriller, Robby Müller developed a dark but understated imagery. For the most part, he shows the actors on their own in long or medium long shots, creating a charged atmosphere. Close-ups are only used if the "screen needs to explode," according to director Geissendörfer. In 1979, the film was nominated for an Oscar as the best foreign-language film and won the German Film Prize.

DOWN BY LAW, USA/FRG, 1986, directed by Jim Jarmusch.

Jim Jarmusch The commercial focus of the American film industry constitutes the diametric opposite of the way Robby Müller works. His preference would be to work with a small crew and to do the camera work and lighting himself. For Müller, lighting, framing and movement form an inextricable whole. He has an aversion to separate short shots. By reflecting on camera movements, he can determine how the light should be and how he can best capture the intensity of a scene with his observant filming style. He searches for moments of authenticity, not tricks for creating an atmosphere. The light, movement and frame must fit the narrative.

In America, it was thus liberating for him to be able to work with the independently minded, highly individualistic Jim Jarmusch (1953). As Director of Photography, he made such important works in his oeuvre as DOWN BY LAW, MYSTERY TRAIN and DEAD MAN. Because the two were so exceptionally well attuned to one another, Müller had a free hand in determining both lighting and camera movement. For the most part, he used long shots with wide frames, so that the gaze of the viewer is fairly free to roam at will through the picture. This also made it possible to portray parallel plots within a single screen. Scenes thus had to be shot in an extremely precise manner, with consistent lighting. In order to fade out the apparent beauty of the American landscapes, DOWN BY LAW and DEAD MAN were shot in black and white.

Müller and Jarmusch's first collaboration. One important starting point was not to shoot the film in color – especially because of the spectacular landscape in which the narrative was set. According to Müller, the countless hues of the woods or the stunning green of the duckweed in the swampland would have otherwise drawn too much attention away from the actors and the story.

Of special note are the film's extensive tracking shots of streets at a perfect right angle, the camera's gliding movement over the water, and the backward movement of the camera on the path in the wood. A proof of his cinematographic mastery was Müller's camerawork in the small jail cell, where he used various techniques to make use of the limited space to make the

In this color film, too, there are strict tracking shots in which light (daylight, evening light, and the "blue hour") plays an important role. The film is comprised of three quasi identical parts that take place at roughly the same time at the same hotel and on the same streets of Memphis. A challenge for Müller was to balance the lighting for all three parts, so that they would have the same effect.

DEAD MAN, 1995.

Also shot in black and white, this film takes place in the American wilderness. In this third collaboration with Jarmusch, Müller employs a combination of previously developed filming techniques: camera movements that slowly move along with the action, alternating with stricter tracking shots. Added to these was a newly developed style of subjective camerawork, which he used, among other things, to visualize Johnny Depp's slipping further and further into delirious death throes.

DANCER IN THE DARK, DK/SE/FR, 2000, directed by Lars von Trier,

Lars von Trier

Danish director Lars von Trier (1956) was determined to throw all existing (film) conventions overboard with BREAKING THE WAVES. For this film, he wanted to employ an uncompromisingly documentary style. Von Trier was one of the founders of the Dogma 95 manifesto, in which a group of Danish filmmakers resolved to create "pure" films that had to fulfil certain rules. Two of the Dogma 95 rules were that the camera had to be hand held and that scenes could not be created especially for the camera. Special lighting was also banned. According to von Trier, Müller's manner of filming had been a source of inspiration for Dogma 95.

To emphasize the film's documentary character, Müller was actually not supposed to know what was going to happen on the set of BREAKING THE WAVES. Müller relates about von Trier: "He asked me to simply be a spectator and look wherever I wanted. The camera itself was not to have a judging function, but was to function like the eye of a child." Another requirement was for the camera to be able at all times – both indoors and out – to go all around the actors. This meant that Müller would not be able to set the lighting or precisely compose shot compositions. Von Trier wanted to retain the rawness of the naïve gaze. Rather than being regarded as shortcomings, imperfections in lighting, focus or framing were viewed positively. The film generated not only much controversy with the public, but also consternation with many professional Directors of Photography. They entirely rejected its – intentional – unfocused images, graininess, bleached out colors and shaky camera movements, and considered them to be an insult to their craft.

DANCER IN THE DARK, Müller's second film with Von Trier, was shot completely with simple, inexpensive digital hand held cameras and is filled with stylistic innovations. The musical scenes, for example, were filmed using numerous small video cameras "hidden" at different locations on the set. Shooting with digital video cameras marked a revolutionary step at a time when their quality was still looked down upon. But technology was indeed not the point of departure. Von Trier and Müller wanted to obtain a very special atmosphere, whereby the lesser image quality was an entirely acceptable consequence.

Other directors

As of 1979, Robby Müller also worked with other American directors. However, the American studio system, in which directors often had little say in various matters, horrified him. There were too many people who interfered with the film on nonartistic grounds, as well as excessive and ultimately unproductive regulations that leave no room for improvisation or new ideas that arise while shooting. Although Müller did shoot a number of films produced by American studios, he preferred to look for collaborations with exceptional, "independent" directors and

BARFLY, 1987 (Barbet Schroeder),

A Bukowski adaptation by the FrenchSwiss director Barbet Schroeder, with Mickey Rourke and Faye Dunaway in the leading roles. For this film, which mainly takes place in dimly lit bars, Müller and his lighting crew devised and developed a special type of TL lamp that could be easily attached anywhere and altered in light intensity. Besides the beautifully illuminated bar scenes, Müller often succeeded in the daytime scenes in creating wonderful combinations of daylight and artificial light in a single shot.

Polaroid

From the late 1940s on, the American firm Polaroid developed various techniques for instant photography. In 1972, the first single lens reflex instant camera came on the market, the SX70. This camera plays an important role in the film ALICE IN THE CITIES, made by Wenders and Müller in 1974. Robby Müller has continued to take Polaroid pictures ever since in his free time, in part as a way of studying light and composition. Among other things, he has photographed hotel rooms, as well as picturesque still lifes, abstract patterns of light, reflections and urban landscapes. Sometimes he also simply experiments by photographing in difficult lighting conditions – such as with contrejour – or in situations that combine twilight and artificial light. Robby Müller's Polaroid pictures show how he "thinks" photographically in regard to color, light, shadow and composition. They also reveal more about his photographic vision, which is a hallmark of his films.

"Article is reproduced from the Press Kit of "Special Exhibition at the Museum für Film und Fernsehen: 6 July to 5 November 2017. Robby Müller – Master of Light. ❑❑❑

Interviews with DOP

Varun Sud
Soumik Mukherjee
Alok Upadhyay

INDEX

Editor's Desk

Greetings!

Time and again, we try to bring in something that will excite you as a reader. From now onwards, you will see a tribute section devoted to an internationally known cinematographer. You will be glad to know that in this issue we are paying tribute to the master Cinematographer from Germany, Robby Müller, who is internationally known for his work with German Director "Wim Wenders."

You will also find an interesting article on four ad films that were challenging to shoot for Varun Sud. Inderjit Bansal, a veteran Cinematographer, talks about his journey as a cinematographer since the days of high-band video format shooting. In the times when colour is the talk of the town, Soumik Mukherjee discusses the aesthetic considerations of shooting BHEED in black and white.

Alok Upadhyay recollects his days of working with K K Mahajan and talks about the challenging moments of shooting documentaries. Down south, we discussed in detail with P. G. Vinda, President of the Telugu Language Cinematographer's Association, about his exciting projects as DOP.

Colour grading is the most important aspect in today's world of visual making in cinema. We discussed in detail the nuts and bolts of grading with a veteran Colourist, Swapnil Patole, Chief of the DI Department at Famous Studio in Mumbai.

Cheers!!
Naresh Sharma
naresh.sharma@cinematographyart.org

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Interview with DOP
Varun Sud

"   Varun Sud is an accomplished cinematographer with a passion for capturing the beauty and emotion of the world around him. With over a decade of experience in the film industry, Varun has worked on a wide range of projects, from TVCs to Bollywood productions

    Varun's journey as a cinematographer began in his early twenties when he discovered his love for photography. From being a trained Mechanical Engineer he made a switch to filmmaking. He honed his skills by pursuing Diploma in Cinematography at WWI.

    Since then, Varun has worked on a diverse range of projects, from music videos and commercials to documentaries and feature films. He has worked on acclaimed TV shows like Dewarists, Sound Trippin and Super Factories. His work on his feature film 'Hum Chaar' was praised for its visuals, emotional depth, and attention to detail.

    Varun is particularly skilled at creating unique and immersive cinematic experiences that transport audiences to the heart of the story.

    Varun's approach to cinematography is collaborative and intuitive. He works closely with directors and other members of the production team to understand their vision and bring it to life on screen. He is known for his ability to think creatively and adapt quickly to changing circumstances, ensuring that every shot is captured with precision and artistry.

    Despite his success, Varun remains grounded and dedicated to his craft. He is constantly seeking new challenges and opportunities to learn and grow as a cinematographer, and he is deeply committed to creating work that inspires and moves audiences. "

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What challenges did you encounter while filming the LG LED TV commercial starring Shahrukh Khan?

The TVC was directed by Farah Khan. This commercial was the second in the series we did for LG with SRK. This time we wanted to take it up a notch, make more number of setups, create bigger and more luxurious sets, show bigger scale. However, as it is with most celebrity shoots, we didn't have a lot of time. We had about 9 setups to shoot in only 8 hours with SRK. Everything was to be shot inside 2 big studio floors. It was all pre lit so we spent very little time shifting between setups.

We were shooting for the world's first and only rollable TV by LG. So the sets had to be larger than life and exude premiumness. But at the same time be futuristic and minimalistic like the TV. The lighting was done in such a way so that a feeling of opulence would come through. I used a lot of warm sunlight creating long shadows mixed with cool daylight.

Lot of VFX and green screen was used to recreate the helipad and SRK's car garage inside the studio. Green screen was used outside the windows to add breathtaking backgrounds in post. Discussions with the VFX team during pre production enabled us to light in a way it looked seamless.

I noticed that we see both practical and outside lights in

the scene where he comes in and turns on his TV. Tell me about the concept of having the practicals while still having daylight source

I like to use a lot of color contrast in my images. I often use coloured fill light as if light is bouncing off a coloured wall in the room and filling the shadows. I like how a room can have light filtering in through coloured curtains or stained glass. I love the magical realism it creates. So mixing warm light of practicals with cool daylight is the easiest way to create color contrast. Hence even during a day scene, I like to keep the practicals on. I just dim them down enough, so they don't overpower the daylight from outside. They help to create a lot of depth and mood.

What challenges did you encounter while working with a celebrity, and how did you overcome them?

The challenge while working with a celebrity is the time constraint. There is always a lot to shoot in very little time. With non celebrity cast, you can request for another take, adjust the lighting if it isn't perfect. But with celebrities there isn't a lot of margin for error. You have to think on your toes, fine tune lighting during rehearsals. Key is to not feel the pressure and do your job. Working with Farah and SRK was an excellent opportunity to demonstrate my ability to work under immense pressure.

I remember very early on my career I had done two films for Puma with Lisa Hayden and Jacqueline Fernandes. They were giving us only couple of hours each for the film shoot after the photo shoot. I had marked every camera position with lens and height during blocking rehearsals with the body double. Then when the celebrity came we started with close ups and as we went wider and wider we kept removing the tapes we had put for camera positions. This way we were able to deliver superb looking films in very limited time.

One more very challenging shoot was a recent commercial I shot with Pankaj Tripathi for Lux. We were shooting during monsoons in Filmcity and there were no big floors available. We had to recreate a Mirzapur kind of small town body building contest happening inside a big tent. But since our tent had to be covered with a water proof tent from top it limited our tent size and shooting space. I used Anamorphic lenses and lot of coloured tubes for some very interesting flares. That enabled me to create depth and rustic texture inside a fairly small tent setup. The stage was made movable so that the camera had space to go back and shoot. More stage was added in front for the stage shots to create depth in that axis.

In the Ranbir Kapoor mobile phone ad, the difference between the future and the past is blue sequences in the high-tech zone and then a red sequence of the lighting, blinking in the past. What was the point of having a red light blinking over while overall blue dominating colour ?

This was yet another challenging shoot. We were shooting for the new Oppo Reno 8 with Ranbir and we had a

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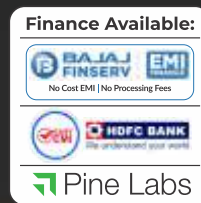
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lot to shoot with him in just 8hrs. I seemed almost impossible when I read the script at first. But when we finished shooting with him and canned everything in time it was a very satisfying experience.

Visually it was a very interesting project. We were supposed to show 2022 and recreate scenes from the 90's in that film.. times when we had cyber cafés, PCs, old video games and powercuts. To show the advanced technology in Ranbir's laboratory in the present we used blue, green and cooler tones. Then when he returns to the past, to show that he had traveled back in time, we decided to use lot of reds and warmer tones. When he goes to the lab of the evil uncle and there is a power cut we used low voltage fluctuating red lights like the ones we used to have when inverters were used.

Is there anything specific you'd like to talk about the lighting in the Canon commercial?

Post film school I shot a lot with the Canon 5Ds. They were revolutionary in how full frame DSLRs enabled low budget filmmaker's to make cinematic visuals. So it was a honour to be shooting for the launch of Canon R6 camera and showcasing how they still created latest cutting edge visuals.
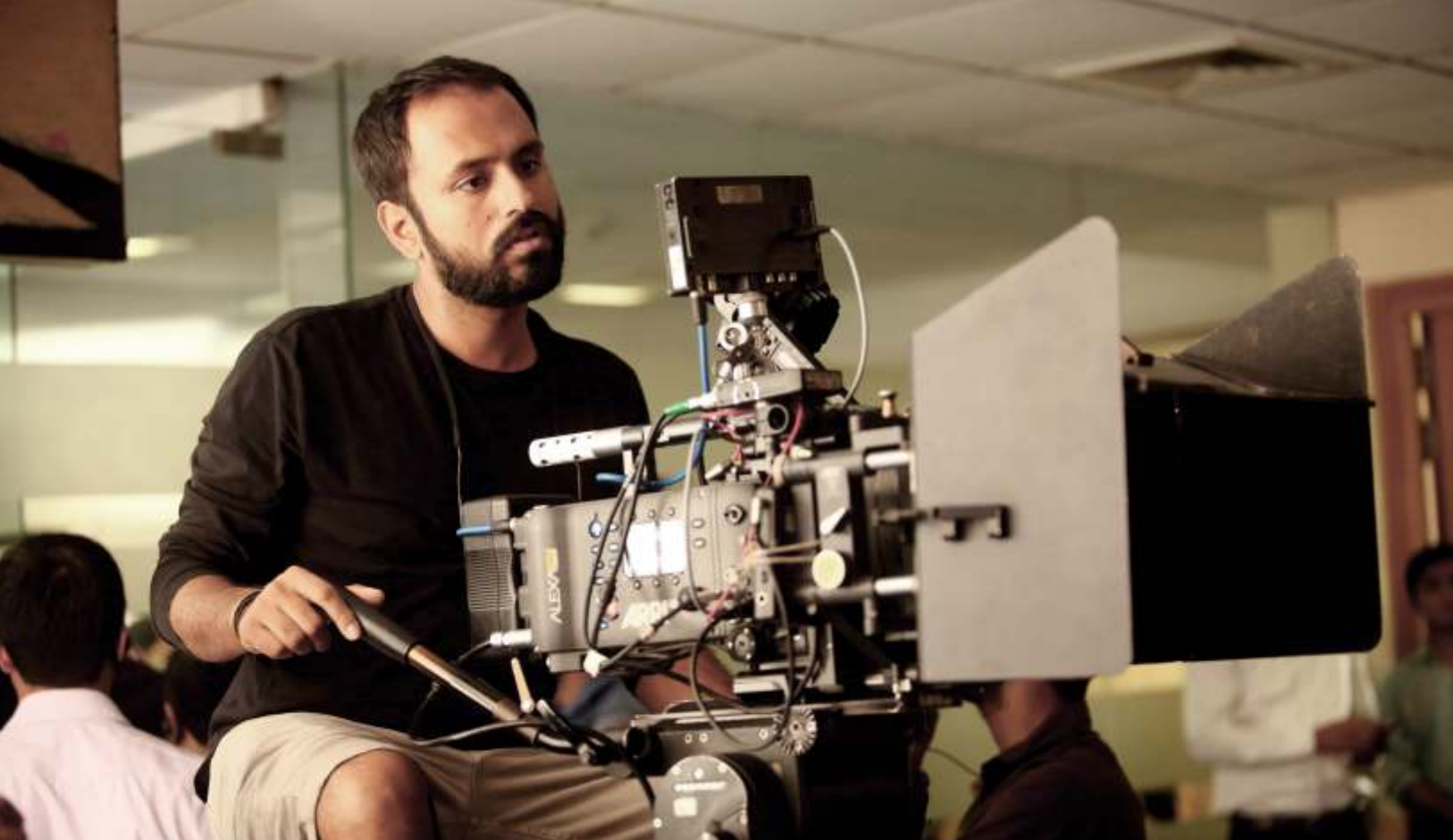
There were mainly 3 scenes in that commercial where we illustrated how this camera is an elite pick when it comes to capturing a variety of tones, shades, contrasts and colors. To evince this, we specifically chose to use the mighty blues of the ocean, a dusky horse in a rusty barn, and a girl dancing on a rope to showcase the aesthetic power of the camera. The whole idea behind this was to demonstrate the camera's

capacity to capture diversified images ranging from the coolness of water to the warmth of wood, and from elegance of a dance to the heat of almost desert-like sand.

A film for a camera launch had to be purely stylized. We created a 30ft tall set for the girl rope dancing sequence. It was big. There was no place to even put a tarappa on top of that set. My 1st AC used a chain puller to rig a moving head on top. Then we used two more from the sides. This created a very stark visual since the moving heads are very focused and don't spill. The blue of the moving contrasted very well with the warm light I used to light up the circular window. The silhouette of the girl dancing in front of it showcased how the Canon camera captured details in both deep shadows to bright coloured highlights.

The barn for the horse jumping sequence was also created in the same studio. It was also a big set since the horse needed a lot of space to run up before jumping and then stop. I used dinos coming in through the windows to recreate the harsh desert sun. Used skypanels for recreating cool toplight ambience.

For the underwater scene we went to Alibaug to shoot. We shot at night so that I could recreate the day light underwater and keep in under our control. I used a follow spot to create the effect of a strong specular sun. It beautifully created ripple effect on actors' faces when water moved. Then I used 3 skypanels on a crane to create the red top ambience when the couple meets. The blue of the water and red fill lights created a breathtaking image. It potrayed how well Canon cameras record colors and render perfect skin tones.

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Shooting with horses, a rope dancer and underwater all in one film, I think the canon film has been my most challenging shoot till now. We shot for almost 40hrs in two days for that film.

You mentioned stylized lighting earlier; what is your interpretation of the phrase/how would you define the phrase "I want stylized lighting"?

Before I went to film school, Amélie and Delicatessen were two of my most favourite films. They were comedies but were lit in a very moody, contrasy way. I loved how they used color contrast to create stylized imagery. Fortunately my diploma film was a dark comedy script, so I used Amelie and Delicatessen as my references. To think of it now it was quite

brave of me to try and recreate those kind of dark moody visuals that also on 16mm stock that didn't give us a lot of latitude to play with in post .

My style is derived from creating a moody, dramatic but at the same time a pleasing image. I use a lot of hard light in the background to bring out contrast and soft light on actors. My favourite lights are Leko Source 4s. I love how their lens enables them to create very realistic sun patches with inbuilt shutter blade assembly to cut light.

I enjoy a lot of negative fill. In the beginning I was always trying to put more light to create contrast, and then the day I realized I could take off light instead changed everything. I love to light in layers to create three dimensionality in a 2D medium. I always try to induce mood and contrast to my images. I don't think I can do a bright flat looking image. For me even a beauty film needs to have a certain mood and contrast.

In today's world, digital cameras have sensors, especially premium lenses from Cooke Optics, Signature Prime, and a few other companies. Do you believe that a particular brand of lens can create a specific look?

Not really. We shot with only Canon lenses for the Canon R6 launch film. Even though my preferred go to lenses are the Cookes, the Canon film looked astonishingly good. I believe more than the lenses, your lighting, camera filters and grade play a more critical role in giving a look to your images. For a stronger imprint I used the Anamorphic lenses which render flares etc very differently than your spherical lenses

feedback: Varun Sud <contact@varunsud.com>

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Interview With DIT Professional
VIJAY RANA

What is the work of a DI Technician?

The work of a DI Technician is to transfer data appropriately from the card to the hard drive. And make backups from Master Data. Master Data needs to be copied serial-wise and then converted.

What do you mean by serial wise?

For example, from day 1 of the shoot we have our two cameras which we divide into cam A and cam B. Subsequently we get card 1 from both cam A and cam B and start copying the master data serially from the beginning. Generally, the director demands to match the data serial-wise right away. Such as, we got card 1 with 10 clips and then we inserted card 2 to continue. For a fact, card 2 will also start numbering it's clips from 1 onwards. Therefore, we need to make sure the serial number of card 2 starts from 11 onwards. If we want to we can change the serial number of the card in the camera itself. After the 1st reel, there should be the 2nd reel.

Do you number the continuation clips as 1 onwards or start from 11 onwards?

Usually, it starts from 1 onwards. But generally, the director says

"After doing Diploma in Editing, Vijay Rana started working as DIT operator in Delhi from 2017 . He has worked with more than 50 rental houses as freelance DIT operator all over the country. He believes that his knowledge of editing and software like FCP and DaVinci Resolve helped him a lot . He thinks that it is more than just copying and converting data , one needs to have a proper understanding of applying LUT . Editor & Publisher NARESH SHARMA, gets into the nitty-gritty of DIT."

that if we have 10 clips in card 1, he needs card 2 to start its clip numbering from 11 onwards so that we can sync easily in the timeline.

What does proxy mean?

Proxy is a type of conversion. For instance, if we are shooting a file in any type of format, it cannot be played abruptly in any software. Likewise, the raw footage cannot be sent for editing. Therefore, to minimize the resolution and to change the codec, we convert them which is called Proxy.

How do you convert that?

Primarily, over here most of the time conversion happens in Full HD 1920 x 1080. Proxy also has 2 to 3 codecs, one of which is Apple ProRes which is mostly used. Apple ProRes 422 and Apple ProRes 422 Proxy belong under it.

What is the difference between Apple ProRes 422 and Apple ProRes 422 Proxy?

The difference between these is that the Proxy that we make in Apple has some heavy footage. And 422 proxy is lighter footage in terms of the size of the file and the resolution. Likewise, due to codec quality, it has become very less.

What is the use of Proxy Files?

The Proxy file goes to the editor and he only edits it. The clip number is the same in the proxy file as well as in the raw files. The Editor makes the project from the Proxy file. Later when the editor sends it to the DI he transfers both raw data as well as the proxy files. The DI Artist then works on the raw footage of the same from the proxy file having the same clip number.

What technicality needs to be done by a DI Technician, as the basic work is just copying and numbering?

It seems to be easy and can be done by any person. But the DI Technician plays a major role in taking responsibility. The conversion needs to be done by a DI technician. We check that no file is corrupt while making the transfer.

Is Conversion done in the software?

Conversion is mostly done in DaVinci Resolve. We also use Media Encoder. DaVinci Resolve also has free software but has limitations of use. LUT cannot be applied to it. LUT, a Look-up table is a raw footage frame that makes a base for colour grading. You get a basic idea of how it will look in the final output. Therefore, the DIT applies the LUT.

How does the DIT choose the LUT and where to apply it?

We choose it according to the camera. For example, when we are using Sony, we insert Sony Rec 709 which makes the base of it. Followed by, if the editor makes the LUT according to the camera and transfers us, even that is being applied.

Does the Editor or the Cameraman make the LUT?

The cameraman also makes the LUT, but most of the time he himself makes it from the Editor because the Editor has an idea of which camera we are shooting in and which LUT is going to work accordingly.

What does LUT have? Does it consist of any number?

LUT does not consist of any numbers, it happens in the camera itself. Such as, if we are using Sony we shoot in Slog2 or Slog3. While shooting in Slog3, we have to insert the LUT of Slog3. Ahead of that we have to go till 709 and need to show it many times. The director demands from a senior DIT that he can prepare a rough timeline of the footage so that the director can see the footage in sequence.

Once I was working on a web series, and the Director took two shots in the same image of the frame. He wanted to do some masking displaying his character sitting on the table and showing a movement in the background. I did the masking and then showed it to him.

What type of problem do you face while doing this?

Usually, when we copy the entire card, some of the specific clip numbers start showing errors. In those cases, we select 2 to 4 clips and then copy them. During conversion, we do not face many problems but it does take time. If we are converting a 1Tb card it takes almost 60-90 minutes. The time taken to copy depends on the system and how fast speed it is. Nowadays the M1 or M2 series which are Apple Macbooks are very popular. Apple's Macbook Pro series are being used. The Macbook Air works only when you have to copy, but it cannot convert. Windows are not used. In the Macbook we attach the card first and in the other port we connect the

hard drive and with the help of the Mac, we copy it. In India, LaCie is the best hard drive used. The G-RAID hard drive of Sandisk is used abroad. The Samsung SSD is very fast too, it takes just 8 to 9 minutes to copy a 500 GB card.

What more problems do you face?

The DIT faces a lot of burdens. For example, after pack-ups or in between takes, the Assistant Director or Continuity Supervisor wants to see certain shots in between the shots, which creates confusion and disturbs the flow of our work. The conversion cannot take place while they check. Because for conversion you need a heavy system. Therefore we can do the conversion or the playback of a scene one at a time.

AJA has a recorder as well as a monitor at the back. How do you transfer the recording?

AJA comes with a card and a card reader. With the help of the cable we connect it to the system and then we copy it. Most of the time we make a proxy file. AJA records in low resolution. There are very few 4k recorders that we have, HD recorders are mostly used in India.

How do you convert it into 4k?

We do not convert it into 4k, it is just kept for safety. If you need to show the playback and you have a short period time for conversion, that data can be copied and playback can be shown. It is kept only for safety and is not used for editing. Proxy is made in low resolution. Different companies have their Codec which is used by none of the editors. They only use the proxy file during the edit.

Atmos comes with a recorder and it records in different codecs. A proxy file is made by us when the editor is unable to use it on the timeline. If you want to watch any playback file or in an emergency if you miss any footage only then some footage is being used from the On camera recorder. Though it doesn't have any role, people record with it sometimes but do not copy that data file.

It is only recorded when the DI Technician is not present on the set or the system of the DIT is slow and the proxy file is not ready to be shown to the director. The footage that is recorded can be watched in playback. Therefore, the Director sometimes checks the playback or the Focus puller checks it for safety.

In camera, we use 3 to 4 cards, because the size of the footage is larger. Whereas the camera recorder has a smaller footage size that fits in a single card. The clip number remains the same as the camera. Hence, it has become a monitor for a Focus Puller. He can watch the playback whenever he is in doubt. Atomos has Ninja and Shogun as a recorder. DJI also has a recorder. Shogun is mostly used, the colour and other specifications of it are accurate as said by the focus puller. Focus pullers also use DJI's monitor which is a bit advanced. With one transmitter you can use 2 to 3 monitors.

Any bitter experience you faced as a DIT?

There is a Production house that shot an Ad in Bombay with Ranveer Singh, with 4 to 5 DSLR cameras placed at different angles. The DIT who was present in the shoot used to get 4-5 cards together and never used to mark them appropriately. When we get a card we should mark it with gaffer tape as card 1 from camera A and so on. He did not do it similarly. He kept 2-3 folders and when the editor wanted to see the footage, he wasn't able to find it. He exclaimed to the team that the DOP did not shoot properly. Therefore facing these consequences the production house wanted help from a DIT based in Delhi. I reached out to them and it took me 4 to 5 hours to check the entire data. Eventually, I took out the data, the conversion folder, and the folder separately. They thought one card of footage was missing which was not. That card was of Cam A which was kept in Cam B. I had to check every footage and match every clip number. Later I transferred the card to Cam A and made a proxy because he did not even make a proxy.

How do you prepare the Log?

We note it down in the diary as well as we also get the log sheet. The Continuity Supervisor mostly sits with us, because for continuity he has to keep track of it. We keep it by day and card-wise.

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E-mail: chauhanvijay0810@gmail.com

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Interview with DOP
Alok Upadhyay

"   Alok was born in Nigeria, West Africa and grew up in a number of countries in East and Central Africa. In the early 70's I moved back to India to study at a boarding school in the South of Indi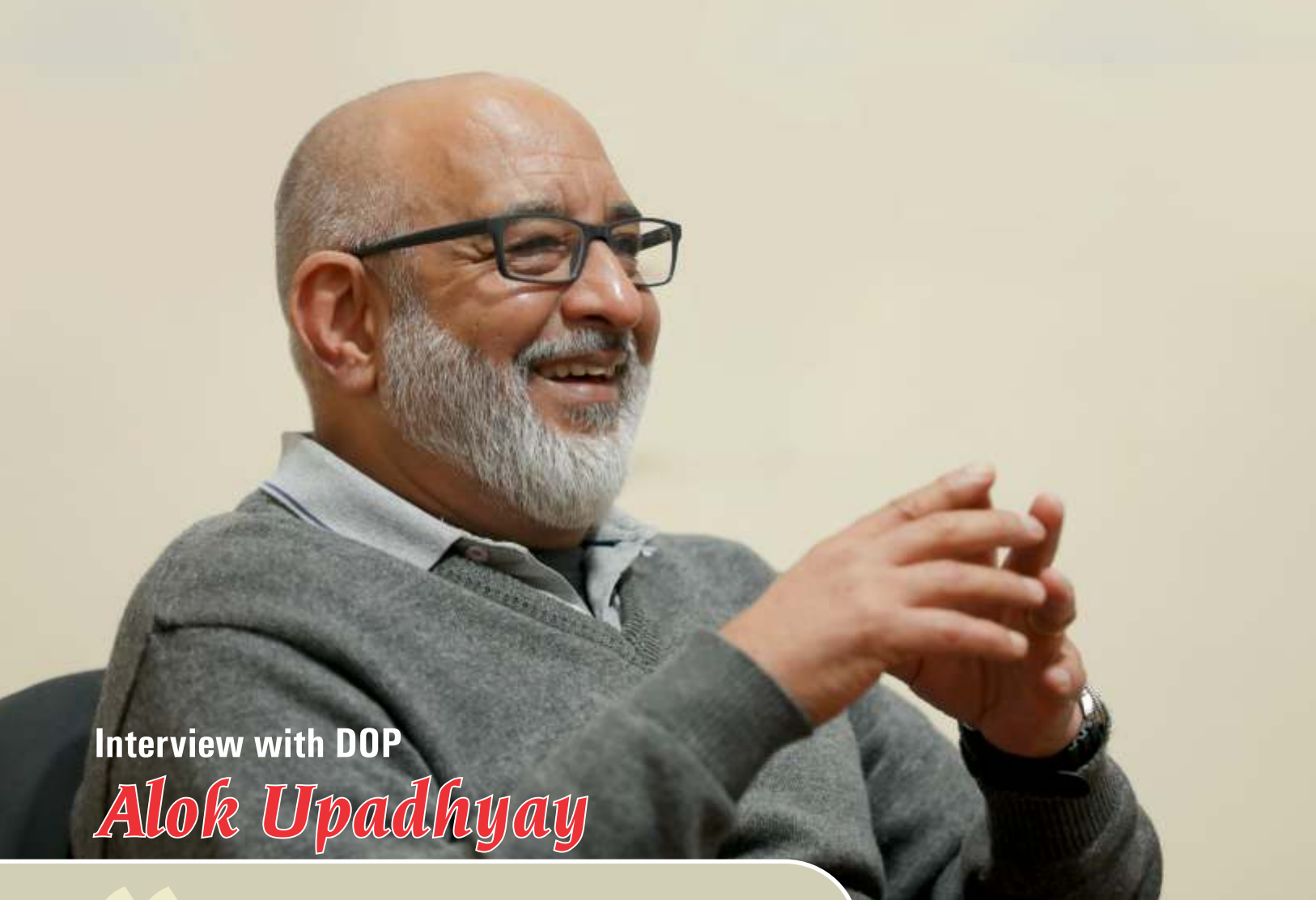a. A brief period at Fergusson College in Pune, during which time I came into contact with a number of FTII students and as I had been keen on photography since school, applying for admission to FTII seemed like a logical step forward. After graduating I worked mainly with Mr. KK Mahajan for a period of 6-7 years, but also with many other cinematographers.

After I started working independently I preferred to work on documentary films which was greatly rewarding as it gave me the opportunity to travel a great deal seeing new places, experiencing different cultures and meeting some amazing people all over the world. My long association with a company based in Heidelberg, Germany was of particulate r significance for me as I shot nearly 35 films for them over a 20 year period. I now live in Auckland, New Zealand and work as the operations manager with Oceania Productions. We are a large company working in the live event space providing equipment as well as technicians in the Audio, Lighting and Vision areas."

Share your experiences while working with K.K. Mahajan.

The first thing that I recall about K.K. Mahajan is that he was well-respected and well-known in both the Art film scene as well as in Commercial cinema.He had made a mark with his work in both areas.In my opinion KK Mahajan and AK Bir are the two cinematographers who changed the way films were shot in India. Of course Subroto Da came before them, with a body of work that is unsurpassed and timeless, but they worked in both kinds of films and were outstanding at that.

Communication was always very important to the way Mahajan Saab worked.I recall that he would insist that the assistants be present when the director is explaining the scene or shot to him.If the camera team were all aware of the work that needed to be done then they would work efficiently together. He would also communicate his own ideas clearly and once done we

could all get on with the work at hand.

There were obviously exceptions and it would be quite clear when he was working with people he knew well, like Kumar Shahani and Mrinal Sen. Very early in my association with Mahajan Saab we were shooting a film for Kumar Shahani and an entire day would go by with nearly no discussion between him and Kumar. They had known each other since their FTII days and knew exactly what the other was thinking. It was a wonderful experience working with a director and cameraman that understood each other so well.

Mahajan Saab was always known for how quickly he would work.Even when we were in the institute we would hear of his work and how fast he was in lighting up even very large sets.I recall that he was always very clear as to where the key light would go. Once that was done then everything else was done quickly.

Mahajan Saab was always very fair in his dealing with people and especially those working with him and close to him.He would never introduce youth people as his assistant. You would be introduced as a person who works with him. It had a bug difference in the way you were look at by others. He always stood up for and stood by his assistants.

He was a very strict task master, but at the same time gave you a lot of freedom and responsibility.

What differences did you notice between K.K.'s approach to working with people like Kumar Shahani and other types of people?

As I said earlier Mahajan Saab worked comfortably in both commercial as well as art films.His approach was always the same in that he had to deliver at his best.With the pressures of commercial films where a lot would need to be done in a limited time he would choose to keep things simple. With the art films he would be more involved .

What are a few things you should keep in mind while shooting a documentary?

Trust. Your subjects need to trust you and feel that what you are doing is in their best interest. It's often that in documentary work that your subjects will not be familiar with cameras audio equipment etc and can feel intimidated. If they trust you it will make them comfortable an easy to work with.

As a cameraperson it is important to know how the film / story is going to flow and therefore shoot sufficient extra material. The editor will be eternally grateful. Its unlikely that you will be bale to come back to the location to pick up some extra shots at a later date.

 I shot 32 films for a German company. We produced a five-part documentary series on Marco Polo, based on the

book he wrote in 1270 about his journey from Venice to China. Using that as a starting point, we traveled from Venice to Beijing to investigate what the Silk Road means in a contemporary context. Thus, we started in Venice and shot during the Venice Carnival. Everyone in the world knows Venice's carnival is so iconic in terms of how people dress, wear masks and costumes. There was no need to include the title "Venice, Italy." It is a preference of mine to never shoot a sign or board or have a title giving the name of a place.Your visuals should speak for themselves.

Another thing that I like very much while doing interviews, is that the person being interviewed be doing some activity. For example if you are interviewing a carpenter then its always nice that he be working while speaking.Its livelier , more interesting visually and allows for cuts aways and cut ins to overlap on his words.

I made a series of films about India's maritime history. We started in Mandvi, where they make wooden ships, and traveled the entire Indian coastline, all the way down to Calcutta. In school, I did not like history. While making these three films, I began to appreciate history because you're learning indigenous history from the people, which is an entirely different history. This rekindled my interest in history and its also possibly what kept me involved in documentary cinema for a very long time.

What do you decide to shoot in the scenario where you are aware of the location, and the director has informed you of the subject?

My experience has shown that you should always shoot a bit extra, and I believe the director will give you a free hand and say, "Yes, go ahead and do it." It'll take you another fifteen minutes to get those four closeups. They will realise on the editing table the importance of those closeups. Some directors give you that freedom; they will only explain the gist of it in the larger picture, and you shoot the images the way you want. Some directors are going to be more interested in general than specifics. Therefore, I noticed you're a cameraman and a half-editor on documentaries.

How much does a cinematographer need to understand the editing of the particular footage you're shooting?

Nearly entirely, because, as I mentioned, you won't have another chance to visit that location, so you need to know how it will be put together. I believe that comes from discussions with the director before filming starts about what he wants to do and how he wants to tell the story.

In terms of lighting, what are the basic things you look for in a location where you're going to shoot?

Often, you travel with only a few lights, probably two small LEDs and one or two small lighting fixtures. You've got a
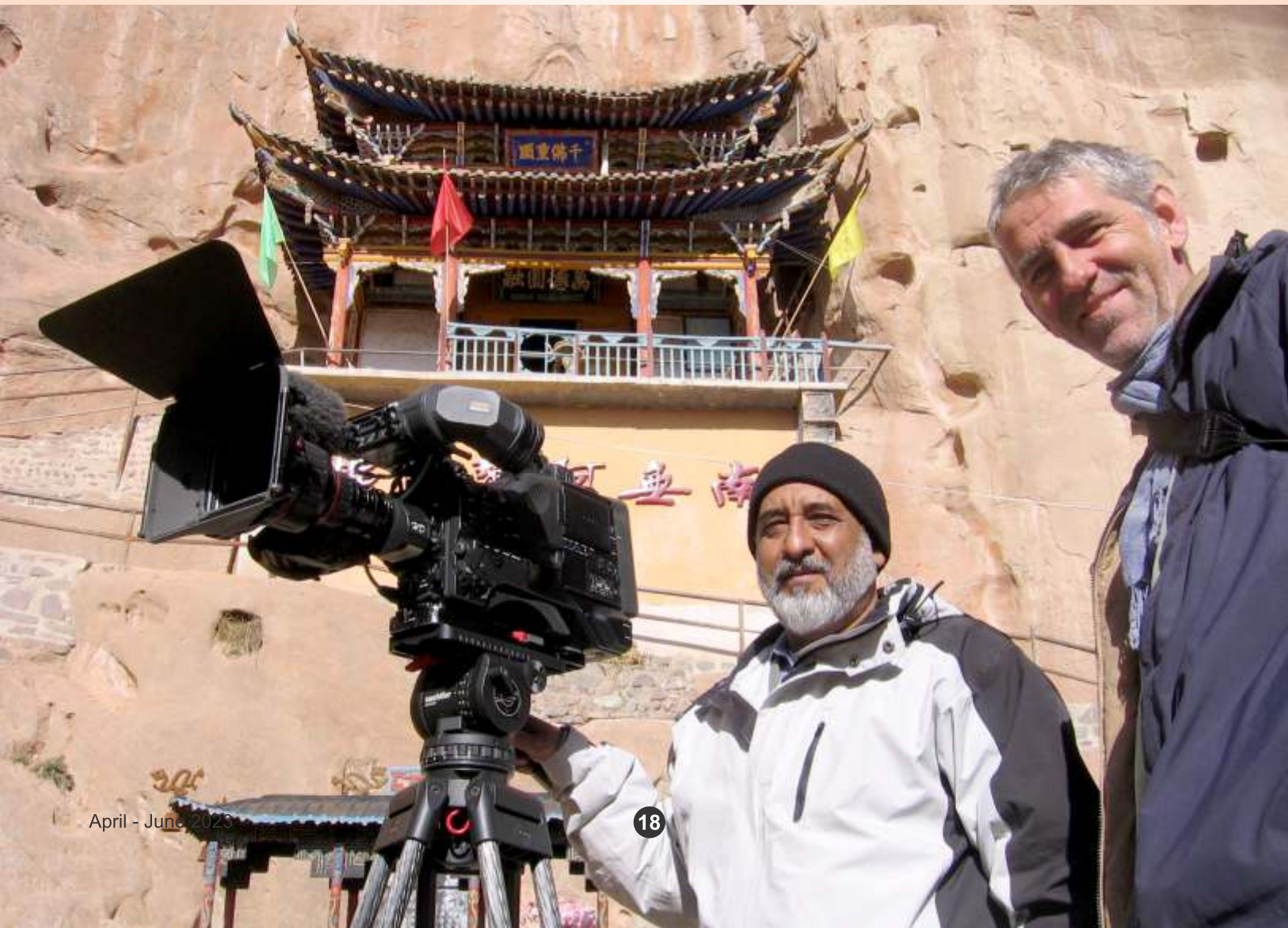
crew of four or five people. I would always look for a location with consistent light over a slightly extended period, say a couple of hours, and shoot there. The reason for that is if the light is changing all the time and you need to move the camera and the subject around a lot it will be very disturbing for all concerned. It may not be the best location but it would be the right choice with regard to telling the story.

What should you do if you're shooting in a situation where things are happening beyond your control?

It would help if you got your establishing shots done first. It will put a lot of things in perspective, for example, where's the location, who are these people, and what are they doing.Get your long shots first. It would be possible to get close ups done even if the light changes and at times in a different location as well.

Suppose we're interviewing somebody who is not comfortable around a camera, so as a cameraman or as a director, what can we do to make him comfortable?

Roll the camera without them knowing and maybe begin by asking some questions that are not relevant to your story. If you can break the ice between and gain his / her trust things will follow naturally from there. You will need to be patient.

Some people are very short on answers. However, we require more elaborate responses. How can we extract more from the individual?

That's always a little tricky because you'll ask someone, "Do you go fishing in the sea?" and he'll say yes. Another thing I like is not including questions in the film. For example, if someone asks, "What's your favourite food?" and the answer is "fish," ask him to put the question in the answer, "My favourite food is fish," because that's something you can use. You can't force someone to speak if they don't want to, but as you know, it takes time. If you break the ice, you will gain their trust, and they will begin to speak after a while.

Suppose someone is shy in front of the camera. In that case, tell your cameraman to take the camera and leave. Get establishing shots of the location and shots tat could help to illustrate the story.You record only his voice, which you can overlap on these visuals, and the little bit you get of him on camera is possibly enough for you to build a short sequence. Therefore, closeups and cutaways are extremely important and could work in this scenario. That is probably one way to deal with it.

What are the most common challenges you've encountered while filming a documentary?

I discovered a lot of physical challenges in documentary work. When we were filming in Afghanistan, getting from one location to another was difficult. There were no roads. When traveling somewhere, we were told to stop, put on

bulletproof vests, and continue. There were numerous physical and mental challenges before arriving at the first location.

I made a series of films about the Khalistan movement in Punjab. That was emotionally draining. My assistant left after about ten days. He said, "I can't take this." You need to separate yourself from that at some point, even if it means not shooting for two days and staying at the hotel with the crew to de-stress. You must be mentally prepared when the director approaches you with a certain subject.

Have you ever been in an unfavourable situation where you planned something for three or two months, and it didn't go as planned? How did you deal with it?

China is rapidly changing and growing vertically all the time. We had chosen a location consisting of fields for a series on food from around the world. When we returned three months later to shoot in this location, there were no fields, only skyscrapers. Then we had to cheat the whole sequence and shoot the interior of the farmer's house. His house was still there, but the fields weren't. The farms had all vanished. Hence, we shot as much as we could inside his house and then had to go to another field about thirty or forty kilometres away to shoot him in a field, which luckily happened to be his friend's field. Therefore, you must be able to evolve. Find a solution to a problem as soon as possible; the sooner you find it, the better. If Plan A isn't successful, switch to Plan B.

Do you have any suggestions for keeping emotions out of our jobs? How can we separate emotions from our work if the subject we're shooting is relatable?

Sit down with people who aren't your crew and talk it out. I believe that talking is extremely beneficial. If something is bothering you mentally, you must find a way to get it out of your system. Crying is helpful because it allows you to express your emotions. If you want to sit quietly and meditate for two hours, go ahead and do it. Everyone handles it in their own way. But you must find your own coping mechanism.

I was working with Kumar on this film on Guru Kelucharan Mohapatra. I'm sitting on a crane one day when we do this long shot of Guru ji dancing by the side of a beautiful lake. I started crying the moment we cut the camera. It was an emotional experience. Kumar approached me, grabbed my shoulder, and assured me everything was fine. You will encounter these situations at some point in your life. Therefore, don't be afraid to express your emotions; you'll be respected for it. It'll show if you are emotionally invested and expressive in your work. People say that singers express their emotions through their singing, whereas cameramen express their emotions through the images they capture.

What are the most important things to remember when filming a documentary?

Number one, you're telling the director's story. Two, avoid becoming emotionally attached to your images. The editor will never complete any work if a cameraman enters the edit suite because the cameraman will think, "This is a beautiful shot," and it should be in the film. If the shot isn't helping to tell the story, get rid of it, even if it's the best shot you've ever taken. Someone asked Haskell Wexler, "Where do you put the camera?" He said, "Put the camera where the story is."

At the end of the day, it's a collaborative effort between you, the editor, and the sound guy to tell the director's story. I believe your contribution as a professional, as a competent cameraman, and as a storyteller is that your visuals should tell stories. It will come out on its own if you understand what your director wants to do and achieve.

What is the most reliable and authentic source for doing research in documentary films?

It's meeting the people on whom you're shooting a film. They will provide you with the most accurate information. Try to figure out what the story is. What are their issues? What exactly is the problem? The internet can give you all kinds of reasons, but you won't know the truth until you meet the person concerned, whether or not you decide to bring your camera with you and shoot some visuals. Just bring a notebook and a pen, and that'll be enough. The internet cannot be relied upon. Furthermore, your viewpoint may differ from the viewpoint expressed in the internet article.

Many years ago I at an airport I met a cameraman friend of mine who was travelling to a small island in the Indian Ocean to do a film on a socio-political issue that connects back to India.I though it was an interesting project and wished him all the best.We met again a few months later and I asked how the shoot went. His reply was quite dissapointing. As much of the research had been done on the internet the actual reality on the ground was quite different. I remember him using the words, " there is no conflict there". The film never got made.

What is the difference between your work in India and your work elsewhere?

There are many differences but possibly the most striking is the size of the crews.Overseas the crews are much smaller.

Is there a language barrier when working with people from different countries?

I shot two films in Indonesia with a lighting crew that didn't speak English. Sign language was effective. It was so simple, and they were onto it as soon as they realised what the gestures meant. I made a film in Sri Lanka where only one guy spoke English, and once again, sign language worked. You can also make up your own phrase. They begin to understand what you want, even if it is complete gibberish.

What difficulties may arise when working with the director and your assistant?

Some directors are very clear about what they want, and some are not. They know what they want to do but have no idea how to do it. They have a difficult time explaining a shot breakdown to you. That is why, as a cameraman, you must bring your skills and understanding of the script to the director. If you find a director who is unsure about what he wants to do, hold his hand and guide him through it; he'll grow to love you for it, and you'll understand him and how to get it done.

Talk to the assistant cameraman with respect; if you have a problem, if someone has messed up really bad that day, never say anything in front of the crew on the set. At the end of the day, take him to your hotel room and give him the bashing of his life, but never in public. You will gain their respect. Man management accounts for ninety percent of your work. It makes a significant difference.

What would be my duty as a director to a cinematographer to make my ideas clear to him?

You should provide as much information and visual references as possible. Give him a list of films you want him to see because you like the way they were shot. Don't let him sleep on the weekends. He should conduct his research similar to the homework we get in school.

There may be a film in which you only like one sequence. In this case, you can inform him to see this one sequence from the film. Communication is essential. If you have the opportunity and the budget, you should go out one day with a camera and shoot for a couple of hours, not necessarily in your own location. Perhaps you can edit it. Tell him, "This is how I envision these 25 shots coming together." To make it work, you must get inside the director's head.

Tell us about "The Lions of Gir" and "Kajarya." Also, do you have any favorite cameras?

"The Lions of Gir" is a documentary about lions in Gir and their impact on local community. Girl in the state of Gujarat can be very hot in the summer months, and working with heavy lenses and 16mm equipment this was certainly a challenge. We had a small cottage in the first offices colony that overtime became very uncomfortable and not appropriate for our purpose.we over to a small dhramshala attached to a temple for a while which was very comfortable. During the summer as lions would normally come to the same place to drink water it was possible to keep track of our pride. In the monsoon the picture changed completely. With water in abundance the lions would travel much larger distances and it would be very difficult to locate them.

When I was working on films, my favourite was the Arri16 SR. A camera that is appropriate for the project should be chosen. I was working on the film "Rabaris of Kutch," which took us five years to complete. We didn't do it indefinitely because, in a semi-nomadic community, much of their activity revolves around the changing of the seasons. Thus, we shot for 8 to 15 days straight, three or four times a year. The locals gradually warmed up to us, and we gained extensive access to their lives. We were using the 16 SR with three men. Everything was going swimmingly until the Director decided to take a track, trolley, lights, reflectors, and so on. The locals were not film people; they were Rabaris who lived in the desert and were only accustomed to a three-man crew. The locals panicked when we arrived at the location with all the equipment. We had to return the equipment because it did not fit the project. Therefore, I believe that one should have a camera that is appropriate for the work they are doing.

Sony used to make Digibeta, which was a camera with a dockable recorder at the back that was detachable. There was a bulletproof model called the 5A. It was a very sturdy piece of equipment. When Beta SP and Digibeta arrived, Digibeta had been around for 10-12 years, it was a very solid format. Nowadays, I like Black Magic cameras, especially for the price.

Returning to the weather and Gir, we were following a lion pride in the summer. During that time, the best place to see lions is where they go to drink water. We arrived at 3 a.m., and the lions were still there. We spent the entire day shooting them because they didn't move very far as they needed to return for water. It was extremely difficult to locate them during the monsoon when water was plentiful. But it was also very enjoyable because we used to spend a year in the jungle. Then return to Bombay and have the material processed. This was the story of "The Lions of Gir."

We filmed "Kajarya" in Delhi several years ago. The entire movie was shot with a DSLR. The director desired a specific look and requested that I use no lights at all.with no light source. I did say that would not be feasible and that they should, at the very least, provide me with tube lights. We eventually used a lot of tube lights. The 'Bar Scene,' where the tube lights were hung vertically on the bamboo, was one of my favourite scenes in the film. As a cameraman, you would be satisfied with the images not only on the day you shot them but also many years later.

There was a sequence in a film I had done on the Rabbaris of Kutchch, where a number of people are sitting in the desert at night. The scene was lit with the headlight of our jeep a few flame torches and a couple of Petromax lanterns.Till today I am happy with they way it looks and would not wish for a truck load of lights. I find tat documentary cinema pushes you to find creative and cost effective solutions.It a quite enjoyable journey.

Do you prefer Film cameras or Digital cameras in terms of output?

Though I still prefer film, no one shoots in it these days. Because I live in New Zealand, the nearest laboratory is in Bangkok. Therefore, it's not a viable option. We now get excellent results from digital cameras as well. Making a mistake with a film camera will cost you a lot of money, whereas with a digital camera, it will cost you nothing. Film cameras require a certain level of discipline that digital cameras do not.

In my early days of shooting, I worked with a Dutch director. In Bombay, she was working on a twenty-minute short film about textiles. She insisted on shooting the video with a slate, just like we do in films. After the first day of shooting, I asked her why she was using the slate when the audio was being recorded directly from the tape. She stated that at the sound of the slate, she would have our attention that she required for the ninety seconds. People who came from the film industry understood the significance of that sound. And it worked for both her and the crew.

What is your favorite docudrama apart from the projects that you have done?

Joris Ivens' "A Tale of the Wind" and South American director Emile de Antonio's "In the Year of the Pig," a political film about the Vietnam War, are two of my favorites. Another film, "Hearts and Minds," was about the Vietnam War and was shot in cinemascope in color, with the war intercut with American football. "In the Year of the Pig" is in black and white with 35mm shortened close-ups of people talking about relevant matters. Despite the fact that it was a verbose film with talking heads, it was a very significant film. Emile de Antonio also produced "Millhouse: A White Comedy," a film

about Richard Nixon's Watergate scandal. Bert Haanstra, a Dutch director, has created some amazing films.

What changes did you experience in the different stages of your life as a cinematographer?

There is for many a stage in life generally at the beginning of ones career, it was certainly for me that you take on each and every project that comes your way. As time goes by and you begin to discover yourself and what interests you , you begin to pick and choose. In my case I chose to work mostly in the area of documentary films.

Tell us your experience of working on this film in Tehran

Anyone can be a taxi driver in Tehran. I think they had people using their own cars to give people rides, long before Uber came along. This guy in the film plays in an underground band that is completely illegal in Iran. They had a small studio in Tehran where they used egg crates to insulate the walls and then played Iranian rock music.

Was there any script or was it spontaneous?

There was a very loose and open script. The stories that would like to each other to take us from Venice to Beijing were obviously planned and need to be shot a certain way to tie the story together. Bradley Mayhew who is the presenter

of the film is a writer for Lonely Planet and his lines were not scripted. As Bradley has a great command over the English language it was quite a=easy to tell him what we need said and in how many seconds and he would deliver it perfectly .

As you said, you don't shoot anymore. What work are you doing right now?

I now work as the operations manager with a company called Oceania Productions, in Auckland.We are Australasi as largest full service production company. We are based in Auckland and Wellington as well as a number of places in Australia as well.
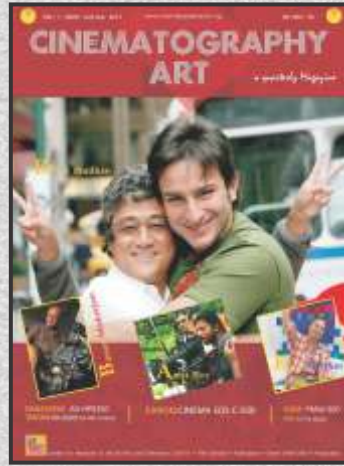
We have a very large inventory of audio , lighting and vision (Projectors and LED product), staging equipment . As we have a in-house studio we also do a lot of content creation for a number of our clients.

Typically in the summer we service the technical requirements of bands travelling from overseas as well as local festivals and concerts. The corporate events, like conferences and award dinners take up our winter months.

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Interview with DOP
Soumik Mukherjee
On Shooting Bheed

> A film studies graduate from St. Xaviers, Kolkata, Soumik Mukherjee went to the Film & Television Institute of India, Pune to pursue post graduation in cinematography. After passing out of FTII, he furthered his craft by assisting accomplished cinematographers like Satyajit Pandey (Setu) and Tushar Kanti Ray. He then went onto independently shoot feature films such as "Batla House", "Thappad" (for which he got nominated at the Filmfare awards), "Jaadugar". He has also shot multiple web series like "Selection Day", "Mission Over Mars", "The Test Case" amongst others.

What was the major aesthetic consideration in shooting this film in black and white? Though similar subjects were being tackled in colour also in the past?

I think in the industry we have lost the art of shooting in black and white. Therefore, we had to reorient ourselves completely. I had to do a lot of research about how black and white films are shot in recent times. Also there was a lot ofcollaboration with the other departments. The costume and production design departments also did their own research and came up with the black and white palette before we started shooting. For costume and production design we made sure that we pay attention to different tonalities and textures in the set design, props and costumes. We did extensive camera test with different black and white LUTs and tested the set and costume colours during these tests. After grading the tests we developed a black and white viewing LUT. This helped us monitor every thing in black and white on set.

There are a few models in the Red where you can choose the recording in black and white itself. What was the specific camera model that you used, and what were the lenses you considered for shooting this film?

I used the Alexa LF Mini and I don't think that the monochrome Red camera was available, at least not at that point. Moreover, the mall exterior at the checkpost was designed in way where the first floor of the mall was chroma. Hence we needed to

have the colour information in our Raw footage for the vfx team to key it out in post. For lenses, I used the Arri Signature Prime because I felt it has a good sharpness and contrast in comparison to the other full frame lenses and went well with the stark black and white look that I was going for.

Did you shoot in colour and then, later in post production, remove the colour part of it?

Yes,the Arri raw footage was shot in colour. But all the dailies and the edit timeliness, everything was done with a black and white LUT applied that was designed during the camera test. Therefore, on set, the director is watching black and white feedback on the monitor. However, Makrand Surte, my grader at Red Chillies Colour developed a slightly different black and white LUT for the final grade.

I noticed that normally in a black and white film, there are pitch black and dazzling whites and greys in between; that is what we normally try to achieve. However, in this particular film, I noticed that it was more of a very mid-grey kind of thing with desaturated blacks. What was the aesthetic consideration for working in that particular grey zone of range?

Even when I'm shooting in colour, I don't prefer my blacks to be pitch black and my whites are not clipping, and I guess that aesthetic has spilled onto this black and white film as well. Also shooting black and white with a colour sensor on a digital camera is quite different from shooting it on black and white stock.

Makarand Surte, the DI artist from Red Chillies, and I felt that we should be able to see the details in the black and that the black should not get completely crushed. The difficult choice in grading black and white was that there is nothing called pure black and white as it will almost always have a tinge. We did take some time to find that exact look during grading; as a consequence, Makrand did a lot of tests and

came up with many LUTS. Afterwards, we first started grading the film for a certain look, and then, right towards the end, I think very close to the release, we felt that this particular look would suit better for the storytelling and zeroed in on what you see on the screen in cinema halls.

There are always challenges in shooting a particular film. Now, the challenges could be of two kinds: one could be a lighting challenge, and another could be a situational challenge. What kind of challenges did you face while shooting this particular film?

The story mainly takes place at a checkpost near a mall and covers the span of a whole day. In this film, one of the main challenges was to maintain the continuity of the sun. I wanted to have the feeling of the day passing. That there is a transition from morning, to noon, to evening, and right towards the end, we get into the magic hour and then night. To get everything exactly how we wanted it, in terms of consistency, was quite a challenge because we were shooting for over 34 days and different days had different light conditions. Moreover to give a sense of different time of day was quite challenging, since there is no colour information to signify warmth of the evening sun or the blue of the Dusk.

What was more challenging, to light up Day or Night?

Duringthe day it was more challenging for us mainly because we had to maintain the continuity of the sun over a number of days. We had a lot of actors and many long steadicam shots as a design, so it was quite challenging to maintain the consistency.

However, I really liked the contrast that we achieved at night. The night scenes we lit keeping the tonality in mind. I would especially want to mention the dhaba scene.The scene played out in a very big area with long continuous steadicam shots from the road all the way to the truck. We decided to use the headlights of the trucks as our main source of light for the scene, which gave it a very stark and contrasty look. Which was in sync with the brief from the director that it had to be a scary place for a girl, who was perhaps the only female present in the dhaba.

There is one particular scene inside the concrete mixer machine. Was it a set?

We shot inside an actual concrete mixer machine. Initially, we were thinking that we shouldn't cut away from Rajkumar's POV and not see inside it. When we took a shot of the interior of the cement mixer with our phone and saw that spiral picture, we found it very fascinating, and all of us felt that the audience needed to see this image. We felt that the image would be quite stunning as no one has seen what is inside a cement mixer and it was important to show to the audience what the migrants actually went through and how they travelled.

Normally there is only one source on the back side, and the rest of the part is supposed to be pitch black. How did you manage to see that curvilinear thing inside so clearly? Did you put some extra light inside?

Yes, it was supposed to be dark because there was only light coming from two sides, one from where we entered and one from the central back part. Thus, if i had pumped more light from the camera side, it would've become flat, and the light from back opening was burning out too much, so I had to balance it out. I hid small Aputure MC-4s on top at a very low intensity just to accentuate the groves of the mixture.

What was your consideration in terms of the costumes,

as they would be reproduced in grey tone? Khaki in black and white could also look different.

Vishakha Kullarwar, the costume designer and I have worked before. She is very hardworking, and I knew that she did her own research. Since it's mostly a one-day story, we checked every costume on camera. The brief was to make sure that there was a tonal difference in the costume, whether it's between the top and bottom of the costume or within it. Also we made sure that there is some kind of pattern or some textures. About the khaki, we gave all the cops similar colours; only Rajkumar's khaki was a slightly different colour and we took that liberty to make him stand out a bit more.

What was your instruction to the makeup guy for the lead actors so that it would turn out to be a correct grayscale?

Rajkumar who is a delight to work with, and Bhumi and the other actors were all on-board to keep a very real look with minimal make up for the film. We did a couple of look tests and figured out what looked best on camera. We did plan make up to gradually change over the course of the film. For example the make up in the beginning of the film for Dia is fresher than her make up the next day. Slowly as the day day progressed at the checkpost in the film, the make up was also changed to reflect that. The makeup team headed by Krutika actually helped us a lot in getting the right look for the migrants, particularly the bleeding feet, their tired looks, and the lines on their faces.

In the case of the mall, is there also a chroma shoot?

In the exteriorwhere the checkpost, we had constructed the mall. Nikhil Kovale, the production designer and also a dear friend, had designed the set in a way where only the ground floor was constructed and the top floor was kept as a blue screen. For this reason, we needed that colour

information in post to do the chroma.

In the beginning, you see the Delhi checkpost, which is huge on the road, where one side is completely blank and the other side is filled with migrants. Was it organised for the film or was it from stock footage?

No, we had around a thousand extras for those two days and shot it live. We also used the drone to give the shot larger than usual scale. The crowd in the back part of the road has been extended in vfx. There has also been some cleanup because we were showing lockdown and obviously we couldn't get an empty street. Thus, a couple of vehicles that were passing had to be cleaned up with VFX.

Anything specific you want to add, which I may not have asked in connection with this particular film?

In the evening crowd scenes, I was shooting at a high aperture. Initially I was very skeptical because nowadays mostly everyone likes this shallow depth of field look. But since we had so many main characters and I wanted to highlight the crowd around these characters, I was shooting mostly at f 8.0 so that we could see most of them and the crowd in acceptable focus. We also did a lot of long takes. The steadicam started off by following one character and as he crossed, we followed another character and then onto the third. This gave a sense of how their stories and situations were intermingled and also helped creating a sense of space and time. These are a few things that I tried in this film.

Feedback: Soumik Mukherjee
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Important Webseries of Soumik Mukherjee as DOP
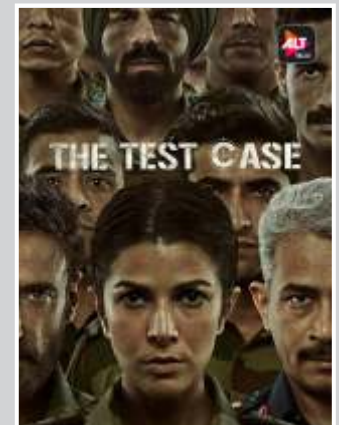
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