

INDIA'S FOREMOST MAGAZINE ON THE LIGHTING INDUSTRY

Lighting India

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The New York Times

Lighting New York Times Building



**CLTC Study
Demonstrates Major
Energy Savings for
Bilevel Occupancy
Sensors**
- Craig Dilouie



**Lighting for
Jewellery
Segment**
- Ar. Behzad Kharas



**Lighting System
for Tree Lined
Roads**
- Ashok Kumar
Mukerjee



**An Artist's
Approach
to Light**
- Ellis D Fogg



A Chary Publication



Publisher's Notes . .

Hello and welcome once again to Lighting India. Given the current economic conditions, the Indian industry had expected much broader initiatives from the current Government. But, as of now, the Union Budget 2009-10 failed to boost up the industry as a whole. The entire country was expecting that the public sector will spend more on infrastructural developments, which in turn would have made a larger impact on related industries.

But something is always better than nothing!! Budgetary allocation under Accelerated Power Development and Reform Programme (APDRP) has been increased by a huge 160 percent to Rs.2080 crore for 2009-10. The Government's concern over rural electrification has also been reflected in the budget. Under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), allocation towards rural electrification has been increased by 27 percent to Rs.7000 crore. It is obvious that, lighting will be a top priority in these development programmes. So, during this devastating slowdown, lighting industry will have opportunities to make profit out of it!! Also lighting designers, involved in providing energy-efficient and cost-effective lighting system will certainly capitalize on these prospects.

In this issue we have come with varieties of lighting design projects to enlighten on related aspects of lighting. It needs no mentioning that, by now Lighting India has been able to prove its metal internationally. Renowned professionals from other parts of the World are writing for our magazine regularly. In the previous issue Australia's most innovative Lumino Kinetic artist, Ellis D Fogg shared his precious tips on lighting. In this issue too Fogg continues to write about his approach to LIGHT and goes back to basics to talk about FIRE and the first STROBE and points out the value of the Surreal, Psychedelic and Heritage Lighting.

The cover story highlights emergence of New York Times Building in Manhattan as another nocturnal landmark in the form of a new skyscraper. This story of 'lightness and transparency' designed for exacting technical performance gives insight into the efficient illumination of the renowned structure. I hope you enjoy this issue as much as we have in bringing it to you. Do send us your views on miyer@charypublications.in.

Mahadevan

Mahadevan Iyer
Editor & Publisher



Under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), allocation towards rural electrification has been increased by 27 percent to Rs.7000 crore. It is obvious that, lighting will be a top priority in these development programmes.

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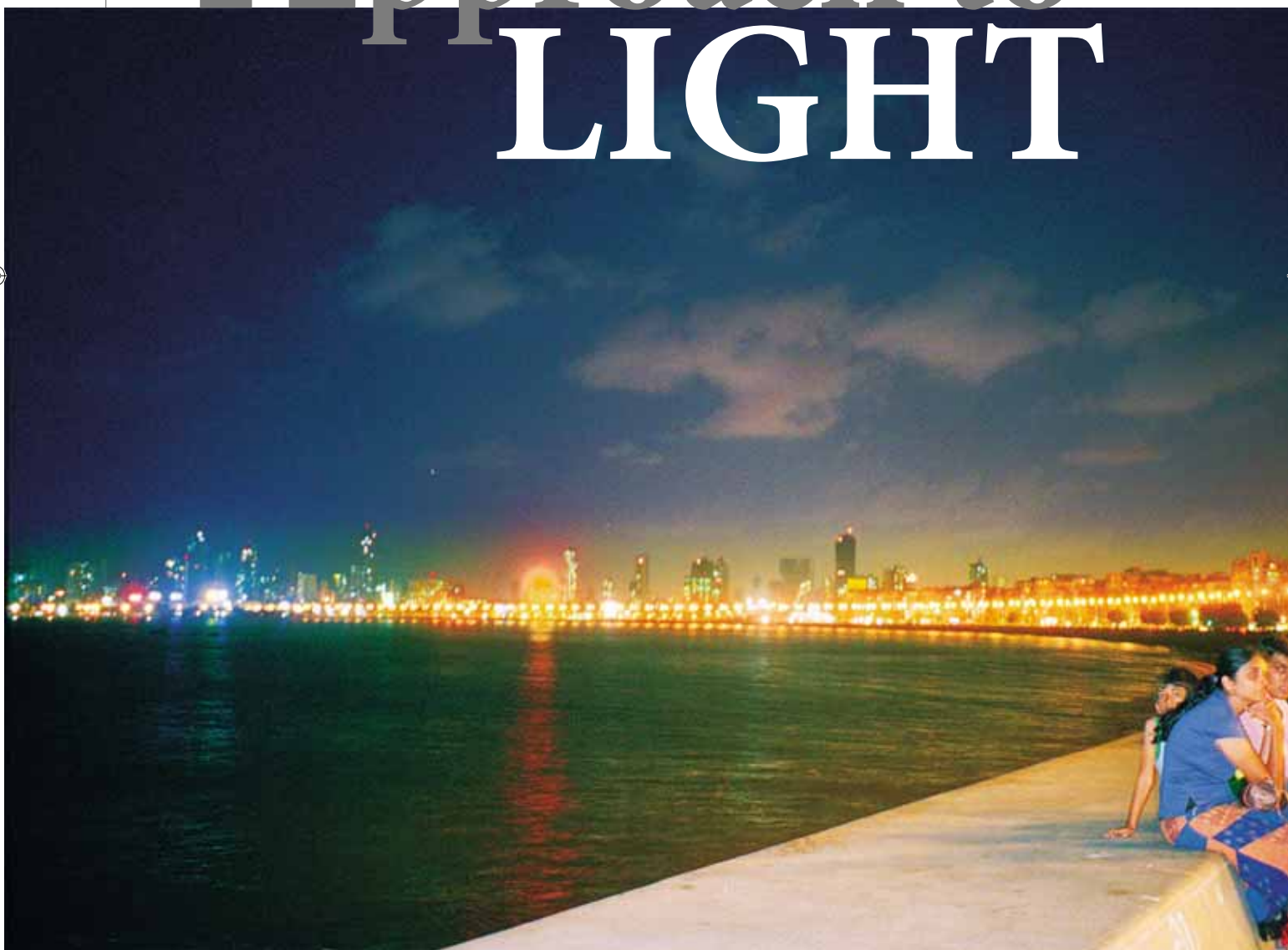
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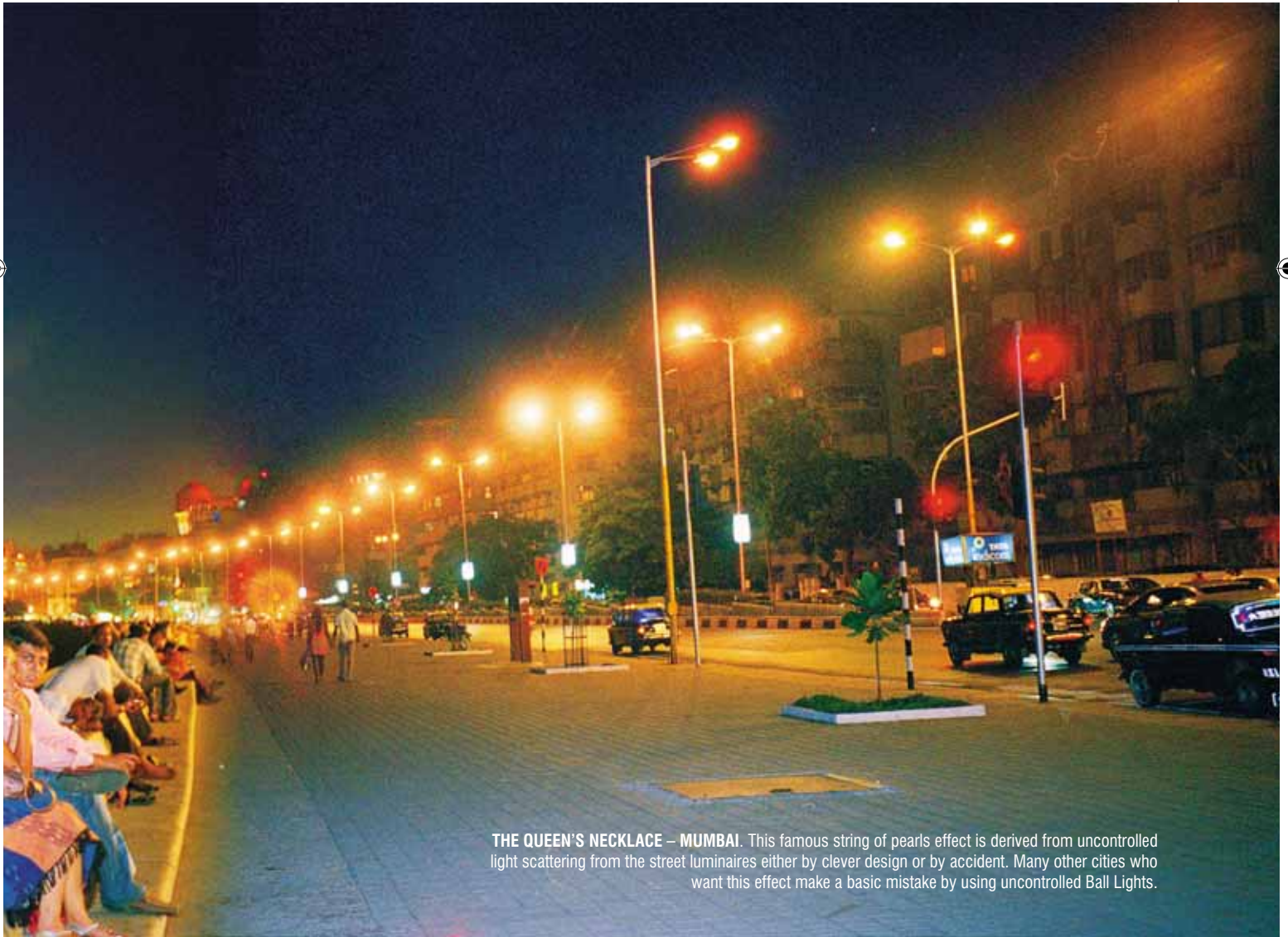
an artist's Approach to LIGHT





Approach to Light

Ellis D Fogg continues to write about an artists approach to LIGHT and goes back to basics to talk about FIRE and the first STROBE and points out the value of the Surreal, Psychedelic and Heritage Lighting.



THE QUEEN'S NECKLACE – MUMBAI. This famous string of pearls effect is derived from uncontrolled light scattering from the street luminaires either by clever design or by accident. Many other cities who want this effect make a basic mistake by using uncontrolled Ball Lights.



Moving Light Sculpture For Parades

In my last article I mentioned some Light Sculpture and Lumino Kinetic Artwork that were very successful as stationary work. I would like to continue by mentioning two works that were very successful in recent illuminated parades. Both of the sculptures utilised expressionist rainbows made from LEDs.

The RAINBOW FREEDOM FLOAT for the Sydney Gay and Lesbian Mardi Gras in March 2009. Begun in 1978 as part of the Australian gay rights movement it is now the largest night-time illuminated parade in the world and includes uniformed marching groups from the Police Force, Olympic athletes, the Mayor of Sydney and groups from many oppressed nations. The parade is not restricted to Gay people and uses satire and humour to promote the rights and freedoms of all people (Fig 1).

The second example is our work for the HARBOUR OF LIGHT PARADE on Sydney Harbour, New Years Eve 2008. Again using a rainbow made from LEDs over two boats to include Australian Aboriginal people whose major creation belief includes the Rainbow Serpent (Fig 2).

Psychedelic Art

My friends and I, were responsible for the first 60s Psychedelic Lightshows in Australia. The word



Fig 1: GLBT MARDI GRAS PARADE, Sydney, 2009, Rainbow Freedom Float, Lumino Kinetic Sculpture built on a truck. D&C by Roger Foley-Fogg. This is the largest outdoor, illuminated night-time parade in the world with over 150 parade floats and many different lighting techniques. Photo Wendy Shaw

Psychedelic was first used by Aldous Huxley in a letter to Humphrey Osmond in 1956 and means - mind enriching and expanding ones knowledge and awareness.

We borrowed freely from India's colourful Gods and religious iconography such as Rangolis and Mandalas which we animated and morphed using hand made projectors and Wetshows - these are made from clock glasses of differing radii containing coloured and clear liquids manipulated by hand to explode from the center on an overhead

projector stage (Fig 3). We have also used brightly coloured lights in surreal ways with live performances by rock bands, jazz and symphony orchestras - words, music and dance - and fogg! to stimulate the minds of the audience to concentrated on the universal brotherhood of man.

My friends and I felt that these shows would facilitate a concentration of Love and Positivity would have a multiplying effect and spread like Rupert Sheldrake's morphic fields to make good things happen. We believed in



Fig 2: HARBOUR OF LIGHT PARADE, Sydney, 2008, Rainbow Showboats, Lumino Kinetic Sculpture on paddle steamers for New Years Eve by Roger Foley-Fogg, Photo John Morris

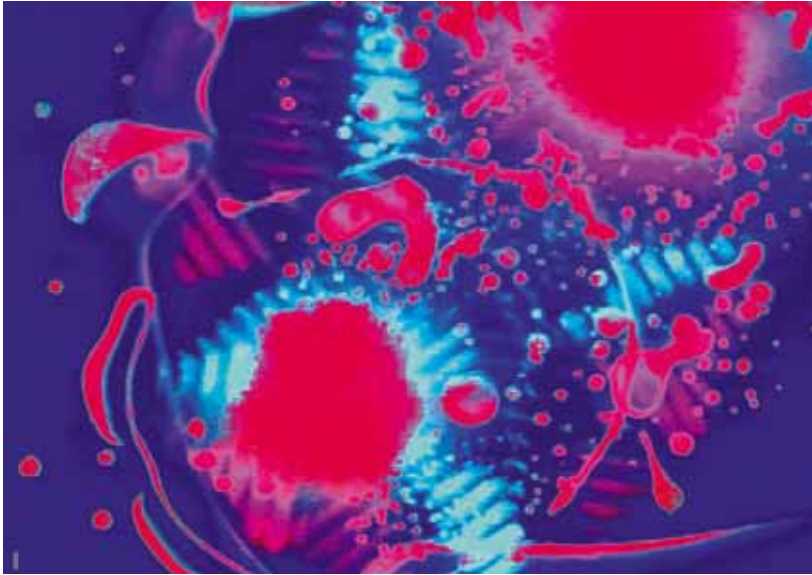


Fig 3: **PSYCHEDELIC WETSHOW** this is one instant from a fast moving show for early Psychedelic Lightshows in Australia. Four Artists control three projectors and coloured lights by hand. The imagery explodes from the center. By Eddie van der Madden and others.

the Quantum world and in Many Universes, one of which was a Paradise to which with strong will and correct thinking we could steer the planet and that perhaps like Charles Darwin's evolution this is how the world is created. How God does it. I have no problem with Evolution vs. Faith. Like the wave and the particle they are both essential, the science is irrefutable and so is the faith, anyone who has been in love can tell you that faith in the numinous and a positive attitude is its own reward, and is good for your health.

I feel I have to apologise to India for what these Lightshows have sometimes become... such as the goings on in Goa. Sorry about that. However I am rewarded every now and then when I meet an amazing wise young person or something extraordinary happens like recent elections in the USA, India and Australia. My lesson from the 60s is when you think you have won - don't relax - for freedom is a constant fight.

Surrealism In The Rocks, Sydney

Surrealism from the 1920s also had an educational purpose. The surprise and delighted shock of seeing something out of the ordinary and at the same time recognisable, stimulates the brain and makes you think. That was the purpose of post war Surrealism and of the 60s Psychedelic movement.

It still works today. For example the Christmas tree of chairs and lights in The Rocks, Sydney, designed and constructed last year by Greg Clarke

and his team from Sydney Harbour Foreshore Authority made people stop, smile and think about the meaning of Christmas (Fig 4).

I was part of the student and union movement of the 60s and 70s to save this historic area and was later engaged to produce a lighting master plan that required a trip to Paris as the French are the best at Heritage Lighting. I recommended that the whole Rocks precinct be illuminated as if it was on an opera theatre stage and drew rough schematics showing how to do it, with subtle tinted lights delineating the natural features of sandstone, rock and greenery contrasted by carefully placed Light Sculpture that followed and counter



Fig 4: **SURREAL ILLUMINATED XMAS TREE**, The Rocks, Sydney, 2008, by the events design team at SHFA. Surreal and psychedelic techniques increase awareness and make communicating a message more effective when they are done well.



Fig 5: **SHERATON MIRAGE HOTEL** – The Gold Coast, Queensland, Australia. Utilising highly controlled and baffled light reflected from the trees and architecture to produce a soft warm glow then low powered pea lights added for romance. Lighting and photo by Roger Foley – Fogg. Architect: Desmond Brooks.

pointed an historic theme. The technology has changed over the years but not the art.

A reader has sent me a cutting from the Mumbai Mirror of May 20, which states that as part of its initiatives to implement the National Policy for Urban Street Vendors, the government of Maharashtra will

offer additional floor space index to builders who accommodate street vendors in their projects. They are rewarding building owners for retaining the Life of the City a vital first move toward the protection of the Character of Place. Your Heritage. Bravo!

shows. It is not the same.

I have previously mentioned the big mistake of allowing light to enter the eye of the viewer. I will now advise that Sandstone is not best illuminated by Yellow light as sandstone, when you look closely, contains many other colours. As part of my work for The Rocks I engaged a crew to test different lighting schemes on the sandstone over several nights and found that the best was warm tinted light from one direction added to cool tinted light from another direction. The French of course have done this for many years, for example the Baton Mouche river rides at night on the Seine to view the historic buildings of Paris utilise an array of warm and cool luminaires on the roof of the boat. The Lighting designers of Paris also have no problem placing luminaires on one building to light another building nearby thus going against the will of some politically correct heritage architects. French Lighting Designers are practical.

Another common flaw is that luminaires are not bright enough. When using luminaires and projectors outdoors you can sometimes here the audience ask, "Is that all there is?" and they have trouble



Fig 6: **Spirit of the Ghanaians** – the fishermen of Kokrobite - LOVE ALL – 2007, detail of photograph selected as a finalist for the Blake Prize for Religious Art, Sydney, 2007. Backlit LED transparency, photo by Roger Foley – Fogg

The Homogenisation of a City

I was invited to Singapore in 1999 to exhibit my installation – The Magic of Light – and was dismayed that old Singapore had disappeared and the City-State now resembled a giant shopping mall with artificial theme parks and a monotonous laser show. The world famous dancing transvestites of Bugis Street were gone. Later I was amused to read that the government, realising their mistake, had rebuilt a modern Bugis Street and hired some transvestites to return and do their free



Fig 7: **Spirit of the Gija – 2001** – Doug Macale Jibilyuwuny Garabirringiny dancing at Bow River, Western Australia -- sacred dances of the Gija people from the Kimberly region and desert of Western Australia. Lightshow and photography by Roger Foley- Fogg



Fig 8: **Spirit of the Gija – 2002** – sacred dances of the Gija people from the Kimberly desert region, Western Australia, Perth International Arts Festival, lightshow and photography by Roger Foley- Fogg

photographing the scene without the later use of Photoshop. It is not only the brightness of the lamp that is important. It is also the contrast with other lighting; for example, a lit match is very bright when seen in the jungle on a moonless night, as every military recruit is told. Public areas are often best illuminated by reflected light from trees and architectural features nearby and very rarely are Balls, Bollards or Uplights appropriate unless site-specific clever light baffles are used (Fig 5).

These days I continue with Lightshows and Lumino Kinetic Sculpture – so named by Frank Popper, Professor of Aesthetics at Paris University in the 1960s - I still use this art and these techniques as an expression of my faith in Science as well as the Numinous. For example my LED back lit photograph – The Spirit of the Ghanaians - showing the hope of the fishermen of Kokrobite, near Accra is an example of the religious faith and spirit expressed on every business venture in

Ghana, West Africa, and was selected as a finalist for the Australian Blake Prize for Religious Art in 1997 (Fig 6).

The First Strobe

Some thinkers agree that our distant ancestors, not apes, not humans became enlightened – began to think - accidentally through the stroboscopic effect of sunlight filtered through wind blown leaves beating on the eyelids of our relaxed forefathers sitting safely on the branch of a tree. You can do this experiment yourself. After a nice meal and feeling contented just sit comfortably and let the sun beat on your closed eyelids. Then using your hand - or get a friend do it - spread your fingers and let the shadows fall across your eyelids as you rapidly move your hand back and forth creating a flickering of bright light on your eyelid. After a little while and dependent on the speed of flicker you will have hallucinations of a wondrous nature. They make you wonder.

The invention of the xenon

flashtube popularised the use of the Strobe in Psychedelic 60s Lightshows not only to produce the jerky silent movie effect but to also produce a sense of the numinous and remind you that everything, every experience, is subjective. There is no objective reality just consensus reality and subjective reality.

The Use Of Fire

Which brings me to the worlds oldest man made special lighting effect. For at least 40,000, yes, forty thousand years Australian aboriginal culture used fire to clear the land allowing new grass to grow which attracted Kangaroos - their food - so no fences were needed. When the colonisers arrived from 1788 they assumed the country had no owners and thus attempted to annihilate the culture and the lives of the indigenous population who were classified as Fauna and Flora – not human - until the 1960s. Only in 2008 did the Prime Minister



of Australia acknowledge and apologise for this cruelty.

Our black brothers also used fire as light for their dances, songs and ceremonies that transferred survival and historic information through the generations as, like the Persians, their learning was not written down.

I was privileged in 2001 to be invited to assist when one mob – they prefer that term – the Gija, in the Kimberley, Western Australia decided to show white people a sacred dance or joonba which told the story of the massacre of their ancestors at the time of the First World War.

Some years before I had attended a corroboree in South Australia and when the light got too low for my photography an elder had brought

a Spinifex bush and threw it on the fire...being highly volatile it burst into a bright flash of light like a strobe and I realised I was looking at the oldest man made special lighting effect.

I brought that special effect back to the Gija and using fire and simple lights and effects – some made from recycled tins from the rubbish dump – the show went on and was such a great success that my photographs of the production have assumed a life of their own having been shown in New York and Kununurra, Western Australia and next October will be exhibited in the Sarjan Gallery, Vadodara (Fig 7 and 8).

This brings me to the Vadodara artist Kamal Rana who has been using fire to create his artwork for many years. He paints with chemicals around

his previously drawn work then sets it alight carefully watching until the flames have created just the right tones then blows them out (Fig 9).

However it is difficult to control the light from fire and I intensely dislike the use of luminaires that allow light to spill in every direction and enter the eye of the viewer, contracting the iris and dulling ones perception. However:

Rules Can Be Broken

The famous Queens Necklace of lights that delineate Mumbai's Marine Drive are created by the use of tall street lighting poles with light fittings that are uncontrolled and spill in a 180 degree plane. They light the street and provide enough spill from a far enough distance to light the walkway gently and at the same time create the row of lights that form the Queen's Necklace. Design or accident? Who knows?

In many other parts of the world where that effect has been specified the lazy designer has used Ball lights at just over head height which look terrific from a distance out at sea but partially blind the pedestrians walking nearby and inhibit the view.

My interest in Light Art and Colour

Began at an early age. I found Wolfgang von Goethe and loved his description of colour as a struggle between light and darkness. I was fascinated because neither the art teachers nor the science teachers at school could tell me what light and colour was. I was fascinated by Thomas Young and others two-slit experiments that showed light to be a wave OR a particle depending how you measured it. Then I learned light was a wave AND a Particle. What did this all mean? The answers seemed to lie somewhere within the lessons of Idries Shah's books of Mullah Nasrudin stories which I had begun to read.



Fig 9: **KAMAL RANA** the Vadodara artist has for many years been inspired by living flame and uses fire to add tint and texture to his art which he calls his Fiery Moments.





Fig 10: **WALL OF LIGHT**, controlled chaos. The chaotic mist is controlled by the light as determined live by the Lightshow Artist. Made by Fogg Productions Pty Ltd. Sydney for Maggie Tabberer.

My preferred style of Lighting is what I call controlled chaos. I don't like the kind of lighting that emphasises the power of an elite and the insignificance of the individual such as Albert Speer's lighting of the Nazi rallies at Nuremberg which lighting style still persists in totalitarian states today and in casinos where every light bulb is exactly the same distance apart and there is no participation of the viewer in the creative process.

A chaotic yet controlled style involves the viewer in deciding what they see, it gives them a creative experience and their involvement makes them remember the art and its message. A practical benefit is that there is no glaring gap-tooth look if a light bulb goes out. I usually add up to 20% more luminaires to a design so that lamp failure is not apparent

and maintenance can be done at a suitable time.

Do It Yourself Wall Of Light

Another way of ensuring a perfect

chaotic look is by use of fogs and mists carefully controlled by fans so that light beams become solid, what Josef Svoboda called Psychoplastic Space. I have made great walls of light utilising 20 off 12Volt narrow beam aircraft landing lights of 100 watts each in fittings made in my workshop. The system is 240Volt and a total of 2000 Watts, controllable by just one 10Amp dimmer giving a bright and powerful effect (Fig 10).

Lighting in my view is a constant negotiation with manufacturers decisions about what luminaires we the Lighting Designers and Light Artists require. The wise manufacturer includes provision for baffles, snoots and different mounting styles for the addition of colour filters and if it is an LED fixture the wise manufacturer doesn't rely only on DMX for colour control but also provides the option of a simple system of dipswitches that provide the exact colour you want – at the luminaire. I once visited a luminaire manufacturer where their factory buildings were constantly changing coloured LED light. As a test I asked if they could stop on a colour I liked, say Blue – the technicians tried but could not do it, as there were control issues with the fiddly DMX. Sometimes simplicity is best and it's cheaper and easier to maintain. ■

Ellis D Fogg, began working as a Lightshow Artist in the 1960s. The Fogg group have produced Lumino Kinetic Installation events for VIPs such as the Prime Minister of Australia and for corporations such as Segaworld and Qantas Airways. Fogg has been commissioned to devise Lighting Master Plans for cities and heritage precincts such as Melbourne City Council and The Rocks, Sydney, Australia and has worked in Hong Kong, Bangkok and Singapore. Fogg was a finalist in the Australian Blake Prize for Religious Art twice and has exhibited in galleries from New York, USA to Kununurra, WA, Australia.



Ellis D Fogg