

INDIA'S FOREMOST MAGAZINE ON THE LIGHTING INDUSTRY

# Lighting India

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## Liverpool one



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# Publisher's Notes ..

Welcome once again to Lighting India. In the latest issue we have valuable tips coming from Australia's most innovative Lumino Kinetic artist, Ellis D Fogg, popularly known as Roger Foley - Fogg. Any assignment, from the smallest to the biggest at historical locations, call for a clear approach to lighting. With four decades of experience that touches the whole light art field from the ephemeral minimal-monochromatic through Chiaroscuro to psychedelic and abstract expressionist, Fogg discusses the attributes required of a lighting artist.

Just how many myriad factors need to be weighed and blended before doing justice to a work as big as the reinvented urban centre 'Liverpool ONE', the large-scale retail led regeneration project? BDP's stalwart Martin Lupton takes us on a lighting tour of the redevelopment that has transformed and revitalized Liverpool's City Centre on a sprawling 42 acre expanse without losing the city's umbilical connect with its historic waterfront while lending it a shopping flavor of its own.

Amardeep M Dugar delves into the neurobehavioral performance with a fresh angle to lighting, resolving for us the photo-biological and emotional perspective in "Applications of lighting for visual & non-visual". He proposes a framework, the aesthetic aspect of which is more related to sensations, involving emotions rather than pure intellectuality. His article outlines an integrated set of interior lighting characteristics to meet the requirements for visual and 'non-visual' systems.

The Energy and Resources Institute (TERI) has a vision to work for global sustainable development and a commitment towards creating innovative solutions for a better tomorrow. Tushita Mukherjee gives us a peep into TERI's 'light a billion lights' (LaBL) campaign that is doing yeoman service brightening the lives and hopes of people across nine countries.

With the government electricity organizations motivating people to dispense with incandescent light bulbs and promoting the use of CFLs it is time for us to keep abreast of the advantages of CFL and developments in technology through Dr S S Varma's article on Know Your CFL. 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](mailto:miyer@charypublications.in).

*Nyadzevan.*



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# Editorial

## CFLs or LEDs?

**E**ver since Thomas Edison invented the first electric light bulb in 1879 using a carbon filament, lighting technology has witnessed enormous revolution. Electric bulb, considered as the greatest invention of the 19<sup>th</sup> century has remained in the centre of all advancements. But those bulbs are gradually turning out to be highly energy consuming and non eco-friendly. With energy prices on the rise and natural resources diminishing, it has become necessary to provide energy-efficient and environment friendly lights.

The invention of Compact Fluorescent Light (CFL) was a major breakthrough in this regard. Due to its enormous energy saving potential and durability, CFL has been able to attract global demand. A CFL can give the same amount of lighting output as much as an incandescent bulb, but using only half the electrical energy. In another way it also helps to reduce global warming by diminishing carbon emissions. Thus many developed countries like USA enacted law to use CFL as replacement of Incandescent, and in the way of lighting entire country using CFLs. But CFLs also have certain disadvantages. They contain mercury and other dangerous chemicals, which can create a risk hazard when burnt out.

To overcome such problems, LEDs are another option. They are even more eco-friendly than fluorescent bulbs and do not contain any dangerous chemical substances. They are more energy-efficient, more durable, easy to recycle and certainly more eco-friendly comparative to CFLs. LEDs also have the advantage of low manufacturing cost. But the problem with the LED is that they are very expensive due to the use of costly semi-conductors in their manufacturing. However, several companies are working on cheaper, more commercially sustainable alternatives.

In recent scenario there is huge debate around the globe about the acceptability of CFLs and LEDs. Its up to you to select the suitable alternative of BULBS!!! But one thing for sure. Till LEDs become affordable for the masses, CFLs are the most available low energy lighting alternative. ■



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# An Artist's approach to Light

“*ELLIS D FOGG also known as Roger Foley - Fogg is regarded as Australia's most innovative Lumino Kinetic Artist and Lighting Designer. In a career of over 40 years his art style has covered the whole Light Art field from the ephemeral Minimal - Monochromatic through Chiaroscuro to Psychedelic and Abstract Expressionist. Here he writes about an artist's approach to light.*”

In January this year I attended the first LED EXPO in India at Pragati Maidan, Delhi, because I am naturally curious about all aspects of my art. And about India as I am currently working on a project to define the celebration of Diwali in India as a Lumino Kinetic Sculpture. Through a large body of work over some 42 years I have developed a methodology to produce good results and am happy to share some thoughts with you.

## What makes a light artist?

Chevy Chase in one of his comic films says - I wish I was an artist so I could do anything I like - He is right of course as one definition of an artist must conclude that rules were meant to be broken. For example Thomas Gainsborough's - Blue Boy - painted in c1770 disproved one old rule of thumb stating that one could never create a painting with the major colour being Blue. However there is good art and bad art and not-art. So be wary.

## What is ART?

One of Australia's greatest living artists, Martin Sharp, once told me that - all art is erotic - meaning that if it does not turn you on and lift your spirits then it is not art. I agree. Munch notwithstanding.



**Under the Aegis, Jonathan Jones, 2006**, fluorescent tubes and fittings, installed at the Art Gallery of New South Wales, photo: Jenni Carter, courtesy the artist and Gallery Barry Keldoullis, Sydney, Australia

### In my view a light artist must have the following skills:

- **The ability to draw.** Graduating from Art School helps but is not essential however it is important to be able to draw in a way to make your ideas clear.
- **Technical knowledge.** Both high-

tech and low-tech knowledge and a wide-ranging education are useful. It is important to have experience in the use of the materials of ones art, knowledge of electricity, optics, colour theory and practice, practical machine shop work and electronics are all of

great assistance. A practical Right brain experience that can bring to fruition the dreams of the creative Left brain - Engineering in the service of Art - as promoted by the USCO group responsible for the still innovative Pepsi Pavilion at the 1970 World Fair in Osaka, Japan.

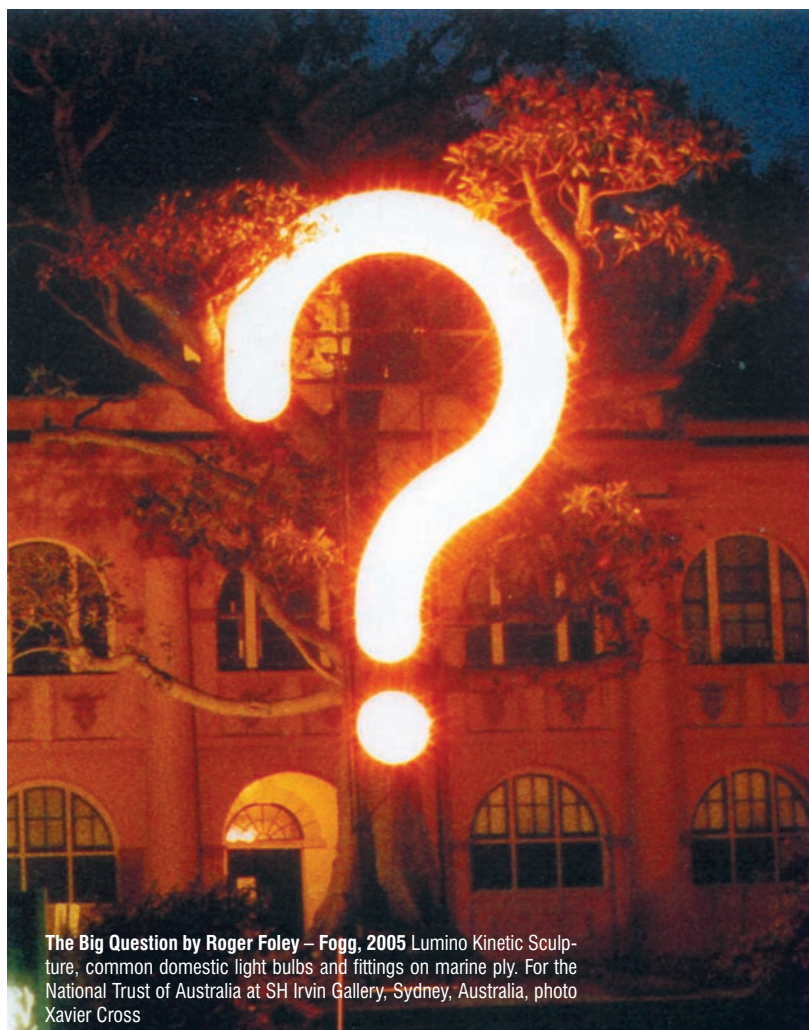




**Spirit of Sydney - joy to the world 2008** - Roger Foley - Fogg, stainless steel and LEDs installed in Darling Harbour, Sydney. The world's brightest Christmas tree. Christmas in Australia is a time for families of all religions to come together to forget old differences, to share food and gifts as well as being a Christian celebration of the birth of Christ, d&c: Fogg, photo: Christian Sawczak.

- **An enquiring mind** – my work often utilises technologies from the automotive, marine and other industries. I attend International Expo's and Fairs of all kinds and travel the world to find new materials, often in unexpected places.
- **A real love** for ones work that propels you to produce work whether or not you have a sponsor or a budget. The artist does not wait to secure a contract before finding the solution to a problem or making the maquette or finished work. Clients go to the gallery or studio to select an artwork or a work is commissioned based on agreed criteria. Of course modifications often need to be made which brings me to the next requirement.
- **Integrity and authority** An artist must have integrity and the persuasive ability and knowledge





**The Big Question by Roger Foley – Fogg, 2005** Lumino Kinetic Sculpture, common domestic light bulbs and fittings on marine ply. For the National Trust of Australia at SH Irvin Gallery, Sydney, Australia, photo Xavier Cross



**NED KELLY'S HELMET with MONA LISA EYES** – Darling Harbour, Sydney. D&C by the Fogg group – a fun and decorative light baffle based on an Australian icon to prevent security ball lights shining in the eye of the viewer. We direct the light to the ground where it is required which gives much more security and allows nearby lumino kinetic sculptures to be seen.

to decide which modifications are acceptable. The light artist should have sufficient authority to prevent the work being compromised. To bring creative ideas to their full potential the light artist needs an authority on par with the architect for a building, public or private space as well as the knowledge of both Designer and Artist. For example badly designed security lighting can compromise work. To prevent this in some cases in Australia I have designed light baffles in the form of a famous Australian icon, Ned Kelly's helmet, to stop security light from blinding the viewer and allowing the light

to illuminate the ground in a brighter manner by contrast. This modification increases security, while allowing the lumino kinetic work to be clearly seen.

- **Achieve balance between the solid and the ephemeral.** Ensure that the ephemeral light elements of a work have equal importance to the solid construction elements. A good light artist needs to have the ability to integrate and influence the space, building or stage set and the lighting. I found great inspiration from the work of the extraordinary Czech lighting and stage designer Josef Svoboda – he coined the word scenographer to

encompass both disciplines – and did not rely on manufacturers ideas of what is required. My associates and I always decide on the desired result for a lighting or lumino kinetic project before accessing the equipment. If the luminaires do not exist we design and build our own.

- **Know when to do nothing.** I recently spent two days and a night observing the Taj Mahal at sunset, by full moonlight and at sunrise, in haze and in sunlight. I didn't sleep. It was a boyhood dream. The Taj always looked breathtakingly beautiful and uses no luminaires at all.





**SEGAWORLD ENTRANCE – Sydney, Australia.** by Mark Buczynski, Renato Franceschelli and Roger Foley- Fogg, since destroyed this is a model derived from a rainbow entrance in Disney World, Florida, USA.

## Problems with the Australian way.

### The risk of design degeneration.

Our Fogg group's first distinction from the norm is a preference for a design and construction contract - D&C - although this is not mandatory.

Large building projects in Australia are production-managed in a way that often leads to what I call - design degeneration. The designing architect and light artist/designer must specify every luminaire and its direction, tint and focus. This does not facilitate the creation of a work of art. It's like asking an artist who paints to specify exactly how many colours and pints of paint they will use. I solved this problem by drawing plans with an indicative

luminaire plot accompanied by a statement such as this:

Proposed quantity of luminaires, direction, tint and focus of Lighting, Lumino Kinetics and Special Effects is indicative only: ...The final result will be ART DIRECTED ON SITE.

### The risk of maintenance degeneration.

There is often a disincentive to maintain a work and it can quickly deteriorate. I call this deterioration - maintenance degeneration.

Sydney, Australia is littered with the remains of the technology used to produce light sculpture purchased by Government organizations that desire Sydney to become known as a City of

Light which rapidly deteriorated due to dirt, weather, indifferent maintenance and the attrition of light bulbs.

Technicians often dislike having to repair other people's work. Due to the fiddly nature of repairs they often advise that the work has worn out and needs replacing.

### One solution - Love is all you need

Over the years I have observed that technicians who own their own luminaires are very happy and proud to keep them in good working order. If the building or public space owner can be convinced that a new work should not be bought but leased or rented the work can survive indefinitely and be improved as





**SEGA WORLD – AQUA NOVA FUNFAIR RIDE – Sydney, Australia.** by Mark Buczynski, Renato Franceschelli, Chiaroscuro light by Roger Foley-Fogg, design and construction by Fogg, since destroyed, however these design techniques are used for the construction of nightclubs and places of entertainment worldwide.

new technologies arrive. The work always looks good because its minders love it. The annual rental/lease fee is much less than the cost of replacing the work or buying another. Our clients have light installations and lumino kinetics that look as good as new after many years of use. For example:

#### **The Spirit of Sydney - Joy to the World 2008.**

Australia, like India, is a land of people from different backgrounds and faith so Christmas in Australia is regarded as not only a Christian celebration but also a time for family to come together in love to share food and exchange gifts, a time when a decorated illuminated

evergreen tree is a symbol of hope during the northern hemisphere winter and a symbol of our fun in the sun down-under.

Using these criteria I designed - Joy to the World – The Christmas tree of Light as a Lumino Kinetic Sculpture in Abstract Expressionist style, installed at Darling Harbour, Sydney for the Sydney Cove Authority. Our Fogg group have upgraded and improved it each year since 1997. It is very bright and sparkles with many thousands of LEDs and other luminaires at night and by reflected sunlight from hundreds of mirrors and diffraction grating reflectors during the day. It is intended to be a symbol of the way all Australians regard this celebration each December.

#### **An artist also needs to:**

##### **Be original.**

Be careful of modelling what you require on what you have seen. For example: some years ago The Sydney Harbour Bridge, Australia was illuminated by internal skeletal lighting. The idea came from the French lighting of the Eiffel Tower in Paris the new lighting was criticised by all as incredibly patchy and a danger to motorists and had to be replaced forthwith. What went wrong? Skeletal lighting looks great on the Eiffel Tower's vertical structure so light beams do a beautiful job skipping from girder to girder in a straight line but the Sydney Harbour Bridge is a giant arch so the light beams skipped





**SEGAWORLD – Entrance to the underworld. Sydney, Australia.** by Mark Buczynski, Renato Franceschelli, Chiaroscuro lighting design by Roger Foley- Fogg, design and construction by Fogg, since destroyed, however these design techniques are used for the construction of nightclubs and places of entertainment worldwide.

off into space or down to the eyes of the motorists below. An expensive and embarrassing mistake.

#### **Learn from mistakes.**

Light should never enter the eye of the viewer unless that is the result required. When light enters the eye the iris contracts making the surroundings darker. Very few manufactured luminaires have provision for efficient baffles to stop extraneous light blinding the viewer's eyes.

Some years ago I was engaged to write a report on what is wrong with the lighting of Southbank Gardens, Brisbane, Australia. A respected theatre stage designer had designed the

lighting but people felt uncomfortable in the gardens and no one knew why.

#### **I wrote in my report:**

*On a theatre stage the actors want the lights to shine in their eyes, as they know then that they are illuminated and the audience can see them. However this is not true for the public. The placement of luminaires along the risers of stairs may look distinctive from a distance but for a person who wants to climb the stairs it feels very dangerous.*

Up-lights are used universally to illuminate trees and Bollards and Light-Balls to delineate pathways however because these luminaires can blind the eye they are often a mistake and

an example of lazy design. They can look good from a distance but I don't use them anywhere pedestrians are intended to be.

#### **Know the beautiful lighting of a city**

In 1993 I went to Paris, La Ville-Lumière, to research a heritage lighting project and obtained a full history of the lighting of Paris from the office of the mayor. I was amused to read that the beautiful lighting was commissioned in the 9th century by King Louis whose only reason to install the lighting was for security. It was French style that ensured the security lighting was beautiful. An artists approach to Light.





### **Know the not so beautiful lighting of a city**

If you want a coloured building you can shine luminaires up at the building and by careful placement and baffles avoid the blinding problem. Controls can allow these luminaires to change colour at any time while avoiding the – disco look – unless that is what is required. Or you can cover the building with many small light bulbs attached to the surface or with panels that use multiple LEDs in regular arrays that have the potential to be any colour or intensity at up to 25 frames per second. A giant television and a video artists dream however building owners quickly realise that money can be made through advertisements. The lighting of the city can become all advertising with

no worthwhile character or beauty, a turn-off for tourists and locals alike

My research trip to Shanghai in 2007 showed me for the first time the extent and beauty of this major tourist destination and waterway during the day which was rapidly becoming, at night, an eye polluting environment with giant advertisements on many buildings and with the addition of barge like vessels carting more giant television screens to and fro across the beautiful waterway. The view from the popular restaurant M on the Bund, for example, could have been Art but has been turned into obtrusive and irritating Advertising. I hope this does not happen in Mumbai.

#### **Visit lighting manufacturers.**

I visit all my suppliers, the factory

as well as the sales room. I often get great new ideas from their engineers and can have special fittings manufactured inexpensively if I utilise existing parts. The owner of an Australian luminaire manufacturer, Prolite, once told me that no other Lighting Designer had ever visited his factory.

#### **.....and know when to break all the above rules.**

I am familiar with many artists around the world who work with light, here are just two examples:

Jaideep Mehrotra the well known Mumbai painter and videographer has been using lights in his sculptures and installations for many years and has made the most beautiful and practical luminaire. A simple box across the





head of his bed contains a row of warm compact fluorescent light bulbs that cast a narrow diffuse glow of light in a perfect manner for reading in bed. Every hotel room should have one. Jaideep's luminaire is a one-off for his home but this love and sensitivity to light is how he approaches his life and his art and what makes him an artist. For public exhibition he also creates numinous and enigmatic pieces in his Mumbai eyrie-atelier such as – Hanging on to Life.

Jonathan Jones is an up and coming artist working with light in Sydney. He utilises the common light bulb and fluorescent tubes in serried rows and patterns for installations and environments of cool and mesmerising intensity such as – Under the Aegis. ■

**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, NY, USA to Kununurra, WA, Australia and been included in group exhibitions at The Art Gallery of New South Wales, Sydney and The Victorian National Gallery, Melbourne and in The Yellow House, Sydney, Australia.



Ellis D Fogg