On S3D, 3D Imaging, Strereovision, Chris Condon & Me (Jijo).

Dear Mr. Punnoose,
I hope you are well. My name is Iyesha; I work at the National Film Archive of India, Pune.
I write to you regarding the inclusion of an entry on *My Dear Kuttichathan* in the Film Atlas, an online encyclopedic database which will be a rich resource on film formats from around the world. Here is a link to the page which is still under construction: https://www.fiafnet.org/pages/E-Resources/film-atlas.html

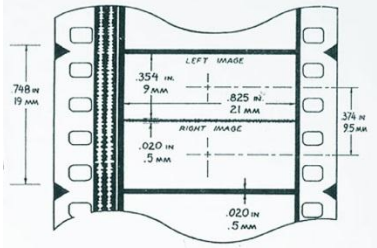
I had received an email from James Layton, a film historian at The Museum of Modern Art and the driving force behind the project, regarding the format of Stereovision. All of the films released in this format were from the United States, except for *My Dear Kuttichathan.* They are very interested in adding **the photograph of a frame from your film.**
Warmly,
Iyesha


Magic Magic (2003) MASTER POSITIVE


Chota Chetan (1998) INTER NEG

Hello Iyesha
It would be great to recognize **Stereovisio**n and its founder the brilliant optical scientist **Chris Condon**
https://en.wikipedia.org/wiki/Chris_Condon
https://archivesusie3d.wixsite.com/3-dlegends/chris-condon
Chris was a personal friend of my late father Appachan. He was my guru in S3D stereography. In fact in Dec 2010, a few days before he expired, from his hospital bed in Burbank, Chris was advising me how to convergence-calibrate his 20mm lens with which we were shooting at Chennai.
Some factual clarifications
My Dear Kuttichathan is not the only 3D in India shot in Stereovision.
We ourselves had made a film called 'Magic, Magic' (Chota Jadugar) 2003.
There were at least two other Tamil language films in 1985 shot with Chris' lens. **Jai Vethalam. Annai Bhoomi.**
Also, I see no reference to Chris' *10perf pull-down 65mm 3D System.*
Regards! Jijo

From Iyesha
Question - The negative frames are from *Chhota Chetan*, which was shot later, right? What year was that shot in (1998?)?
From Jijo
Answer - MY DEAR KUTTICHATHAN 3D 1984 originally shot in Malayalam.
Dubbed the same year into Tamil on same title **My Dear Kuttichathan.**
Dubbed into Telugu same year as **Chinnari Chetana**.
Dubbed into Hindi same year as **Chhota Chetan.**
A Revised version of **My Dear Kuttichathan** was released in Malayalam with additional Scenes and 6T DTS Surround Sound - year 1997
A Revised version of **Chhota Chetan** was re-released in Hindi with Additional Scenes (the frames you see with Urmila Mandolkar, Shakthi Kapoor,) and Dolby Stereo - year 1998.
All of the above - till year 2000 - were film projections with Stereovision Lenses.
A revised version in Tamil **My Dear Kuttichathan** with additional scenes (Prakash Raj) was released in year 2011. This was a digital conversion from film negative and restored.
This was projected as Digital 3D.



The above images were shot on film with Chris's Stereovision Lenses mountable on almost any 35mm camera. The format becomes Stereovision because it has the lefteye & righteye images stacked over/under within the 4 perforations SYMMETRICALLY (below) There are other over/ under 3D formats (such as ARRIVISION) where the stacking is ASYMMETRICAL. There are also side -by-side 3D formats. Since the shooting lenses of each of these are different, the projection of each needs different lens alignments.

A revised version (of Hindi) dubbed into English as **Chota Chetan 3D ATMOS (English)** has been done in 2023. To match the original left/ right eye images now become digital pairs, additional (English) scenes have been shot with dual Arri Alexa digital cameras mounted on 3D Rig.
The projection today happen as in all 4K films in 3D DCP.

From Iyesha
Question - Are they referring to not just the lens used but also the manner of printing?
From Jijo
Answer - Other than the lenses (for shooting and projection) there are no changes in production or processing (printing) for all full color S3D celluloid formats that came in after the 1960s.
(Around year 2010, there was talks for a REALD 3D offshoot attempt to print-process the up/down images vertically and prism rotate it on projection. This idea got overtaken by Digital Cinema Projection. Anaglyphic 3D needs red and blue color coded printing, example - film **Spy Kids 3D.** It doesn't need a 3D Lens for projection)
Before 1960s, as you may know, 3D was dual film strip (two discreet film strips for left/ right images). This rquired one of the negatives to be flop-printed (horizontal). The single film strip 3D systems we are talking about (to which Stereovision also belongs) were invented to overcome the other hassles (printing, projector interlocking) so as to rely only on lense systems. (Such as Cinemascope is essentially 35mm all the way ... except that it deploys anamorphic lenses).

From Iyesha
on how Indian filmmakers experimented with film technologies!
From Jijo
Answer – Well, have you heard of something called 'Saveascope' ?
In late 1970s when I first entered Chennai Gemini Color Lab , I heard of a format which they were experimenting there to save on film positive. 35mm Images in the negative were cropped to techniscope aspect ratio and printed on two perforations down for Reel One of the positive. Then the film was reversed and Reel Two was printed on the other two perforations! The film reel went on the projector as an audio cassette did on the cassette player - Oneside up, reverse play the other side!

Layton, James <james_layton@moma.org> to Crystal, Iyesha, me Jan 9, 2025, 8:28 PM

Dear Mr. Jijo,
Mike Ballew has completed his text on the **StereoVision over-and-under** format.
Thank you again for your help so far on that.
I wonder if you might be interested in peer reviewing his text for technical accuracy?
All texts written for Film Atlas are peer reviewed by two or three subject experts to make sure the scholarship is accurate and balanced.

Best wishes,
James Layton
Senior Manager, Celeste Bartos Film Preservation Center
Department of Film
The Museum of Modern Art

To Mr. Punnoose

Hello!
My name is Mike Ballew. I did the Film Atlas on the **StereoVision over-and-under** format.
I am writing a book, ***Close Enough To Touch: 3-D Comes to Hollywood***.
It covers the history of 3-D filmmaking in the English-speaking world from the silent era to the mid-1980s.

Your remarkable website explains so much about the over-and-under StereoVision system invented by Chris J. Condon. It has been my privilege to interview others who were associated in some way with StereoVision, including Robert Caspari, John Sybenga, Vicky Condon-Silliphant, George Rigney, Alan D. Williams, Irl Dixon, Phil Smoot, Worth Keeter, Al Magliochetti, and Joe Alves.
I would be content with an email interview.

Very friendliest regards,
Mike Ballew Woodland Hills, California

Below is a list of questions for you.

- What was the inspiration to film ***My Dear Kuttichathan*** in 3-D?
- Were there experiments with 3-D in India before ***My Dear Kuttichathan*** ? Were there, for instance, short films made in prior decades?
- Why was StereoVision selected over rival systems?
- Please describe your first meeting with Chris Condon.
  - What were your impressions of Chris?
- Please describe the relationship between Condon and John Rupkalvis.
  - Please describe the arguments overheard between Chris Condon and John Rupkalvis on lens quality.
- Did you know Lenny Lipton?
  - If so, what were your impressions?
- What focal lengths/interaxials were available for filming?
  - Do you happen to know which specific interaxials were associated with which focal lengths in the range of StereoVision lenses?
- Had you watched other 3-D films in preparation for making ***My Dear Kuttichathan*** ?
- Had you read much technical information about 3-D?
  - Had you read ***The Theory of Stereoscopic Transmission*** by Raymond and Nigel Spottiswoode?
  - Had you read ***Foundations of the Stereoscopic Cinema*** by Lenny Lipton?
- What was the source of 3-D glasses in India?
  - In the USA, Marks Polarized Corporation and Polaroid Corporation for the latter's H38 polarizers. Did either of these companies supply glasses to India?
- How many playdates did ***My Dear Kuttichathan*** secure? Did it rely on widespread simultaneous distribution—what we in the USA might call saturation bookings? Or was it more apt to get "roadshow" bookings, or exclusive bookings in select cinemas?
  - To offer some perspective on the American situation: In the USA, ***Friday the 13th Part III*** in 3-D got simultaneous distribution on 800+ screens. A year later, ***Jaws 3-D*** got simultaneous distribution on 900+ screens. Both were huge hits. Earlier films like ***The Stewardesses*** and ***Flesh for Frankenstein*** were also huge hits, but they never appeared on more than a few dozen screens simultaneously; instead, they had to be distributed in a very staggered fashion, playing a limited number of playdates in one region before moving on to other theatres gradually over time.
- I can only imagine the audience response to ***My Dear Kuttichathan*** was extremely gratifying. It is still a much-loved movie today.
  - Please share some of your impressions about the success of the film-- technically, commercially, and in the hearts of filmgoers.
- Jijo, please tell me about yourself: your background, how you came to love movies (as I presume you must), how you came to be a filmmaker.
  - Cinematographer Ramachandra Babu has said that you, Jijo, were the one who spearheaded Navodaya Studio's technological innovations. What caused you to become fascinated with technologies like 70 mm and 3-D?

What was the inspiration to film ***My Dear Kuttichathan*** in 3-D?

That is easy to answer.

I (Jijo)have to merely cut and paste (below) from the response I have given many, many times in the past. Since the film became 'iconic' (unintended by its makers, to be frank) this question everybody asks.

If you study my CV, my resume [https://familiesjesus.files.wordpress.com/2018/11/jijo-profile.pdf.] you'd notice that I belong to a filmmaking family.

I am a physics graduate. So technology was my forte.

Fresh out of college, I talked of different film formats, theater stereo audio systems ... aloud, to whoever would listen, so as to sell these ideas to people in the family and the organisation.

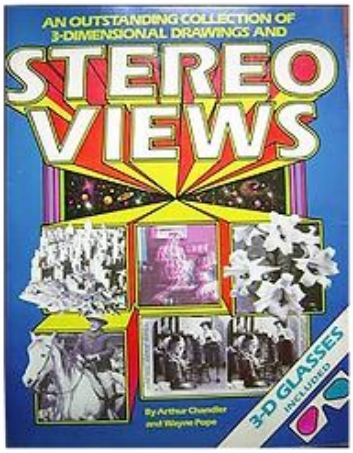
The Cinemascope film *Thacholi Ambu* (1978) was a success.

Then a small film - *Manjil Virinja Pookkal* (1980), with totally new talents became a landmark. It launched the career of many who subsequently came to be known as supertalents in Malayalam Cinema.

Then came *Padayottam* 70mm (1983) , my first directorial venture.

> (copy-paste from **How Navodaya's Children's films were made**).
> Padayottam failed to become a hit as our previous star-studded costume dramas. For instance -Thacholi Ambu, which was made in cinemascope format. Now, Anamorphic and 3D were technological ideas I mooted in our organisation on completing my physics graduation and entering the family business. At that setback for our organisation Navodaya, my brother Josmon, instead of suggesting we go back to the successful format of *'Manjil Virinja Pookkal'* - our experimental film just before Padayottam, insisted that we execute Jijo's other audacious idea - 3D. I am grateful to him for the confidence he reposed on me. But a 3D film should be another big blockbuster costume drama. Right? We had Kamalhasan's call sheet with us for a story-subject similar to DeMille's '*Buccaneer*' under development at Navodaya during the said period. Fazil, who then was writing *Ente Maamattukkuttiyammakku* and helping with the Buccaneer story, after seeing the 3D demos I brought from LA, said 'I think a 3D film should be a fantasy subject ... like the 1967 Tamil film *Pattanathil Bhootham* (*The Brass Bottle*, WB)". Mathew Paul (Mathen), another colleague showed me a letter his 8 year old nephew had written after seeing *Padayottam*. The child didn't like my violent film. "We should make something the kids would love to sit and see" said Mathen. "Aha!" I said " ... That means we should make something we would love to sit and see!" This I think was a turning point in my filmmaking concepts. I discarded film formulae handed down to us from the past. So, for 3D, I took out our huge collection of comic books, Enyd Blytons, ... the then recent Hollywood - Spielberg's E.T. as another example, Malayalam children's' literature of Mali (Madhavan Nair), etc. This you would find detailed in https://www.navodayastudio.com/single-post/2017/07/03/illusionmemoir . I just went back to my childhood. Incidentally, this also rubbed off on the film then under production - *Ente Maamattukkuttiyammakku*. Citing the Kuttichathan myth known to all malayalees, I narrated to everybody around me one sequence as a possible production number. It was the Haunted Rickshaw - a cycle rickshaw propelled by the magical spirit goes around town! Everybody loved it. "Is there more such coming?" asked my first AD Siby Malayil. But something more had to wait till Siby brought around Raghunath Paleri to create more fantasy production numbers. Which would mean, the making of a children's film in 3D - Kuttichathan (1984), was a commercial decision. Sure, it was daring.

(copied from **3D Imaging Webpage**)
This author (myself, Jijo) started understanding 3D imaging with my optical physics textbooks during school and college days. That was on topics such as beamsplitters, polarisation of light, etc. Then came the anaglyphic (red & cyan) comic books, viewmasters, library books and magazine articles on 3D films



This anaglyphic 3D scrapbook is a sentimental possession of the author.
It was with this in 1984 he gathered support from the production & distribution personnel of his film company, to make a 3D film in India.

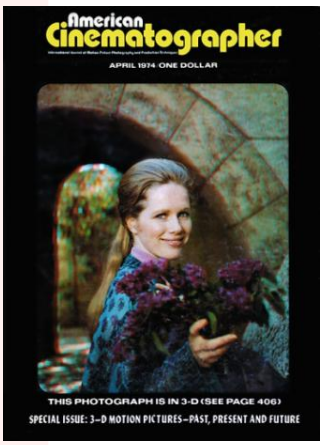
Were there experiments with 3-D in India before ***My Dear Kuttichathan*** ?
Were there, for instance, short films made in prior decades?
Absolutely None. Not to my Knowledge.
We used to hear about *'House of Wax*' shown in 3D during the 50s in some cities in India. Menaka Theatre in Kochi (the only 3D exhibition, I have heard, done in the state of Kerala) some film buffs used to gloriously describe to us kids whwn we grew up. But we never saw it. 'House of Wax' being an English film, not many were aware of it. One old-timer used to graphically describe how he used to duck the ping-pong ball coming out in the horror film. But, technical details were scant even at the theatre Menaka by the 1980s. I suppose it was anaglyphic projection, since they used to say that the glasses were RED & BLUE. I heard (later) the classic film was projected with dual projectors in places like Bombay (erstwhile Mumbai). So, *full color projection* with *polorised glasses* also ought to have been done in India those days. Personally, I've never seen a 3D movie before 1983 (in LA). I had my viewmasters, stereo books and I used to fascinate my sisters and cousins and other children with them.

Why was StereoVision selected over rival systems?
There was a revival of 3D with *'Coming at Ya*' (1980) in Hollywood. In AM Cinematographer and other magazines, for academic interests, I was following the development of 3D in the 70s. In the late 70s for technical details of the systems they put forth, I used to write to firms specialising on 3D systems proliferating in the California landscape. One was called ... I think, Sirius 3D. A few had addresses at Marina-Del-Ray. There were about a dozen promoting different formats. For details, I would have to sometime refer to communication files archived 4 decades ago. Every letter was sent as airmail and it would take 2 weeks up for delivery ... and two weeks down for the reply. Which means, information to arrive would take a month's time!

(copy/paste from **3D Imaging Webpage**)

For us, the introduction to Chris Condon and his Stereovision format had occurred in 1983 - at the time we were considering selection of a 3D format. With many 3D formats* having sprouted in Los Angeles (Hollywood) in the previous one decade - most of them untested, some merely conceptual and none with films actually shot in those systems, it was Ramesh Prasad of Prasad Film Laboratories Madras who put us in touch with Hollywood Film Company and its owner Mr. Carabello for advice.

*Among the many formats I discarded was one suggested by Ramachandra Babu, DoP of my previous film *Padayottam* 70mm.
When he heard we had plans for a 3D film, Babu-annan sent me an old American Cinematographer Magazine (April 1974 issue) featuring an Anaglyphic 3D System. This was not full color 3D. And by then we had determined that we should have the latest and the best.



In the month of July 1983 when we first landed in Los Angeles, intimated by Ramesh Prasad, Mr. Carabello sent his personal limousine to take the four of us - my Pappa Appachan, my brother Jose, Thomas Easaw - our family friend and Line Producer based in Denver, and myself to Hollywood Film Company's factory and offices in central LA. Ramesh Prasad was a major client for HFC (Hollywood Film Company) who made film printing machines. They had recently supplied the 70mm blowup printing machine to Prasad on which my film *Padayottam* had its 70mm prints taken out. From his offices, Mr. Carabello the film machinist phoned Mr. Chris Condon the lens maker. Carabello informed his colleague Chris that he was sending over aspiring 3D Filmmakers from India. Chris replied that he had already an appointment with us fixed by Thomas Easaw from Denver.

By the time we met Chris, I was aware of the advantages of his Stereovision-over/under system. Symmetric for one thing. Whetted out by Thomas Easaw in Denver from the list of 3D tech firms I had communicated with, he too came to the conclusion that Chris's system is best for us. Though Chris's over/ under was not the first, he had been one of the pioneers for single strip 3D. For sometime (in early 1979, when I was 22 years old) I was fantasising about having a Dual Strip 3D film - *Bwana Devil* as in 1950s Hollywood, made here in Kerala.
I was even considering anaglyph release prints!
In the 60s and the 70s, our parent company - Udaya Studios Alleppey, had a distribution system that dealt directly with the 800 plus film theatres (cinemas) in the state of Kerala. Those days, only about 12 to 20 release-prints were made for a new film screened in the first set of main centers (A Centers) those days. After one week to 2 months depending on the film's success with the audience, the prints went to the next set - B Centers. In about 120 to 220 centers a film would have its run in the first year of its release.
Our parent firm Udaya Studios's association with the theaters in Kerala, my Papa's rapport with the theater owners and his standing as the President of the trade body Kerala Film Chamber, … all these helped my 'cinema-experiments' in this tiny Kerala's crucible of theatre circuits.

(copy and paste from **Memoirs**)

My Papa - Navodaya Appachan a.k.a M.C. Punnoose, knew almost all theatre owners personally. Most in the A Centers - about 20, were big industrialists of Kerala.

They were totally unconnected with film business, but had put up Cinemas for the sake of prestige in their townships. We used to have reciprocal family visits to their homes. Two of them were erstwhile Rajahs of minor kingships in Travancore, Kochi and Malabar (which together became Kerala State after the Indian Independence in 1947). Some were family owned Cashew Nut / Coir/ Coconut Oil/ Fisheries businesses. Liquor barons. Garments and timber tycoons. Rubber, Coffee Estate Moghuls. Which means, when my Papa visited any theatre in Kerala, myself - a mere 18 year old, could anytime walk into the projection-cabin and be received respectfully (!) to have all my questions for experiments answered.

[BELOW] Sivaji Ganesan & Prem Nazir - a silver jubilee run for film *Thacholi Ambu*, cinemascope, 1978, at Apsara Theater, Calicut. 1100 capacity Apsara Theatre, with superb imported Photophone projectors installed for 70mm 6T Stereo, was a cinema theatre in Calicut City. It was constructed and operated by Thomaskutty, an emigrant to Malabar from our native village of Kavalam in Kuttanad.

Thacholi Ambu, cinemascope, 1978, was so huge a hit that within one year of the film's release, all cinema theaters (about 1100; average capacity - 800 seats) in the state of Kerala had converted to anamorphic projection and widescreen. For the initial release Navodaya had to stock and supply lenses to the theaters for the screenings. But by 1982, every film in Malayalam language (about 120, annually) was being shot as cinemascope. Navodaya had not only revolutionised the production format, but also the exhibition circuit!

(copy and paste from **Navodaya's Movie experiments**)

Our distribution manager - Francis, would certainly demur if the cast of a proposed film is not starry enough … because, the theatres would be reluctant to give exhibition dates. We also used to get advances as funding from theatres once the dates were confirmed (Even when the film under discussion had not yet started shooting!). With about 120 Malayalam films every year, it was an exhibitor's market those days. Prem Nazir - an Udaya Studio find, was the star those days in Malayalam films. And only a Prem Nazir film could assure theatres for Francis.

Papa was intimately friendly with every theatre owner and even their families - Shenoys, Kunjippalu, Viji & Shaji, Thomaskutty, Reddiar, … with decades of allegiance, he never changed theatres.

At Quilon, in 1982, when Musaliyar's Grand Theatre was not equipped to show *Padayottam* in 70mm, Papa never even consider having it screened in Priya 70mm - a competitor theatre in Quilon. When Pappa broached the possibility of his Grand Theatre being upgraded to 70mm, a reluctant Musaliyar himself suggested that our impending film *Padayottam* be released in Priya theatre instead. Seeing his friend Musaliyar's eyes moistened, Pappa stuck with Grand Theatre itself by releasing a 35mm cinemascope print. I was morose with Papa for that concession he made, but understood the wisdom two years

later when Musaliyar - a royalty in Quilon with his factories of thousands of cashew employees, the biggest private engineering college in Kerala, etc; personally came down to have his Prince Theatre (next to the Grand Theatre) installed for 3D when we were working there overnight. He marshaled his staff to help us put up the silver screen, lenses, poloriser glasses, for the 3D release of *My Dear Kuttichathan* scheduled for the following day. We almost always had theatre owners' relatives and family associates come to see the magic of 3D while the trial runs were done - sometimes during the wee hours of the dawn on the day of release].

Please describe your first meeting with Chris Condon.

It would have been on the 6th of June 1983 (according to my passport entry to LAX).

(copy and paste from **Memoirs**)

With Papa, my brother Jose and Executive Producer Tom Easaw, from the back entrance parking lot I entered the Burbank works of Stereovision. Chris was coming out and started 'shooing us away'! Oh, he wanted us to enter through the front door the first time!! That is oriental discipline. Speaks about the man who had travelled much to the Far East. (Or is it Italian DNA?). We presented Chris Condon (and John Rupkalvis, his protégé) with spices, nuts etc. - gifts from India.

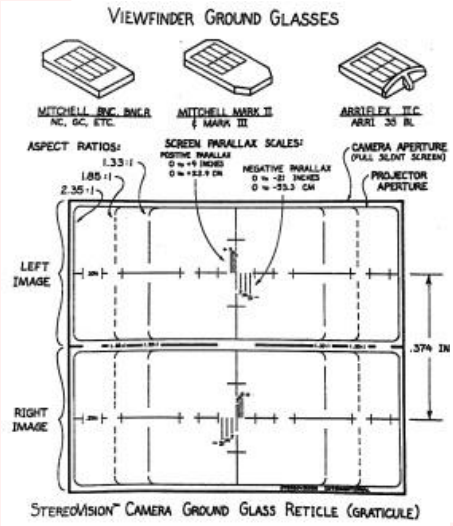
As he took us around tour in his works – machine rooms, technicians assembling aluminum dye-cast mirror boxes for 3D projection, Chris saw me noticing some familiar anaglyphic comics there. "Not good enough for 3D Cinema … Don't even think about it", quipped Chris with mock seriousness.

Settled in his office with John Rupkalvis, the discussion first was on

(1) What we needed - A film to be shot in S3D, to be shown by us in Kerala's theaters,

(2) What we had – a 50 acre studio in Kochi with shooting floor, an outdoor shooting unit with audio, lights, Arri IIC, Mitchel Cameras, Access to color lab facility with optical printing in Chennai who would oblige customised adaptations specific for 3D, A Film Distribution System in Kerala State with Theatres obliging to accommodate 3D adaptations - of course, done at our expense.

(3) What Stereovision can offer – Knowhow to make and screen a 3D film, Camera lenses (on hire), Projection Lenses (on price). These were quick since Tom had already spoken the topics elaborately on phone with Chris.



Then the discussion was on the time frame – tentatively next year (1984) an April to June shooting schedule. A release during September - Onam Festival in Kerala. The logistics and delivery schedules were tentatively worked out. Myself and Tom would be visiting Burbank works again for a training - post Xmas holidays, 1983 year end. I would have to bring our Arri IIC camera for trial shoot with the Stereovision 3D lenses and for fixing the 3D Reticule on the camera eyepiece. Also a dozen 4ft X 4ft pieces of plastic cinema projection screens painted with every variety (oil based, acrylic and synthetic) of aluminum paints available locally in India (to check for the effective holding of polorisation when reflected on the screen).

My brother Jos and Tom were working out the logistics between them at our end. Chris alone did all the talking on their side. Chris' wife and

daughter whom we had met in the office were taking care of the Stereovision company management - finance, technical inventories and lens stock, etc. They didn't join the discussion or follow ups, this I noticed.
John Rupkalvis was almost silent. He did speak only for filling in the technicalities - like the 3D Recticle.
Also discussed were the theatre hall & projection cabin specs in Kerala. Chris was very keen on those. He repeatedly asked questions like "Auditorium sizes? Screen sizes?
Only Carbon Arcs? No Xenons?
Cabin port-hole glasses, can they be removed? – Great! They won't allow me to do it here."
The Question - Who would be the Stereographer? Is somebody from India would be sent to be trained? – The answer was deferred.

Then the talk shifted to money.
That was when Papa and Chris started talking one to one. Both were great veterans of the same age (born 1923-24). They understood each other well. Papa explained the economics of Malayalam cinema. The cinema ticket rates in India were only 80 paise to 6 Rupees (2 cents to 15 cents US). The Govt. levied 40% to 80% entertainment tax (a luxury tax!) on it. The balance, the theatres and distributors shared 50-50. On an average, a Malayalam film is made at a cost of .8 to 1.5 million Rupees.(50K Dollars). His previous 70mm film cost Papa 2.5 million Rupees to make. Papa has budgeted the next in 3D for a risky 4 Million Rupees.
With this much info imparted, Papa kept silent.
Then Chris 'extempored' the charges from his side. Stereovision only rented out shooting lenses (in our case, a 20mm and a 32mm. I was comfortable with just two focal lengths, for I had shot the cinemascope with a mere three – 40mm for wide, 50mm for medium, 75mm for closeup. Chris couldn't spare standbys, since productions in Hollywood were on the rise). **Chris never sold the shooting lenses** (my emphasis). John explained why a Stereovision-approved-stereographer was essential – without whom, a customer would mis-handle and bring infamy to 3D with a lens on his own. They shall sell us all the necessary box lenses for projection (at about 750 Dollars, it would cost us about the same as the Kowa anamorphics for the Cinemascope projections, I noted).
Chris kept suggesting his price.
Papa just kept smiling silently.
For each smile from Papa, Chris would reduce a couple of thousand dollars.
Finally they agreed at something below One Hundred Thousand Dollars – I think.

I didn't get to understand much about Chris in the first meeting. To me, the veteran Hollywood **Century Precision Optics** founder was at par with the celebrated Mike Todd (sans the glamor). [Because Todd, I thought, wrongly, was an optical engineer to have designed his Todd AO lenses]. I got to know Chris at the second one-month-long meeting during January 1984. Before that, let us come back to more of the first contract-signing-meeting we had ….
I don't remember the order of sequence of the following incidents.

1) Seeing the 3D film *Spacehunter: Adventures in the Forbidden Zone* at Downtown LA.

2) Observing the 3D shooting of *Metalstorm* at LA suburbs.

3) Projection setup of *Jaws 3D* premiere

(copy and paste from **Memoirs**)

Chris arranged for my Papa Appachan, brother Jose, Thomas Easaw and myself to go see the shooting of *MetalStorm* the sci-fi 3D film that was being shot in LA. The outdoor shooting was happening at one of those arid wilderness suburbs of LA. A Stereovision personnel (his name was Mike, I think, who aspired to act in bit roles while working for Chris) took care of the Stereovision lenses at the shooting spot. He received us at the location.

When we reached, a stunt shot was being setup with a 'space car' jumping over the camera (and lens) half buried in a sandpit. While the stunt director instructed on the safety to the driver and was positioning his VHS video camera for insurance documentation process, I heard Cinematographer Mac Ahelberg complain about Chris' lenses being not anti-glare coated and that it was causing him problems especially for this low angle shot facing the sky. (Later I learned that a lens glare would be anomalous in the stereo pair of images, thereby causing an eye strain). We had time to interact with Mac Ahelberg and his assistant David Schmier. Mac was fascinated to hear about our film – a children's film, the first 3D to be made in India. He said he would love to come and work as the cinematographer! He would do it for free if it is a holiday for him and his wife in India and Sri Lanka. Papa was impressed. Me, not so much. Tom actively started making scheduling and travel plans for having Mac join the Indian production. But later, before calling Ahelberg's agent in LA, Tom privately told me it is not going to work … because the agent won't be gaining anything from this!

The stunt shot of the car jump over camera was called. But jumping off the ramp, the car instead of going over the camera, landed bang on the camera! As the driver was safely pulled out, I saw the Stereovision lens in-charge (Mike?) rush forward to pickup the 20mm lens' pieces and put it inside his rucksack. He didn't bother with the camera parts, I noticed.

"Yes, yes, do that …" Mac Ahelberg quipped "Don't let anybody see what is inside Chris' lenses …. actually, nothing".

Everybody was amused. Even our Thomas Easaw was laughing. But we from India were scandalized. Obviously a disparity in cultures*****. For us, the loss of equipment was no joke. It was not only a costly affair for us (no private insurance those days in India) but also the demise of something revered!

Back at Stereovision even Chris was smiling when I offered condolence for the loss of his lens at the shooting accident. Tom was still amused.

"You feel sorry for him?" Tom asked. "You should feel happy for him". Laughed Tom.

"Chris' lens has been insured by the film production company. He would be compensated far more than it is worth … you heard Ahelberg – really nothing inside, except for his idea"

*****Note - There was a culture clash there.
It was relevant for those times.
For us Indians, tools were always considered respectful.

When David Schmier came down as Stereographer for *My Dear Kuttichathan*, he would sometimes keep his legs casually on the camera box, or on the handle of a mounted camera. Our camera assistants would be shocked! I would have to tactfully remind him of the etiquette. But today in 2025 India, I now look out from my office in the Studio and see young Indian technicians in the shooting floor corridor doing exactly what I had refrained Mr. Schmier from doing then.

(copy and paste from **Memoirs**)

On enquiring at Stereovision which 3D films were playing currently in LA, we were told of the new release *Spacehunter: Adventures in the Forbidden Zone.* The previous – *Treasure of the Four Crowns,* was showing at cinemas far away in LA suburbs.

(Note : Films *Jaws 3D, Amatyville 3D* and *Metalstorm* – all of them were yet to be released in 1983).

So on a Saturday evening in June 1983, Myself with Papa, Jose and Thomas Easaw (Tom driving our Volkswagen beetle) went to a boisterous LA downtown street where the film *Spacehunter 3D* was running in a classic style cinema of Jazz-age design.

It was horrible. The film, the 3D projection everything.

We left the film before halftime. People were bored. Yet I heard some people snickering along with some sleazy jokes in the film. I am only coming to the real disaster. …

This was the first time we were actually seeing a 3D Movie. And we became skeptical whether to go ahead and make one. Even Tom (Thomas Easaw, the Executive Producer), who had seen some not-so-good 3Ds earlier, was having second thoughts. The film was so bad. I couldn't see any off-the-screen effects. Only double images. It was one of the worst nights for me sleepless at the Melrose Avenue apartment in Hollywood. Having seen brilliant color 3D visuals on View-Masters – objects popping out, though inside the box – I was expecting things to fly around in the cinema theater auditorium!

Was it the end of my 3D dreams?

The next day we were at Stereovision, a day for the contracts to be signed.

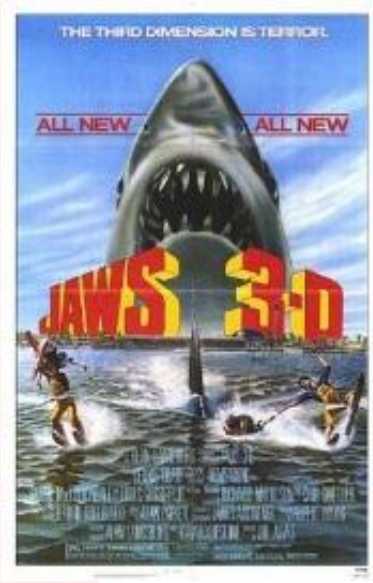
Tom said to Chris point blank that Mr. Appachan (my Papa) was having second thoughts on 3D after seeing *Spacehunter.*

Exclaimed Chris. "Did I hear right? … You have not seen a 3D before? Mr. Appachan, was this your first?" "Oh my God, I would not have even allowed you to see that film yesterday! It is not one of mine …. No, don't speak anything before I show you some of my stuff".

He called his projectionist to load and project their showreel at the small rushprint-projection-room (silent, with no audio) they had at the Stereovision first floor. As we sat holding the 3D glasses *and our breath*, the 3D widow opened and things far inside started coming out towards us! So fabulous … as much as what the 3D junkies raved. It was

pleasant with no eye strain for the 10 minutes promo reel. It had the famous "beer tray floating" shot from Arch Oboler's *Bubble* (1966) attached at the tail end.
Papa got up and said "We'll sign the contract now … but you have to promise to give me this show reel and one projection lens and a dozen 3D glasses … so that I can take them back and show all my exhibitors what I am up to next".
Chris agreed. He only cautioned us not to part with the 'beer tray footage', because Stereovision had no copyright for that. In the next 10 minutes Chris with an alignment loop taught me how to set up the 'box lens' for 3D projection.
The Project was on.

As expected, Mac Ahelberg's agent dissuaded him from any Indian adventure. His wife was furious at the agent for the disappointment. But the agent said he had lined up promising projects for the Swedish Cinematography Master immigrated recently to Hollywood. Those prospective projects shall be imperiled. So, Ahelberg suggested his assistant David Schmier be taken as Stereographer to India in 1984 for *My Dear Kuttichathan.* It was agreed that David shall be further trained with me and Thomas Easaw in 1983 December, by Chris and John.



(copy and paste from **Memoirs**)
Jaws 3D was being released on June 22nd when we were in LA. Shot in Arrivision, Chris had provided his system for additional photography, and also his box adaptors for a wide release all over the US. We went to the premier show but were not allowed to attend the show because of the PR hullabaloo going in the foyer of the downtown multiplex. But I was taken up to the projection cabin where Chris himself was fixing the Stereovision box lens onto the platter-driven Christie projector. I was having the first look at a scenario which I myself shall be playing, and also teaching scores of others to do, in the coming decades (as long as the celluloid film chemistry lasted, to say the truth). All image spills had to be painstakingly blocked with white gaffer tapes and black cardboard strips. The screen masking was something else. But Chris was not too keen then on that. I understood his role there was very limited. It left me wondering how he could compromise the difference between the over/under spatial difference between Arrivision and his Stereovision. Later, I discovered it is not much and for small screensizes the human eye could accommodate the difference. But it would need a large cropping of screen image so that the rise and fall of the image won't be noticeable at every intercut between Arrivision-shot-footage and Stereovision-shot-footage. During the ensuing years, while devising methods to overcome minor up/down shooting lens related frameline shift, I

used to wonder how untrained projectionists in hundreds of cinemas could cope with inherent 3D errors overnight, for 'wide releases'. On that June 22nd day, even Chris couldn't!

What focal lengths/interaxials were available for filming?

Which specific interaxials were associated with which focal lengths in the range of StereoVision lenses?

In the years 1983-84-85, I was not concerned with the variable interaxial at all. Yes, I was aware of it – because of biology lessons on animal eyesight. Also the change interaxial needed when doing miniature photography. Again, aerial 3D photography and reconnaissance mapping during WWII was a subject I went through when studying *technology of war in history*. The Stereovision 20mm lens for wide shots and 30mm lens for closeups where the only two lenses we used for our film. Both had interaxial as in normal human vision. His 50mm or 72mm, Chris never recommended. The subsequent deep and macro cinematography with long and longer lenses came much after 1985. I never discussed with Chris (though later I did a lot of it with John) anything other than human interaxial 2.5. Chris was not very happy even talking of John's variable interaxial 'Stereoscope' design, which I thought was a brilliant invention for the times. With it, variable lenses could be used, and zero eyestrain can be achieved with a reduced interaxial. Chris may have been overly cautious of 'cardboarding'. Or that was the impression he gave me so as to not venture into that area. My understanding and experience with variable interaxial happened after year 2004 when I took up **Dual-Camera Digital 3D Imaging**.

(The following was answered in Iyesha's query for the Film Atlas) … .

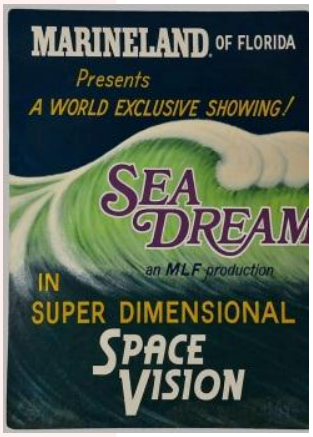
On Chris's Stereovision shooting Lenses. Clarity at the periphery of the lens elements (adhered with silicone) was so poor that for image sharpness the f-stop had to be a minimum 5.6. In those days this meant a very High Key for the indoors and a Large Fill in the outdoors (Kodak 100 ASA, without filtering). The big focus knob at the top of the lens moved the twin (left/right) prism elements forward and back. This operation occasionally caused vignation and image spill. In result, the horizontal centre line between the left and the right subframes (septum) would become undefined and even tilted at random positions. Due to the restricted prism positioning, at close focus, shading of the right image on its left and shading of the left image on its right occurred. We used to overcome these by framing the shot slightly wider (for the right-eye-image headroom) and crop the picture adequately on the silverscreen with the black-cloth-border-masking that was mandatory to establish a '3D WINDOW' through which objects came 'off the screen' into the auditorium space.

Had you watched other 3-D films in preparation for making Kuttichathan ?

No, sorry.

Hope I am not being presumptuous. Let us acknowledge a fact here. There has not been a worth-watchable feature made in 3D in the 20th Century. It is a shame. You know about Hitchcock being browbeaten into shooting in 3D. The point is, most filmmakers never saw 3D beyond the gimmick value. The only exceptions in the 20th Century are *The House of Wax*, the Disney Amusement park snippets and Murray Lerner's *Sea Dreams*. De Tothe's was a good work - as a horror film. The Disneys and Sea Dreams were

not movies and they didn't fit the feature film format of what we were planning in 1984 (Children's Film *My Dear Kuttichathan*).



[The 20 minutes *Sea Dreams*, which I had only heard of, Mr. Lerner showed us in his Manhattan Office projection room – just after 9/11, when my brother Jose was shooting *Magic Magic 3D* (2003) in NY].

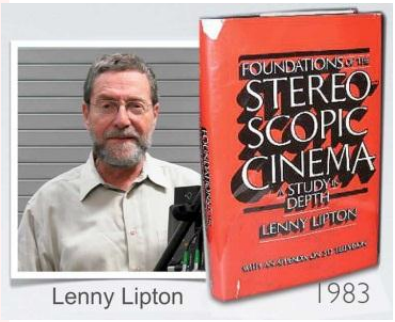
It took the Digital Cinematography era to come up with great live action 3Ds. So, having understood there are no lessons to be learned – thematically speaking, I didn't watch any 3D movies as study exercises for *Kuttichathan*. The technical lessons for me, Chris & John provided. Tom (Thomas Easaw) was well aware of the quality of 3D films during the second 3D boom in Hollywood.

In January 1984, from LA we went to see *Treasure of the Four Crowns* that was being screened in a multiplex at Simi Valley. Tom forcibly pulled me out after the first reel of the film. He said the very first scene of *Treasure of the Four Crowns* would help me in *My Dear Kuttichatan's* opening scene. "There is nothing to be seen after this", he assured me. (But, I think Tom wanted to reach back LA quick to catch his flight to Denver).

Had you read much technical information about 3-D?

This has been answered. My school and college physics topics on polorisation of light, beamsplitters dealt with 3D. I read from Binocular vision academics. I read Literature on 3D in AM Cinematographer & AMC manual.

The movie shooting specifics I learned from Chris and John and their 3D manual. Chris gave me and Tom the Lenny Lipton book in 1984 and explained from that.



The Theory of Stereoscopic Transmission by Raymond and Nigel Spottiswoode?

No, never heard of it. The topic seems to be beyond me.

Had you read Foundations of the Stereoscopic Cinema by Lenny Lipton?

Answered

What was the source of 3-D glasses in India? In the USA, many 3-D glasses were supplied to theatres by the Marks Polarized Corporation (Alvin and Mortimer Marks). Many more 3-D glasses were supplied through 3-D Video Corp. (James F. Butterfield and Dan Symmes), who dealt with the Polaroid Corporation for the latter's H38 polarizers. Did either of these companies supply glasses to India?

Uh, uh, it was never like that.

Firstly, you have to understand the then reality of the Import & Export policy and procedures in 1980s India. By Govt. policy, every import was banned, as a rule. Then came the exceptions to

the rule – Text books to start with. Books were freely importable with NO Import Duty. Then came a restricted items list with 100% to 300% duty. Theatrical Movies came under this - as bilateral arrangement between the nations from which the films were imported and India the consumer state. Raw cinematographic film (unexposed) was imported by Govt. of India State Corporation and given on quota to registered film companies and laboratories after adding a 200% duty. Cameras and lenses could be imported by an end user (A registered member of the Film Chamber of Commerce) upon application – the scrutiny of which by the Commerce Ministry would take upto 3 months. Camera support systems were banned. Cinematographic lights were banned – both resulting in local 3rd rate products by which the local manufacturers made a killing. Film projectors were banned. Projection lenses at 100% duty allowed for an end user. The customs manual on products would run to thousands and thousands of pages. All these changed only with the economic liberation of 2005 in India.

(copy and paste from **Memoirs**)

In the late 1970s I was considering whether a 3D film could be made in Malayalam. Remember, the second 3D boom in Hollywood occurred with film *Coming at Ya* (1981). I wrote letters (and telexed) extensively to Poloriser Glass or sheets manufacturers. I got response from three 3D glass manufacturing sources.

One was the Poloroid Corp. in the US. The other was the Hoechst AG in Germany. The third was Carl Zeiss Jena in East Germany who supplied spectacles for 3D film screenings in the USSR.

I got a personal letter from the GM of the Poloriser division of Poloroid with two samples of their paper 3D glasses. These were single-use throw away glasses made of paper and gelatin polorisers.

I have never seen such a Poloroid branded product in the market. The GM informed me that Poloroid Corp. proposes to manufacture these for 3D Cinemas and the best price for each would be about 10 to 12 cents (4 to 5 Rupees) in bulk quantities. As a twenty year old filmmaker, I cherished this response for a long time. Till recently I had the samples with me.

Then I received 3 samples of 3D glasses from Carl Zeiss. Those were in durable white plastic. The eye-pieces were made of glass and the poloriser filament was sandwiched in-between. **Exquisite, non-scratchable glass surface, very durable, but a bit heavy. The ear pieces could be retracted and adjusted for the patron's size.**

It would cost 32 Indian Rupees each. Import from Zeiss Jena was easier because it facilitated Rupee payment due to India's trade partnership with Iron Curtain countries.

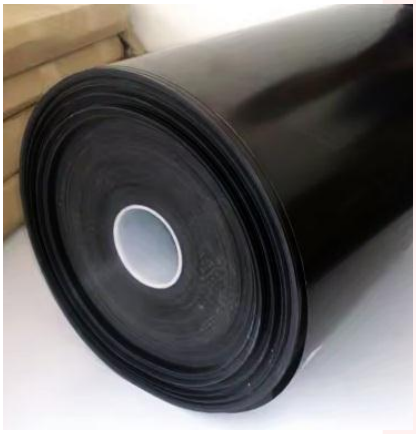
Then there was the poloriser gelatin roll sheets which the chemical giant Hoechst manufactured for industrial purposes. Each roll about 4feet wide and 750 feet running

length at cost 2500 US Dollars could give 20000 pairs of eye pieces for 3D glasses. Finished product for us would cost about 10 Rupees for a pair, sans frame.

There were commercial, logistics and viability parameters to be considered in deciding which option to select.

Paper 3D glasses to be given out to patrons was not possible. For, importing (in millions!) was impossible … because, the commercial product was banned by the Indian Govt. then. Even if Poloroid paper glasses were to be imported, the cost - sans 100% duty, would be 4 to 5 Rupees per piece. It was higher than the average cost (.8 to 6 Rupees) of a Cinema theatre ticket – a price stipulated by the Govt. So, the cost of the glass couldn't be added to the ticket price and sold to the patrons. Morover, there was a clause in the Entertainment Tax Act by the Govt. that said any additional cost on the ticket (even if it is bicycle parking fees) shall attract the same percentage as the entertainment tax! There was no product branding in India to share cost of the merchandise for an option for the patrons to take the branded glasses home.

The best option seemed to be the Carl Zeiss durable glasses. I.e.; given to patrons for free, collected back, sanitized and re-issued. But on mooting this process to the personnel in our organization was met with howls of denial. The Zeiss glasses looked so much like luxury sun glasses, every patron would be tempted to swipe it and take it home! Almost zero retrievals possible. "Loyalty to my organisation withstanding, …. even I would purloin one!" said one of our staff.



DECISION.

So, what looked feasible was the import poloriser rolls, dye cut from them the gelatin polorisers for the eye pieces, make plastic frames (of different design specimens) and have the glasses fabricated in numbers evaluated for an on-coming release.

Supply, at a small fees, with each ticket a pair of specs (3D glasses) to the patrons for their onetime use.

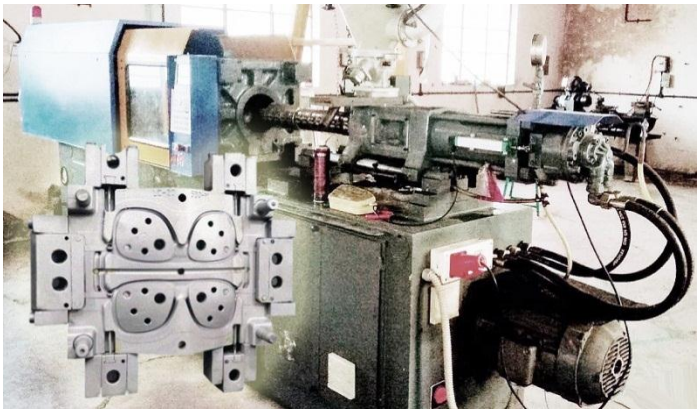
Collect back, sanitise and reissue.

At a cost of about 12 Rupees per glass/ 3D viewer (including the plastic frame), charging the patrons a nominal One Rupee in addition to the ticket cost, the investment would pay for itself in about 14 shows. [After that, the glasses would be melted down and remolded. The same with damaged glasses].

A theater could be supplied every 2 weeks with a stock about 5 times the maxinum seating capacity of the theater. A set of glasses issued for a show on a day, shall be re-issued only the next day, after sanitation.

NOTE - The economics above worked out to be fine … only because the film was successful. Providence!

So, in the summer of 1984, with the Production and Distribution Managers, Laison Officers and others in our Studio and Production Company, an action plan was made to import polorised gelatin sheets in rolls, dye cut them with pin registration to fit plastic frames. A plastic injection moulding unit was setup, steel dyes (laser cut incorporating the registration pins) for different specs designs were made.



The poloriser sheets had to be slit into strips at 45 degrees orientation. The eye pieces were to be punched out after a very minute alignment – so that **the pin registration of one eye is the mirror image of the other**. There was only one single dye for the two eyes' filaments. One filament flipped around should fit the other eye. Light passing through them should cancel out.

NOTE – There was only linear poloriser in use those days.

(cut and paste from **Chidren's Films of Navodaya**)

Once the 3D film was released, in 1985 there was a young executive at Distributors Rajshri Pictures (Karan, I think) who was sent down to Kerala for studying the 3D Glass collection and distribution system of My Dear Kuttichathan, so that it could be implemented in North India where it was to be released in Hindi as Chotta Chetan. At Delhi Vishal Cinema, when

he was explaining to the theatre management as to how after every show the glasses are collected and sanitised, there were scoffs and smirks all around.

"Saab, ye unke madraasi jagah pe ho saktha … ye baath yehaam nahi chalega. Zaroor, … yehaam log chashma wapas nahin dega .. saley, kharab bhi kar dega"

(Sire, that can happen in South India .... Here the patrons won't return the glasses. For sure, The ruffians would even damage them ... on purpose").

To which the young exec answered

"Aisa nahin … aap ye dhyan rakhna … yeh film Chota Chetan aisa hai … dekhne ke baad log pyaar ke saath apne apne chashma vaapas dega … Zaroor!"

(No sire, please keep in mind ... this Children's film is such, that after seeing it, people in full gratitude, with smiles, shall return their glasses ... for sure!")

The Import. How was it done.

1984, India - two decades prior to the economic liberation. It was called the License Raj. Everything - every import and export also, worked on Govt. Licenses. That was when we had the contract for Kuttichathan made with Stereovision. Lenses (for shooting) could not be hired. But projection lenses could be imported. So, the hire charges were built into the set of projection 'Box Lenses' we were importing from Stereovision. The shooting lenses - 20mm & 32mm, were documented for Custom purposes as 'lent free for two months' in lieu of the projection lenses purchase and as a promotion for 3D film productions in India. The poloriser sheets - from which glasses were fabricated, was termed in the Import Licence application as **'poloriser gelatin filters for cinematographic purpose'**. Technically, this was correct. Any mention of 'glasses/ viewers/ spectacles' – for 3D or whatever, would have caused an immediate rejection … since anything that is 'worn for vision' was banned from importing.

A write-up on monopoly import -

It was called the Licence Raj.

The period was such, the CK Birla Hindustan Motors - manufacturers of the Ambassador Car, would lobby at Delhi corridoors to scuttle any new automobile manufacturing proposal. They would even dissuade the Indian Government from allowing competitors - Premier Padmini, Standard Herald, increase their production quota.

Similarly, the Bureaucrats at Hindustan Photo Films would lobby to keep import duty on Kodak, Fuji and Agfa products exorbitantly high. This was to keep selling their substandard Indu Film within India.

This phenomenon of crony monopoly protectionism is not unique for India. For example, the State of Washington USA, for 3 decades lobbied to deprive Alaska (now the largest State in the Union) from obtaining statehood. This, purely for the commercial reason to keep all goods imported to the neighboring Alaska routed through the Washington State, at exorbitant transit costs.

Did either of these US companies supply glasses to India?

Once it was decided to supply, take back, sanitise and reissue glasses in the cinemas, the option was to manufacture fragile plastic glasses from poloriser sheets. In preparation to obtain import license for linear poloriser sheets, I remember in January 1985 accompanying Tom Easaw to the American Hoechst and the Poloroid Corp. companies in LA. From both places we bought one jumbo roll each. The offices and factory of the American Hoechst was in LA suburbs itself. There, the Marketing manager took us around the facility to show how the sheets were 'iodine crystal laminated' onto the celluloid base. He mentioned that the shelf life is not much because 'it doesn't like water'. So he cautioned us to be careful about humidity in storage. We

paid cash and he loaded one roll into our car boot and gave us the proforma invoice for another twenty. The Poloroid Corp. godown was at an industrial complex a long drive from LA towards the Mexican border. Before admittance into the premise, they took a **poloroid photo id - instant**, and had it signed by Tom & me. This was the first time I saw photo ids made and recorded for access to the premises. Only Polaroid could afford this procedure those days. At the godown we took delivery of one roll for which payment had been made through bank. The proforma invoice for import application had been sent from Poloroid head office by mail to Tom with Navodaya India as the end user.

We have used only imported Hoechst and Poloroid linear polorisers from the year 1994 to 2003 – i.e; as long as the screenings were done with film prints. Poloroid sheets were costlier but of better quality and lasted longer. We were into Poloroid alone during the last ten years – 1994 to 2004. This was before the advent of the Digital 3D Imaging - by which time from Korea, China and Taiwan circular polorisers proliferated and was available directly for the cinemas to purchase to screen films like *Avatar* (2010). With Digital 3D arriving, the Cinemas started giving 3D glasses to their patrons.

Every one of our screening – upto the last *Chota Chetan* screenings of 1998 in UK - London, Birmingham and Leicester, upto the all-India release of *Magic Magic* in 2003 – we had taken our homemade glasses and silver screens for all our exhibitions.

> (copy and paste from **History, Navodaya**)
>
> Year 1984. While the production of MY DEAR KUTTICHATHAN (CHOTTA CHETAN) was happening, teams of technicians were trained here at Navodaya to convert every prospective cinema hall for screening the 3D film. ITI graduates in mechanics and optics were instructed in methods to modify all known 35mm projectors, and fit them with the Stereo Lenses and Polorising filters issued by Navodaya. Also, personnel were taught the skill to dismantle existing cinemahall screens and replace them (overnight!) with silver screens - for the duration of the 3D screening. An in-house service system was developed to provide poloriser glasses to customers.
>
> During the 20 years (from 1985 to 2005) of our 3D screenings, Navodaya had directly handled each of its 3D lens & silverscreen at the theaters and every one of the 3D glasses given to customers. From the thatched auditoriums with their carbon arc lamps in India/ Indonesia/ West Indies, to the automated plattered multiplexes at KAL/ Dubai/ Birmingham/ Montreal, this today adds up to a staggering 85000 screenings and 43million 3D glasses!

How many playdates did My Dear Kuttichathan secure? Did it rely on widespread simultaneous distribution—what we in the USA might call saturation bookings? Or was it more apt to get “roadshow” bookings, or exclusive bookings in select cinemas?

I think it is evident if you read between the lines written so far.

During the late 70s, I started the idea of 3D as an experiment – like the Cinemascope (in 1978) and the 70mm (in 1982). Both C’Scope & 70MM were successfully executed in Malayalam cinema. S’cope and 70mm could not be done as ‘wide release’. At least not in the state of Kerala where the exhibition circuit was not equipped for them. So it took limited individual effort

from theatre to theatre. But that was fine, since our release stations (A centers) were 12 to 20 in the 1980s.

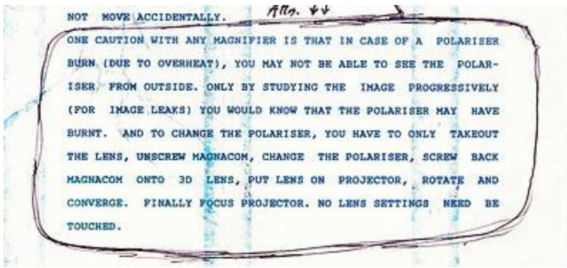
[It then went down to B, C etc about 120 centers out of 800 cinemas in the state. But today, 2025, a blockbuster film is released in about 250 Multiplexes simultaneously. 20 prints in one city alone!].

So the game plan (in 1984) was to do one theater after another …. and in the process, train dozens of teams before fan out to neighboring states.

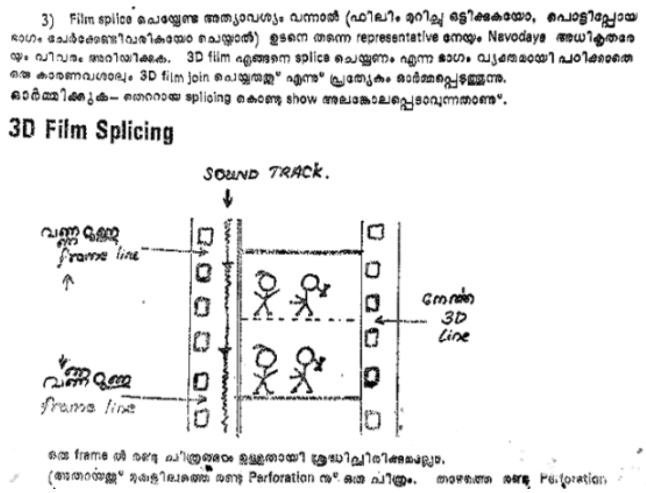
(It was only a pipe dream in its inception).

The Navodaya Instruction Manual on 3D Installations is given here.

https://www.navodayastudio.com/_files/ugd/8a582f_2bc8b96fd00742939921da70eeca4b08.pdf


NOT MOVE ACCIDENTALLY.

ONE CAUTION WITH ANY MAGNIFIER IS THAT IN CASE OF A POLARISER BURN (DUE TO OVERHEAT), YOU MAY NOT BE ABLE TO SEE THE POLARISER FROM OUTSIDE. ONLY BY STUDYING THE IMAGE PROGRESSIVELY (FOR IMAGE LEAKS) YOU WOULD KNOW THAT THE POLARISER MAY HAVE BURNT. AND TO CHANGE THE POLARISER, YOU HAVE TO ONLY TAKEOUT THE LENS, UNSCREW MAGNACOM, CHANGE THE POLARISER, SCREW BACK MAGNACOM ONTO 3D LENS, PUT LENS ON PROJECTOR, ROTATE AND CONVERGE. FINALLY FOCUS PROJECTOR. NO LENS SETTINGS NEED BE TOUCHED.


3D Film Splicing


3D ALIGNMENT DIARY

I THEATRE DATA — (To be supplied by the Exhibitor)

Station KURNOOL Theatre ANAND A.C./70 mm
Total capacity 744 (Seats) Balcony capacity — (seats)
Position of projection cabin — above balcony / below balcony
Auditorium width 60 feet. Auditorium length 100 feet.
Throw 90 feet. Normal 35 mm lens 2.50 inches. Scope backlens 3.25 inches.
Existing screen size 19 X 52 (length x width). 35 mm wide screen picture width 40 feet.
Scope picture width 19 X 52 feet.
Make of projector TOKIWA (JAPAN) Model — /Water Cooled?
Rectifier — 3 phase or single phase? 3 phase Make JAPAN
Maximum rectifier capacity 120 amps.
Size of carbon that can be used — 6/7, 7/8, 8/9, 10, Higher
Mirror size 14" inches. Maximum magazine capacity 6000 feet
Data filled in by [illegible]
Designation [illegible] Date 9/2/85

II. 3D SCREENING DATA (To be filled by the 3D technician only)

Projection pitch in degrees ……… Sheet ht ………

$\theta = \sin^{-1}$ ………

back ht ……… front ht ………

Screen curvature — Nil/sufficient/excessive Port glass — Exist / Removed / Cutout
3D back lens employed ……… whether aperture plate used? ………
3D lens employed ……… whether magnifier used? ………
3D picture width ……… Projection ampere ………
Mirror — Brand New / already existing / cold mirror Screen illumination — good / fair / poor
Carbon employed — 7/8, 8/9, 10, 11, 12.5, 13.6, rotating Dichroic filter ………
3D print condition and density ………

Problems incurred — Overheating / lens ghosting / lens shading / poor screen painting / inadequate masking / image spilling / screen image shading / convergence shifting / difference in left right image brightness / variation in picture illumination from various auditorium levels / Arc hot spot / undefinable eye strain / projector non-centred / excessive projector vibration / inadequate picture sharpness / Non-co-operative Management / Non-co-operative cabin staff

Explain ………

The following items have been supplied to the Cabin for the 3D Projection Program

Theatre aligned by ………

INSTRUCTIONS TO PATRONS
in Telugu, Malayalam, Marathi, Kannada,
Tamil, Bengala & Hindi

In the first few minutes of Chris explaining to me the travails of setting up 3D projection – with Chris demonstrating first in his Burbanks works and then while installing for Jaws 3D at the LA multiplex, I realized how things could go wrong in the battle fields – projection cabins. Mr. Mike Ballew, you said ‘Wide screen releases’ in hundreds? No wonder 3D died a thousand deaths on

those screenings. With inadequately trained technicians it is mere mathematical logic – **Murphy's Law**, on how many things would have wrong.
In most places the 3D film distributor would just send in the print and lens with printed instruction - **How to play 3D in your Cinema**. They were merely cashing in quick bucks on the 3D sensation which occurred from time to time.
So, coming to the point, we never intended to profit at the expense of 3D. Hence every screening was meticulously planned - from the selection of the theatres themselves.
We never handed over exploitation rights when agencies approached us with promises of great returns for those 'all out releases' the theatre circuits were clamoring for, when sudden, seasonal 3D sensation occurred from time to time.

I had put up elaborate instruction manuals for the projectionists. It started with the line – **A 3D venture is won or lost in the projection Cabin.**
We also had illustrative posters put up for the patrons.

को ग्रेड कीजिए ।

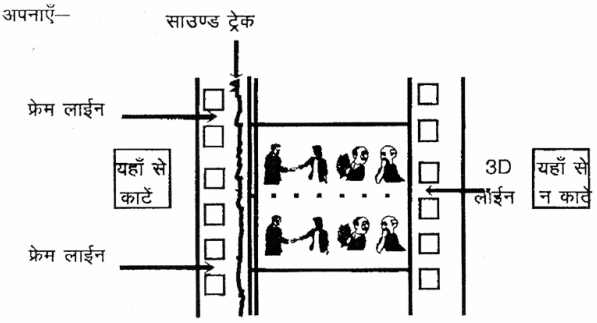
3D फिल्म प्रोजेक्शन कर्मचारियों को सूचना

3. किसी भी कारण से फिल्म प्रारंभ करते समय फ्रेमिंग नॉब को एडजस्ट करना पड़े तो 3D चश्मा/ऐनक लगाकर देखिये कि 3D एफेक्ट बराबर आता है या नहीं ।

6. 3D फिल्म में दिखाई देने वाली दोनों परछाईयों (इमेजों) में बराबर कार्बन की रौशनी पड़ना चाहिए। अगर जरूरत हो तो मिरर या कार्बन में

3D फिल्म में एक ही फ्रेम (frame) में दो चित्र होते हैं। एक दायीं आँख के लिए और दूसरा बायीं आँख के लिए। अगर इस तरतीब में कोई गड़बड़ हुई या तरतीब बदल गयी-तो सब कुछ चौपट हो जाएगा ऐसा न होने के लिए नीचे लिखे हुए नियमों का पालन करें।

D. अगर कभी फिल्म फट जाए तो उसे जोड़ने के लिये नीचे दिये हुए चित्र में का तरीका अपनाएँ—



NAVODAYA

15, Palat Sankaran Road, Mahalingapuram, Chennai –600 034 Phone:91- 44-8277407
Fax :91- 44-8232640 E-Mail :navodaya@giasmod01.vsnl.net.in

27.05.98

PVR CINEMA
FAX # 011 6524162

Kind Attn: Technical Manager/ Manager Engineering.

Sir,

This has reference to the 3D screening at screen # 4 (Chhota Chetan).

For an even 3D picture(screen)illumination, the xenon lamp reflector of your projector lamphouse needs precise adjustment. This is because the image centering of the 3D format in the 35mm film is slightly different than that of the Academy or Anamorphic format. Generally we do this adjustment when we fix the Lens. It is a fairly simple operation by which the vertical tilt screw of the mirror is brought into play so as to give *equal screen illumination between the left eye and right eye images of the 3D picture on the screen.* (For an elaboration on this; kindly refer to the 3D projector operator instructions posted at the cabin). We were not able to do this adjustment since the lamphouse keys were not available – in your absence.

Now, this adjustment is critical because of two factors. It has been reported that the Left eye image is quite dull in PVR's Chhota Chetan projection. This is bad 3D and would reflect our efforts in a poor light. Also; the overbrightness on the right eye is burning off the polarizer on the right image repeatedly – this is a very rare occurrence. Hence please do this adjustment on the mirror for the sake of quality 3D in your cinema. This would definitely do Chhota Chetan proud.

Thanking you

JIJO

Admin. Office : Navodaya, Ernakulam, Phone: 91- 484- 368224
Kozhikode,Phone: 91- 495- 724041. Tiruvananthapuram, Phone : 91 – 471- 333229

NAVODAYA

15, Palat Sankaran Road, Mahalingapuram, Chennai | Madras | 600 034 INDIA
Phone : 91 - 44-8277407
Fax : 91 - 44-8232640

TO PVR CINEMA FAX 011-6524162

FROM THE PRELIMINARY REPORT WE BELEIVE THAT THERE IS A POLARISER BURN THAT HAS OCCURRED ON THE 3D LENS INSTALLED AT SCREEN #4 WHERE 'CHHOTA CHETAN' IS PLAYING. HENCE PLEASE SEND THIS FAX MESSAGE TO THE PROJECTION CABIN SO THAT THE 3D TECHNICIANS WOULD FIND THE INFORMATION USEFUL. VERY URGENT.

KIND ATTENTION MR.ANAND AND MR.SUDHEER.

THIS IS AN EXTRACT FROM THE NAVODAYA 3D MANUAL.

....."ONE CAUTION WHEN EMPLOYING ANY MAGNIFIER -- IN CASE OF A POLARISER BURN (DUE TO OVERHEAT), YOU MAY NOT BE ABLE TO SEE THE POLARISER FROM OUTSIDE. ONLY BY STUDYING THE IMAGE PROGRESSIVELY (FOR IMAGE LEAKS) YOU WOULD KNOW THAT THE POLARISER MAY HAVE BURNT. AND TO CHANGE THE POLARISER, YOU HAVE TO ONLY TAKEOUT THE LENS, UNSCREW MAGNACOM, REPLACE THE POLARISER WITH A FRESH ONE, SCREW BACK MAGNACOM ONTO 3D LENS, MOUNT BACK LENS ON PROJECTOR, RUN THE ALIGNMENT LOOP, ROTATE AND CONVERGE. FINALLY FOCUS PROJECTOR. NO LENS SETTINGS NEED BE TOUCHED."

THE POLARISER BURN COULD HAVE OCCURRED BECAUSE THE PRIMARY DICHROIC HEAT FILTER HAS BEEN REMOVED FROM THE ISCO LENS TO ACCOMMODATE IT ON THE CHRISTIE PROJECTOR. TO PREVENT ANY FURTHER POLARISER BURN, IT IS ADVISABLE THAT YOU FIX THE 12cm ROUND HEAT FILTER BETWEEN THE PROJECTOR AND THE ARCLAMP. (IT WAS DONE ONCE, BUT REMOVED. SUDHEER IS AWARE OF THIS). TOWARDS THIS SPARE HEAT FILTERS (ALONG WITH SPARE POLARISERS) ARE BEING SENT FROM MUMBAI. INSTALL HEAT FILTER AS EARLY AS POSSIBLE.

JIJO

Admn. Office : Navodaya, 39 / 610, Vidhya Soudham, Karikkamuri Cross Road, Ernakulam. Kochi - 682011
Ph. (0484) 368224 / 355280, Studio : 422234, 422375.
Branches : Kozhikode - 724041 Tiruvananthapuram - 333229

To offer some perspective on the American situation: In the USA, Friday the 13th Part III in 3-D got simultaneous distribution on 800+ screens. A year later, Jaws 3-D got simultaneous distribution on 900+ screens. Both were huge hits. Earlier films like The Stewardesses and Flesh for Frankenstein were also huge hits, but they never appeared on more than a few dozen screens simultaneously; instead, they had to be distributed in a very staggered fashion, playing a limited number of playdates in one region before moving on to other theatres gradually over time.

I would not agree with the 'huge hits' part. That is 'Film Trade-talk'.
See, I am not a great fan of 3D. (This is true. I still haven't directed a second 3D film!) Hence I would not rate the films above as hits. About the business they generated, it was merely cashing in on the 3D sensation from one revival to another. Those 'hits' came at a cost. Ultimately it was bad for 3D. Nobody would rate those films today as they would rate *Avatar, Gravity, Pi, Hugo, Dumbo …* According to me, the good happened only after Digital 3D Imaging arrived in the 2010s. Both in creativity as well as in projection technology.

Did you know Lenny Lipton?
If so, what were your impressions?.

Other than reading his book, I have no knowledge on him. I also read his review on film AVATAR after its release.

Please share some of your impressions about the success of the film-- technically, commercially, and in the hearts of filmgoers

(A compilation is given as INDEX ONE at the end)

What were your impressions of Chris?

Rather, what is my overall impression of Chris … ?
As mentioned, the first time I could get only technical inputs from Chris. Inputs which stood up to his reputation of an engineering genius and optical scientist. He had deep understanding of the shooting environment – which sometimes at best be termed chaotic, and of the projection scenario – at best be termed complacent. Chris has intuitive technical solutions for everything. He very clearly told me the shooting parameters during cinematography, which I took very serious and found as perfectly true.
Please see ATTACHED my earliest lessons from Chris.

Lessons Chris taught. *(A compilation is given as INDEX TWO at the end)*

All that which is mentioned in INDEX TWO were drilled into me by Chris during our first 2 training sessions. I have found only minor variations to these even with the advent of **Digital Cinematography and 3D Imaging**. Digital Projection Technology after 2010 has improved many complex situations at the projection front by doing away with much image shading on the projection lens and image spillover on the screen. Still, what Chris told (and what we had practiced) in the auditorium halls by physically masking the screen to define the 'stereo window' is even valid today in the digital era, but rarely followed due to 'make-life-easy' for the cinema management. For that matter, with Digital Projections sans an operator and doing away with 3D alignment charts, today disasters do happen. Left/ Right image interchanges (pseudo 3D) do occasionally occur when 'the content recognizing algorithm' misread a 3D DCP file.

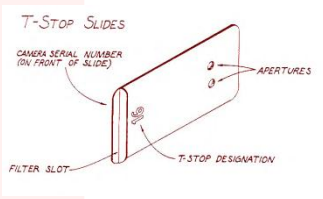
Continuing with my impressions on Chris,
Jijo.
(cut and paste from **Memoirs**).

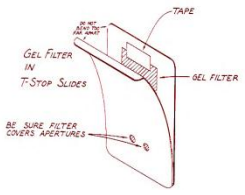
I saw the humorous side of the '*iconic Chris Condon'* during the 1st training session (Dec 1984) with John and Tom present. When asked why calibration markings were absent on the focus and convergence knobs on the Stereovision shooting lenses, Chris tangentially went on to say that

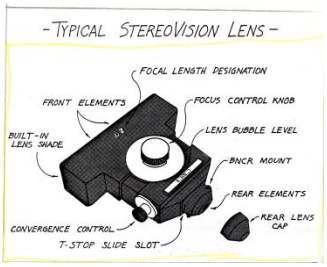
> " … even in the best of 2D lenses, you do it with visual marking for every shot.
> Now, why do you need the convergence position marked?
> There are only 3 convergence positions for the 'value for money' the audience pay for their 3D tickets. 'Gah! … Gaah!! … and … Gaaahhh!!! … in terms of 'off-the-screen' effects."

He mimed the audience reaction to objects coming onto people's face … 'Gah! … Gaah!! … and … Gaaahhh!!! For low, mid and maximum. It was funny.

But I got a feeling he was covering up the deficiencies of the lenses which were un-coated and glare did occur. Then there was the Waterhouse T Stops instead of Iris control. Waterhouse stop limited the f-stop from being changed during a shot in progress. (Waterhouse T-Stop slides had slots which carried the gelatin ND and Correction Filters).

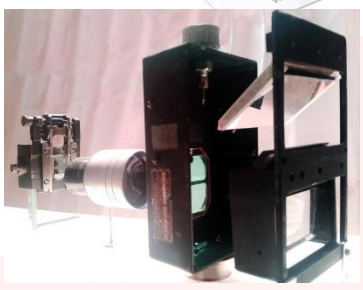






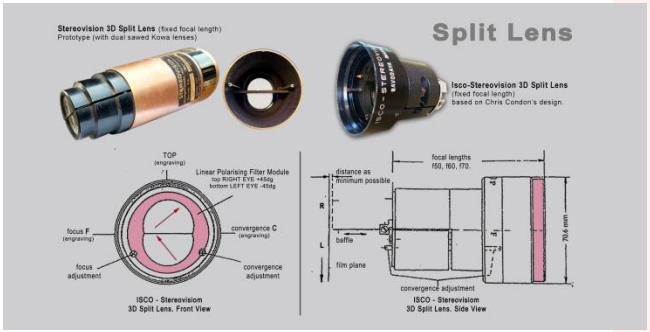
Other chinks in the armor (or, spots in the halo) of the genius became evident to me soon. Before packing for his India-Mission, Stereographer David insisted that he has to be shown by Chris how to open up the shooting lens and minor repairs be made if alignments go wrong during the India shooting. It seems this used to happen during *Metalstorm* shootings and lenses had to be returned to Burbank works. The sending of lenses back and forth Kochi-LA-Kochi was not in the prospectus!

As I mentioned, Chris was the first iconic character I met in real life. I have only read about Science and Technology giants in my early 20s. Later I would meet many … Mr. Schwarzkop, father of steel roller coasters for instance [ABOVE].



The chinks in the amour associated with larger-than-life characters I was aware. Newton had his Corpuscular Theory, Einstein his denial of Quantum Theory and Edison his DC Current. And here I am

beholding Chris Condon!I felt only sympathy for the man when I had the first view of the inside of his box lens – sometimes called prism lens. We were not supposed to dismantle it, nor give it to anybody lest they copy the design. It happened when one of the poloriser glasses fell off. Even with its uneven screen illumination, difficulty to prevent image shading, bleeding and image spill over, Chris' ***Box Lens*** design was a remarkably low cost, simple contraption for 3D Projection.
I straight away saw the glasses were stuck with poloriser sheets – Poloroid's laminated sheet gelatin, a poor method instead of the optical quality Ziess and Schneider strived by sandwiching halide filament between glass. The proper method would be the physics laboratory principle. Chris' glasses were not a pretty execution for an aluminum dye cast box with precision mounts. He must have been doing that for cost saving, or most probably, quick execution in large numbers. The design was simple but brilliant. But then, they were mirrors instead of 99% reflectivity prisms.



This resulted in poor screen illumination, disparity between images too.
The right eye convergence was enabled by a screw that pushed the mirror down. If it had been a plate hinged at its extremities, the image would not get skewed as it used to happen during adjustments for very long-throw and very shot-throw auditoriums. Chris knew that Indian Cinemas were large capacity halls (800 to 1100 seats) but he was reluctant to suggest we use the split lenses – another one of his brilliant designs, for better screen illumination. Surely it was because he had a large inventory of Box Lenses to dispose of – which he had over-produced and stocked for the Jaws 3D release in 1983. He couldn't supply enough of his Kowa sawed-off lenses to us. Finally we had to get better engineered Isco splits. The German firm had done this from Chris' design. The Schneider family, who came to dominate optics in Hollywood, was close and reverential to Chris.

(NOTED as musings in my Film Atlas comments)
Only the split-lense could give sufficient screen illumination for those very large cinema halls in India then. (Screen Sizes up to 45ft X 20ft. Audience capacity 800 to1200). Isco lenses were deployed by us in the late 1990s at multiplexes in Delhi, KAL, Toronto, London, Birmingham, etc., for **Chota Chetan** (Hindi) 3D screenings. In his split-lense design, Chris had incorporated a pull-out baffle to be used in tandem with the filmgate aperture plate. Despite those, even for the exquisitely engineered Isco lenses it was extremely difficult to prevent image spill and shading on the 3D screen. Our 3D Installing Technician would have to use his ingenuity in masking the lens' back and front with wads of black cardboard strips and rolls of white gaffer tapes, such that the lens turret would end-up looking like the bandaged head of a person after a bike crash! (not much different from what Chris first did in LA on June 22, 1983 for Jaws 3D premier).

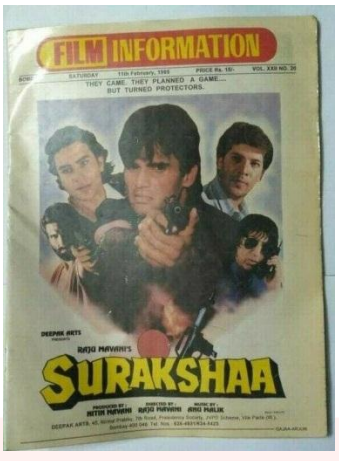
Lenny Lipton, in one reference to Chris, wrote that Chris wanted Mr. Lipton to help dispose a large stock of Stereovision 3D Box Lenses which was left with Chris when 'an Indian distributor

ordered large quantities and cancelled because one misaligned 3D screening in India caused a huge uproar'. This, as I know, is false.

(cut and paste from **Memoirs**).

> Chris would talk with relish about his past 'successful' soft porn 3Ds to Tom Easaw. Tom would have to remind him that beyond US, Canada and Europe, in all other countries – including India, porn was banned. Chris would then turn to me and suggest making 3D shorts on Biblical miracles like what he once forayed into in the Holy Land (this was repeated when I was making The Stories From The Bible https://www.navodayastudio.com/bible-tv-serial). Such quick transitions between moral extremities made me uncomfortable. But then, it was a 3D fan who was talking. Chris was one, I wasn't. Also to me he would come out with designs for a Ten Perf 70mm 3D (as in the Tetsuren Steel Pavillion Expo '85, Tokyo) when we were planning the Themed Amusement Park – Kishkinta in Chennai https://www.navodayastudio.com/outdoor-amusements . For me then, it was a puzzle why such wonderful ideas of his even when past the proof-of-concept stage, didn't catch on. Is it the man's limitation in parting with ideas onto the hands of competent executors … or, is it that 3D is inherently limited - as a fad, which loses its sheen when people got to see it once?
> The 'Magic of 3D' was gone by the 21st century. People, especially kids, got accustomed with Game Video 3Ds, 3D headsets … and off-the-screen objects were not that sensational by the time of the 3rd revival of 3D movies – in digital avatar - with film *Avatar* (2010). 3D filmmakers started toning down the phenomenon of every object getting thrown at the audience.

February 1984. 3D Wave.
With the success of *My Dear Kuttichathan* in the southern states and the initial response of its Hindi dubbed version - *Chota Chetan,* in the main cities (Bombay, Delhi, Jaipur, Ahmedabad, Rajkot) of North India, there started a rave in the film industry circuits of India – both vernacular and national (Bollywood, Tollywood, Hyderabad, Chennai …) .
This I had expected.
It was exactly in line with what happened during the first 3D wave (starting with *Bwana Devil*) and the second 3D wave (starting with *Coming at Ya)* in Hollywood. Even ***bad films*** caused a seasonal 3D sensation (for example, the incidence of Studio forcing Hitchcock to do Dial M in 3D). But, suddenly it would result in a 3D disappearance - when to cash on the fad, **worse films** and **bad 3D** occur in the aftermath (again example, the same Hitchcock's film which fortunately got released only as 2D when the fad died down).
Still the tumult of 1985 initial months in India following the release of *My Dear Kuttichathan (Chota Chetan)* took even me by surprise.



Two major film industry magazines – *Film Information* and *Trade Guide*, came out with pronunciations that **2D Cinema is Dead! "**From now on …" one of them advised, " … only 3D films ought to be made, because all filmmakers en-masse are planning only 3D productions. Anybody left behind from jumping into the band-wagon would fade away just as when 'silent films' went extinct as 'talkies' made its debut, and B&W films disappeared with the advent of color cinematography! This is the industry talk". This was by the film magazine whose publisher himself had announced a 3D film project, and started canvassing dates from stars and money from film financiers.

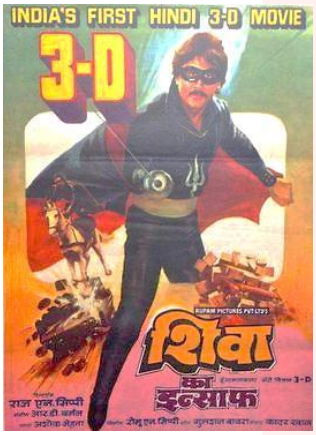
I was busy with many of our teams putting up 3D screenings at different parts of the country and was not fully aware of the 3D news that was going around. But I remember I was intrigued (even a bit disappointed) that the film industry was talking volumes about the 3D phenomenon, but not much about the film *My Dear Kuttichathan* which ushered in 3D! Frankly, I was a bit piqued. But the phrnomenon was real. For most of the audience then, the very first sight of things-floating-off-the-screen within the cinema hall had them scream in disbelief. And mind you, this was not about film My Dear Kuttichatahan; but the 3D phenomenon. What other aspiring 3D film-makers were blissfully unaware was the fact it took great efforts to make the phenomenon happen.

(**copied from Revolving Memoirs**)

> Every day after having exhausted ourselves with a full night 3D Theatre conversion, the real reward we reaped was in seeing the audience reaction for a very first show at that theater. There was always something spectacular in seeing 'a first time 3D audience' going into screaming raptures.

An example to this.

> Before starting the very first show in Tamilnadu (Satyam 70MM Cinema, Madras) on the Deevali day of Nov 1984, I told editor Sheker Sar of this phenomenon we had observed during the releases in Kerala.
>
> Editor Sheker, a native of Madras, had never sat with an audience to see his 3D film.
>
> "Yes, yes, I can understand … I too was so excited to see the film in 3D … even though as the editor I had sat alone during previews"
>
> But the understanding of this seasoned film industry veteran fell a bit short.
>
> After the very first reel I see him rush out from the cinema hall to meet me in the projection cabin. With tears streaming from his eyes he says
>
> "I have never in my life even considered an audience would freak out like this …. a film which I had handled all these months!!"
>
> Of course, Sekher Sar is a veteran, but a very emotional a person too.



What was being talked about in the Film Industry during Jan 1985 was not *My Dear Kuttichathan*, but a Hindi film *'Siva ka Insaf'* which was being produced as The first Hindi 3D (as if, Malayalam language was not quite admissible to be a trend-setter!). The said film – made by a Hindi producer with a major cinematographer and starring big names, was using Arrivision 3D lenses brought down from LA (or was it Florida?) after the famous **Jaws** (nobody cared whether part III was by Steven Spielberg not). The Director of *Siva ka Insaf* – Romu Sippy, flew down to Kochi to see *My Dear Kuttichathan* and the logistics of 3D screening and glasses distribution. He made an observation that

> "Once my film *'Siva ka Insaf'* gets released in the Hindi heartland, touch wood, it was possible that being a 3D film *My Dear Kuttichathan* may find audience among the children there too".

But at that time I was more concerned about the screening in the Arabian Gulf since Golchin came down to Kochi from UAE for having my film screened there.
(Pls refer memoirs on Gulf Release, INDEX ONE)

An article titled **"Gold Rush"** Feb 1985 by Sreedhar Pillai – who would eventually become a major film blogger - a journalism colleague of our art-director K. Sekher, in the prestigious national magazine **India Today** would sum up the furore -

3-D Films come up with boom

Arrivision 3D Lens become new hero in Indian film Industry.

> Sreedhar Pillai https://www.indiatoday.in/magazine/society-and-the-arts/films/story/19850228-3-d-films-come-up-with-boom-become-new-hero-in-indian-film-industry-769840-2013-11-26
> **There's a new superstar in the south: Arrivision, the 3-D camera system. Not since colour revolutionised the cinema scene in the 70s has ...**

ISSUE DATE: Feb 28, 1985 | UPDATED: Nov 27, 2013 15:39 IST

The lines in the article quoted aspiring 3D film producers

> "…if Appachan can make crores with a no-starrer film because it is in 3D, what roaring business can a 3D film with major stars do!"

It praised Chris's rival system – Arrivision!

> "Arrivision 3D lens - selected for the next major 3D productions in India, is the new star in Kodambakkom (Madras) and Bollywood. Due to the rush in 3D productions hitting the studio floors, superstars have to wait for the availability of Arrivision 3D Lenses. Mr. Ramesh Prasad has become the 3D Godfather, his Prasad Film Laboratories becoming the new Mecca in Madras for all 3D film aspirants. Made by the iconic Arri of Germany, the new generation Arrivision lenses are lot easier to shoot with, than the earlier Stereovision Lenses. While Stereovision lenses are hired out with a Stereographer, Arrivision lenses are sold with tabulated charts and lens markings, by which any cinematographer can shoot in 3D".

But, it did quote a supportive line from my Papa, Mr. Appachan –

> "I am sure the Arrivision quickies won't measure up in 3D effects with Stereovision".

By this time we had covered major metropolises of India with our film's 3D Release.
These were

1. *My Dear Kuttichathan* (Tamil version) in Madras and Bangalore,

2. *Chotta Chetan* (Hindi version) in Bombay, Delhi and again Bangalore,

3. *Chinnari Chetana* (Telugu version) in Hyderabad and again Bangalore.

Since all these were large cinemas (1000 plus capacity, 40 to 48 feet wide silver screens we erected), to make sure that this would be the **Best 3D Screening Ever** so far in history (excepting the 70MM in EPCOT & Tokyo Steel Pavilion), we had special arc lamps and rectifiers installed (by Navodaya) at these places.
I was making sure no other 3D film coming in our wake could match our projection quality.

3D INTERNATIONAL
P.B. No. 3102, COCHIN 682 030 • TEL.. 855034, 84597

8th Dec 1984

Mr. Thomas J Easaw,
P.O. Box No. 24676,
Denver, Colorado 80224 (USA).

Dear Tom:

This is to clarify some aspects of promoting and marketing Stereovision shooting lenses in the country. I would like to point out some ethical and technical problems involved which are formidable than the financial problems we had anticipated.

True, our picture has generated a landslide of enthusiam towards 3D among film makers in the country. (Mostly in South India. By the time we release in Bombay, the fever will spread to the North also). But, not even a single sensible film maker has approached us with a true interest for 3D production. Almost everybody has announced future 3D productions and everyone of them who come knocking at our doors are coming prepared to pack and take the '3D lens' with them to start shooting in the next couple of hours! It is completely beyond them to understand the technical complexities and rules involved in the 3D production and projection. None of them needs the assistance of a Stereo Consultant. In fact, we are in turn adviced that it is a waste of money and effort.

How in the world the people got so wise about 3D making? It comes from Arrivision 3D system. It is announced that their calibrated lens system are so easy that it can be operated by a child. They have defined 3D film making as similar to cinemascope film making. For cinemascope, you put on anamorphic lens to shoot and project. In 3D, you employ 3D lens. It is as easy as that. Any Camera assistant can do it!! This knowledge is the doctrine of film makers who are rushing in to cash the interest generated by 3D. They

.....2

PIONEERS OF 3D IN INDIA
BRANCH OFFICE: 14, RAJACHAR STREET, T. NAGAR, MADRAS-600 017, TEL.. 445545

3D INTERNATIONAL
P.B. No. 3102, COCHIN 682 030 • TEL.. 855034, 84597

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are not interested in the outcome. You know, as per the business set up here, anybody who 'announces' 3D production starts 'selling' individual territories to various distrioutors and raise money bef re actual shooting commences. They do not have the responsibility to assure the quality of the product when finished.

And as per the current going, any 3D is good business. Regardless it is Sterevision or Arrivision. But, Arrivision has the advantage of being simple because it doesn't need a 'costly Stereographer' or 'unnecessary experience'. Also it is currently available in the market with hire charges coming to 200 thousand Indian ruppees for a complete picture (whole set of lens) and money being accepted in Indian currency. This is true. I have checked it out. Nobody has seen Arrivision 3D so far; but as noted, any 3D is good. Since Stereovision is this good, Arrivision is twice better (announced by one 'Shiva Ka Insaaf' 3D personal). And who cares about quality at this stage. Anybody who makers 3D fast, sells it fast!!

The writing on the wall is up about the future of 3D in India. It is the same as the 1950's history in the United States for 3D.

Now tell us what policy to adopt in this mad rush. Do we aplaud th Arrivision policy and join the crowd for some fast bucks or do we wait till the 1st Arrivision product is out? Whatever be the decision, for those among us who still go and toil at each and every theatre to bring out the best 3D screening, it is sorrowful to see the gift of the extra dimension being mutilated.

With regards!

JIJO

c.c: Chris Condon, Stereovision.

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award for the best children's film

MY DEAR KUTTICHATHAN

Swarna Kamal and a cash prize of Rs. 30,000 to the Producer, M.C. Punnoose.
Swarna Kamal and a cash prize of Rs. 15,000 to the Director, Jijo.

citation

The award for the Best Children's Film of 1984 is given to the Malayalam Film 'MY DEAR KUTTICHATHAN' for "the delightful presentation of an entertaining fantasy tale in a three-dimensional visual treat."

After his studies M.C. Punnoose alias Appachan joined his elder brother Kunchacko to set up Kerala's first film studio UDAYA in Alleppy. For thirty years, Appachan assisted his brother in the production of 80 Malayalam feature films. In 1977, after the death of his brother, Appachan started NAVODAYA. He made the first cinemascope film in Malayalam THACHOLI AMBU.

Appachan has earned the distinction of producing India's first 3-dimensional film MY DEAR KUTTICHATHAN, which was dubbed into other Indian languages including Hindi.

Twenty-eight year old Jijo began his directorial career with PADAYOTTAM which was a 70-MM film completely indigineously processed. This is his second film.

CINEMA

KERALA

A Third Dimension

INDIAN cinema seems poised for a great leap forward—straight off the screen. The three-dimensional (3-D) film is the latest gimmick adopted by an intrepid film maker from the deep south. If his venture —scheduled for release in July—succeeds, it might well snowball into the latest "craze" in the billion rupee film industry, besieged by what it calls the "video threat".

Hello, My Dear Kuttichathen is the rather unlikely title of the film which producer Appachen hopes will usher the 3-D age into India. He is not alone. Also fervently hoping for a "3-D boom" in the world's largest film industry are the American promoters of 3-D equipment. David Schmier of Stereovision (the company which provided Appachen the 3-D hardware) says: "The 3-D boom has gone bust in Hollywood and we were left with thousands of our lenses which cannot be used for conventional cinema. So we hope, with a 3-D boom in India, we will be able to cash in on it."

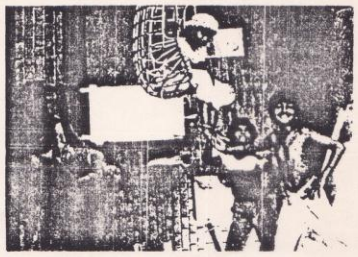
Whether or not the lucre does flow will depend on how effectively the illusion is created. For illusion it is: two separate images are projected in synchrony on a screen coated with silver paint. Viewed through polarising glasses, the synchronised double image appears to have depth and characters seem to come right out into the theatre.

Hollywood first used 3-D in the '50s in such famous productions as *House of Wax* and Hitchcock's *Dial M for Murder*. Those were the days when Hollywood's studio system was in flux. The new electronic wonder—television—had put paid to multistarrer epics which depended on their "reruns" for the major chunk of their revenue.

So the denizens of tinsel town burrowed into their bags of tricks and one of the jackrabbits they came up with was 3-D. However, as a film buff puts it: "The greatest thing about 3-D films is 3-D itself but the novelty soon wears off." Unlike 70mm film, stereophonic sound and other such innovations of the time, 3-D did not last.

However, unwilling to give up easily, Hollywood tried to revive the technique for a new generation of cinegoers a couple of years ago. *Friday the 13th—Part III*, *Parasite* and *Metalstone* led up to the somewhat obviously titled *Jaws 3-D*, which was moderately successful last summer. But before the year was out, the spirit of 3-D had been laid to rest a second time—in Hollywood, at any rate.

In Kerala, it's just about ready for launch. Appachen and his sons have been planning *Hello, My Dear Kuttichathen* for three years now. They spent last year virtually shuttling between Cochin and Los Angeles. Says Appachen: "We have imported the latest Hollywood equipment which manages the 3-D effect with a single lens attachment and people who saw the film say that they did not get nausea or headache." That is crucial, for headaches have been a potent factor in 3-D's past failures.



Kuttichathen and friends on a revolving set (top) and Schmier with Appachen

Of six available 3-D systems, Appachen chose the Stereovision system because, as his 27-year-old son Jijo Appachen—the film's director—says: "It was found to be the most successful system in Hollywood." Appachen has imported a dozen single lens attachments, each at a cost of Rs 25,000, for the projectors and Stereovision has undertaken the training of the projector operators.

Conventional white screens in theatres will be sprayed with special aluminised paint. The film's promoters say they will give audiences cardboard mounted polaroid glasses which, as a precaution against eye infection, will be sterilised after each show.

Kuttichathen promises to be a fun thriller. Stereovision's Schmier, who supervised the five months of shooting, claims that "the 3-D effects of *Kuttichathen* are as good as any 3-D movie made recently in Hollywood". The 90 minutes of the film are punctuated about every six minutes—by special 3-D effects.

For instance, a toy helicopter roars toward the audience, a blast of fire from Kuttichathen's magic flute seems sure to scorch those in the lower stalls and an ice cream thrown by him heads straight for the viewer's eye. The latter half of the film was inspired by Spielberg's *ET*.

Kuttichathen is an impish sprite from Malayalee folklore portrayed in the film as somewhat like Casper, the friendly ghost. An evil magician conjures Kuttichathen to help find some lost treasure. The spirit appears as a boy, but escapes the magician's thrall to join a gang of kids.

In a rare departure from convention, the film has no heroine. The leading roles are played by national award-winning child stars, masters Aravind and Suresh. Appachen has also roped in one of Bombay's top models, Dilip Tahil, possibly with an eye to Hindi audiences—the film is to be immediately dubbed in Hindi and all south Indian languages if the Malayalam version succeeds at the box-office.

Of success, the promoters are confident. Says Schmier: "The novelty of 3-D and the universal appeal of kids is bound to make it a sure seller." No doubt, true. But will 3-D become a trend, even a craze, in the ever more spectacular business of conjuring mass consumption dreams? That is the question.

—SREEDHAR PILLAI

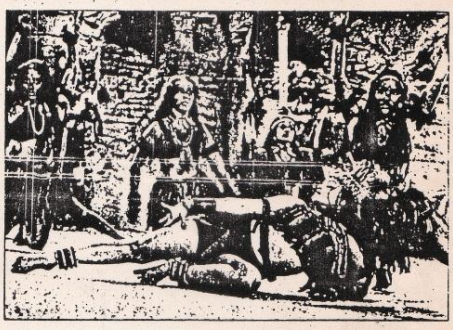
3-D FILMS

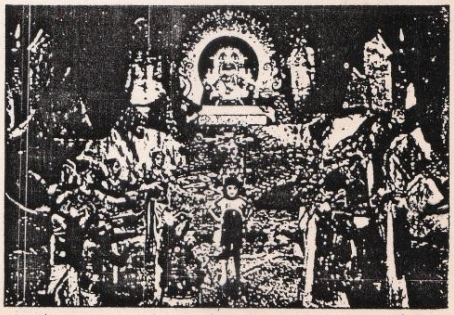
The Gold Rush

THERE'S a new superstar in the south: Arrivision, the 3-D camera system. Not since colour revolutionised the cinema scene in the '70s has there been so much excitement in the dream factories of Madras. The third dimension—whose significance producers are only just realising—is worth at least several crores. For the first time the dream merchants are running not after top heroes or heroines, but after Arrivision. As the top Malayalam star Prem Nazir put it: "The 3-D boom in the south is like the California gold rush. Every 3-D producer is saying that if Appachen can make 10 crore out of nothing, I will make at least a crore."

Appachen is really the man who turned everything in Madras' conventional film world upside down with a little film that turned big: *My Dear Kuttichathen*. Originally made in Malayalam, *Kuttichathen* was later dubbed into Tamil, Telugu and into Hindi, as *Chhota Chetan*. It went on to become the mega-success of the decade and perhaps of all time. Appachen, its producer and the bringer of 3-D into India is expected to rake in a cool Rs 10 crore and more by the end of the year.

Few outside the film industry realise the magnitude of what is happening. In the last four years, there have been only 16 such films made in the world—mostly Hollywood—but in the last two months alone, a dozen 3-D films have been announced in Madras and three have already reached completion stage. Dejected producers have found a glittering new weapon to beat the video, which in the past few years has quietly stolen many avid cinema-goers. The only snag in the boom is the shortage of 3-D cameras. Arrivision is the new hero and Arrivision is hard to get. Romu Sippy, the first to make a Hindi 3-D film, *Shiva Ka Insaaf*, used Arrivision and the results are reported to be mind-boggling and according to experts, better than Stereovision that Appachen used for *Kuttichathen*. Said *Kuttichathen* cameraman Ashok Kumar: "The 3-D off-screen effects in the Arrivision system are more sharp than Stereovision and above all the Arrivision system is more sophisticated and yet simpler to use than Stereovision." For *Shiva*, Sippy imported three





(From top) Kranti Kumar, a scene from *Shoo Mantra Kali* and a scene from *Sagar*: dazzling effects

Arrivision 3-D cameras at a staggering cost of Rs 20 lakh each.

After *Shiva* was completed, Sippy sent two of them to Madras. These cameras have now become the hottest property of the south. Ramesh Prasad, son of the legendary L.V. Prasad, is their local guardian there. Said he: "As long as the 3-D boom lasts, the Arrivision 3-D cameras are the real heroes. The two cameras that Romu Sippy has entrusted me with are booked till the end of 1986." They are being rented out at an astronomical sum of Rs 10,000 per camera per eight-hour shift and still the producers are queuing up. Gone are the days of the fastidious heroes and heroines, producers have no time for them. Said Dandayuthapani, producer of the Tamil 3-D film *Annai Bhoomi* and son of the late Chinnappa Devar: "3-D is currently the biggest superstar who gives you no hassles and worries and assures you of a super hit." In fact Dandayuthapani dropped his regular hero Rajanikant from his 3-D venture and replaced him with Vijaykanth—the poor man's Rajanikant—because Rajanikant could not adjust his dates with those of the Arrivision camera.

The producers who have access to the priceless cameras at the moment are in a neurotic rush to beat each other to the box-office. Each film project is shrouded in the deepest secrecy. Ashok Kumar is now working in a Telugu 3-D blockbuster *Shoo Mantra Kali* supposed to be a mix of fantasy and magic and inspired by half-a-dozen English films including *Metal Stone*, *King Kong* and *The Blue Lagoon*. The highlights include sizzling 3-D dance sequences by Silky Smitha. Said he: "The gimmicks will keep the audience glued to their seats."

Sagar is another 3-D film being made in Telugu. Its claim to fame is that it is "India's first underwater 3-D film shot in USA". The story is about a young boy afflicted with cancer wondering whether he will go to heaven or hell. Said producer Kranti Kumar: "In heaven we will show 3-D effects like flowers and classical dances while in hell we get an opportunity to frighten the audience with skeletons, skulls, flames and other terrifying things." His trump card, however, is the American 3-D documentary called *Sea Dreams* which he has incorporated into *Sagar* and which he promises will give the audience a real "3-D treat". The third 3-D film in the race in Devar Films' *Annai Bhoomi* which is being made simultaneously in Tamil and Kannada. It will have nearly 45 special effects.

But there is more hot news on the 3-D

APPACHEN

Midas Touch

FROM the dizzy heights where he sits now, the world can only look good to Appachen, the 57-year-old creator of *My Dear Kuttichathen*. This one 3-dimensional film alone has catapulted the relatively unknown Appachen right past the Manmohan Desais and Prakash Mehras of the Bombay film world. The top distributors today want only Appachen and almost everyone in the film industry is heralding him as one of the greatest producers of all time.

Appachen

Appachen — whose real name is M.C. Punnoose—and his films are rapidly moving on to create Indian motion picture history. *Kuttichathen* was originally made in Malayalam at a cost of Rs 35 lakh. The inspiration behind the film, really, was Appachen's eldest son Jijo who saw a number of 3-D films in Hollywood and wanted to make one at home. Appachen was very reluctant to take the risk initially, he thought he would lose everything he had. But Jijo had faith in the film and Appachen had faith in Jijo. Before taking the plunge, however, Jijo spent a year in Los Angeles studying the Stereovision system. Both father and son decided that it was better than Arrivision despite the fact that Stereovision hires out its equipment only with its own technicians. Appachen brought to India three cameras and three technicians and spent a year shooting his film. Said he: "I am sure these new 3-D quickies shot in Arrivision won't give the same off-the-screen impact."

But how did this man from Alleppey edge past almost every established film maker in Bombay to make one of the top money-spinners of all time? Said Prem Nazir, a close associate of Appachen: "I have been seeing this man for the last 35 years. Not only does he know the pulse of the audience but also all aspects of popular cinema." He started as production controller to his elder brother Kunchacko, the owner of the first film studio in Kerala—Udaya Studios at Alleppey. Together they made 82 films, from 1948 to 1975, before they split. In 1976, Appachen decided to branch out on his own and started his own production company—Navodaya.

Everything he touched turned to gold. Appachen's greatest strength always has been his innovative ability. He became the first producer in Kerala to make a cinemascope film *Thacholi Ambu*. It resulted in a cinemascope boom. In 1980, he produced *Manjil Virinju Pookal*, a sentimental love story with newcomers made at a cost of Rs 7 lakh. It went on to gross over Rs 1 crore in Kerala.

Two years ago, still setting trends, Appachen made *Padayottam*, south India's first 70 mm film. It was his only flop in the last eight years. Last year he made a low budget film *Ente Mamatti Kuttiamma* starring a five-year-old girl—baby Shalini. The film became a super hit and baby Shalini is today the highest paid child artiste in India.

But they say behind every successful man there is a woman. In Appachen's case it's his wife Baby who looks after all his production details. The rest of the family also gives him complete support. Jijo, looks after most technical aspects of film production. The younger son, Jose, 25, is a chartered accountant whose worries are increasing with the film's success. "It is going to create tax problems for me," laughs Appachen.

Now that he's made his millions, what does he plan to do? Well, for a start, Appachen is planning to create an amusement park akin to Disneyland at his 75-acre Navodaya Studios at Trikakara, about 15 km from Cochin. Moreover, if the 3-D sensation continues, Appachen plans to do a sequel to *Kuttichathen*. When asked the secret of his success, his wife Baby said: "We are originally farmers from Kuttanad, the one-time rice bowl of Kerala where the rice cultivation is under water. There is always an element of risk involved in this cultivation which may be washed away if the bunds get damaged. The risk element is in our blood." Appachen has always had the courage to take those risks and they have also always paid off.

—SREEDHAR PILLAI in Cochin

Camera

3-D in India

by Christopher James

India produces more feature films than any other country. Indeed the State of Madras alone, with a yearly output of approximately 450 films, out-produces even the U.S.A. Yet this populous Asian nation had never produced a stereoscopic motion picture until August 1984, when its first full-length 3-D motion picture, *Kuttichathen*, was released, and became India's number one grossing film by January 1985.

This event was the fulfillment of a 20-year dream for industrial film producer Thomas Easaw, formerly of Karala, India, now residing in Denver, Colorado. A graduate of Denver University with a master's degree in communications, he spent the past 20 years in exhaustive research and preparation, including experimenting with stereo still photography and studying books on stereo cinematography. He found Lenny Lipton's "Foundations of the Stereoscopic Cinema" (Van Nostrand Reinhold, 1982) very helpful. Easaw made it a point to see every "depth movie" that was shown in or near Denver, including *Parasite*, and was greatly impressed with the 3-D effects of that film.

Easaw trained with Chris Condon, president of Stereovision, in the use of their 3-D camera lens system. Condon was then on location in Florida consulting on the filming of *Jaws 3-D*. After receiving persistent long-distance telephone calls, he agreed to meet with the aspiring young Colorado filmmaker upon his return to Burbank, California. Together they discussed the logistics and technology of the proposed India 3-D project.

Simultaneously, Mr. Apachen, chief executive of Navodaya Studios, India was in touch with Stereovision regarding the possibility of such a project. What was needed, however, was someone who could coordinate all 3-D aspects of the film requiring close liaison with Stereovision in Burbank, California. Thus Easaw became executive producer of *Kuttichathen*.

Easaw then went to Hollywood to receive practical training in the use of the Stereovision system. There he met with David Schmier, cameraman on *Parasite* and *Metalstorm*, both filmed in Stereovision. Schmier had received valuable 3-D experience under director of photography Mac Ahlberg. Ahlberg had studied 3-D extensively and had photographed the first 3-D film made in Sweden back in 1972. Ahlberg's medium budget *Metalstorm* was rated by critics as having "... the best 3-D effects of all the recent films," including some from major studios.

3-D off-the-screen effect for Kuttichathen, the "floating beer tray." Left: Filming in 3-D with 20mm lens at water level. Jigo in white hood, 3-D advisor David Schmier at right.

Schmier agreed to go to India to serve as 3-D consultant and to further train Easaw. Before his departure, John Rupkalvis, 3-D effects consultant on *Metalstorm*, and Condon made sure that Easaw and Schmier received additional training with the latest Stereovision system.

Produced entirely in Stereovision, *Kuttichathen* has become a big hit, perhaps because of a combination of fortuitous events, talent and intelligent planning. In addition to the novel attractiveness to Indian audiences of seeing an Indian movie with three dimensions for the first time, the producer, Jose Punnoose of Novadaya Productions, chose an excellent children's story to show off the impact of 3-D. *Kuttichathen* means poltergiest, and 3-D effects are used extensively to show all the wondrous powers of the "friendly ghost." Critics in India acclaim the consistent use of the stereoscopic "off the screen" process. All age groups are flocking to see it. Playing to full houses in over 40 cities at the date of this article, it has broken many "house records."

Filming of the story, which was done entirely in Karala, Southwest India, was a new experience for the Karalan production company. Punnoose budgeted more than twice as much on this film as on any of his previous 27 films. This included a fully revolving stage that allows the actors to "climb walls and walk on ceilings." Exteriors were filmed with the aid of archaic dollies, push carts, elephants, and enthusiastic villagers. The crew waded through rivers to film spectacular 3-D shots with beautiful water foregrounds. Most of the photography was done with a Mitchell NC reflex (Armistead Conversion) and an ARRI II C BNCR mount conversion by John Russell of JAR Enterprises in North Hollywood. The film was shot on Eastman Color, bright exteriors on 5247 stock and evenings or interiors on 5294. High key lighting was used whenever possible to enable maximum depth of field sharpness. Full light and reflectors were used for good shadow detail. The optics used on this film were the 20mm, 32mm, and 50mm focal length, and were supplied in BNCR mount.

Nearly all pictures filmed in India are filmed M.O.S. (without sound). This is because looping in several languages is required in order to accommodate the many language groups of India. This posed no problem for the 3-D photography which proceeded rapidly and was completed on schedule.

Kuttichathen's phenomenal acceptance has borne out the faith and dedication of several enthusiastic industry people working together half way around the world. It was directed by Jijo and the director of photography was Ashok Kumar. Condon, Easaw, Rupkalvis, Jijo, and Kumar also knew that the inconsistent 3-D projection quality in the U.S.A. had caused problems with audience acceptance. It was decided to put every aspect of 3-D under the direct consultation of dedicated and trained 3-D specialists. This training extended to the camera crews, lab technicians, and even to the projectionists in remote villages. The comparatively small extra production and projection cost was more than made up for in better audience satisfaction. Meticulous 3-D projection quality of *Kuttichaten* by projectionists trained by Stereovision and supervised by Easaw's Stereoptics, Ltd., of Madras, had a lot to do with its success.

It is ironic that India's film industry, which often is identified with shortcomings in technology, may have started off an encouraging new boom with better controlled 3-D than the U.S.A. Stereoscopy is an enhancement of motion pictures, just as sound, color, and big screen format are enhancements. It deserves a chance to prove what it can do for top of the line stories, actors, directors, special effects, choreography, photography, and realistic budgeting. If all of these elements could be brought together in really state-of-the-art 3-D, the new momentum begun in India just might keep right on rolling. ■

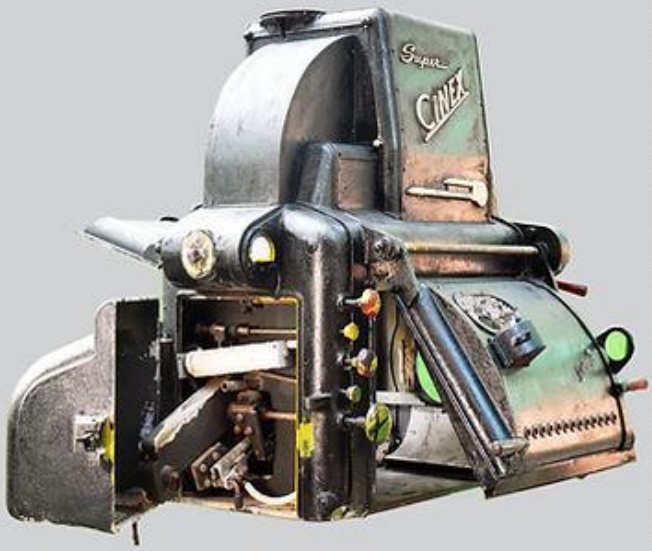
Christopher James is an expert in 3-D cinematography and has worked on the development of 3-D systems.

One day I was surprised when both our Production Exec and Distribution Chief called up to ask

> "Because of popular request, shouldn't we should follow up with more 3D films. **There is so much demand** ! Instead of continuing with our 3D screenings, shouldn't we produce more 3D films? Dozens of others have been launched – 4 in Tamil, six in Hindi, 3 in Telugu, even another one in Malayalam - within a month of our initial release. Should we be left behind?"

I said

> "No way … are you crazy? Didn't I tell you that even with a successful film, the 3D fad wouldn't last? Remember the lessons from the 50s, 70s and the recent 3D-gone-bust with Jaws 3D in USA. … This wont last. This very glut of launches shall ensure the demise of 3D in India too. This is going to create a bad environment; it is going to spoil the name for our film too! "



Exhibited here is one of Navodaya's four ASHCRAFT High Intensity Arclamps.
With matched High Capacity Rectifiers, these were specially installed at huge capacity cinema halls (of seats above 1100)

These were used during pan-India 3D releases.
In 1984;
at Satyam 70mm, Madras. Vishal 70mm, Delhi.
Metro Cinema, Bombay. Ambar Cinema, Andheri.
In 1998;
at Saritha 70mm, Kochi. Regal Cinema, Mumbai.

Other cinemas such as Ramakrishna 70mm Hyderabad, Amrapali 70mm Ahmedabad, Ragam 70mm Coimbatore, Shiela 70mm Delhi, had similar STRONG archouses installed.

Most powerful among all light sources of those times, these exquisitely engineered machines burned 13.6 mm carbon rods and had to be cooled with water continuously pumped through embedded copper tubes.
For the best of electrical conductivity, the carbon holders (jaws) were solid silver blocks.
For uniform burning of the thick 13.6mm carbon electrodes, a rotating mechanism with an electric motor advances the carbon forward, as the electrode burns away.

This Archouse's 18 inches concave reflector is a Bauch & Lamb pyrex glass mirror. Called a 'cold mirror', it is dichroic coated on its back surface and hence reflects only light. The infrared heat, the glass transmits through - thus preventing excessive heat from falling on the film transport and burning the film in the projector gate.

But, nobody was convinced by my 'looking glass' on 3D. ***Everybody wanted 3D to last long*** (my emphasis). And it looked so. The 3D Effect was 'out of this world' for Indian cinema in 1985. Nobody understood the limitation (both in creative concept and technical execution) for bringing out objects into theatre space. Nobody cared for the dictum that 3D off-the-screen effects should be thematically appropriate. Just because it was done in a Children's film, everyone thought it is a child's play. Can't blame the film fraternity. For every initial show of our film at a

station, when off-the-screen effects happened, the audience were standing up and roaring …. Nobody had ever seen a phenomenon like that. But it should be noted that within a week at a given station, the tumult died down – as the audience came to be accustomed to the 'MAGIC'.

I remember the students for JNU college magazine coming to interview me. They asked the question

> "Would there be any 2D films made in future … after everyone shifts to 3D?" What should I say? Should I say "The phenomenon wont last?"

That would be upsetting my own apple cart! So I said

> "Drawing and Painting didn't cease with the advent of photography. Stage performance, Dance & Drama didn't become extinct when Cinema came. So I am assuring you 2D would still be around".

Now Tom Easaw kept informing us of reaction in Stereovision as news from India reached Chris's Burbank works. There were multitudes of phone calls from India (Madras, Hyderabad & Bombay) with immediate request for shooting lenses dispatch … for a production to start the very next day! There were producers flying to *LAX* and *Hollywood Burbank Airport* to knock at the Stereovision office doors.

But Chris insisted his lenses are to be *given on hire with a stereographer.*

The filmmakers bawled

> "Oh, why can't you do it like the Arrivision? It is the State-Of-The-Art . It needs only a 3D adaptor which goes in front of the standard Academy 2D lens. The Cinematographer just need follow a convergence chart. They made Jaws 3D with those … and now three or four units are currently in India flying between Bombay, Hyderabad and Madras. We are here because those Arrivision lenses are fully booked!"

Chris was infuriated with the India Today article which indicated that Arrivision was profiting at Stereovision's expense with the success of Kuttichathan. On phone conversations with Tom & me, he lambasted Ramesh Prasad for hosting Arrivision. He was gratified Appachan (Papa) commenting Stereovision "I am sure the Arrivision quickies won't measure up in 3D effects with Stereovision". Chris would phone me after every producer from India left his office following an acrimonious disagreement on 'How should 3D be made'. He wanted me to educate the Indian Film Industry the difference between 'Arrivision's bad 3D and Stereovision's good 3D'.

Chris sent me wads of literature he had made with comparison charts **Arrivision Vs. Stereovision** – which he asked to be distributed among all aspiring 3D filmmakers. His literature (on symmetrical positioning of left/right images within 4 perforations) was exasperating for any layman-producer to go through. I remember that in the literature there was something like '*Chris was called in to crisis-manage Jaws-3D stereography when things went wrong with Arrivision … and that is the reason his system Stereovision was given additional credit for the Hollywood film'.*

That was when I suggested him doing a magazine interview with Sreedhar Pillai (India Today). Chris (who was planning to come down to India), should tell the readers that there is GOOD 3D & BAD 3D. Good 3D, what Kuttichatan is, had been made with Stereovision. And Chris could also warn the public on the many bad 3Ds-quickies coming up.

Here suddenly, Chris demurred. He said that we shouldn't tarnish 3D's reputation. **Audience should not hear the word 'BAD 3D'**. **Only Filmmakers should know this**. I realized that here was the fundamental difference between him – a 3D fan, and me.

My real bewilderment occurred when Tom Easaw from Denver informed me that he was landing in India in a couple of days' time with two sets (20mm & 32mm) of Stereovision lenses.

> "Jijo, please ask your Bombay and Madras offices to take bookings (charging advance money) for 3D lenses on hire for shooting! … Starting next week!!"

I ask

> "Hello, What is happening Tom? … You were supposed to be writing that 'dog story' for a film you wanted to direct, which Papa has agreed to produce!".

Tom answers

> "That can wait … let me first make some money. Papa has lent me funds to purchase 2 sets of lenses from Chris. In two months' time we shall be making ten times that much".

Me

> "What! Chris parting with his lenses? … Selling? Really!"

Tom

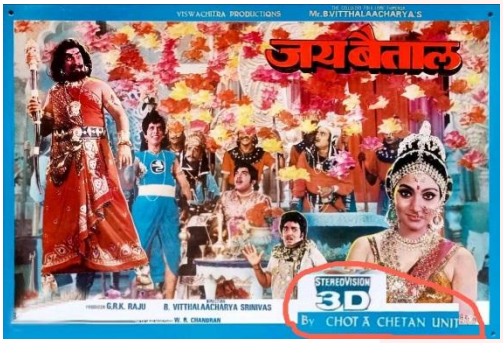
> "Yes, he has changed his policy. Took some time for me to convince him. But we can still push Arrivision out of the market".

He sounded as if there was a great battle on, and we were late with the ammunition.
I couldn't tell him the battle was already over. The demise of 3D had started. For, *Siva Ka Insaaf* the first Hindi 3D (sic) has been released in the past week to violent ridicule by press and public.

Being in the thick of 3D Screening Installations, I had been out of touch for a week with film industry news and Tom.
I asked Papa privately what exactly is happening with Tom, Chris and him?
Are they planning to produce more 3D films without me being told?
Papa replied that Tom had convinced Chris to sell Tom two sets of lenses **exclusively** for the Indian Territory … because that was the only way to defeat Arrivision in India. Before even Papa knew it, on an invoice debited to Papa's account (!), Tom had picked up the said two lens sets from Burbank and was on his way to India!
I was shaking my head in disbelief.
How could Tom get carried away?
When Tom landed in India, the 3D fever had cooled. In South India there were six 3D movies under production. (They were either eventually abandoned or saw their much delayed releases in 2D. None were screened more than a couple of days in theatres).
The six were
Jai Betal (Tamil),
Paurnami Ravil (Malayalam),
Annai Bhoomi (Tamil),
Thanga Maama (Tamil),
Choo Manthra Kali (Telugu) and ….

a film titled *Sagar* (Telugu) by Kranthi Kumar with illegally duped footage interpolated from Muray Lenner's Sea Dreams *****.
The ones announced in Hindi were all shelved after the result of *Siva Ka Insaaf.*

***** In year 2001 when we first met, Murray Lenner chided every Indian - including me, for pirating his 20 minutes short 3D film.

Filmmakers didn't quite breakdown our doors seeking Stereovision lenses during the months of May and June in 1985. Realising a lack of enthusiasm, Tom wanted to publicise the availability of the 'proven 3D lenses of Chota Chetan/ My Dear Kuttichatan ' in Madras and Bombay.
But by then, our own Cinematographer Ashok Kumar - who had shot *My Dear Kuttichathan*, had started a Telugu 3D film – *Choo Manthra Kali*, in Arrivision! He declared that he found the system simpler with himself doing the stereography (from Arrivision charts). In private, Ashokji told me that he opted for Arrivision since Stereovision lenses were not available off-the-shelf. He also mentioned to me the images were much sharper in Arrivision.

Out of loyalty to Tom, myself and my brother Jose were deputed by Papa to go along with Tom, and canvas for Stereovision lenses around Bollywood and Kodambakkom.
Tom planned to hire out the two sets of lenses in the name of his newly registered company in Denver – Stereoptics. Here, I found a basic difference between Tom and me. I couldn't easily change from the turf of creativity to that of marketing. But Tom, being a manager of GM car sales in Denver, could do that easily. Moreover, this Stereovision 3D Lens hire distraction was keeping me and my brother Jose from the ongoing theatrical 3D Screenings of our film all over India (also Arabian Gulf, Malaysia, Singapore, Indonesia - which went on till 1986). But we assisted Tom because Tom used to occasionally remind us that he - the Executive Producer of *My Dear Kuttichathan,* is the only person who hasn't made a windfall from the release of India's First 3D … whence even the Cinematographer Ashok Kumar, Art Director Sheker and Writer Paleri were contracted at phenomenal remunerations by prospective 3D Filmmakers! Why, even newcomers were profiteering just by announcing ventures in 3D!

No further projects in 3D were announced after mid-1985. The 3D sensation had ceased by then. Yet, people were still after Arrivision for projects already on the floors. But, the available Arrivision lenses in India couldn't go around for the 3D films then under production. *Jai Betal* – the one started with Arrivision had its producer running to his distributor – Mr. Kothandaramaiah (KR), for help. KR had been the distributor for our *My Dear Kuttichathan* in Tamilnadu. Hence, KR called me to provide Stereovision lenses for *Jai Betal.* I told him that the *Jai Betal* footage

already shot with Arrivision would not match with Stereovision - since the spacing of the two were different.
Tom brushed the technicality aside saying that it doesn't matter – since even *Jaws 3D* had footage shot with both systems inter-spliced.
Hence the producer agreed to complete his film *Jai Betal* in Stereovision after two weeks of shooting with Arrivision. Thus we achieved the coup (face saving, rather) of spiriting away a film from Arrivision to Stereovison! Tom said he could do the Stereography for *Jai Betal.* But since he meanwhile wanted to market the other set of lenses in Bombay, Tom contacted Chris who sent down John Rupkalvis to do Stereography for *Jai Betal* in Kodambakkom, Madras. Also, it was said, Rupkalvis could train other Stereographers for the many, many future 3D projects (!) that would happen with the two sets of Stereovision lenses now in India. Chris informed that he would be coming down to India a couple of weeks' time after Rupkalvis started his work in Madras.

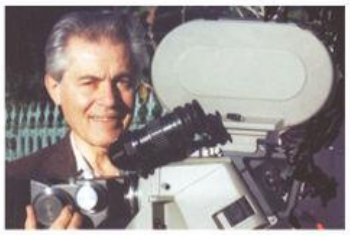
Those days we had office-cum-residences at Mahalingapuram in Madras, and at Mount Mary Bandra in Bombay. For canvassing Stereovision Lenses in Bollywood, Tom used to stay at our office-residence in Bandra. An impoverished oldtime Hindi producer/ director had expressed willingness to make a comeback with a 3D project of his. He paid a tentative advance cheque of 1 Lakh Rupees. I accompanied Tom for a lunch meeting with the producer, his brother and his son at a Chinese Restaurant in Bandra-Juhu Linking Road. No technicalities or logistics of 3D were discussed during the meeting – which was the purpose of me being there. (This was always the case. Filmmakers were not concerned even when it was insisted by us. Their attitude was that since the format was 3D, which alone would ensure an audience appeal).

This was the only project that came to us in Bombay.
But, they shelved the project soon … and the producer's son was timidly requesting us to return the advance.
My brother Jose in full sympathy to the impoverished producer almost conceded; but stopped when Tom took offence for their non-compliance.
This happened before moving south for the sure prospect of film *Jai Betal.*

Both Rupkalvis and Tom were staying at our Mahalingapuram office-residence to attend shooting at nearby Kodambakkom studio – Vijaya Vauhini, where *Jai Betal* was wholly being shot within indoor sets. To assist Tom and Rupkalvis, KR deputed his film institute classmate Nambiathiri and KR's own brother-in-law Naveen. Both were 3D enthusiasts. Nambiathiri got trained in Stereography and Naveen in screening 3D.

Since Tom and the 3D personnel were busy shooting at Madras, it was I - flying down from a Jodhpur screening, who received Chris when he landed in Bombay. With our distributors - the highly reputed Rajshri, I took Chris around to our 'power-packed' screenings happening in Bombay - Metro Cinema in Nariman Point, Satyam Cinema in Worli and Ambar Cinema in Andheri. I also showed him the poor screenings of the rival *Shiva Ka Insaaf* - opened recently, but was closing down shows by then. After seeing off Chris to Madras, I rushed back to complete the Rajasthan Circuit 3D screenings. It was informed to me that … led by Papa, our

Madras 3D Team gave a momentous reception to Chris at the Madras airport. He was flower-garlanded in Indian fashion. Chris, after being taken around the studio sets of *Jai Betal,* was dropped at Savera Hotel booked for his stay in Madras. Till he checked into the room, he was wearing all those garlands and holding on to the bouquets – I was told.



CHRIS J CONDON
(1923 - 2010)
Optical Engineer
Designer/ Founder
of
Century Precision Optics
North Hollywood, CA

JOHN RUPKALVIS
Optical Engineer
Designer
of
stereo reticle for
35mm over/under
symmetric imaging

Tom urgently called me down to Madras for future 3D plans and also to address a few problems before Chris left. Those were the days things happened only with face-to-face talks. That was the time when the fastest airmail took one to two weeks to reach its destination. An international STD would be preferred … but it had to be on landline … hence, limited to office time. No conference calls were possible.

We had a 3D Dailies (rush print) Screening Facility set up by our 3D Team in a preview theater - called **MM Theatre** (capacity about 20 seats), just the next street to our Mahalingapuram Madras office-residence.
On that summer day of 1985, in the morning we were all called to MM Theater to see *Jai Betal* rushes by a very concerned Director and Cinematographer. Tom, John (Rupkalvis), Chris, KR and myself were in attendance. The Cinematographer of *Jai Betal* (I dont remember his name) and Vittalacharya - the Director, first showed us an edited song from the film – a segment they had shot with Arrivision, before switching to Stereovision. It was as sharp as any techniscope format footage shot with the best of Zeiss lenses on an Arri III camera of the time. Not much off-the-screen effects were there … and the few attempted, they were not very effective.
Then they had some recent rushes shot in Stereovision projected.
There came up some reasonably good off-the-screen effects done by the (experienced) 3D crew of ours (The Producer eventually gave us screen credit as the **Chotta Chetan Unit**). The instant images shot with Stereovision came up on the screen, Tom besides me muttered “Oh God, not good …!” It was obvious that the images were not sharp **when compared to Arrivision** (my emphasis). No wonder the Cinematographer was concerned.

After the projection, KR got up quick and very diplomatically conceded to Director Vittalacharya that Stereovision lens is not as sharp as Arrivision. “But that the average cine audience don’t care. They want things to come out of screen … that is what the system *My Dear Kuttichathan* was shot with, guarantees. What do we need? …. Sharp Image or Good 3D?” With his question hanging in air, KR laughed and left.
The Director seemed mollified. But the Cinematographer was distraught.
So as not to upset the apple cart, all of us agreed that the ‘3D Effect was good’. (since this was a complaint against Arrivision shot films – *Siva Ka Insaaf,* for instance. It may not have been to

do with the lens system, but due to bad lens convergence – either on the camera or on the projector).

We once again had both the footage projected for comparison, but this time in 2D – without the projection 'box lens' and sans 3D glasses. There were obviously sharpness differences between the left-eye and right-eye images of Stereovision. The sharpness disparity was not uniform between images or even across a single image plane.
I asked Chris if any internal lens setting would have gone wrong by a miniscule.
Chris just *haav … ed* and *hmmm … ed*. John was silent.
Tom then voiced aloud that tropical heat could have melted the adhesives that held the glass elements together …seeping over the lens surface. This issue David Schmier had raised the previous summer during *My Dear Kuttichathan* shoot.
Sensing the direction in which the conversation was proceeding, Chris asked the *Jai Betal* Team to leave and proceed with their plans while we *Chota Chetan* Team sorted out this 'minor issue'.

As soon as they left Chris became grave and in an apologetic tone said
"Look, let us face some facts … our handmade lenses cannot be compared to …"
John cut in sharply "The images are not sharp, Chris!"
It was a bit loud. And there was silence for some time.
What followed, I don't quite recollect the arguments. I was taken aback and wondering how John, who had always been subservient to his mentor Chris so as not to contradict him … or won't even elaborate when asked about his own invention 'Stereoscope' in front of Chris, found the courage to 'call a spade a spade' !
Tom, Chris and John were finally discussing how to improve the *Jai Betal* situation. I remember Chris asking Tom which was the lens-set (ID number) Tom had taken for *Jai Betal* shoot. Obviously there were differences in the design and quality of the lenses Chris had in his inventory, and which he was aware of.
At one stage I brought up the question as to why Chris never machine-polished his glass elements … anti-glare coat them … steel case the lens components with screwed-in fixtures. Before I could complete, Chris becoming emotional, started ruminating how hard-pressed for funds he had always been … and how once he had the resources, he would see to all that!

Chris conceded to John who was hurt in not providing adequate services to the client. He then discussed aspects of sharpness with John and announced he has a solution.
He asked for the 20mm lens to be brought to his hotel room.
Chris then asked for a standard tool kit brought to him. That was easy … our wiz kid Naveen was already having one with him.
Chris also asked for two standard 2.25 optician's lens (reading glasses lens) which would be available with any good Opticals vendor. Naveen had his Marwari friends open their family shopmclosed for the night, and delivered the pieces to Chris' hotel room.

In his Savera hotel room, Chris had the lens serviced and corrected (how without an optical bench? I always wondered). He asked Tom to have it collected for shooting by the next

afternoon. It was only coincidence that it was not Tom but I, who with Naveen (always curious to ask Chris about the 3D lens optics), went to the hotel to collect the 20mm.

While collecting the lens case at Radhakrisna Salai (road) Savera hotel room at its top most floor # 9, Chris told me that he was expecting somebody in the afternoon coming to have *'another set of his Stereovision shooting lenses'* repaired. Before I could react to this strange information, there came in a native of Kerala (like me) with lens boxes to be handed to Chris. Apparently the person, by the way he looked at me, seems to have recognized me. From his initial conversation with Chris, I got to know his name as Simon (Kurian). He was almost the same age as Tom and also had an American diction. Since Chris was fretting, I and Naveen left quickly.

This incident had implications for me later. On the subject of business ethics, fallibility of men - genius though they may be.
From Tom I eventually came to know about Chris's deal with Simon Kurian.
After signing an exclusive agreement for Indian Territory with Tom (Thomas Easaw), by which on Papa's payment account Tom purchased the first two sets of shooting lenses Chris ever sold, Chris reneged. Simon Kurian had come (the very next day) to Chris's Burbank works. He had with him a Tamil-Malaysian - a contraband transporter between Singapur and Madras, who was aspiring to enter the Tamil film industry as a producer. And, Simon aspiring to become a director offered to organize the making of a 3D film in Tamil. Simon was known to Tom – vaguely though, as both of them were Keralite expatriates/ green card holders and both had studied filmmaking in the US. There was apparently a showdown between Tom and Chris following Chris' breach of contract. I don't remember at what stage it occurred. In Tom's narrative of events, when Tom found out that it was Stereovision lenses that were being used in Madras for an obscure Tamil production ***Thanga Mama 3D*** (which everyone thought to be made in Arrivision), Tom realized that not only his contract but also his exclusivity on Stereovision was breached. Chris really did know beforehand of this. For, when Chris mentioned to the Tamil-Malaysian (later to become producer Filmco), that an India-Deal had already been concluded, he jokingly volunteered an excuse for Chris that he was buying Chris' lenses for the territory of Malaysia.

When Tom insisted that Chris ought to take legal action against the Tamil-Malaysian for landing the lenses in India … if not, then Tom would, "Chris became emotional" said Tom to me. Chris apparently had told Tom.

> "You know Thomas … there I was in my office wondering how to meet my next quarter bills. Here in India were people making money on the reputation of my system. So what could I do when this man walks into my office and enquires the price you Thomas had paid for a set of my lenses. When I tell him, he opens his briefcase and places 2,00,000 dollars in bundles of cash on my table. What could I do?"

At that point in time, frankly I didn't know whom to feel sorrier for. Poor Thomas Easaw who lost out on his efforts and his venture Stereoptics by depending on Chris? Or my Papa who lost

money on Tom's purchase of Chris's Lenses? Or Chris Condon himself – the great icon, whose stature fallen to such depths?

3-D in India

by Christopher James

India produce
films than any
Indeed the St
alone with a ye
approximately 45
produces even the
populous Asian nati
produced a stereosc
picture until August
its first full-length 3
picture *Kuttichathe*
released and becam
number one grossing
January 1985.

This event was the fulfillme
20-year dream for industrial film producer Thomas Easaw, formerly of Karala, India, now residing in Denver, Colorado. Easaw trained with Chris Condon, president of Stereovision, in the use of their 3-D camera lens system. Simultaneously Mr. Appachen, chief executive of Navodaya Studios, India was in touch with Stereovision regarding the possibility of such a project.

ghost.' Critics in India acclaim the consistent use of the stereoscopic 'off the screen' process. All age groups are flocking to see it. Playing to full houses in over 40 cities at the date of this article, it has broken many 'house records.'

on 5294. High key lighting was used whenever possible to enable maximum depth of field sharpness. Fill light and reflectors were used for good shadow detail. The optics used on this film were the 20mm, 32mm and 50mm focal length, and were

One of the many successful off-the-screen effects. The feathers are clearly projected into

Chris wrote an article on my film in the AM Cinematographer Magazine under 'nom de plume – Christopher James'.

There was no mention of 3D in Indian Film Industry after 1985 – till film *Avatar* appeared in Digital 3D form in 2010. Very minor ripples happened with anaglyphic *Spykids* 3D in 2003.
Everyone (except maybe, Romu Sippy of *Siva Ka Insaaf*) lost money on the 3D ventures commenced in 1985 … most of them went bankrupt. Our 3D expert Jainul Abdeen makes an interesting observation today … "For all of those filmmakers who ventured into a 3D Production with a 3D film in 1985, it happened to be their very last film. None of those firms ever made any films after that!" (Some of those firms were reputed filmhouses – Devar Films, Merryland, Vittlacharya, etc.) Even *Jai Betal* didn't have screenings beyond a week of its release … and the producer having lost money couldn't pay us the Stereovision shooting lens rentals.

One of Papa's colleagues made an interesting comment

> ***" With film My Dear Kuttichathan 3D, Appachan made a fortune … and caused great misfortunes to all who imitated him".***

The bitter irony of the above statement I discovered in 1995 when making a few 35mm 3D snippets for our Themed Amusement Park - Kishkinta.
For making the snippets and also for *Chota Chetan* 1998 revisions, I used the Chris Condon's lenses which Tom had purchased and left with us.
In 1995, we were also looking for other defunct 3D film footage done a decade ago in India, so that can also be incorporated in the 15 minute 3D shows of the park. One 5 minutes song of *Jai Betal* (shot in Arrivision) was already there to be procured.

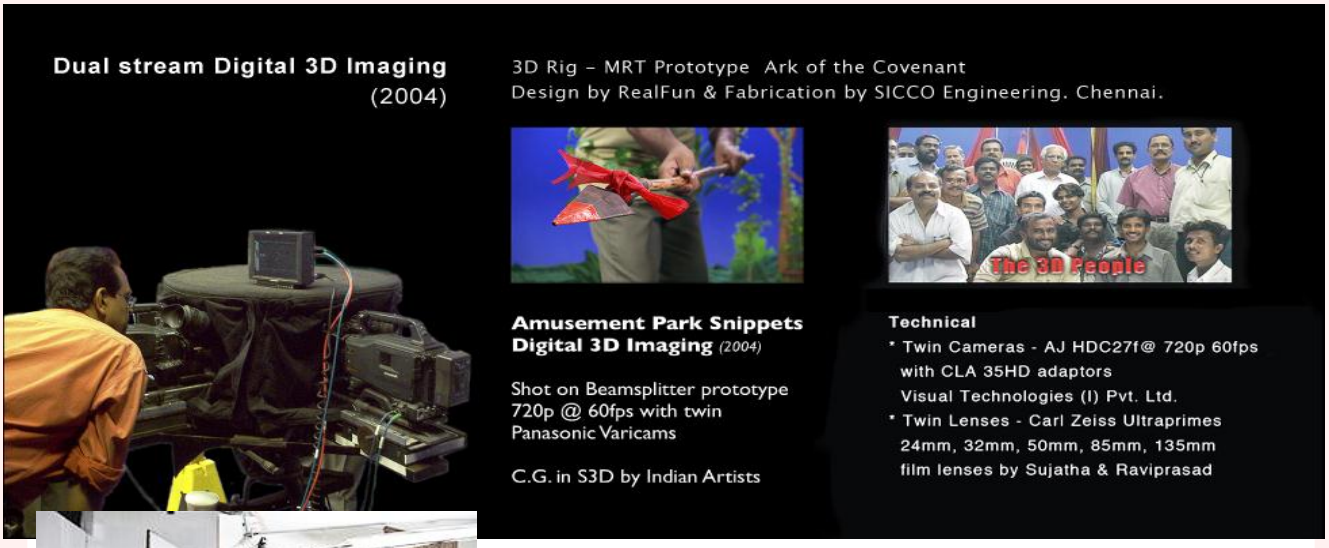
Somebody (Editor Rajasheker, I think) located Cinematographer Ashok Kumar's incomplete *Choo Manthra Kali* 3D film's producer residing in the suburbs of Chennai city. I went to the address given to me to ask the producer if he had any completed songs that can be sold to me. The Producer's son met me at the house portico. The producer - a second generation Rajasthani settled in Madras, was once a film-financier lending capital to filmmakers in Madras. He had retired and his young son was now doing business as a trader in the metal market.

The moment I mentioned '3D film', the youth's face went dark. He pleaded with me not to meet his father or broach the subject of film *Choo Manthra Kali* , the harrowing venture that ruined his father financially, emotionally and health-wise. It was traumatic for all of them – especially his mother. His father, only a financier in the 1980s, had been lured into producing a film during the 3D tumult of 1985 with promises of instant riches. Just like many - who saw notional fortunes disappear overnight and fell into debts during the Wall Street crash of 1930s, so was this 'producer' and many like him.
The youth with his small business had barely managed to come out of the family debts of his father's making.
With folded hands he pleaded me to go away!

As noted, with Chris's above lenses, in the years 1997 & 98 I had reshot portions of *My Dear Kuttichathan* to improve my 1984 footage. For better image clarity, those were done at very high T stops. Alan Bartley, the camera/optical expert in Chennai (the city's name had been changed from Madras to Chennai by then) is the son of the legendary Mr. Marcus Bartley https://en.wikipedia.org/wiki/Marcus_Bartley who was among a few who were certified to calibrate anamorphic lenses. Alan had done his best to open up Chris's 20mm & 32mm lenses. He did correct the stereo-alignments with the assistance of Nambiarhiri who had become a Stereographer/ Cinematographer by then. They would do adjustments on the left/right prisms and we would shoot tests and do 3D test projections to make sure the central septum (R/L image separation line) remained definite and horizontal.
Alan volunteered to have the lens elements duplicated, improved and anti-glare coated. I was not sure whether Chris would be happy to hear that somebody was opening his lenses. But I did tell him about Alan's work and also about the improvements young Mr. Bartley had suggested. Ofcourse Chris was not happy but he didn't object

> "Mr. Bartley in India may service my lenses because my Stereovision workshop in Burbank is not in operation now".

We at Navodaya, Mahalingapuram, Chennai were developing Digital 3D Imaging which was a cutting edge technology then. In the year 2001, my brother Jose who was operating our Themed Amusement Park, Kishkinta at Tambaram, Chennai wanted to make a 3D film (our second one after *My Dear Kuttichathan* 1984). It was to be shot in NY Manhattan. Jose knew I won't concede to an ***all-out, all-India*** release because of logistic reasons. For, I maintained that 3D screenings cannot be setup simultaneously across hundreds of cinemas overnight. But Jos wanted to do it like others had done (with distributor agents, though disastrously) in North America and India during the 1980s.



My brother was not patient to wait for another year by which time Senthil Kumar of Real Image https://www.realimage.com/ promised to have a 3D DCP ready for Digital Projection in the theaters. I was developing a 3D System with Dual Digital (1920 X 1080) Cameras.

[ABOVE – Pioneering Digital 3D https://www.navodayastudio.com/3d-imaging-principles-ch-3-4]

We thought it **A Historic Idea. A Great Experiment** – to have Digital 3D Cinematography and Digital 3D Projections in Cinemas. (Consider! This was a decade before James Cameron film AVATAR hit the screens).

In the month of July 2001 Jose told me that he had already made arrangements to shoot his film *Magic, Magic* 3D in Manhattan. He wanted me to come and help him direct the film.
This took me by surprise.
And, he was planning to shoot in cinematographic film with Chris's lenses!
At NY, when we were location-scouting, Jose wanted me to go with him to LA and collect our lenses already delivered to Chris for service. The same lenses 3 years prior Alan had tried to improve with the best of his ability!
This was news to me.
Suddenly I am in LA after 16 years, meeting Chris again in person. (In 12 years, I had only spoken on phone with him).
Papa's colleague N.G.John – senior producer for film *Magic, Magic* was with Jose and me in July 2001 when we met Chris.

I was nostalgic to go to Stereovision offices, Burbank for old memories sake. But Chris brought the lenses to the hotel we were staying. The man was frail. He came alone. While handing over the lenses (Jose paid him 2000 Dollars, I think) he mentioned that he had to find a machine shop to open up the lenses and by all alone had to do the corrections. I could understand his financial situation. I was touched.

Chris then started elaborating on the bad times he was in. He said his new partners in the business (Hispanic investors come to revive Stereovision, I think) cheated him. Victoria had fallen sick because of that. Chris then wanted Papa to know about his misfortunes. He gave each one of us a stack of papers. These, which he was handing out to every old acquintances, had excruciatingly elaborate details of the fraudulence he was subjected to. The court filings he had made against his estranged business associate. The character traits, overbearing physique and evil smirks of the person of Hispanic origin.

As an emotional Chris went on and on, Mr. N.G.John in whispered in Malayalam asking me 'the purpose of this conversation'? I replied 'probably he wants you to tell my Papa – Chris friend, of this misfortune'. But, in the back of my mind what 15 years ago Tom underwent with a contract made with Chris was playing out.
Back in Chennai, the test shoot with the lenses turned out totally misaligned.
Alan and Nambiathiri once again opened up the lenses for re-correction. Nambiathiri told me that there was so much of machining-dust inside that had to be cleaned. Obviously, Chris's vision would have been failing.

I (still) sympathize with the once-genius innovator of Century Precision Optics. But, the indomitable Chris insisted his hands-on everything - Victoria managing business or technicians streamlining the production. In the 2000s Chris was not happy at the improvement suggestions made by the young Alan Bartlly who serviced the malfunctioning Sterevision Lenses. In 2005 when I broached the subject - to allow us to redesign his unique lens for the oncoming digital cinematography era, Chris made clear his contempt for all 'video-quality' images.
Obviously, Chris belonged to the Film-Chemistry Era.

> [I had met many such even in Arri's Physical Lab in Munich when I was there for an interface made for the very first non-linear video edit machine AVID to the Super16mm Arriflex they were making for our *Stories From The Bible* 1992 - a TV Serial shot on film and telecine'd to tape].

During the last week of Nov 2010, I was again in contact with Chris. That was the time we were doing a digital restoration of the 35 years old *My Dear Kuttichathan* negatives. I was keeping him as well as Rupkalvis informed.
[Pls refer https://www.navodayastudio.com/3d-imaging-principles-ch-3-4]

> We could rectify the shortcomings of film ***Chota Chetan*** images shot with Chris' lenses while scanning the Master Positive and digitally restoring the film in 2010. (frame by frame cropping, selective sharpening, touching up vignation, image spill and shading, re-aligning centre septum - all on AUTODESK softwares). This was a unique exercise which may be of interest since, to my knowledge, no Film-era-3D has been converted for a Digital-3D Projection.

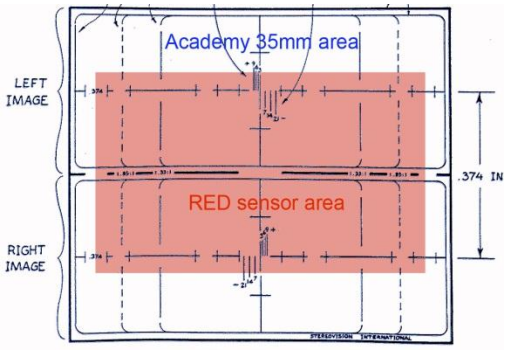
I did once again broached the subject of Chris's shooting lenses adapted for Digital 3D Filmmaking.

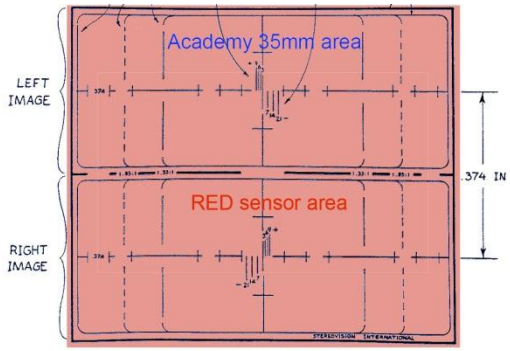
> "Digital? Nonsense …those are amateurs putting all sorts of video cameras to shoot 3D. There is a Korean company who has copied my Stereovision lenses' patented design" for videography. I am suing them!"

I thought it better not to pursue this.
When I was speaking with him, he was admitted in the hospital and recuperating to go home shortly. He had a cellphone number (given to me by my brother Jose). That was my last conversation with him. He expired in about a week's time.

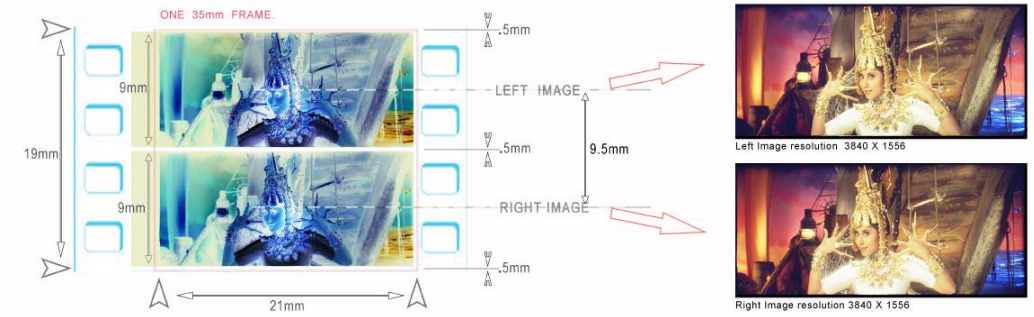
Mid 2012. Digital 3D Cinema had come to stay with AVATAR.
On suggestions by Balaji and Jainul - our digital proponents, we tested Chris's lenses on the first RED camera to come out with a BNCR lens mount. (I don't remember the version).

The image turned out to be as below (LEFT).





Obviously the sensor was not Academy fullframe. But soon the chip sizes were coming – so it was told by Senthil of RealImage https://www.realimage.com/ constantly in touch with RED Canada.
Senthil was of the opinion that stereo images ought to be captured on a Digital Cinematographic Camera as above (RIGHT) on a single chip sensor. In such a scenario, we could separate out LEFT / RIGHT pairs without a cumbersome dual camera rig as I had developed and that was expected to be the norm in future 3D filmmaking.



Senthil was strongly suggesting the use of Chris's Sterevovision 3D lenses on 35mm full sensor digital cameras that were coming off RED and ARRI, Sony to follow.
Even a 3D TV BOOM was impending.
Surely there was an advantage of using Chris's lenses on a single camera. As said, 3D Rigs & Twin Digital Cameras can be avoided.

But the first problem I pointed out was the quality of Chris's lenses. It was no match to the new generation lenses used for today's 'digital imaging'. But an overenthusiastic Senthil was not convinced. Hence I took out some comparative test images (Stereovision Vs. Digital Ultra Prime) and with Senthil present, called Jayendra https://www.qubecinema.com/content/jayendra-panchapakesan (CEO RealImage) – a filmmaker himself, and asked him if he is satisfied with the image quality.
Jayendra winced.
Senthil still persisted.

The second reason I raised against Chris's lense design was the fixed introcular. A dual Camera 3D Rig gave variable introculars – an advantage in doing extreme closeups.
There, I mentioned John Rupkalvis's Stereoscope.

Senthil wanted to consider the possibility of Rupkalvis design being adapted. RealImage's Taiwanese collaborators had optical engineering capabilities to re-produce the design for Digital 3D Cinematography.
I mentioned this to John and he was open to the idea and was willing to come down.
But by then, the 3D Boom had gone bust.
Though by that time in the scene there were many 3D Rigs (Tandem, 3ality, etc), not much content generation happened. Due to want of content, the 3D TV Boom also fizzled.

****

These days (2020s) sometimes I am asked to talk about *movers and shakers* - probably because disciples in the discipline of visual medium consider me a pathfinder, especially in S3D. I talk about Chris the iconic optical designer I have known. Despite his passionate brilliance in the field of S3D, I find that I have to conclude with the shortcomings of Chris. This is rather a human characteristic associated with most of the iconic personalities. For, I do speak about the fall of icons in other areas as well … larger than life characters – both historical and of the recent past. Rommel and Montgomery of history; DeLoren and Rajan Pillai of the near past. For me, Chris's shortcoming is not in his keeping up with the times with his innovation. Failure to recognize the oncoming digital imaging revolution was not limited to Chris alone. Even the gigantic Kodak who invented digital photography didn't recognize it, and disappeared from the field due to that. To me, Chris's fall has to do with a kind of role model he was for me. It is always painful (sometimes devastating) to witness the fall from grace of a personality whom you hero/heroine worship.
Now that is a lesson for every one of us.
However insignificant we are, each one of us as parents, elders, seniors, teachers are role models at least for a few among the coming generation – our kids, subordinates, disciples or servants - even if it is a limited sphere of influence. Hence it is important to stand up to certain principles … especially during hard times.

****

Post Script

Tom took back one set of Sterovision shooting lenses (24mm & 32mm) with him back to Denver.
He never discussed the buisiness deal of the failed 3D Lens Hire efforts of 1995.
When Jos enquired about the lenses with Tom,
I gather that Tom responded 'that is my share of investment in the business'.

A) Tom (Thomas Easaw) had returned to Denver half way through the shooting of *Jai Betal.* The completion was entrusted to Rupkalvis & Navodaya Team. Tom got to work on the 'dog story' – to be shot in the US, which he wanted to direct. Papa had agreed to produce it. The story was by my brother Jose. The scripting got stalled (and eventually abandoned) when after one month in the development, creative differences occurred between director Tom and Raghunath Paleri the Malayalam script writer sent to Denver from India. * elaborated on page 44
After that, Tom translated into Malayalam an old script written by a Denver film institute colleague of his. This was found to be alien to Indian sociological nuances and was not approved by Papa's production team. Hence Tom himself produced it and directed the film *Eenam Maranna Kaattu* 1988. He had difficulty in finding distributors for theatrical release and was morose with us Navodaya who due to the reason we released only our in-house productions, wouldn't take it up for distribution.
Tom never ever mentioned the failed investment on Chris's lenses.

B) I met Simon Kurian and his brother - an audiographer, a couple of times when he resided next to my wife Liza's residence in Kochi during 193-84. They immigrated to Australia soon after, I understand.

Viewed in retrospect, I realize that the costs in Stereivision Lens Hire adventure were never recouped. The 2 sets (24mm & 32mm) lenses cost, travel expenses for Tom and Rupkalvis, John Rupkalvis's stereography charges – all of them debited to our company Navodaya, were never reimbursed. With the 3D fever going bust there was no more takers for 3D. The failure of film 'Jai Betal' saw to it that the producer Vittalacharya couldn't pay his Film Laboratory bills … leave alone the Stereovision lens hire charges to us! In those days though it was a small fortune for a regional film company like ours, we could write it off considering the avalanche of funds coming from screening 'My Dear Kuttichathan', 'Chotta Chetan' and 'Chinnari Chetana'. The real loss was our time lost then in screening our 3D Film everywhere.

C) As said, my brother produced and directed *Magic, Magic* 3D with Chris Condon's lenses in 2001. The story was Jose's own 'dog story' which failed to be developed as a script under Tom and Paleri.
With production-design fully done, with a week to go before shooting started in Manhattan, the Twin Tower 9/11 tragedy occurred and shooting permissions in the vicinity (such as Times Square and Battery Park) were revoked.
Despite my strong objection in continuing with the production, producer N.G.John and Director Jose went about to shoot with drastic script changes at the shooting spot. Their contention was that '3D by itself is the selling point; everything else is secondary'. Obviously, their self-assurance was misplaced. The film was both a financial and critical disaster. Within days of it 3D screenings, it was removed from the theaters in India.

D) Coming to 3D, this is a lesson even experienced filmmakers fail to learn. In 2019 based on my script "Barroz, Guardian of D'Gama's Treasure' Producer Antony Perumbavoor and Actor/director Mohanlal commenced a 3D film. This had 18 months of pre-production and production design. One week into the shooting, in 2021, the corona pandemic shutdown occurred. Getting stalled repeatedly, in 2023 the production was suddenly resumed with a changed script to suit the corona quarantine parameters. I cautioned Mohanalal and AD Rajeevkumar from not just improvising the script at the location, but also discarding stereo convergence parameters built into the Production Design.
Producer Antony Perumbavoor's contention, again, was

> "3D is the selling point. When the audience sees matinee idol Mohanlal come into the theater space that alone is gratification enough".

Apparently, that too was a misplaced logic. The film bombed on its release (2024).

CONCLUDED.

INDEX

3-D film latest gimmick adopted by intrepid film maker from south India

Sreedhar Pillai
ISSUE DATE: Jun 15, 1984 | UPDATED: Apr 21, 2014 17:27 IST
Indian cinema seems poised for a great leap forward - straight off the screen. The three-dimensional (3-D) film is the latest gimmick adopted by an intrepid film maker from the deep south.
Indian cinema seems poised for a great leap forward - straight off the screen. The three-dimensional (3-D) film is the latest gimmick adopted by an intrepid film maker from the deep south. If his venture - scheduled for release in July - succeeds, it might well snowball into the latest "craze" in the billion rupee film industry, besieged by what it calls the "video threat".

Hello, My Dear Kuttichathen is the rather unlikely title of the film which producer Appachen hopes will usher the 3-D age into India. He is not alone. Also fervently hoping for a "3-D boom" in the world's largest film industry are the American promoters of 3-D equipment. David Schmier of Stereovision (the company which provided Appachen the 3-D hardware) says: "The 3-D boom has gone bust in Hollywood and we were left with thousands of our lenses which cannot be used for conventional cinema. So we hope, with a 3-D boom in India, we will be able to cash in on it."

Whether or not the lucre does flow will depend on how effectively the illusion is created. For illusion it is: two separate images are projected in synchrony on a screen coated with silver

paint. Viewed through polarising glasses, the synchronised double image appears to have depth and characters seem to come right out into the theatre.

Hollywood first used 3-D in the '50s in such famous productions as House of Wax and Hitchcock's *Dial M for Murder*. Those were the days when Hollywood's studio system was in flux. The new electronic wonder - television - had put paid to multistarrer epics which depended on their "reruns" for the major chunk of their revenue.

So the denizens of tinsel town burrowed into their bags of tricks and one of the jack-rabbits they came up with was 3-D. However, as a film buff puts it: "The greatest thing about 3-D films is 3-D itself but the novelty soon wears off." Unlike 70mm film, stereophonic sound and other such innovations of the time, 3-D did not last.

However, unwilling to give up easily, Hollywood tried to revive the technique for a new generation of cinegoers a couple of years ago. *Friday the 13th - Part III, Parasite* and *Metalstone* led up to the somewhat obviously titled *Jaws 3-D*, which was moderately successful last summer. But before the year was out, the spirit of 3-D had been laid to rest a second time - in Hollywood, at any rate. In Kerala, it's just about ready for launch. Appachen and his sons have been planning *Hello, My Dear Kuttichathen* for three years now. They spent last year virtually shuttling between Cochin and Los Angeles. Says Appachen: "We have imported the latest Hollywood equipment which manages the 3-D effect with a single lens attachment and people who saw the film say that they did not get nausea or headache." That is crucial, for headaches have been a potent factor in 3-D's past failures.

Of six available 3-D systems, Appachen chose the Stereovision system because, as his 27-year-old son Jijo Appachen - the film's director - says: "It was found to be the most successful system in Hollywood." Appachen has imported a dozen single lens attachments, each at a cost of Rs 25,000, for the projectors and Stereovision has undertaken the training of the projector operators.

Conventional white screens in theatres will be sprayed with special aluminised paint. The film's promoters say they will give audiences cardboard mounted polaroid glasses which, as a precaution against eye infection, will be sterilised after each show.

Kuttichathen promises to be a fun thriller. Stereovision's Schmier, who supervised the five months of shooting, claims that "the 3-D effects of *Kuttichathen* are as good as any 3-D movie made recently in Hollywood". The 90 minutes of the film are punctuated - about every six minutes - by special 3-D effects.

For instance, a toy helicopter roars toward the audience, a blast of fire from Kuttichathen's magic flute seems sure to scorch those in the lower stalls and an ice cream thrown by him heads straight for the viewer's eye. The latter half of the film was inspired by Spielberg's ET. *Kuttichathen* is an impish sprite from Malayalee folklore portrayed in the film as somewhat like Casper, the friendly ghost. An evil magician conjures Kuttichathen, to help find some lost treasure. The spirit appears as a boy, but escapes the magician's thrall to join a gang of kids.

In a rare departure from convention, the film has no heroine. The leading roles are played by national award-winning child stars, masters Aravind and Suresh. Appachen has also roped in one of Bombay's top models, Dilip Tahil, possibly with an eye to Hindi audiences - the film is to be immediately dubbed in Hindi and all south Indian languages if the Malayalam version succeeds at the box-office.

Of success, the promoters are confident. Says Schmier: "The novelty of 3-D and the universal appeal of kids is bound to make it a sure seller." No doubt, true. But will 3-D become a trend, even a craze, in the ever more spectacular business of conjuring mass consumption dreams? That is the question.

3-D Films come up with boom, become new hero in Indian film Industry

Sreedhar Pillai https://www.indiatoday.in/magazine/society-and-the-arts/films/story/19850228-3-d-films-come-up-with-boom-become-new-hero-in-indian-film-industry-769840-2013-11-26

ISSUE DATE: Feb 28, 1985 | UPDATED: Nov 27, 2013 15:39 IST

Reason for 'The Dog Story' not materialising.

The ‘dog story’ was a unique-surefire-subject by my brother Jose about a runaway boy and a stray dog in US heartlands.
The reason why it did not materialize into a script is rather unfortunate.
At considerable expenses and visa formalities (in 1985) Rahgunath Paleri was sent from Kerala to Denver to write for Tom Easaw.
In one month, Tom sent him back.

Tom’s observation was that Paleri is not adequate to tailor the narratives according to the restricted production logistics Tom was constrained to impose on the film production.
Tom was also critical to Paleri’s “scene-continuity-structuring” which he as an American filmmaker was not used to.
Tom indicated that Paleri - a young prodigious Malayalam author, is an amateur when it needed to write a script for a global audience.
“He was wasting time watching TV here”. (TV broadcasts were not prevalent in India during mid-80s).

Paleri told me a different reason.
He said he was requesting Tom to take him around to show the landscape, people, communities … the American life, so that he can conceive the plot points, characterizations and scenes.
But Tom insisted Paleri remain in the room and listen to the descriptive American scenario Tom shall narrate to Paleri, and that would be more than sufficient for a story of this nature.
“I could very well have remained in my house at Calicut suburbs and wrote it! ….
Hence I started watching American sitcoms and news to formulate a narrative”.
When I asked him what was the creative difference you both had about “scene-continuity-structuring”, Paleri laughed “I just told Tom a scenario - - For the boy getting injured at his school and while in hospital from where he runs away, the scene can be cut directly from school to hospital.
But Tom kept insisting that from school there ought to be call to 911 (medical emergency), an ambulance arriving, boy taken in the ambulance, ambulance reaching the Hospital …. or else an American audience wont understand the progression of events ....
Tom got offended when I laughed at that.”

INDEX ONE – A compilation

Impressions about the film-- technically, commercially, and in the hearts of filmgoers

(copy and paste from webpage **3D Imaging Principles**)

> Now, there are quite a few points to be borne in mind so that we fully understand the potentials of as well as the limitations to the stereo window when planning to bring in objects into theater space. [What is called as Forced Perspective (F.P.) or termed 'negative parallax shots'].
>
> First of all, you are 'fooling the brain' so as to make it 'think' that something real is happening before the eyes. One important aspect is to enhance this illusion of a window so that the brain is very clear about the Z axis perceived before its eyes. In this, the DOP can help the Stereographer by giving well-lit edges at the four peripheries … provided of course, it doesn't conflict with the mood of the Director's narrative. The other principle is to use a perfect black matte masking around the auditorium 3D screen. The lighting of a scene, mentioned above, is a creative option … but the screen masking is a must. I have had numerous run-ins with theater managements who were reluctant to comply with this specification. But we have this principle not to screen 3D unless there is a black border around the screen. They would say that, because these days they have 'floating screens', the masking is done on the projection lens border - not around the screen. But that is not the issue. The back border should be a two feet wide physical material (a clothe, not paint) around the screen and 'it should bleed a few inches into both the stereo images falling on the screen'. This is to make sure that the borders of the image are not hazy. A not-so-well-defined border would defeat the 3D illusion.

(copy and paste from **3D Imaging – Pushing the envelope**)

> It was said that defining the boundaries of the 3D window has its merit. Well; ... dispensing with boundaries also has its merits. This is possible only in large format 3D where the audience are unaware of the edges of the frame. In such a scenario, almost everything would seem right in front of them. This 'boundlessness' would be difficult to pull off in a 'smaller screen' - 35mm techniscope - 2 perf., which is what Stereovision is. But I have an example in film *My Dear Kuttichatan* (1984) where I broke a cardinal stereography rule and composed a swarm of cotton poppies flying around the main subject. Stereographer David Schmier warned me that those objects flying close to the lens would 'split' ... and cause an eye strain. ['Splitting' is a term that denotes two images (L/R) which your eyes cant fuse] He also said that since the cotton poppies would be constantly cutting the frameline and thereby occluded by the 3D window, the poppies will not come out into auditorium space. But the result when seen on screen looked fine ... and the F.P. worked fine too! This is because - as David and myself surmised later - with a large number of small objects moving around, the brain cannot relate them with the borders of the 3D window! [Please note that the frame edges in L&R image pairs - boy Kuttichathan shown above, and kids shown below, are lit dark].


My colleagues and I started our 3D voyage in 1984 with some basic guidelines from our gurus - Chris and John. They also had made it clear that we could tryout new things. They cautioned us to make sure the new things worked, before rewriting the rule book.

My first line of resistance was my first 3D cinematographer - Ashokji, the late Mr. Ashok Kumar. He was a person who broke the cinematography rule-book during the 1980s in Kodambakkom (The South Indian film industry). He did acquire an iconic status with his methods … just as Vincent Master (Mr. J. Vincent) had done in the 70s … which has been surpassed only by P. C. Sreeram in the 90s. Yet Ashokji was so keen on doing my 3D film that he promised not to indulge in things he had practiced during our earlier films together - *Manjil Virinja Pookkal* (1980) and *Ente Mamattikkuttiyammakku* (1983).
Things like (1) excessive highlights, (2) burning back lights,
(3) shallow focus,
(4) under-lighting,
(5) push-processing negative … all the above, for 3D's sake, he crossed his heart to set aside. Yet he did bring his style to 3D cinematography that had Chris and his deputies from Hollywood very impressed.

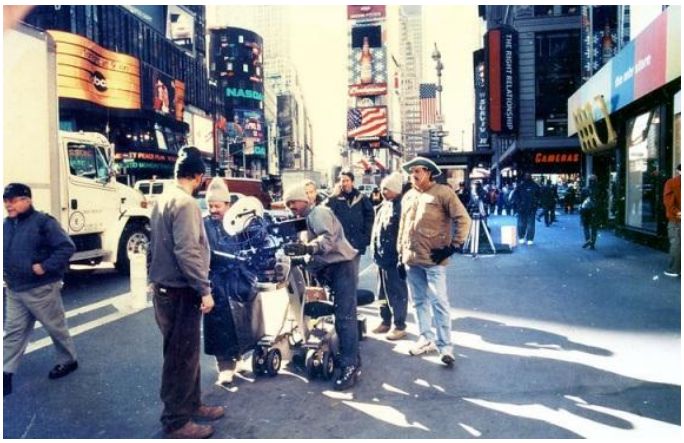
One instance where Ashokji proved his mettle was using smoke in fantasy scenes. During the *Kuttichathan* (1984) shoot - whence David Schmier handled stereography, and during the *Chotta Chethan* revision(1997) shoot - whence Nambiathiri handled stereography, the stereographers strongly resisted putting smoke in the scenes. *It would diffuse the 3D view!* - they complained. But everytime he looked through the camera viewfinder, Ashokji would come to me and with sentences laced with "yaar"s (Hindi, for *my dear friend*) he would say "It dosent look good yaar, .. it lacks magic yaar … it looks too realistic"

I would say "But Ashokji, 3D is about making it appear real … why do you want to diffuse reality?"

Ashokji - "No, no, yaar .. you remember how we had shot dream scenes … in Kodaikanal mountain mist … for *Manjil Virinja Pookkal* … ? I have shown you the difference between 'mist in the background' and 'mist in front of the lens'. I want something like the first … mist around the subject. Your film should have that magic, yaar. I totally agree with them when they say that diffusion in front of 3D lens would be like haze in the eyes. But give me a soft mistiness which I would actually mould with lights … I tell you, that happens in real life too, yaar … like what I showed you in Kodaikanal, yaar … "

After a few trials, I understood what Ashokji meant. But it would mean judicial deployment of smoke. And smoke! … Oh, white smoke is most difficult to control. Hollywood would use black smoke or steam generators instead. So, to give Ashokji what he desired, here I was personally handling the smoke machine in the foreground … and, after sufficient smoking by the crew, instructing the smoke pots to be removed from the background, … and waiting for the right moment for the smoke to sufficiently thin out, before calling 'action'. It was dicey. But, editor Sheker sar patiently sat through the dailies projected in 3D at our studio projection hall, studied each shot a number of times, before sitting on the moviola editing machine to decide where the 'cut' should be. In density and 3D positioning, he made sure the smoke matched from one shot to the other. Ashokji defenitely had a point that transcended the Streography Rulebook. (Given below are image pairs from *Hawa Hawai Magic Cellar* in *Chotta Chetan* (1998).

My favorite Cinematographer Aswini Kaul - who shot *Bible Serial* (1992) on 16mm film format for me, had a devastated look on his face when I told him he can't use any lens-filtering when shooting 3D. He was left wondering why did he ever accept my brother Jose's (the Director) offer to shoot *Chotta Jadugar* (2001) in 3D!!



But his brooding demeanor changed to one of bravado after the first day of shoot under Brooklyn Bridge in Manhattan. Asked the reason for a sudden elation, Aswini told me that he has cracked the filtering problem. He started using heavy diffusion on lights … and that too progressively along the Z axis … to achieve the 'feel' he wanted.

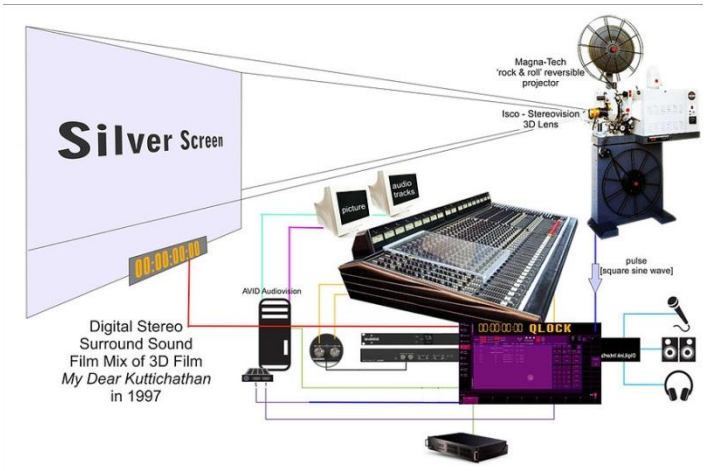
"I am still good at overall intensity of illumination. … I am holding +T 5.6 / 8 in the shadows, which is what Nambiathiri (the Stereographer) recommends" told Aswini. (today, in digital filmmaking, almost all filtering is done on the captured image)

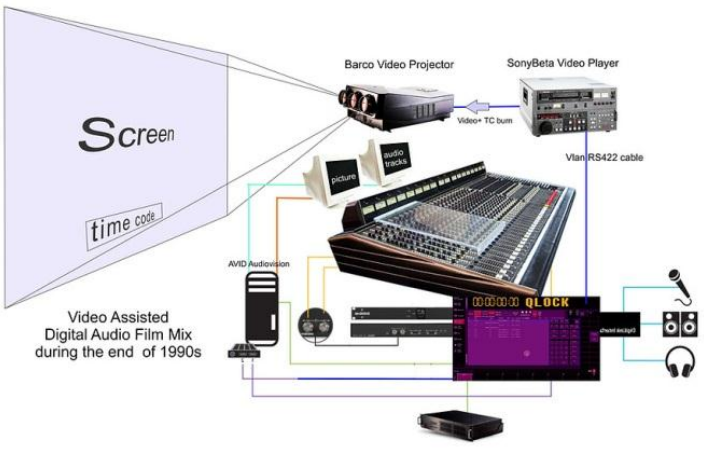
(copy and paste from **Sound Design for 3D** - 1984 & 1997)

What Devadas sar - an audiography guru, could do best for dialogues and effects during the first 3D release in 1984 was to keep the audio perspective in the film's narratives realistic. After all, sound was mono optical those days. But what stole the limelight was Ilaiyarajah's lush music which Sound Mixer Simon Selvaraj would not even reduce for dialogues' sake. He kept music at maximum threshold.

Come 1997, when the revised version of *Kuttichathan* was being released as 'the first 3D feature film in history with Stereosound' (in DTS), entire dialogues, sound effects and background score was redone in digital format with myriad multi-tracking. At the stage of final mix, Sound Designer H Sreedhar at Media Artists - one of the first digital audio facility on this planet, started demurring like Ashokji when confronted with 3D. Sreedhar complained that he is not getting it right. He wanted to do audio perspective watching live 3D! I scoffed at him (I could afford to. He hadn't by then acquired the iconic status which he eventually would with film *Lagaan* and the A R Rahman songs mixes)

"What do you mean? … I brought down dear Maestro (Ilaiyarajah) to terra-firma in 1984 and even yesterday when he floated ideas to score 100 piece orchestral background watching 3D live! Even Devadas sar and Simon Selvaraj mixed final tracks watching mere 2D projections. You have already seen the silent version like all of them in a 3D projection preview. That is your reference. Now, mix it from your mind!"

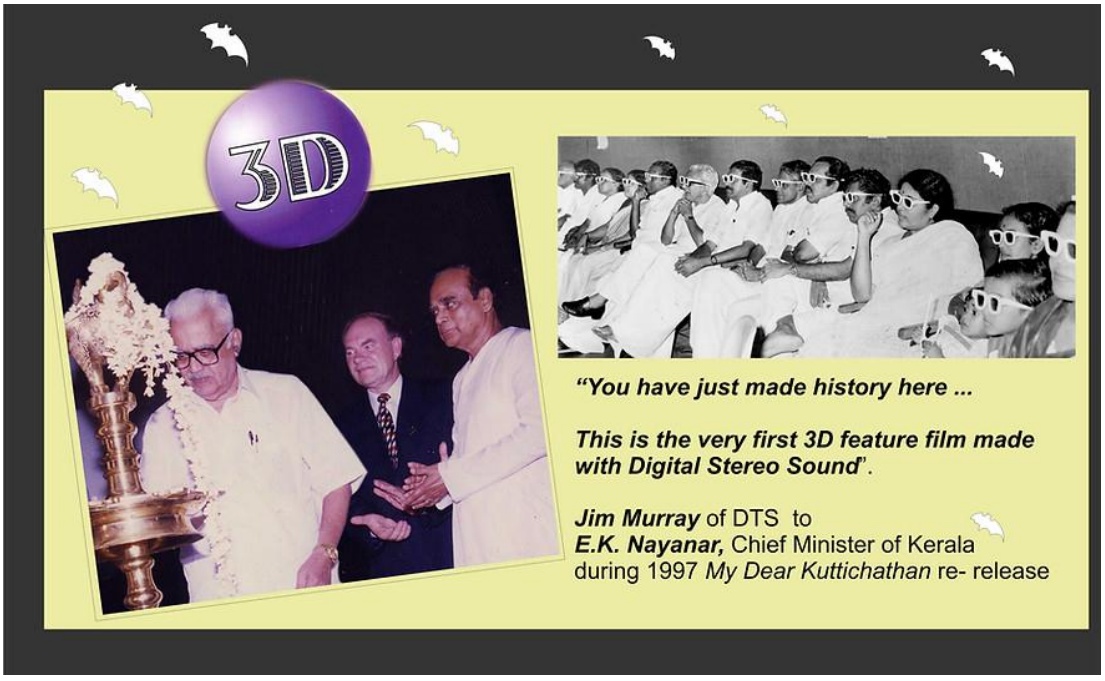




Sreedhar “No, no, Jijo sar, … this time around, it is stereo sound … how far can I push the fader knobs to bleed-in the surround feed … when I do not even know how far your arrows have come into the auditorium?”
I said “Hmm … you have a point. But what to do about it. Unlike yesterday, when we had picture/ sound double positives, today we are laying sound watching Cathode Ray Tubes. We do not marry sound with film till your final tracks are paralleled in the film lab. I how can anybody give you a 3D projection in your mix session?”

But Senthil - the captain at Media Artists & Real Image, had an answer. He made his tech-chief Soori get ready their old Magna-Tech rock & roll (reversible motor, shaft encoded) projector. The projector was made to output pulses into the QLock Time Code Controller which as the Master Clock locked the AVID Audiovision (playing the picture and sound tracks) and the Automated Sound Mixer. In effect, the Beta Video Player was replaced by the film projector.

Rajasheker, the editing assistant went back to the old industry practice of loading film reels on to the projector for final sound mix. While Naveen Kothadia saw a silverscreen erected at Media Artist mixing hall, in the absence of Kurup - our 3D projectionist who had an untimely demise, I fixed the Isco-Sterevision lens on the projector. Recordist Sreedar mixed the film viewing in 3D, wearing poloriser glasses. This was the first time anybody had done such a thing, I am sure.



(copy and paste from **Rotating Set Memoirs**)

COMMENTS ON TWO INDIAN MASTERS – 1. Ashok Kumar. Cinemtographer.
Our Stereographer David was from Burbank, Hollywood.

A very light-hearted character, coming to the East for the first time, he found our filmmaking methods very fascinating … and bewildering!. Being a thorough professional, he had very critical comments about the way we Indians casually went about with preparation and planning. But he was surprised at the way we improvised solutions for problems when they cropped up. Most of his comments were the result of culture shock, which he got over after two months here. Oh yes! He was shocked to see the iconic sight of cows on Indian roads .....
"Jose, won't they bite?"
He was fascinated to see huge jackfruits on trees ....
"Tom, the thorns on that, ... do they sting?"
Papa once asked him what he thought about our camera-work (sic) when compared to Hollywood. He answered,
"Sir, I know you are asking how good your cinematographer is. .... I tell you, American cinematographers of late ... they are decades behind. Thats why in Hollywood we get newer and newer promising ones from Europe. You saw me working on the 3D film Metal Storm (1983). Actually I was there as assistant to its cinematographer Mr. Mac Ahlberg. And it is due to my 3D experience that Chris Condon has deputed me now as the stereographer here. Mac Ahlberg - who has recently come from Europe, is Swedish ... not American. An American cinematographer's style most probably won't be as good as his.
Yet, I find what Ashok Kumar is doing here would surpass what Mac Ahlberg is doing there".

(copy and paste from **Rotating Set Memoirs**)

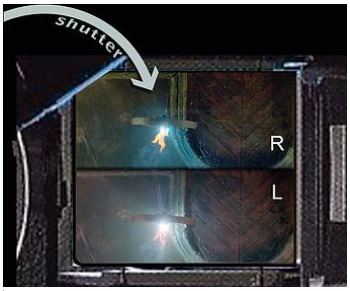
COMMENTS ON TWO INDIAN MASTERS – 2. Ilaiyarajah. Maestro.
An year after our first meeting, Chris Condon of Stereovision came down to India to see the 3D release work we had done here. I was sure he would be spell-bound to see a 45 feet 3D image at Mumbai (then, Bombay) Ambar Cinema at Andheri (now the complex is no more there). We had put up special high power Strong Arc lamps and Isco lenses to achieve this. That, for a techniscope image such a magnification was possible, Chris Condon had refused to believe.
So after the show I was proudly waiting for his technical assessment on this.
His comment was not on the technicalities ...
"Wow, what music .... such exquisite background score!"
My esteem on Ilaiyarajah went up further.

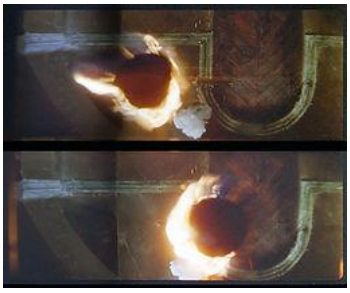
A GIRL IN STALLS FRONT ROW, VADODARA
Early in the spring of 1985 we were releasing Chotta Chetan in Rajsree Cinema at Vadodara. I was then in charge of the team that covered Surat, Vadodara, Ahmedabad, Rajkot, Bhavnagar & Junagadh in Gujarat - six centers in one week. After completing the 3D theatre conversion (*refer notes) overnight, observing the audience reaction for the very first show was always our habit ... before we proceeded to the next center.
At Rajsree Cinema, Vadodara, I noticed this girl of about eight years sitting with her family in the front row of seats in the stalls. (I haven't figured out why they called the first class section as 'stalls' in north India. Was it because they were right behind the canteen stalls?) The girl, holding on with both hands to her 3D spectacles, was not reacting to the gags. Very unusual. She wasn't startled like others when off-the-screen objects came hurling! Is she immune to stereoscopy? I wondered. (about one-in-a-million people are … their brain cannot be fooled into thinking that the two images seen

through the 3D glasses represent a real life vision). It was not just the 3D. This girl seemed immune to the film's humor; not even a smile when on screen Master Suresh tripped over and fell.
Quite a tough nut.
Maybe, …. Gujarati kids are different from those in southern Indian states …. I was hoping this immunity to humor is limited to eight years old Gujju girls of Vadodara alone.
That was when child Sonia's skirt dropped down .. whoosh!
I saw that girl jump out of her seat shrieking and erupting into fits of uncontrollable laughter.
Thank You God! So it worked for every eight-year-old-girl-child in Vadodara too.
For more, please see
https://www.navodayastudio.com/gravity-illusion-kuttichathan and
https://www.navodayastudio.com/revolving-memoirs

(Film to Digital Projection - Anomaly**)**

The bottom image shows that the explosion - a pyrotechnic charge that propels the arrow towards the lens, has advanced in time by the time the shutter cuts it. The arrow has moved further towards the lens, by the time the shutter cuts it.





With its vertical plane revolving shutter, a 35mm Reflex Camera exposes the top half of the frame first. Which means the right-eye image on the top gets exposed 1/48th of a second earlier than the left-eye image at the bottom. In a film projection system, this is fine. But on digital projection, both images fall simultaneously (without the 1/48th second delay) on the screen. So, there is a minuscule time-mismatch between film-originated 3D images when projected digitally. This is apparent only in very fast movements.


The bottom image shows that the stone has moved further towards the lens, by the time the shutter cuts it. (NOTE - The Images are vertically inverted in a camera gate).

(copy and paste **Dream Merchant Golchin – Father of UAE Cinema**)

BIG SCREEN PASSION

In the fall of 1984, one fine morning Golchin heard that the 3D film in Malayalam language is being released in the state of Kerala (God's Own Country), India.

Immediately he took a taxi from Dubai to Abu Dhabi 150 miles south where the airport had direct flights to Trivandrum, the capital of Kerala.
Landing 6 hours later at a place he had never been before, an Immigration Officer there asked his purpose of visit.
Golchin replied nonchalantly

"Just give me that 3D Film … I'll fly back … even without disembarking".

Few hours later, directed by the amused Immigration Officer, Golchin found himself in the town of Kochi before Appachan of Navodaya Studios who had produced My Dear Kuttichathan, the said 3D film - a children's feature. Golchin repeated his request

"Sir, give me your 3D Film … I am screening it tomorrow in all of UAE".

Appachan patiently told Golchin that the film was an experiment … for; it was the first time a 3D was being made in India, and due to technical and logistical limitations, even in Hollywood for the past few decades 3D could not be widely screened.
Golchin

"So what?"

Appachan

"So, first I'll have my 3D Installation Crews acquire on-the-job-training in cinemas here. Then I'd organise a team to be sent to you with 3D lenses, Silverscreens, Poloriser glasses to be given to every spectator, etc. Before that, you have to get me your cinema hall dimensions, projector specifications and …"

Golchin

"Wonderful! …"

Appachan

"Wonderful? … Why wonderful?"

Golchin

"I just realized this film can be seen only in a theater …
a cinema hall.
F**k them pirates!"

Appachan had found a man after his own heart!
Golchin was back in Dubai even before the film-agents who procured Malayalam films (about 120 in numbers, yearly) for UAE territory came to know of the arrangement. They had been waiting to see the feasibility of 3D screenings in Kerala before broaching the idea to Golchin.
Golchin personally carried the film-print for special 3D sub-titling, joined the crew in putting up the silverscreens - first at his prestigious Galleria Cinema. He installed 3D lenses at UAE Cinemas, handed out and collected back 3D glasses to patrons. Thanks to Golchin, the small film My Dear Kuttichathan became successful and widely known. The film (titled - Chota Chetan) got released in all other states of India, also in countries of Indian diaspora.
NOTE - Golchin having lost sight in one of his eyes, cannot perceive in 3D! (a distinction he shares with Andre de Toth, director of the famous film House of Wax 3D).

Chris wrote an article on my film in the AM Cinematographer Magazine under ‘nom de plume – Christopher James’.

Camera

3-D in India

by Christopher James

India produces more feature films than any other country. Indeed the State of Madras alone with a yearly output of approximately 450 films out-produces even the USA. Yet this populous Asian nation had never produced a stereoscopic motion picture until August 1984 when its first full-length 3D motion picture *Kuttichathen* was released and became India's number one grossing film by January 1985.

This event was the fulfillment of a 20-year dream for industrial film producer Thomas Easaw, formerly of Karala, India, now residing in Denver, Colorado. Easaw trained with Chris Condon, president of Stereovision, in the use of their 3-D camera lens system. Simultaneously Mr. Appachen, chief executive of Navodaya Studios, India was in touch with Stereovision regarding the possibility of such a project. What was needed, however, was someone who could coordinate all 3-D aspects of the film requiring close liaison with Stereovision in Burbank, California. Thus Easaw became executive producer of *Kuttichathen*.

Produced entirely on Stereovision, *Kuttichathen* has become a big hit, perhaps because of a combination of fortuitous events, talent and intelligent planning. In addition to the novel attractiveness to Indian audiences of seeing an Indian movie with three dimensions for the first time, the producer Jose Punnoose of Navodaya Productions, chose an excellent children's story to show off the impact of 3-D. *Kuttichathen* means poltergeist, and 3-D effects are used extensively to show all the wondrous powers of the 'friendly ghost.' Critics in India acclaim the consistent use of the stereoscopic 'off the screen' process. All age groups are flocking to see it. Playing to full houses in over 40 cities at the date of this article, it has broken many 'house records.'

One of the many successful off-the-screen effects. The feathers are clearly projected into theater space.

Filming of the story, which was done entirely in Karala, South-west India, was a new experience for the Karalan production company. Punnoose budgeted more than twice as much on this film as on any of his previous 27 films. This included a fully revolving stage that allows the actors to 'climb walls and walk on ceilings.' Exteriors were filmed with the aid of archaic dollies, push carts, elephants and enthusiastic villagers. The crew waded through rivers to film spectacular 3-D shots with beautiful water foregrounds. Most of the photography was done with a Mitchell NC reflex (Armistead Conversion) and an ARRI II C BNCR mount conversion by John Russell of JAR Enterprises in North Hollywood. The film was shot on Eastman Color, bright exteriors on 5247 stock and evenings or interiors on 5294. High key lighting was used whenever possible to enable maximum depth of field sharpness. Fill light and reflectors were used for good shadow detail. The optics used on this film were the 20mm, 32mm and 50mm focal length, and were supplied in BNCR mount.

Kuttichathen's phenomenal acceptance has borne out the faith and dedication of several enthusiastic industry people working together half way around the world. It was directed by Jijo and the director of photography was Ashok Kumar. Condon, Easaw, Rupkalivis, Jijo and Kumar also knew that the inconsistent 3-D projection quality in the USA had caused problems with audience acceptance. It was decided to put every aspect of 3-D under the direct consultation of dedicated and trained 3-D specialists.

It is ironic that In[illegible] new momen industry which begun in India just might with short keep right on rolling. may have aging new controlled Stereoscopy

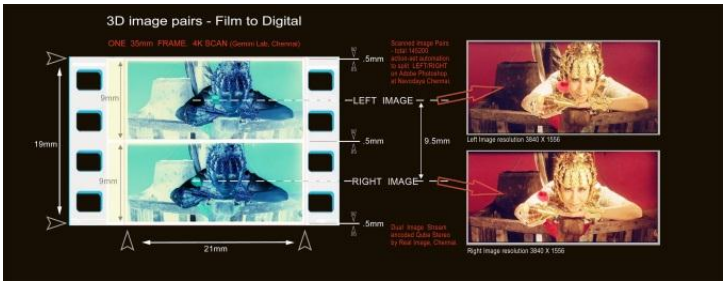
Christopher James is an expert in 3-D cinematography and has worked on the development of 3-D systems.

The **alignment loop**

The **compatibility to intercut**

between the same systems - both good in theory, were not perfect in practical terms. Even on (B&H) film-contact-printers, the frame position with respect to the well-pitched perforations would change by a tiny miniscule from negative to print (or negative to interpos) when copying.

Lab Chief Mr. Sivaraman of Prasad Lab thinks it is because of a minute play in the bi-pack. Unless painstakingly aligned microscopically, a centering change is all the more possible in an Oxberry or HFC optical printer. This has happened to us ... but, it may not matter at all for normal 35mm films. But this is sufficient enough to shift the 'horizontal septum' during an over-and-under 3D film printing - even when you re-frame with the projector's framing knob, the picture on the screen. We used to overcome this by adding 30 secs of SMPTE focus and 3D framing charts (see with left eye/ see with right eye) at the beginning of the starting reel; instead of solely depending on an alignment loop. Printing was invariably done on one printer in the Lab reserved for 3D. Even when intercutting between the negative with a master-negative made from it (two times contact-copied), the centering would be found to have shifted at the cut.



Of course, all these problems for 3D have disappeared with the advent of Digital Filmmaking. Not quite, since there do happen pseudo-3D (left/right image interchange) due to digital screening sans projectionist these days.

***INDEX TWO* A compilation**

Lessons Chris taught me (Jijo).

(copy and paste from webpage **3D Imaging**)

In general, classic photography - the kind you see in films like *The Sound of Music* or those shot by cinematographer *Freddie Young*, is safe for 3D Imaging. Sharp, saturated and well-lit. That was what Chris Condon advised me during my first lesson with him. Let us understand those tried and tested rules of film cinematography before we break them and write new rules in the Digital era.

Image clarity

In 2D cinematography, it is always a DOP's call on how sharp the image ought to be. It is a creative decision as to where the focus should be and how unfocused or blurred other areas need be.

Through years, an industry itself was developed for manufacturing filters so as to selectively diffuse photographic image. Sure, but when shooting 3D ... aah, with apologies to every self-respecting DOP, it is to be stated that all areas and objects in your image should look as sharp as possible ... maximum sharp possible.

Before anybody screams murder, let me make the case.

Unlike 2D Imaging, Stereo Imaging is to fool the viewer's brain so as to what is perceived before his/her eyes seems real. In real life, whenever you try reading in low light, whenever you look hard to distinguish objects during dying sunlight, you tend to get a headache or an eyestrain. Same is the case with 3D.

In real life, when we 'look' at a subject, our eyes would be converging on it ... and, would automatically focus on it. This is instinctual. It would take terrible effort and intense training to focus on one plane while converging on another. But, while viewing a 3D image, the viewer has the freedom to roam eyes all over the X, Y and Z axes and take in information. Hence, in 3D, *everything* upon which the viewer choose to converge eyes on, should also hold focus. This is possible only if everything in the image-pair is in the best possible focus.

In 3D cinematography, how to realise that?

While shooting 3D, focus on the main subject. Then, to increase the depth of focus, use the maximum possible T stop for the lens aperture. (Ideally between 5.6 to 11). Even if there are dark areas in the field, make sure it is lit so that some information, however small, gets registered in the recorded image.

Clarity of an image is associated with 1) image sharpness, 2) image resolution, and also 3) intensity of illumination. The principle behind good 3D imaging is to provide the best possible of the above three during shooting as well as during exhibition.

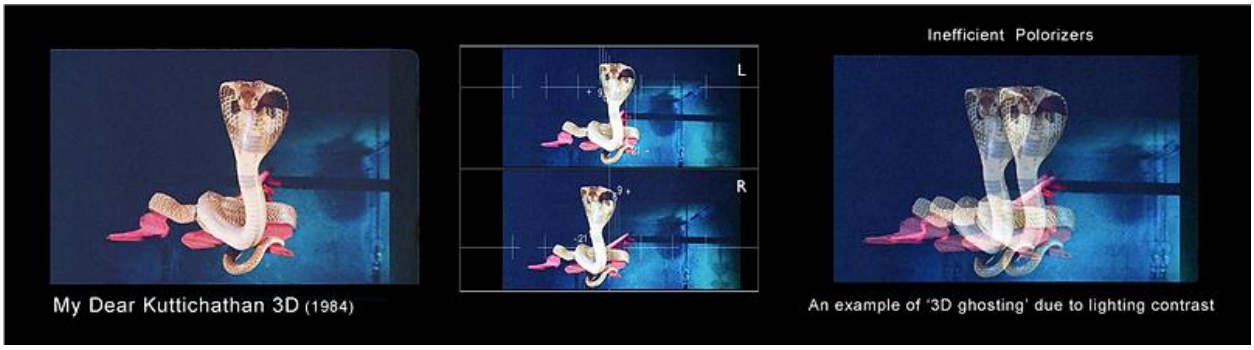
Contrast, Highlight

To have adequate separation between objects and the background, you need to have sufficient contrast. Adequate contrast enhances Three Dimensional depth. Too much contrast, then there is the problem of 'ghosting' at places they overlap. Stereo Imaging has always had the characteristics we associate with the first generation chemical films and the earliest of video tapes - meaning, Low Latitude & High Contrast. This has to do with the limitation of 3D glass filters' polorising efficiency/ shutter speed also.

It is yet to be seen how things improve with technological advancement.

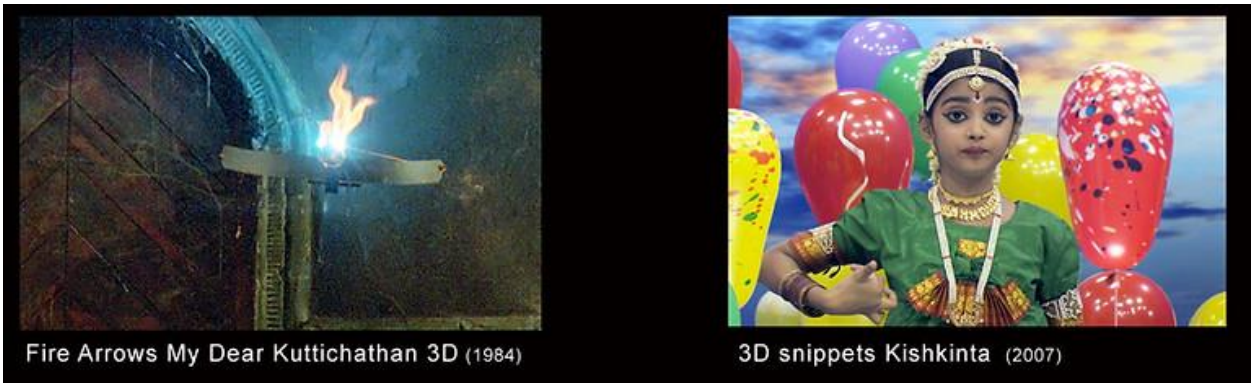
One other factor that can provide separation between an object and the background is highlight. In photography this is achieved with backlight, morning/ evening light in the outdoors and cross-lighting in the indoors. Same with 3D cinematography. Now, 'burning highlight' is sometimes an

artistic rendition in 2D cinematography. But not so in 3D. If highlight is more than 4 T stops above that of the subject lighting, ‘fringing’ or ‘image leak’ occurs.



This fringing, as noted before, would be acute if adjacent areas overlapped by the subject and its highlight happen to be still darker. The further the parallax, the worse the ‘leak’.
To sum up, too much contrast is not good for 3D. This, as said, has to do much with the limited efficiency of poloriser glasses that are bound to start ‘leaking’ when the latitude becomes more than 4 stops.

Color



Warm colors towards the foreground and cooler colors towards the background work well in enhancing depth. It has to do with our associating of blue skies and green trees with far distances. We are also familiar with warm objects - fire for example, nearer to us. It seems that while our brain evolved, nature had imprinted in it the Rayleigh scattering of light spectrum - by which, distant objects seem blueish. Whatever so, ... it is my personal experience that warmer objects (red ball, fire arrow) seem to come out more ‘off the screen’ into auditorium space than cooler objects. Creating separation with contrasting colors work well in 3D. Costume, flowers, balloons, lights ... you name it. Yet, too much contrast between adjacent colors can cause ‘fringing’. It is good to be ‘gaudy’ and colorful for 3D’s sake. But again, aesthetics is something else.

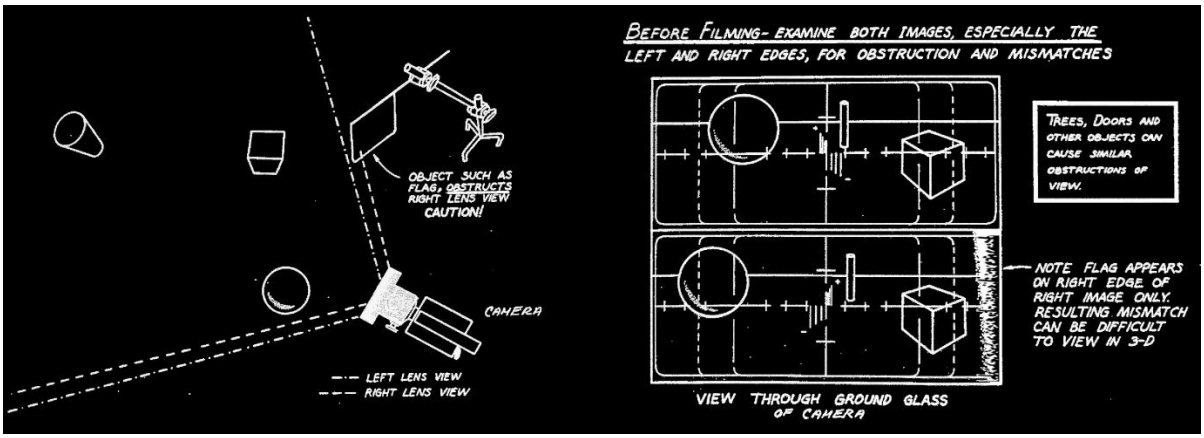
Texture, Smoothness, specular-highlights, etc.

It is always ideal to have textured surfaces on 3D. On a textured surface, with the incident light playing different shades on it, the surface and hence its plane gets better defined to our eyes. This is good for 3D. A detail-less surface (such as a white plain wall or a smooth metallic surface) when composed with a subject, may look artistic in 2D. But if seen in 3D, the same would leave our brain wondering "what is happening there?" So it has been our practice to make the artdirectors shoot

textured/ smooth surfaces of their choice and see for themselves how they look in 3D. The artdirectors would invariably select dress, props, artifacts, backgrounds with maximum textural/ design details on them. (An example - For the cellar scenes in our 3D films, we had the background walls covered with flaking masonry, mossy growths, cracks and creases. The floorings were either beveled wooden planks or textured terracotta tiles). There have been notable exceptions; but it is better to do some tests before you land up in serious trouble.
3D silver screens are never 100% perfect. Large, smooth, plain areas in your 3D images sometimes reveal the deformities of the theater screen.

When shooting 3D at actual locations, it has been a practice for our art department to diffuse with matte-sprays the specular-highlights on objects (like glassware) and light-glares from metallic surfaces (like car chromium). The reason is that "No specular-reflection or light-glare shall present itself uniformly to both your eyes". In 3D photography this would cause 'anomaly', and hence is bad for 3D (as explained later). Do you plan to have translucent glasses in the foreground and mirror mazes in the background for your 3D scene? Sure, go ahead!! Such layers would add depth to 3D fantastically. Just make sure to avoid glares and diffused reflections from such props.

ANOMALOUS IMAGES



There is a whole section in Condon's Stereovision manual about eyestrain caused by anomalous objects. When shooting 3D and also while screening 3D, headache can happen to the audience due to image shading.

All of the above were drilled into me by Chris during our first 2 training sessions. I have found only minor variations to these even with the advent of **Digital Cinematography and 3D Imaging**. Digital Projection Technology after 2010 has improved many complex situations at the projection front by doing away with much image shading on the projection lens and image spillover on the screen. Still, what Chris told (and what we had practiced) in the auditorium halls by physically masking the screen to define the 'stereo window' is even valid today in the digital era, but rarely followed due to 'make-life-easy' for the cinema management. For that matter, with Digital Projections sans an operator and doing away with 3D alignment charts, today disasters do happen. Left/ Right image interchanges (pseudo 3D) do occasionally occur when 'the content recognizing algorithm' misread a 3D DCP file.

3D INTERNATIONAL
P.B. No. 3102, COCHIN 682 030 • TEL.. 855034, 84597

8th Dec 1984

Mr. Thomas J Easaw,
P.O. Box No. 24676,
Denver, Colorado 80224 (USA).

Dear Tom:

This is to clarify some aspects of promoting and marketing Stereovision shooting lenses in the country. I would like to point out some ethical and technical problems involved which are formidable than the financial problems we had anticipated.

True, our picture has generated a landslide of enthusiasm towards 3D among film makers in the country. (Mostly in South India. By the time we release in Bombay, the fever will spread to the North also). But, not even a single sensible film maker has approached us with a true interest for 3D production. Almost everybody has announced future 3D productions and everyone of them who come knocking at our doors are coming prepared to pack and take the '3D lens' with them to start shooting in the next couple of hours! It is completely beyond them to understand the technical complexities and rules involved in the 3D production and projection. None of them needs the assistance of a Stereo Consultant. In fact, we are in turn adviced that it is a waste of money and effort.

How in the world the people got so wise about 3D making? It comes from Arrivision 3D system. It is announced that their calibrated lens system are so easy that it can be operated by a child. They have defined 3D film making as similar to cinemascope film making. For cinemascope, you put on anamorphic lens to shoot and project. In 3D, you employ 3D lens. It is as easy as that. Any Camera assistant can do it!! This knowledge is the doctrine of film makers who are rushing in to cash the interest generated by 3D. They

.....2

3D INTERNATIONAL
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are not interested in the outcome. You know, as per the business set up here, anybody who 'announces' 3D production starts 'selling' individual territories to various distrioutors and raise money bef re actual shooting commences. They do not have the responsibility to assure the quality of the product when finished.

And as per the current going, any 3D is good business. Regardless it is Sterevision or Arrivision. But, Arrivision has the advantage of being simple because it dosen't need a 'costly Stereographer' or 'unnecessary experience'. Also it is currently available in the market with hire charges coming to 200 thousand Indian ruppees for a complete picture (whole set of lens) and money being accepted in Indian currency. This is true. I have checked it out. Nobody has seen Arrivision 3D so far; but as noted, any 3D is good. Since Stereovision is this good, Arrivision is twice better (announced by one 'Shiva Ka Insaaf' 3D personal). And who cares about quality at this stage. Anybody who makers 3D fast, sells it fast!!

The writing on the wall is up about the future of 3D in India. It is the same as the 1950's history in the United States for 3D.

Now tell us what policy to adopt in this mad rush. Do we aplaud th Arrivision policy and join the crowd for some fast bucks or do we wait till the 1st Arrivision product is out? Whatever be the decision, for those among us who still go and toil at each and every theatre to bring out the best 3D screening, it is sorrowful to see the gift of the extra dimension being mutilated.

With regards!

JIJO

c.c: Chris Condon, Stereovision.

PIONEERS OF 3D IN INDIA
BRANCH OFFICE: 14, RAJACHAR STREET, T. NAGAR, MADRAS-600 017, TEL.. 445545

award for the best children's film

MY DEAR KUTTICHATHAN

Swarna Kamal and a cash prize of Rs. 30,000 to the Producer, M.C. Punnoose.
Swarna Kamal and a cash prize of Rs. 15,000 to the Director, Jijo.

citation The award for the Best Children's Film of 1984 is given to the Malayalam Film 'MY DEAR KUTTICHATHAN' for "the delightful presentation of an entertaining fantasy tale in a three-dimensional visual treat."

After his studies M.C. Punnoose alias Appachan joined his elder brother Kunchacko to set up Kerala's first film studio UDAYA in Alleppy. For thirty years, Appachan assisted his brother in the production of 80 Malayalam feature films. In 1977, after the death of his brother, Appachan started NAVODAYA. He made the first cinemascope film in Malayalam THACHOLI AMBU.

Appachan has earned the distinction of producing India's first 3-dimensional film MY DEAR KUTTICHATHAN, which was dubbed into other Indian languages including Hindi.

Twenty-eight year old Jijo began his directorial career with PADAYOTTAM which was a 70-MM film completely indigineously processed. This is his second film.

CINEMA

KERALA

A Third Dimension

INDIAN cinema seems poised for a great leap forward—straight off the screen. The three-dimensional (3-D) film is the latest gimmick adopted by an intrepid film maker from the deep south. If his venture —scheduled for release in July—succeeds, it might well snowball into the latest "craze" in the billion rupee film industry, besieged by what it calls the "video threat".

Hello, My Dear Kuttichathen is the rather unlikely title of the film which producer Appachen hopes will usher the 3-D age into India. He is not alone. Also fervently hoping for a "3-D boom" in the world's largest film industry are the American promoters of 3-D equipment. David Schmier of Stereovision (the company which provided Appachen the 3-D hardware) says: "The 3-D boom has gone bust in Hollywood and we were left with thousands of our lenses which cannot be used for conventional cinema. So we hope, with a 3-D boom in India, we will be able to cash in on it."

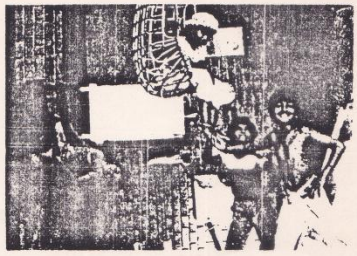
Whether or not the lucre does flow will depend on how effectively the illusion is created. For illusion it is: two separate images are projected in synchrony on a screen coated with silver paint. Viewed through polarising glasses, the synchronised double image appears to have depth and characters seem to come right out into the theatre.

Hollywood first used 3-D in the '50s in such famous productions as *House of Wax* and Hitchcock's *Dial M for Murder*. Those were the days when Hollywood's studio system was in flux. The new electronic wonder—television—had put paid to multistarrer epics which depended on their "reruns" for the major chunk of their revenue.

So the denizens of tinsel town burrowed into their bags of tricks and one of the jackrabbits they came up with was 3-D. However, as a film buff puts it: "The greatest thing about 3-D films is 3-D itself but the novelty soon wears off." Unlike 70mm film, stereophonic sound and other such innovations of the time, 3-D did not last.

However, unwilling to give up easily, Hollywood tried to revive the technique for a new generation of cinegoers a couple of years ago. *Friday the 13th—Part III*, *Parasite* and *Metalstone* led up to the somewhat obviously titled *Jaws 3-D*, which was moderately successful last summer. But before the year was out, the spirit of 3-D had been laid to rest a second time—in Hollywood, at any rate.

In Kerala, it's just about ready for



Kuttichathen and friends on a revolving set (top) and Schmier with Appachen

launch. Appachen and his sons have been planning *Hello, My Dear Kuttichathen* for three years now. They spent last year virtually shuttling between Cochin and Los Angeles. Says Appachen: "We have imported the latest Hollywood equipment which manages the 3-D effect with a single lens attachment and people who saw the film say that they did not get nausea or headache." That is crucial, for headaches have been a potent factor in 3-D's past failures.

Of six available 3-D systems, Appachen chose the Stereovision system because, as his 27-year-old son Jijo Appachen—the film's director—says: "It was found to be the most successful system in Hollywood." Appachen has imported a dozen single lens attachments, each at a cost of Rs 25,000, for the projectors and Stereovision has undertaken the training of the projector operators.

Conventional white screens in theatres will be sprayed with special aluminised paint. The film's promoters say they will give audiences cardboard mounted polaroid glasses which, as a precaution against eye infection, will be sterilised after each show.

Kuttichathen promises to be a fun thriller. Stereovision's Schmier, who supervised the five months of shooting, claims that "the 3-D effects of *Kuttichathen* are as good as any 3-D movie made recently in Hollywood". The 90 minutes of the film are punctuated about every six minutes—by special 3-D effects.

For instance, a toy helicopter roars toward the audience, a blast of fire from Kuttichathen's magic flute seems sure to scorch those in the lower stalls and an ice cream thrown by him heads straight for the viewer's eye. The latter half of the film was inspired by Spielberg's *ET*.

Kuttichathen is an impish sprite from Malayalee folklore portrayed in the film as somewhat like Casper, the friendly ghost. An evil magician conjures Kuttichathen to help find some lost treasure. The spirit appears as a boy, but escapes the magician's thrall to join a gang of kids.

In a rare departure from convention, the film has no heroine. The leading roles are played by national award-winning child stars, masters Aravind and Suresh. Appachen has also roped in one of Bombay's top models, Dilip Tahil, possibly with an eye to Hindi audiences—the film is to be immediately dubbed in Hindi and all south Indian languages if the Malayalam version succeeds at the box-office.

Of success, the promoters are confident. Says Schmier: "The novelty of 3-D and the universal appeal of kids is bound to make it a sure seller." No doubt, true. But will 3-D become a trend, even a craze, in the ever more spectacular business of conjuring mass consumption dreams? That is the question.

—SREEDHAR PILLAI

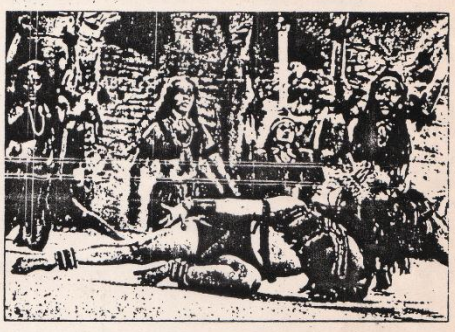
3-D FILMS

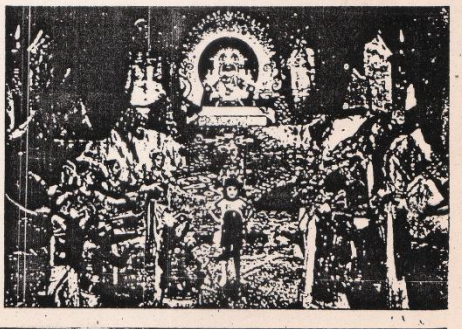
The Gold Rush

THERE'S a new superstar in the south: Arrivision, the 3-D camera system. Not since colour revolutionised the cinema scene in the '70s has there been so much excitement in the dream factories of Madras. The third dimension—whose significance producers are only just realising—is worth at least several crores. For the first time the dream merchants are running not after top heroes or heroines, but after Arrivision. As the top Malayalam star Prem Nazir put it: "The 3-D boom in the south is like the California gold rush. Every 3-D producer is saying that if Appachen can make 10 crore out of nothing, I will make at least a crore."

Appachen is really the man who turned everything in Madras' conventional film world upside down with a little film that turned big: *My Dear Kuttichathen*. Originally made in Malayalam, *Kuttichathen* was later dubbed into Tamil, Telugu and into Hindi, as *Chhota Chetan*. It went on to become the mega-success of the decade and perhaps of all time. Appachen, its producer and the bringer of 3-D into India is expected to rake in a cool Rs 10 crore and more by the end of the year.

Few outside the film industry realise the magnitude of what is happening. In the last four years, there have been only 16 such films made in the world—mostly Hollywood—but in the last two months alone, a dozen 3-D films have been announced in Madras and three have already reached completion stage. Dejected producers have found a glittering new weapon to beat the video, which in the past few years has quietly stolen many avid cinema-goers. The only snag in the boom is the shortage of 3-D cameras. Arrivision is the new hero and Arrivision is hard to get. Romu Sippy, the first to make a Hindi 3-D film, *Shiva Ka Insaaf*, used Arrivision and the results are reported to be mind-boggling and according to experts, better than Stereovision that Appachen used for *Kuttichathen*. Said *Kuttichathen* cameraman Ashok Kumar: "The 3-D off-screen effects in the Arrivision system are more sharp than Stereovision and above all the Arrivision system is more sophisticated and yet simpler to use than Stereovision." For *Shiva*, Sippy imported three





(From top) Kranti Kumar, a scene from *Shoo Mantra Kali* and a scene from *Sagar*: dazzling effects

Arrivision 3-D cameras at a staggering cost of Rs 20 lakh each.

After *Shiva* was completed, Sippy sent two of them to Madras. These cameras have now become the hottest property of the south. Ramesh Prasad, son of the legendary L.V. Prasad, is their local guardian there. Said he: "As long as the 3-D boom lasts, the Arrivision 3-D cameras are the real heroes. The two cameras that Romu Sippy has entrusted me with are booked till the end of 1986." They are being rented out at an astronomical sum of Rs 10,000 per camera per eight-hour shift and still the producers are queuing up. Gone are the days of the fastidious heroes and heroines, producers have no time for them. Said Dandayuthapani, producer of the Tamil 3-D film *Annai Bhoomi* and son of the late Chinnappa Devar: "3-D is currently the biggest superstar who gives you no hassles and worries and assures you of a super hit." In fact Dandayuthapani dropped his regular hero Rajanikant from his 3-D venture and replaced him with Vijaykanth—the poor man's Rajanikant—because Rajanikant could not adjust his dates with those of the Arrivision camera.

The producers who have access to the priceless cameras at the moment are in a neurotic rush to beat each other to the box-office. Each film project is shrouded in the deepest secrecy. Ashok Kumar is now working in a Telugu 3-D blockbuster *Shoo Mantra Kali* supposed to be a mix of fantasy and magic and inspired by half-a-dozen English films including *Metal Storm*, *King Kong* and *The Blue Lagoon*. The highlights include sizzling 3-D dance sequences by Silky-Smitha. Said he: "The gimmicks will keep the audience glued to their seats."

Sagar is another 3-D film being made in Telugu. Its claim to fame is that it is "India's first underwater 3-D film shot in USA". The story is about a young boy afflicted with cancer wondering whether he will go to heaven or hell. Said producer Kranti Kumar: "In heaven we will show 3-D effects like flowers and classical dances while in hell we get an opportunity to frighten the audience with skeletons, skulls, flames and other terrifying things." His trump card, however, is the American 3-D documentary called *Sea Dreams* which he has incorporated into *Sagar* and which he promises will give the audience a real "3-D treat". The third 3-D film in the race in Devar Films' *Annai Bhoomi* which is being made simultaneously in Tamil and Kannada. It will have nearly 45 special effects.

But there is more hot news on the 3-D

APPACHEN

Midas Touch

FROM the dizzy heights where he sits now, the world can only look good to Appachen, the 57-year-old creator of *My Dear Kuttichathen*. This one 3-dimensional film alone has catapulted the relatively unknown Appachen right past the Manmohan Desais and Prakash Mehras of the Bombay film world. The top distributors today want only Appachen and almost everyone in the film industry is heralding him as one of the greatest producers of all time.

Appachen

Appachen — whose real name is M.C. Punnoose—and his films are rapidly moving on to create Indian motion picture history. *Kuttichathen* was originally made in Malayalam at a cost of Rs 35 lakh. The inspiration behind the film, really, was Appachen's eldest son Jijo who saw a number of 3-D films in Hollywood and wanted to make one at home. Appachen was very reluctant to take the risk initially, he thought he would lose everything he had. But Jijo had faith in the film and Appachen had faith in Jijo. Before taking the plunge, however, Jijo spent a year in Los Angeles studying the Stereovision system. Both father and son decided that it was better than Arrivision despite the fact that Stereovision hires out its equipment only with its own technicians. Appachen brought to India three cameras and three technicians and spent a year shooting his film. Said he: "I am sure these new 3-D quickies shot in Arrivision won't give the same off-the-screen impact."

But how did this man from Alleppey edge past almost every established film maker in Bombay to make one of the top money-spinners of all time? Said Prem Nazir, a close associate of Appachen: "I have been seeing this man for the last 35 years. Not only does he know the pulse of the audience but also all aspects of popular cinema." He started as production controller to his elder brother Kunchacko, the owner of the first film studio in Kerala—Udaya Studios at Alleppey. Together they made 82 films, from 1948 to 1975, before they split. In 1976, Appachen decided to branch out on his own and started his own production company—Navodaya.

Everything he touched turned to gold. Appachen's greatest strength always has been his innovative ability. He became the first producer in Kerala to make a cinemascope film *Thacholi Ambu*. It resulted in a cinemascope boom. In 1980, he produced *Manjil Virinju Pookal*, a sentimental love story with newcomers made at a cost of Rs 7 lakh. It went on to gross over Rs 1 crore in Kerala.

Two years ago, still setting trends, Appachen made *Padayottam*, south India's first 70 mm film. It was his only flop in the last eight years. Last year he made a low budget film *Ente Mamatti Kuttiamma* starring a five-year-old girl—baby Shalini. The film became a super hit and baby Shalini is today the highest paid child artiste in India.

But they say behind every successful man there is a woman. In Appachen's case it's his wife Baby who looks after all his production details. The rest of the family also gives him complete support. Jijo, looks after most technical aspects of film production. The younger son, Jose, 25, is a chartered accountant whose worries are increasing with the film's success. "It is going to create tax problems for me." laughs Appachen.

Now that he's made his millions, what does he plan to do? Well, for a start, Appachen is planning to create an amusement park akin to Disneyland at his 75-acre Navodaya Studios at Trikakara, about 15 km from Cochin. Moreover, if the 3-D sensation continues, Appachen plans to do a sequel to *Kuttichathen*. When asked the secret of his success, his wife Baby said: "We are originally farmers from Kuttanad, the one-time rice bowl of Kerala where the rice cultivation is under water. There is always an element of risk involved in this cultivation which may be washed away if the bunds get damaged. The risk element is in our blood." Appachen has always had the courage to take those risks and they have also always paid off.

—SREEDHAR PILLAI in Cochin

3-D in India

by Christopher James

India produces more feature films than any other country. Indeed the State of Madras alone, with a yearly output of approximately 450 films, out-produces even the U.S.A. Yet this populous Asian nation had never produced a stereoscopic motion picture until August 1984, when its first full-length 3-D motion picture, *Kuttichathen*, was released, and became India's number one grossing film by January 1985.

This event was the fulfillment of a 20-year dream for industrial film producer Thomas Easaw, formerly of Karala, India, now residing in Denver, Colorado. A graduate of Denver University with a master's degree in communications, he spent the past 20 years in exhaustive research and preparation, including experimenting with stereo still photography and studying books on stereo cinematography. He found Lenny Lipton's "Foundations of the Stereoscopic Cinema" (Van Nostrand Reinhold, 1982) very helpful. Easaw made it a point to see every "depth movie" that was shown in or near Denver, including *Parasite*, and was greatly impressed with the 3-D effects of that film.

Easaw trained with Chris Condon, president of Stereovision, in the use of their 3-D camera lens system. Condon was then on location in Florida consulting on the filming of *Jaws 3-D*. After receiving persistent long-distance telephone calls, he agreed to meet with the aspiring young Colorado filmmaker upon his return to Burbank, California. Together they discussed the logistics and technology of the proposed India 3-D project.

Simultaneously, Mr. Apachen, chief executive of Navodaya Studios, India was in touch with Stereovision regarding the possibility of such a project. What was needed, however, was someone who could coordinate all 3-D aspects of the film requiring close liaison with Stereovision in Burbank, California. Thus Easaw became executive producer of *Kuttichathen*.

Easaw then went to Hollywood to receive practical training in the use of the Stereovision system. There he met with David Schmier, cameraman on *Parasite* and *Metalstorm*, both filmed in Stereovision. Schmier had received valuable 3-D experience under director of photography Mac Ahlberg. Ahlberg had studied 3-D extensively and had photographed the first 3-D film made in Sweden back in 1972. Ahlberg's medium budget *Metalstorm* was rated by critics as having "... the best 3-D effects of all the recent films," including some from major studios.

3-D off-the-screen effect for Kuttichathen, the "floating beer tray." Left. Filming in 3-D with 20mm lens at water level. Jojo in white hood. 3-D advisor David Schmier at right.

Schmier agreed to go to India to serve as 3-D consultant and to further train Easaw. Before his departure, John Rupkalvis, 3-D effects consultant on *Metalstorm*, and Condon made sure that Easaw and Schmier received additional training with the latest Stereovision system.

Produced entirely in Stereovision, *Kuttichathen* has become a big hit, perhaps because of a combination of fortuitous events, talent and intelligent planning. In addition to the novel attractiveness to Indian audiences of seeing an Indian movie with three dimensions for the first time, the producer, Jose Punnoose of Novadaya Productions, chose an excellent children's story to show off the impact of 3-D. *Kuttichathen* means poltergeist, and 3-D effects are used extensively to show all the wondrous powers of the "friendly ghost." Critics in India acclaim the consistent use of the stereoscopic "off the screen" process. All age groups are flocking to see it. Playing to full houses in over 40 cities at the date of this article, it has broken many "house records."

Filming of the story, which was done entirely in Karala, Southwest India, was a new experience for the Karalan production company. Punnoose budgeted more than twice as much on this film as on any of his previous 27 films. This included a fully revolving stage that allows the actors to "climb walls and walk on ceilings." Exteriors were filmed with the aid of archaic dollies, push carts, elephants, and enthusiastic villagers. The crew waded through rivers to film spectacular 3-D shots with beautiful water foregrounds. Most of the photography was done with a Mitchell NC reflex (Armistead Conversion) and an ARRI II C BNCR mount conversion by John Russell of JAR Enterprises in North Hollywood. The film was shot on Eastman Color, bright exteriors on 5247 stock and evenings or interiors on 5294. High key lighting was used whenever possible to enable maximum depth of field sharpness. Fill light and reflectors were used for good shadow detail. The optics used on this film were the 20mm, 32mm, and 50mm focal length, and were supplied in BNCR mount.

Nearly all pictures filmed in India are filmed M.O.S. (without sound). This is because looping in several languages is required in order to accommodate the many language groups of India. This posed no problem for the 3-D photography which proceeded rapidly and was completed on schedule.

Kuttichathen's phenomenal acceptance has borne out the faith and dedication of several enthusiastic industry people working together half way around the world. It was directed by Jijo and the director of photography was Ashok Kumar. Condon, Easaw, Rupkalvis, Jijo, and Kumar also knew that the inconsistent 3-D projection quality in the U.S.A. had caused problems with audience acceptance. It was decided to put every aspect of 3-D under the direct consultation of dedicated and trained 3-D specialists. This training extended to the camera crews, lab technicians, and even to the projectionists in remote villages. The comparatively small extra production and projection cost was more than made up for in better audience satisfaction. Meticulous 3-D projection quality of *Kuttichaten* by projectionists trained by Stereovision and supervised by Easaw's Stereoptics, Ltd., of Madras, had a lot to do with its success.

It is ironic that India's film industry, which often is identified with shortcomings in technology, may have started off an encouraging new boom with better controlled 3-D than the U.S.A. Stereoscopy is an enhancement of motion pictures, just as sound, color, and big screen format are enhancements. It deserves a chance to prove what it can do for top of the line stories, actors, directors, special effects, choreography, photography, and realistic budgeting. If all of these elements could be brought together in really state-of-the-art 3-D, the new momentum begun in India just might keep right on rolling. ■

Christopher James is an expert in 3-D cinematography and has worked on the development of 3-D systems.

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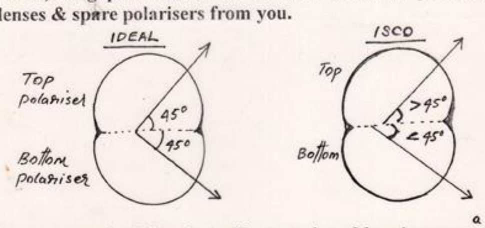

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In case you supply polarisers to Mr.Jose and Mr. Ayyakkannu, kindly see that you select polariser stock that are free from this alignment problem.

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