

RECLAIMING MOVING IMAGES IN A DIGITAL AGE

A GUIDE FOR A CINEMATOGRAPHER FROM ANALOGUE ERA

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APPROVAL SHEET

The DRS project entitled 'Reclaiming moving images in a digital age' by Adersh Sreedharan, is approved in partial fulfillment of the requirements for Mater of Design degree in Visual Communication at IDC, IIT Bombay.

Prof. Sudesh Balan

Guide

Date:

DECLARATION

I hereby declare that this written submission submitted to IDC, IIT Bombay, is a record of an original work done by me. This written submission represents my idea in my words, I have adequately cited and referenced the original source. I also declare that I have adhered to all principles of academic honesty and integrity and have not misprinted or falsified any idea/ fact/ source in my submission.

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Everything in this world is getting advanced day by day, cameras are one among them. The age of analog cameras are over and digital technology has taken over.

With the increasing accessibility of technology for everyday people, things are starting to get digitalized: digital camera, digital cable, digital sound, and digital video. It is no longer the case where a video production is only possible for specialized studios. The availability of various user-friendly, inexpensive tools is pushing motion pictures into individual computer owners.

In this report I will be talking about the dying analog era and how it would affect cinematographers who still practice only the film/analog cameras.

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The inevitable switch from analog to digital, regardless of the industry: In journalism, it's the evolution from print to online; in photography and cinema, it's the switch from film to digital. Even though there are people who still prefer to use film cameras and listen to vinyl music etc. Their attachment to the old systems and the feel they get out of it can't be compared with the new technologies. Their perspective to cinematography is very different from the people from the digital age. For them cinematography is also a craft and they act of stitching a film takes them closer to the medium.

Cinema is a language and within it are the specific vocabularies and sublanguages of the lens, composition, visual design, lighting, image control, continuity, movement, point-of-view etc. Learning this language is a never-ending and a fascinating lifelong study.

A cinematographer deals with some duties that are entirely technical. But the technique used in the older analog cameras are a little different when the digital systems come into picture. For the people who gradually switched into digital would have got updated with the growing technology. But the people who haven't got updated with the technological advancement would face a problem in understanding the change all of a sudden. But after all this time, why will they switch into digital.

Digital photography records light impulses as electronic charges stored on a memory disk. The image is a matrix of rows and columns where they intersect are small squares called picture elements, pixels, which carry information about the brightness and colour.

The image can be altered in innumerable ways. The interaction between digital imagery and photography is made possible by the fact that analogue photographs can be scanned and converted to digital format. The smooth curves and tonal graduations of the analogue image are converted into discrete steps of grids. More directly, digital cameras can now be used to capture images electronically on disk, bypassing the photo-chemical process. Once an image is in digital form, its components can be rearranged, extended, deleted, and modified before it is printed. These processes now made easier by software designed for the purpose. When we add to the enhanced ease and the power of alteration of an image, the possibility of simulating photographically realistic components on a computer becomes possible. It appears as though the photographer has gained complete control over the final image, and acquired the freedom of the painter to depict whatever he or she can imagine.



Tacita Dean, a visual artist from united kingdom works primarily in film. She is best known for her work in 16mm film (16mm refers to the width of the film). Her films often uses long takes and steady camera angles to create a contemplative atmosphere.

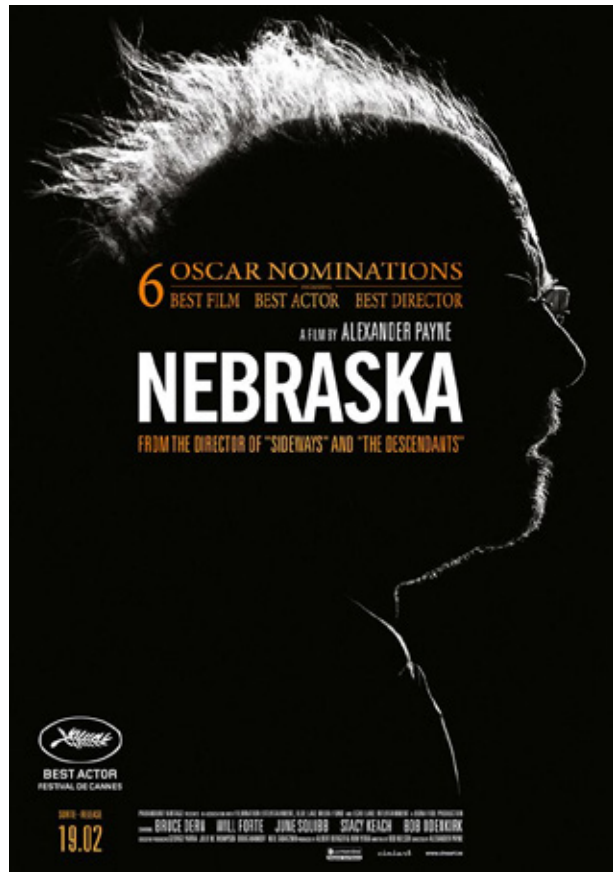
“we are in danger of losing something really rather beautiful”

According to Dean, analogue form, of cutting and splicing film together, encourages a much greater sense of creativity, immediacy and urgency. In film, the viewer not only sees the sprocket holes which are a visual shorthand for a reel, but the imperfections of the analogue filmmaking process itself.



She says that the use of film cameras has diminished, but if people choose to shoot on film, then we can help them. Look at the music industry: people listened to vinyl for years and then digital came along in the form of CDs. Almost overnight vinyl disappeared. But now there is a huge resurgence of audiophiles who want to listen to music on vinyl. It's a similar situation here."

In fact, although the use of 35mm has evaporated to the point where it's not really necessary to build new cameras, the big moviemakers still like the look analogue film can provide. Even blockbusters such as *Inception*, *festooned* with special effects much easier to manipulate using digital, were shot with Panavision's Millennium XL film camera. So despite all the evidence seeming to suggest that digital is cheaper, easier and more widely used, there are still die-hard cinematographers keeping the flame alive for analogue.



Alexander Payne's film **Nebraska** is about a fading older man who embarks on a road trip with his son to redeem a sweepstakes prize he's sure will earn him a fortune. It's a raw and funny look at family and the relationships we forge, and it's made all the more resonant by the breathtaking black-and-white cinematography of Phedon Papamichael.

When discussing small character studies, the natural inclination is to think of the low-budget indie gems that shoot on film to bring their worlds to life. But despite Nebraska's aesthetic sensibilities, the filmmakers actually went the opposite way, creating a filmic, black-and-white beauty with digital cameras.

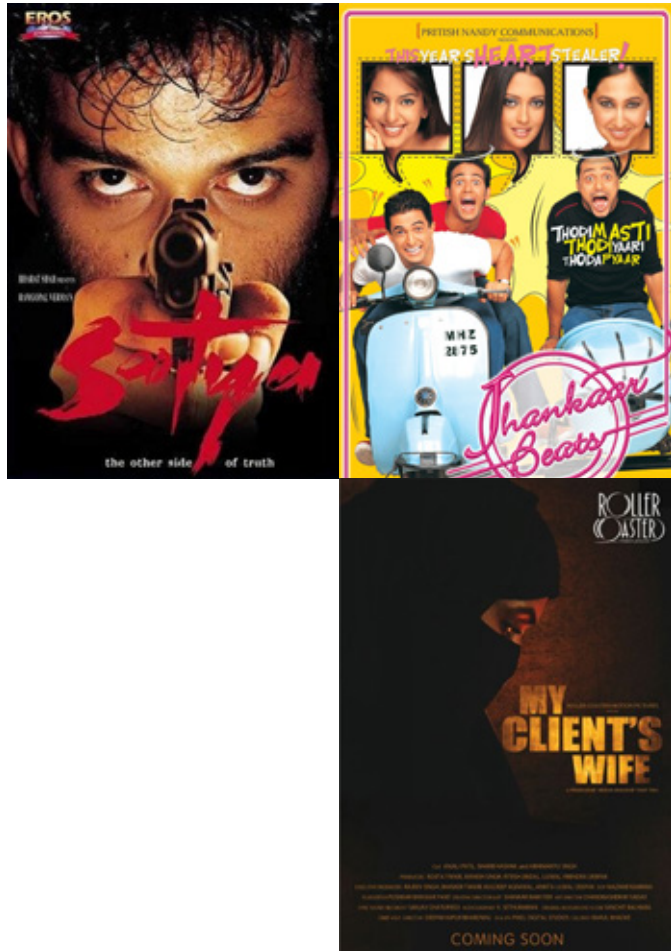


Mazhar Kamran is an Indian film and documentary film director and cinematographer. He started his career as a cinematographer in the 1998 Ram Gopal Varma film *Satya*. Kamran studied cinematography from Film and Television Institute of India.

He made a gradual shift from the analogue systems to the digital ones both in camera and post production. His first film as a cinematographer - *Satya* was shot and post produced in analogue while the latest film he is working on is fully digital.

He believes that there won't be any difficulty in switching from film to digital as it has become more simple in terms of usability and comfort.

According to him the digital advancement has made the whole process more easier and you can still get the filmy feel and everything even through digital methods.



Three notable films by Mazhar Kamran from 1997 to 2017, which was created using film/analogue and digital are:

Satya (1997)

camera - Film (Arri)

post - analog (RCaB)

Jhankaar Beats (2003)

camera - Film (Arri)

post - digital

My Client's Wife (2017)

camera - Alexa (digital)

post- digital (baselight)



A lot of photographers and cinematographers who preferred film has switched into digital cameras from Fujifilm and Leica, which have a mechanical body with knobs and dials for controls. These cameras are designed with advanced technology but by preserving the feel and ergonomics from analog cameras. Nowadays everything is being converted into digital. LCD screens and touch interface have made the interaction more advanced, but it has a lot of limitations too. Instead of working in a continuous analog motion the way knobs do, they only operate in discrete digital steps. And, since there's no tactile feedback, the only way to tell what the button is doing is to look at an LCD readout.

Analogue has turned into a luxury. When everyone is going for digital, analogue has become rare in the market.

Talking about cinematography from ‘the old way’, it was more like a craft at that time. Capturing images and then stitching them together manually made people think and imagine more creatively. At that time they had a better attachment with the piece they were working on as they had to do it very closely and precisely, in my opinion. Now everything has been made easier for people that they stopped giving much attention to what they do, as they rely on machines now.

But another argument from the digital side is that; there are different complications now, and people are not relying on machines completely, but they make it easier for people to deal with a much bigger problem. For example, a cinematographer asked “What’s a codec?”. In the earlier age people didn’t have to deal with codec and render files and all.

Now the challenges have shifted to some other level and much better products in terms of quality are possible today. And for that digital way is the only way. And as technology has developed drastically products are being designed in a compact way and analogue is not possible as it requires more surface area when touchscreens can be provided which can have multiple interactions on the same surface. We have to compromise a lot of things for getting certain features.



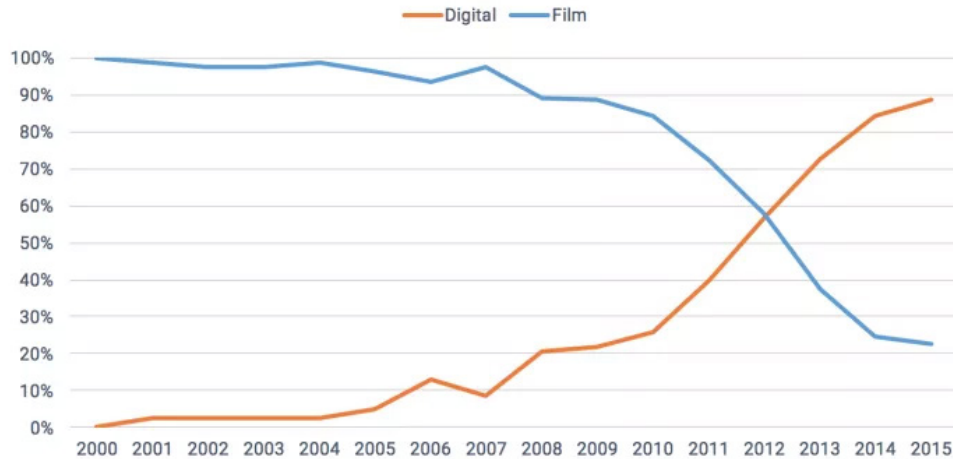
Side by Side is a 2012 documentary by Christopher Kenneally, investigating the history, process and workflow of both digital and photochemical film making. In this film world's most respected directors, cinematographers, editors and other hollywood professionals are interviewed to have a digital versus film debate. It starts with a simple question: *Is this the end of film?*

Everyone has a different opinion, a different reason that they love making movies. George Lucas and James Cameron take the lead on the pro-digital side, while Christopher Nolan warns against the immediacy of moving away from film.

“The manipulations that digital media allows you to do are seductive, but ultimately a little bit hollow,” Nolan says in the film. The point is that film, as of today, is not dead. The fear is out there, though, that the option to choose film over digital will soon disappear.

Side By Side closes in a more complex fashion than it begins. Instead of giving us answers, it poses more questions.

Shooting format of top 100 US-grossing films



The way we make and watch movies are changing day by day, does it matter if the movies we watch are shot in film or done digitally?

According to Christopher Kenneally, it's the medium of film that's at stake, not the visual storytelling. The audience want to be entertained and they want good stories. It doesn't matter how it is done, the end product is what matters.

But we have to agree that today there are too many film makers, and only few of them use motion pictures as a medium to narrate a good story, the focus has been shifted here and there to just visual effects. Today film making has been made so much easier that it has become a 'fact' that anyone with a camera can make a film. And now, yes, the tech is indirectly taking away the humanity of storytelling.

The first year in which top-grossing films were shot on digital cameras was 2002, however it wasn't until 2012 that at least half of the films were shot digitally.

Recently a number of high profile films choose to shoot on film, including Star Wars: The force awakens, The hateful eight etc.

Charlotte Bruus Christensen, danish cinematographer who recently shot “The firl on the train” on 35 mm film said that, “Maybe I’m old-fashioned, but I can always find the reasons for why you should shoot on film,”.

It does a lot things. It’s not only the look and the texture, but it’s also the way you work, the way you focus. For Christensen shooting on 35mm film is all about capturing the authenticity of performance and setting.

2017 oscar runners for best picture, La La Land, Fences, Silence, Jackie, Loving, Hidden Figures, Nocturnal Animals and Gold where all shot in film.

All of them had their own reasons to choose film.

La la land, nominated for best picture (Fred Berger, Jordan Horowitz, and Marc Platt), Best Director (Damien Chazelle), and Best Cinematography (Linus Sandgren) was shot on Panavision Panaflex Millennium XL2 and Aaton A-Minima.

By the end of the day its all about personal choices. For a true film maker, it doesnt matter the camera, it's the storytelling that matters and change is inevitable. There will always be people getting attached to certain things and they may not accept the change.

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