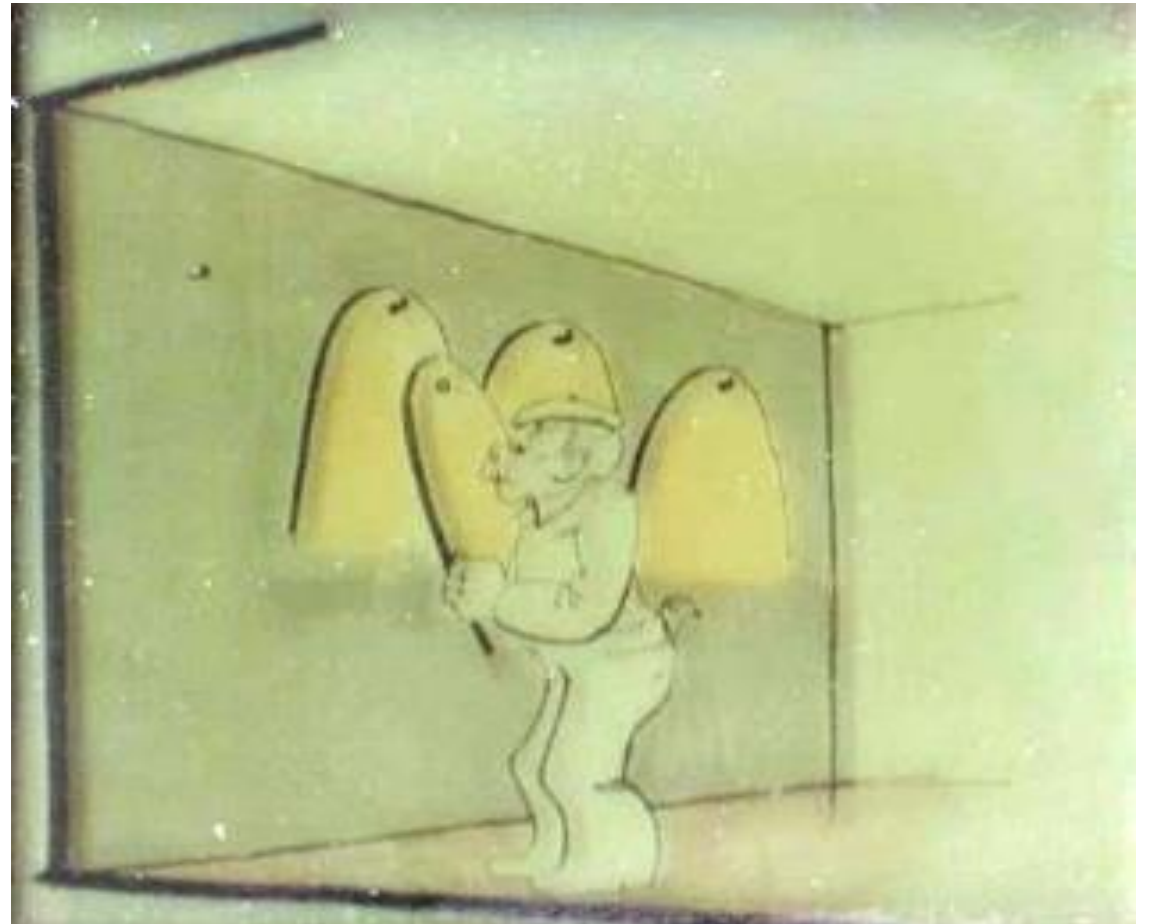


LIGHTING DESIGN

The passion and the challenges



Lighting experience modules



LIGHT TALK

By Martin Klaasen

Master Classes

www.kldesign.co
www.linktr.ee/lighttalk

LIGHT TALK

A YEAR IN THE LIFE OF LIGHT

LIGHT TALK Master Classes 1

By Martin Klaasen

Module 1: *What is lighting design ?*

Is Lighting Design **Art** or **Science** ?



Illustration Eric Caminada

Is Lighting Design influenced by culture or geographical background ?

Developing countries

Local vs International lighting standards

Developed countries



50 lux -----> 1000 lux

Lighting Levels

Is Lighting Design influenced by culture or geographical background ?

Northern/ Southern Hemisphere
Tropical countries
Cultural expectations



Cool white -----> Warm white

Colour temperature

Is Lighting Design influenced by culture or geographical background ?

Cold/ Hot/ Humid climates



Country side / Sea side/ City



Durability / Lighting “endurance” -----> IP Rating

Climate / Quality

Is a Lighting Designer influenced by educational background ?



Is a Lighting Designer influenced by educational background ?

CREATIVE BACKGROUNDS

Have more affinity to the **conceptual** and visual part of the design process and will be more likely to be able to develop and communicate ideas to fellow project team members and clients

ENGINEERING BACKGROUNDS

Will generally be better in **technical** detailing and production management with more affinity to understanding technology and processes.

MANAGEMENT BACKGROUNDS

Have more affinity to **business** management, economic forces with generally better social and communication skills

...a balanced composition of backgrounds makes a great team!



WE ALL

SOMEWHERE...

WE ALL **START** SOMEWHERE...



The lighting 'magicians' of Petronas Towers

By Karamjit Singh

Maybe it was "magic" that enabled a virtual start-up company in 1992 to upstage some of the biggest industry players in the world to design the interior lighting for the Petronas Towers. After all, to one of its founders, "lighting is magic".

It must be noted that while Lumino Design (Malaysia) Sdn Bhd was a lightweight player at the time of its bidding, its principals were definitely not. Each had carved a strong reputation as prominent lighting consultants with over 30 years of experience between them.

The fact that Martin Klaasen, founder and managing director of Lumino Design International Pte Ltd, and Lee Hing, principal of its Malaysian branch, Lumino Design (Malaysia) Sdn Bhd, even had the audacity to think they could compete with the big boys speaks volumes of their business savvy and confidence.

According to Klaasen (for whom lighting is magic) their reputation may have helped them to get a foot in the door but after that it was "may the best design win". And win they did, with a very basic concept but which kept in mind the most important component of the Petronas Towers — its occupants.

Lumino is responsible for the interior lighting of the twin towers while the



Klaasen and Lee explaining the concept behind their design for the interior lighting of the Petronas Towers

exterior lighting is designed by Howard Branston and Partners, a large US-based lighting consultant.

Klaasen tells *City & Country* about Lumino's winning concept: "It is based on the premise of creating a conducive environment for people to live and work in. We settled on using warm colours which

are very popular in Europe and the US."

Psychologically, people prefer warm colours as they evoke a sense of welcome and comfort. The challenge is for the designers to strike a balance between comfort and productivity. Too comfortable and not much work is going to get done. An even bigger challenge is to keep

costs within budget as the temptation to overdo in such a high profile project is great.

But overcoming that temptation has become one of their biggest achievements. "Sure there were some compromises and we simplified some light fittings, but in the end we succeeded," says Klaasen, who declines to reveal the value of the job.

Offers the quiet Lee, "We came up with a design that is relatively simple and reflects the latest technology and corporate image that Petronas wanted."

Above that, the design is such that maintenance will be easy and upkeep smooth. To achieve this, Lumino's Klaasen and Lee cracked their heads to simplify the number of fixtures and type of lamps used. Considering that there are over 100,000 light points in Tower 1, the partners concede that this was no easy task.

The unique shape of the towers posed its own problems to the designers. For instance, the spacing-to-height ratio of the floor required a specific square fitting be made for the lights, Klaasen points out.

On the outer corridors facing the windows, the lighting has been designed to accentuate the columns, bringing out the visual interest and to serve as focal points for the paintings that will adorn the walls.

Continues on Page VI



Does the **educational background** of your “**client**” make a difference ?

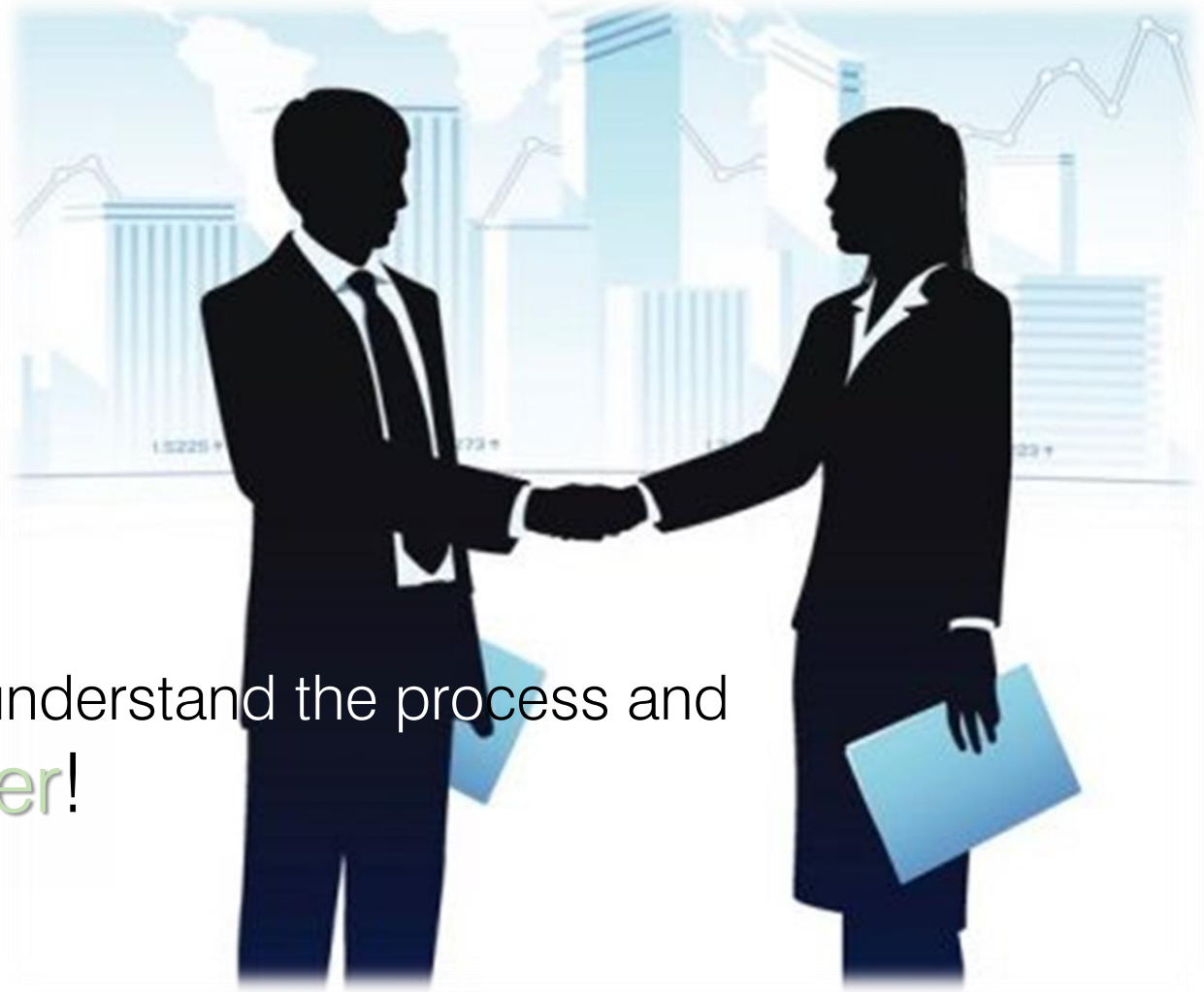
→ CLIENT FAMILIAR WITH THE DESIGN PROCESS

→ CLIENT NEW TO THE DESIGN PROCESS



A BLESSING OR A CURSE ?

The ones you want as client are those that understand the process and **respect your expertise as designer!**



Does the **educational background** of your “**client**” make a difference ?



Our job: **Managing Expectations!**

What is good lighting design?



Grand Hyatt Goa

What is good lighting design?

The catch word is GOOD

...the definition of good may mean different things for different people

→ Does it bring a measurable benefit?

→ How much does it cost?



Hyundai



Lexus

What is good lighting design?

The catch word is **GOOD**

...the definition of good may mean different things for different people



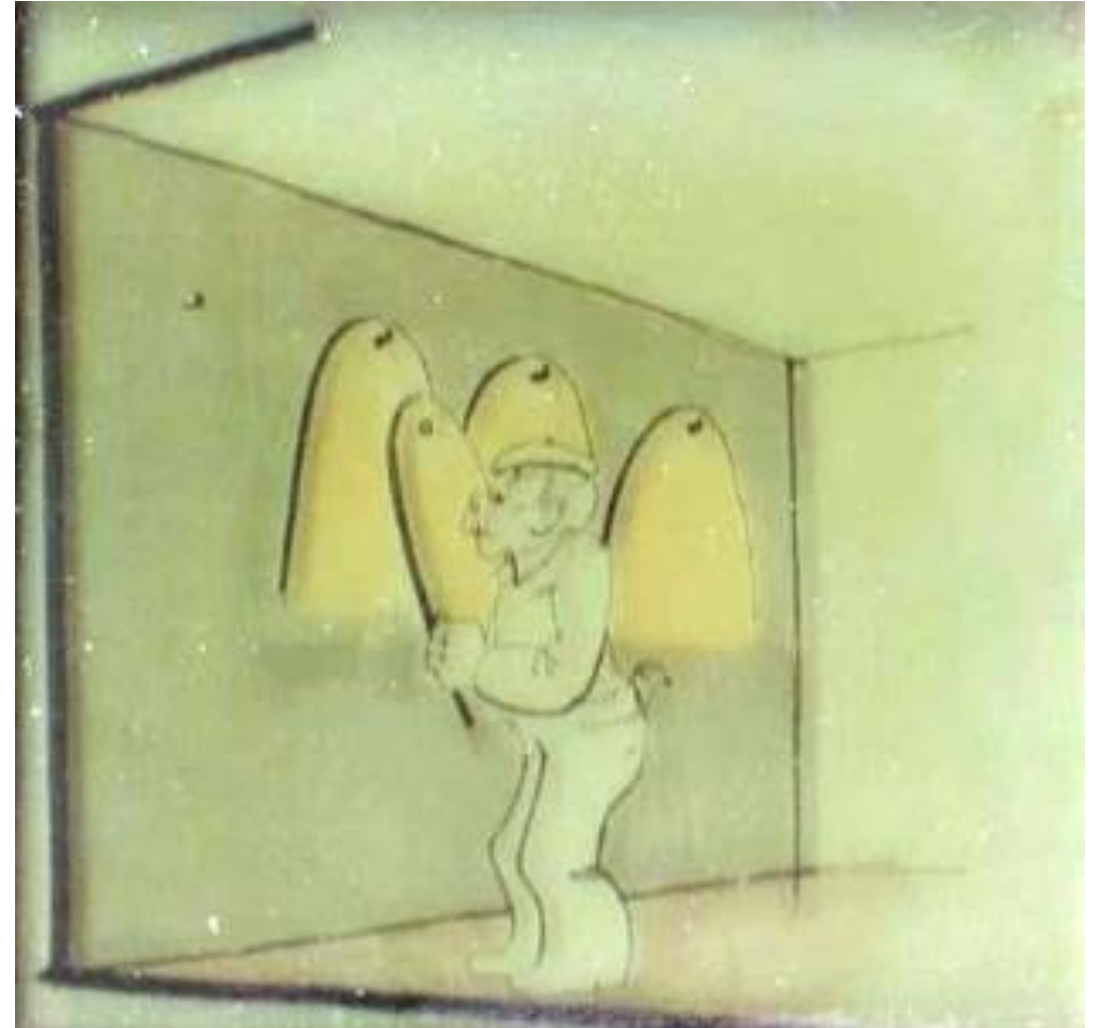
Yes!

...I learned that if I could not understand a client's decision, it was always related to money!



The role of a Lighting Designer

Part 1: The visible



What to light and what not, the yin and yang of lighting

Unbalanced lighting



Too many lights



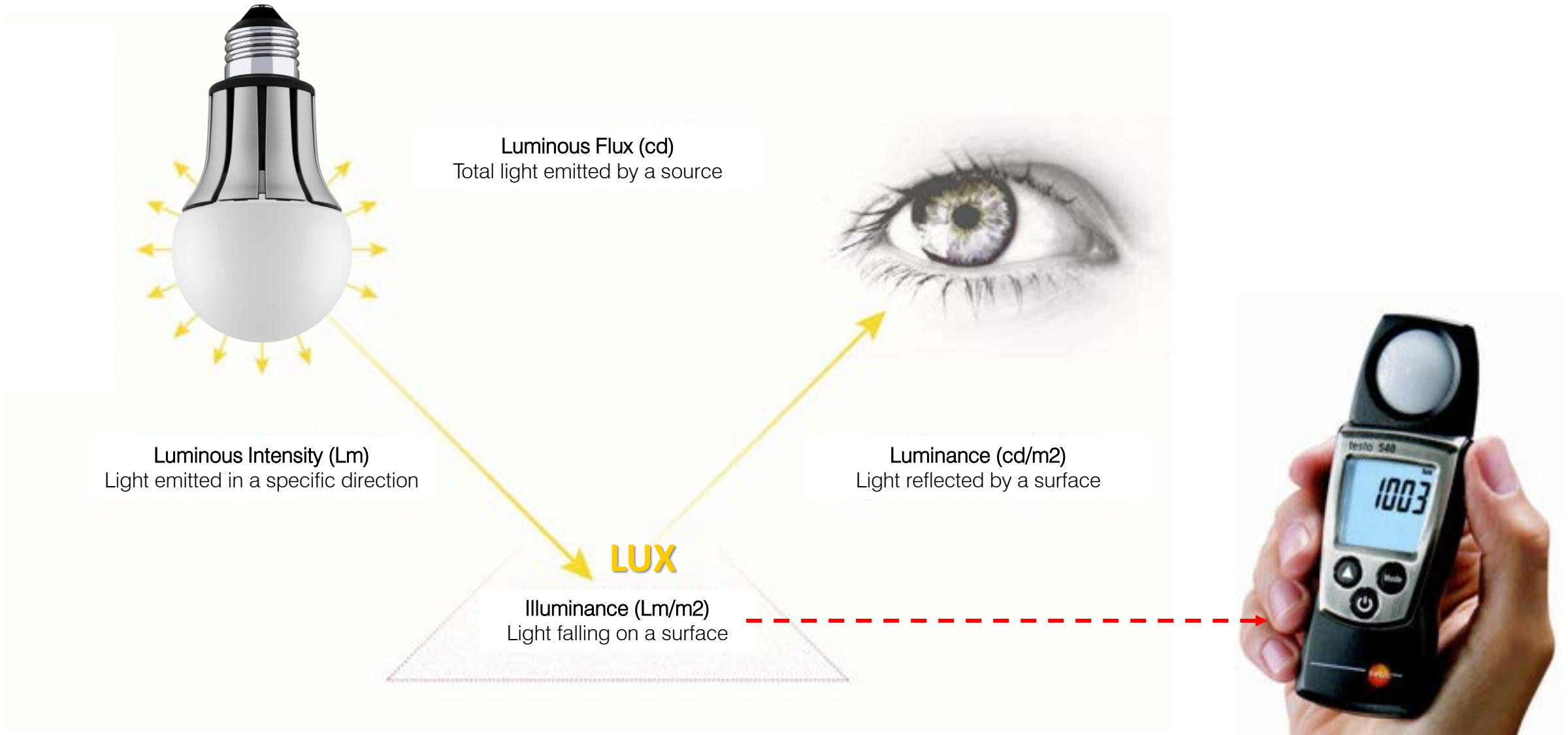
Incompatible lights wrong location



Poor lighting - space definition



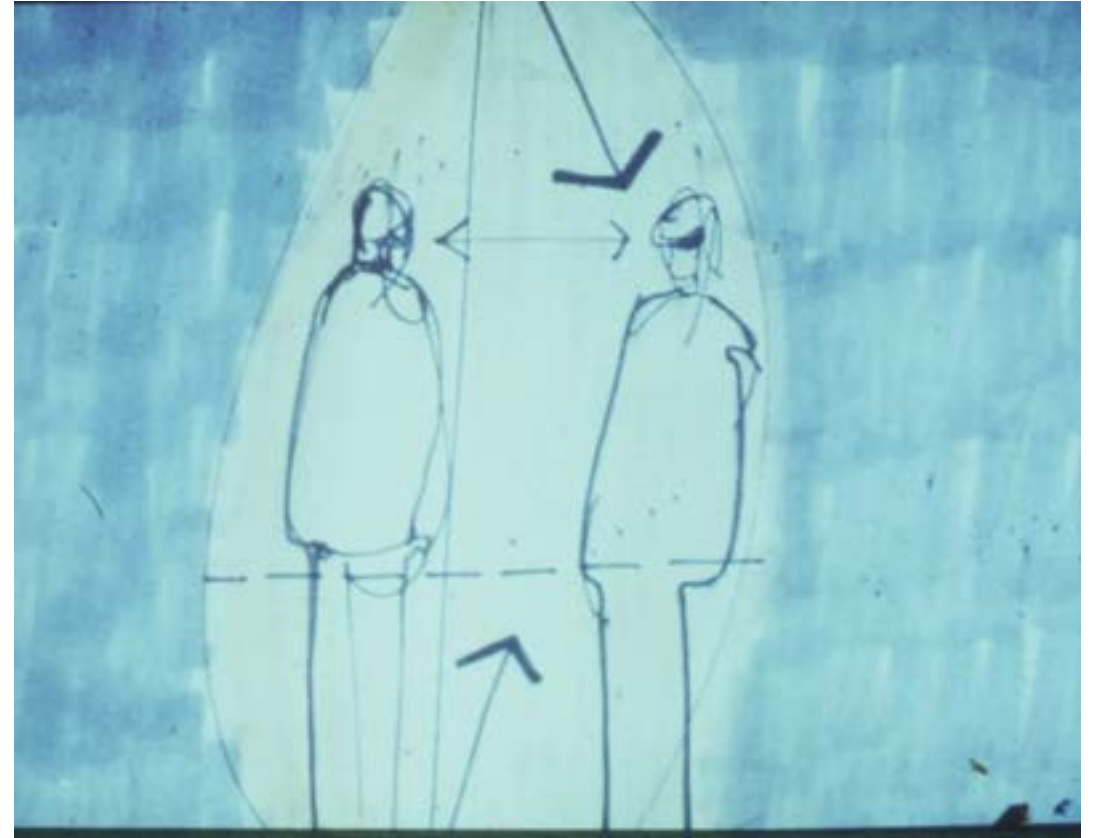
Lighting design is for people, not for lux meters!



Lighting design is for people, not for lux meters!



Space (Horizontal – Vertical)



People (Emotional expressions)

Lighting design is the validation of space!



Lighting can make or break a space!

Lighting design is the validation of space!



Lighting design is the validation of space!



Lighting can make or break a space!

Lighting design is the validation of space!



The harmonious integration of lighting

Lighting design is the validation of space!



Atlas Bar, Singapore

The harmonious integration of lighting

Lighting design is the validation of space!



The harmonious integration of lighting

Light does not exist by itself, it needs the space to become meaningful and hence the task of a lighting designer is to coordinate the lighting design with all other disciplines that make up the space and needs to be **harmoniously integrated** in that space

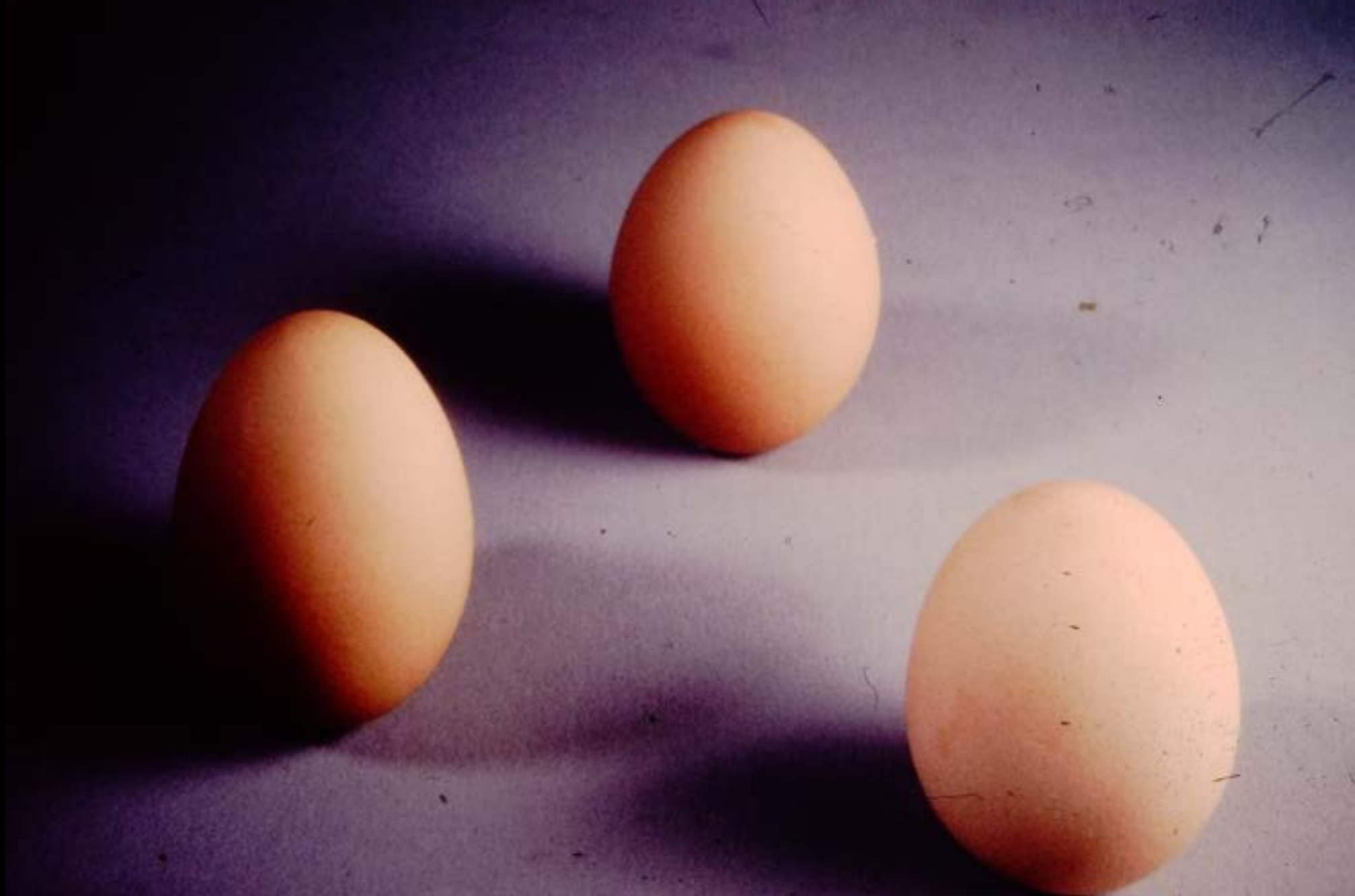
Lighting should not be an after-thought, not looking like a last minute **add-on**, it should be carefully planned as an integrated overall strategy with all the key components that make up the space.

Lighting design is managing the physical appearance of light

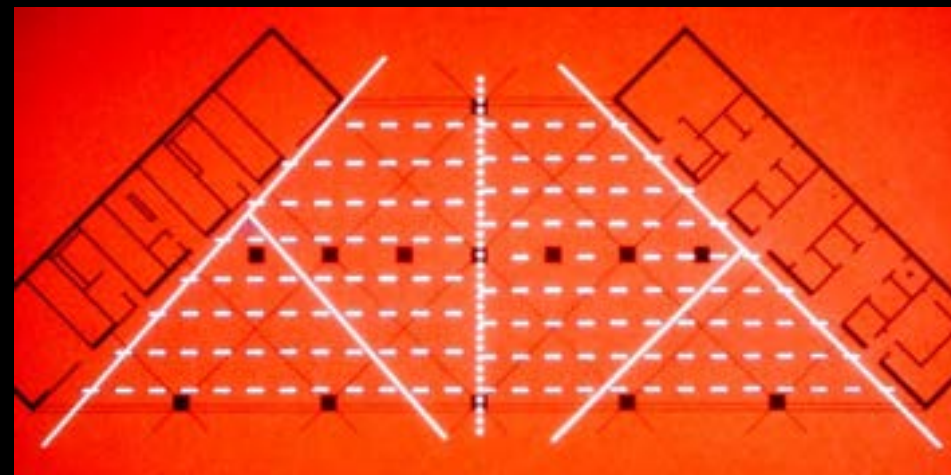
LAWS OF PERCEPTION



LAWS OF PERCEPTION



LAWS OF PERCEPTION

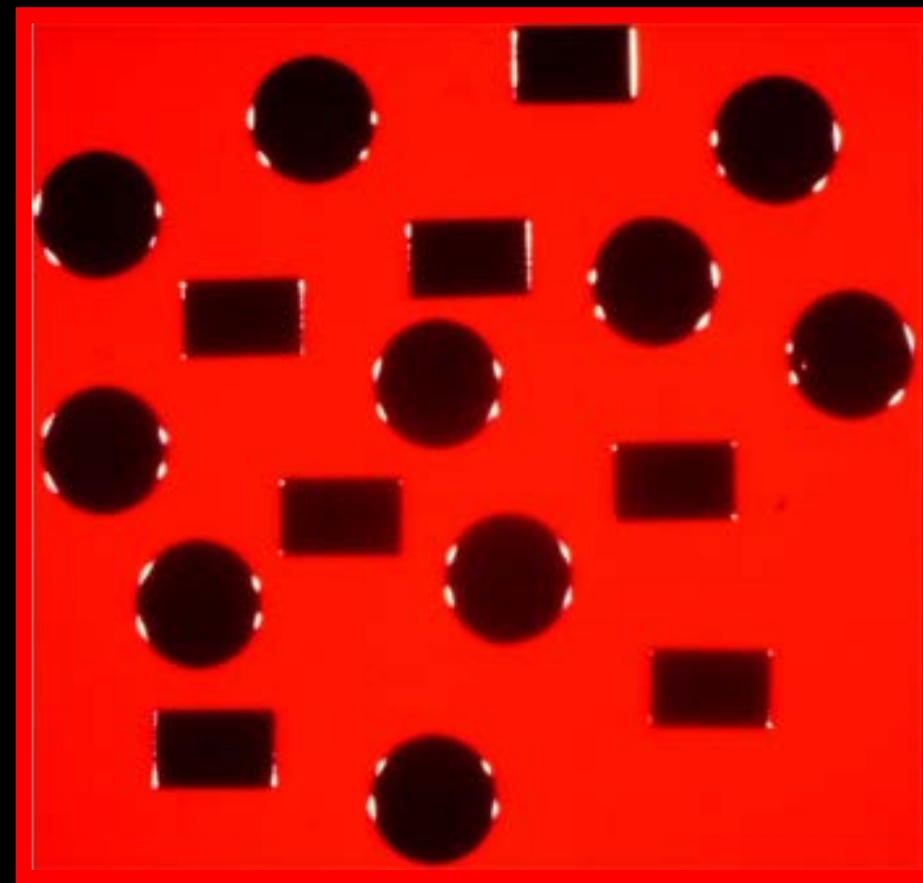


Lux level and spacing vs architectural integration



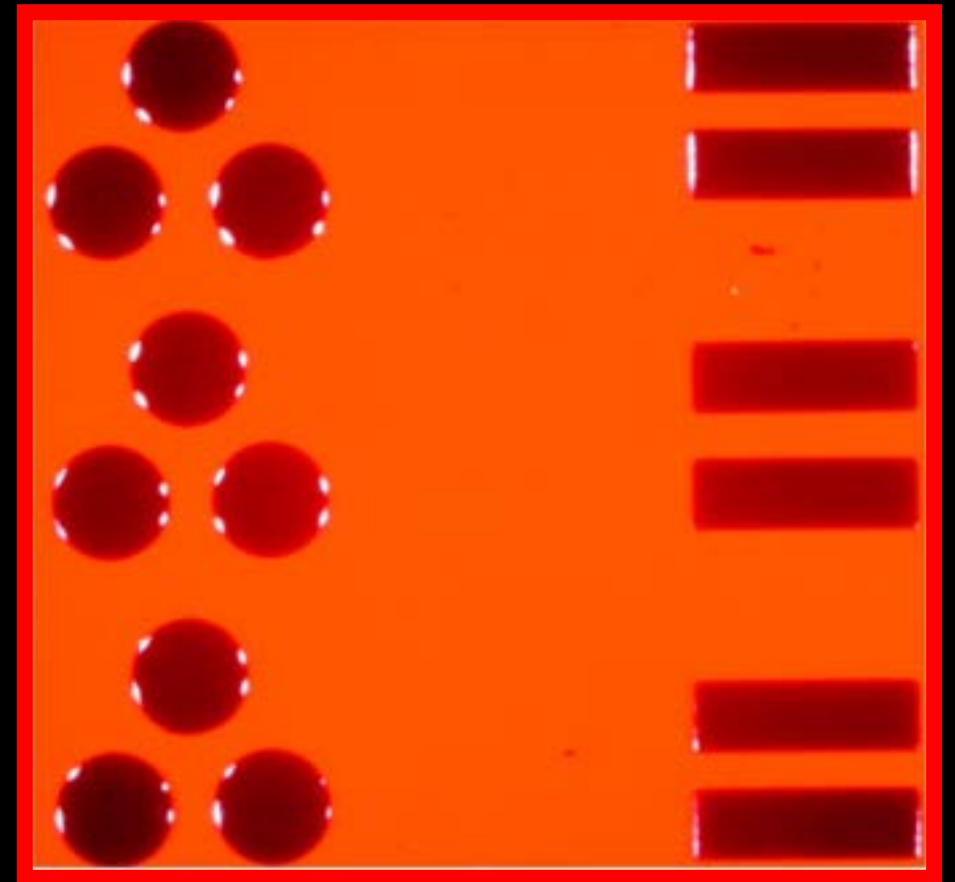
Law of continuity

LAWS OF PERCEPTION



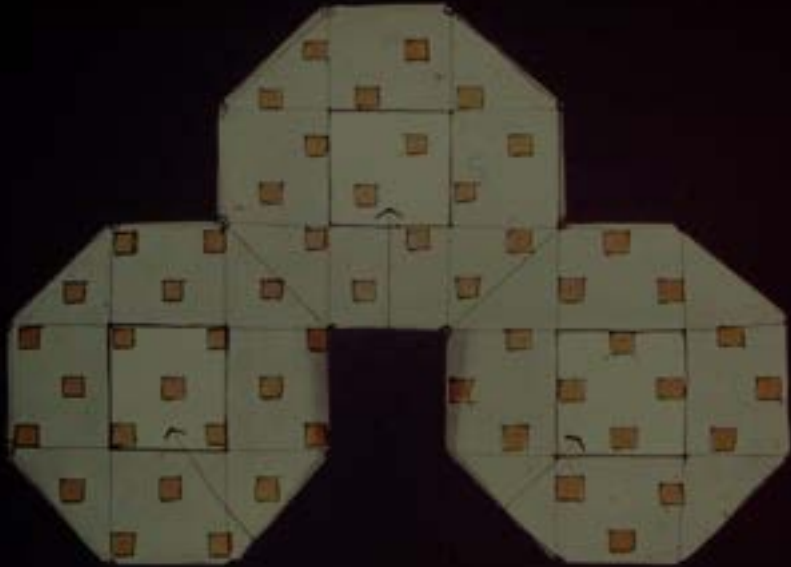
Law of equality

LAWS OF PERCEPTION

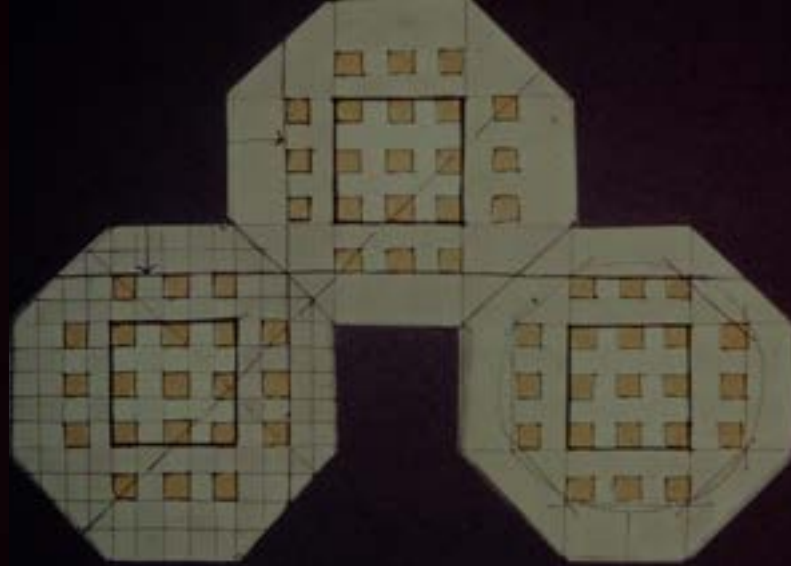


Law of proximity

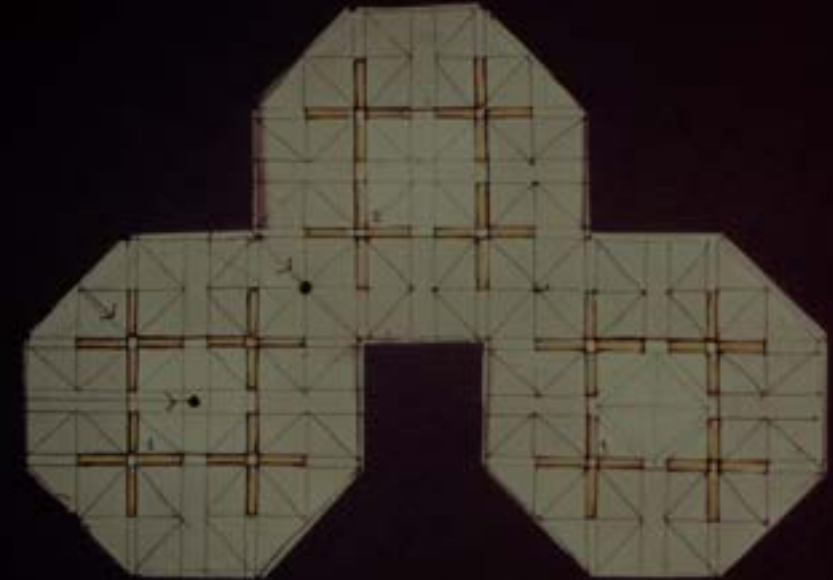
Continuity/ equality



Continuity/ equality/ proximity



Continuity/ equality/ proximity/ dominant shape

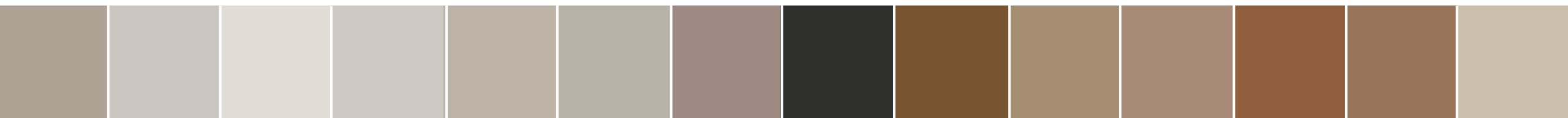


Applying the laws

Lighting design is the interaction with colour, materials, shapes and forms !



Material finishes



Lighting design is the interaction with colour, materials, shapes and forms !



Lighting design is the interaction with colour, materials, shapes and forms !



Lighting design is managing the qualities of light

Lighting design is managing the directionality of light!



Lighting design is managing the directionality of light!



Lighting design is managing the directionality of light!



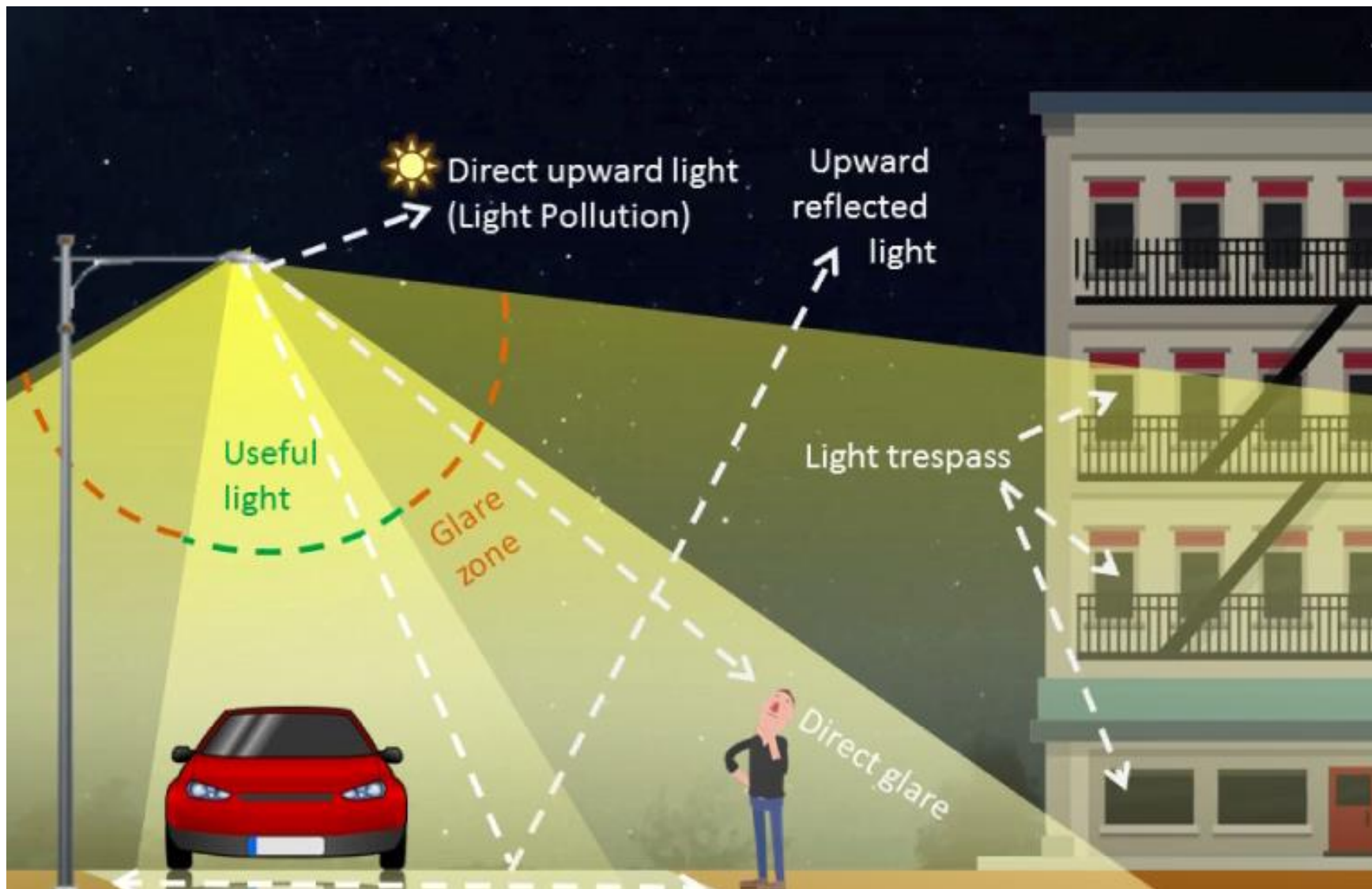
Lighting design is managing the directionality of light!



Lighting design is managing the directionality of light!

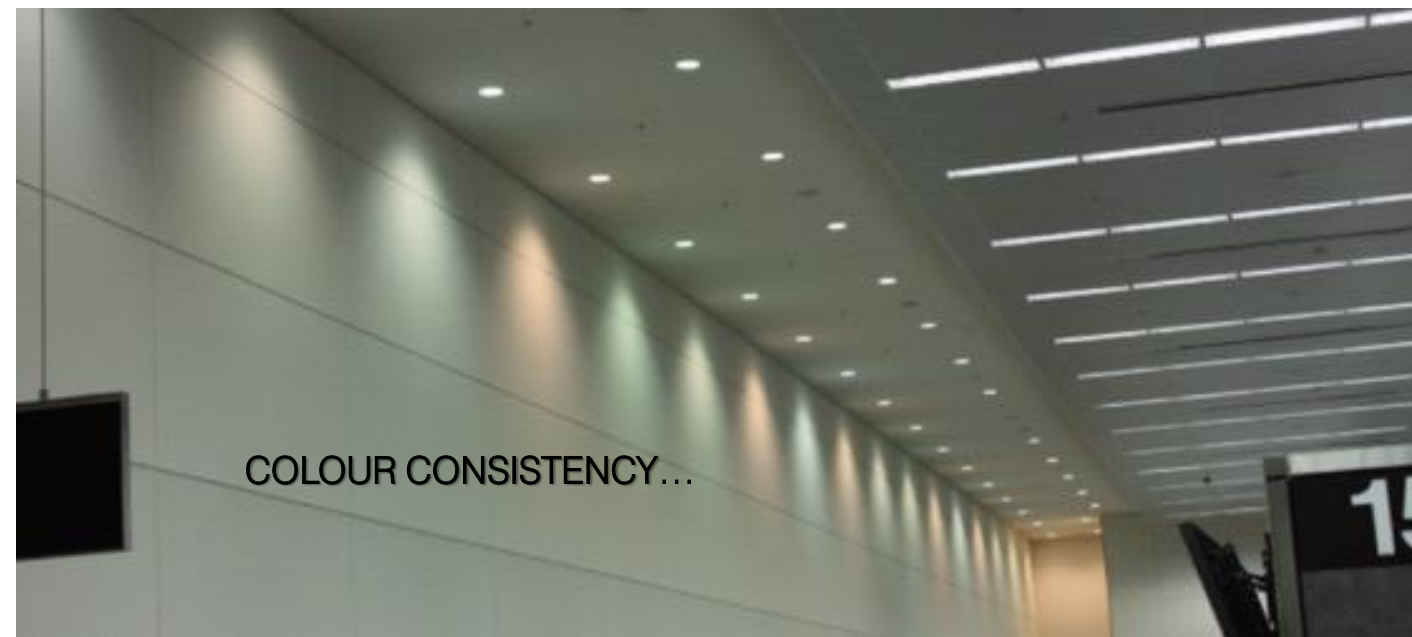


Lighting design is managing the directionality of light!



Light pollution

Lighting design is managing the colour quality of light!



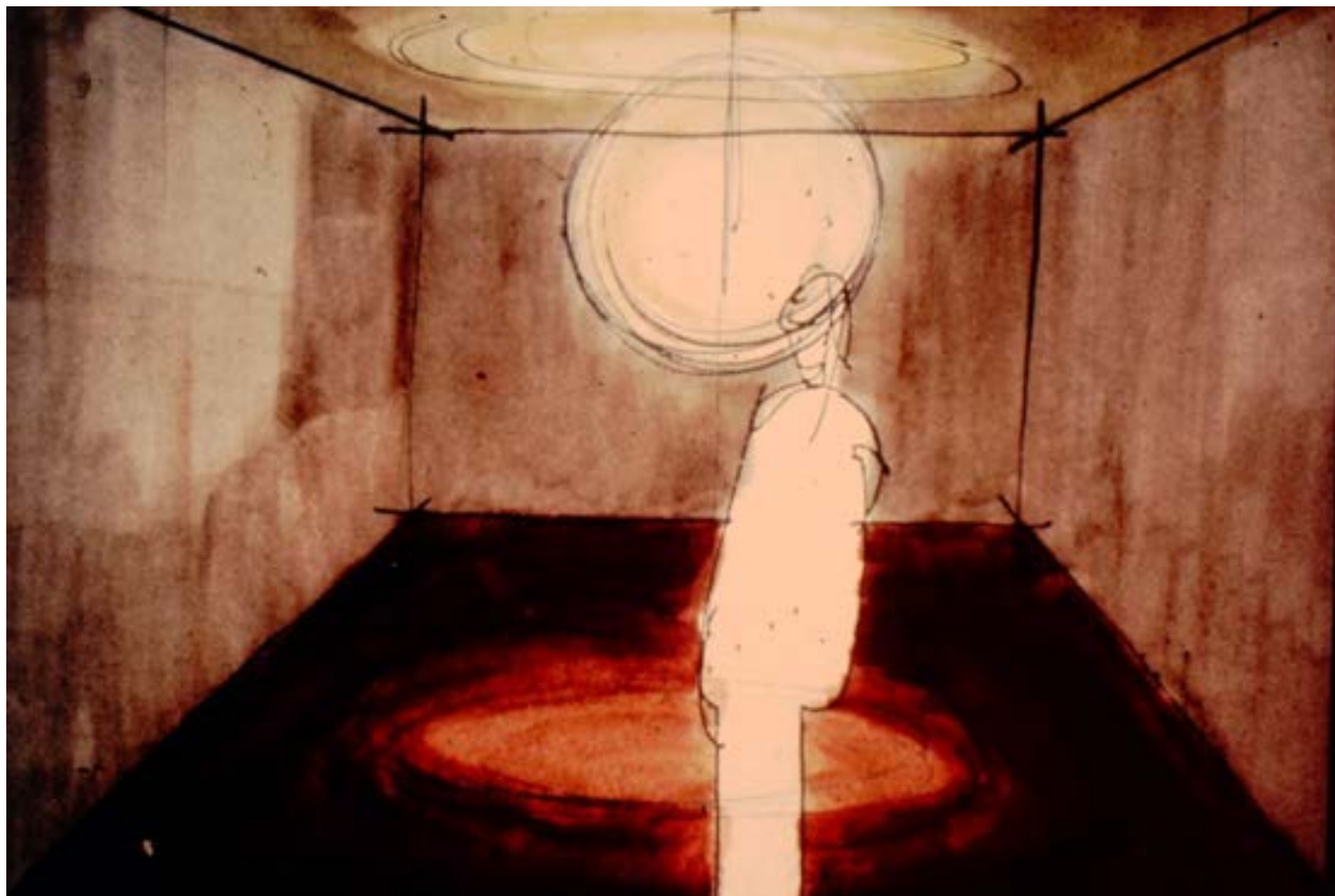
Lighting design is managing the colour quality of light!



DESIGN STATEMENT → USE COLOUR WITH MEASURE

Just because we can create any colour *it does not mean we have to use colours everywhere!*

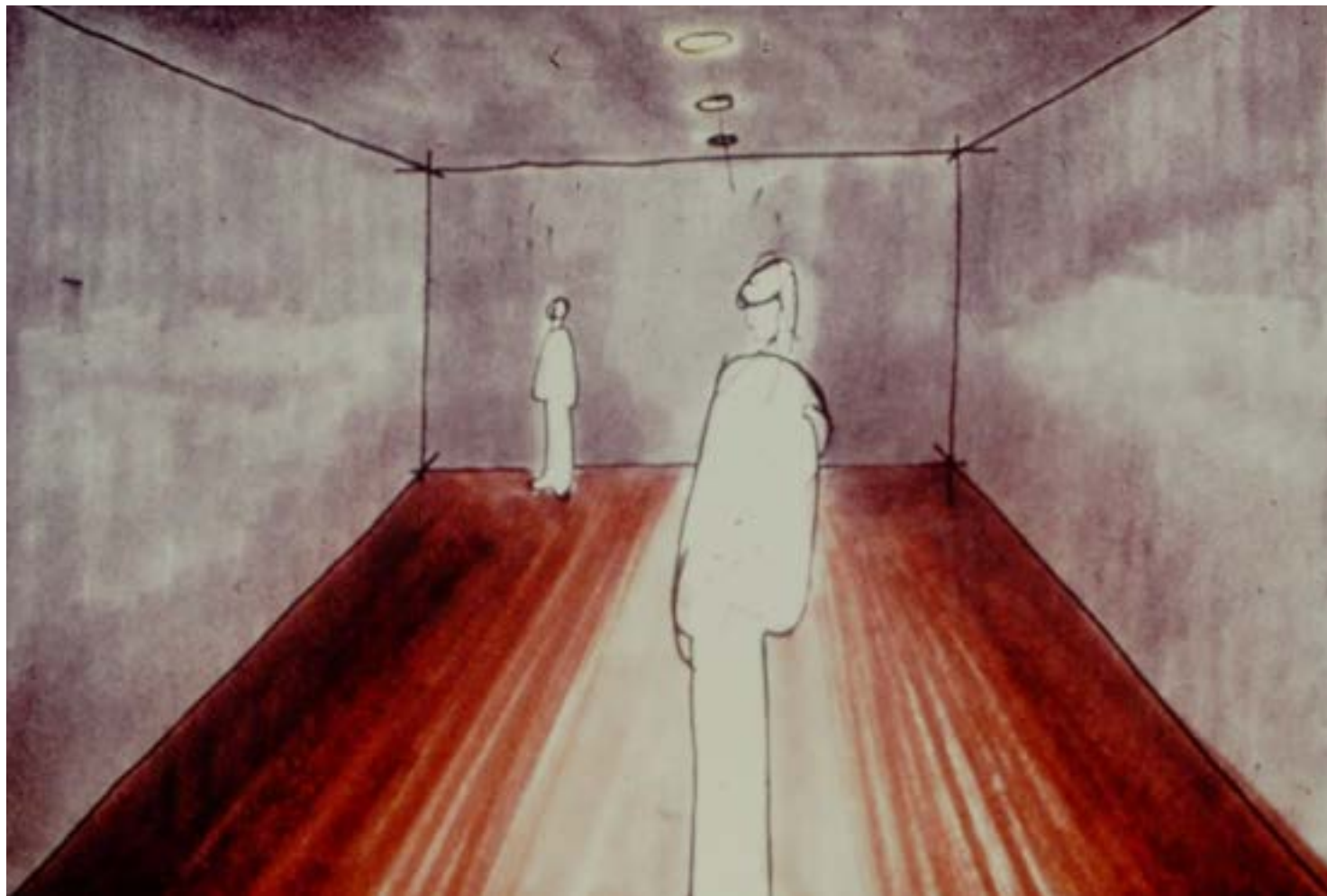
Lighting design is managing the psychology of light!



Lighting attracts...



Lighting design is managing the psychology of light!



Lighting focusses attention...



Lighting design is managing the psychology of light!



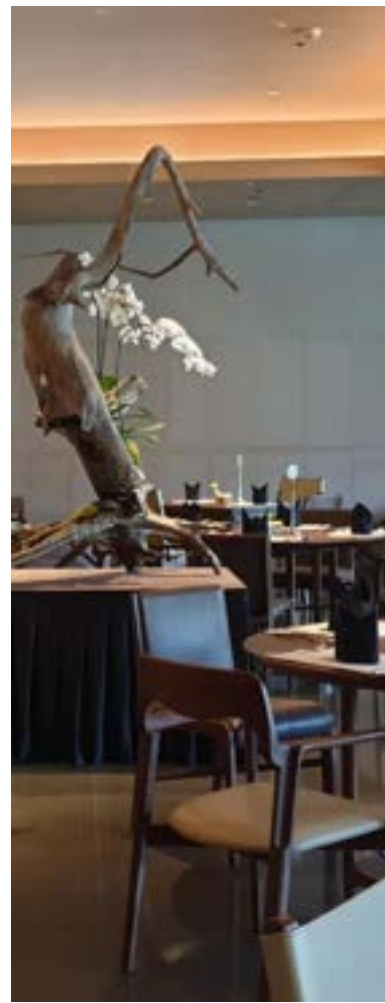
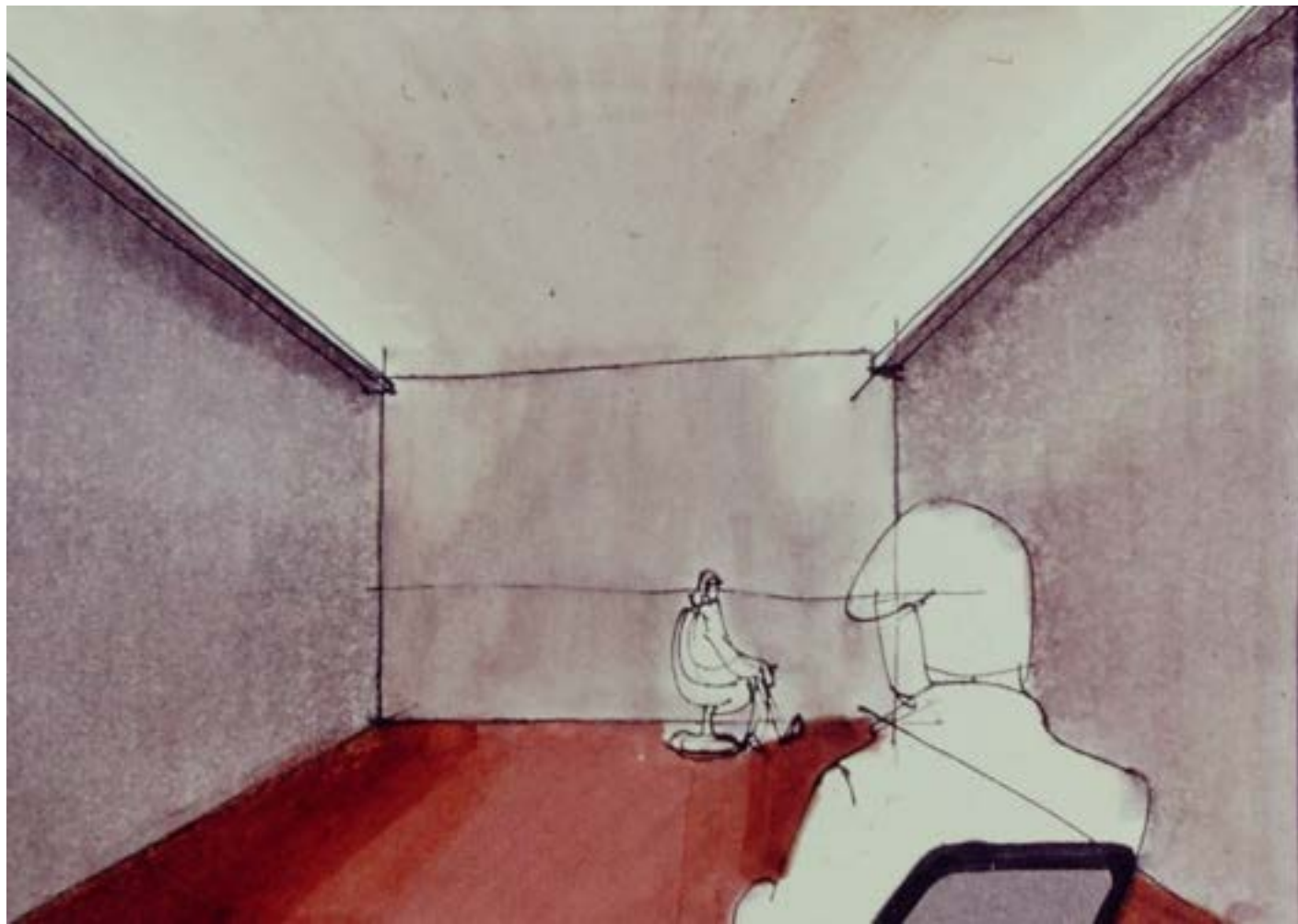
Changing the perception of a space...longer and narrower

Lighting design is managing the psychology of light!



Changing the perception of a space...shorter and wider

Lighting design is managing the psychology of light!

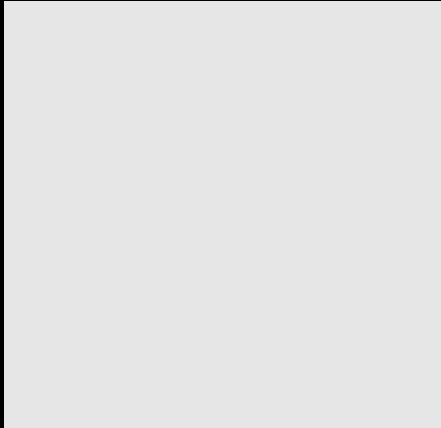


Changing the perception of a space...higher

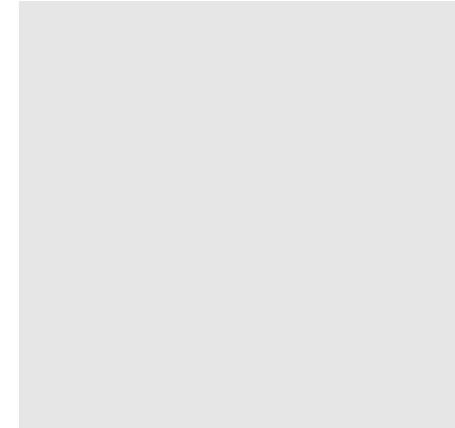
Lighting design is a relative science!

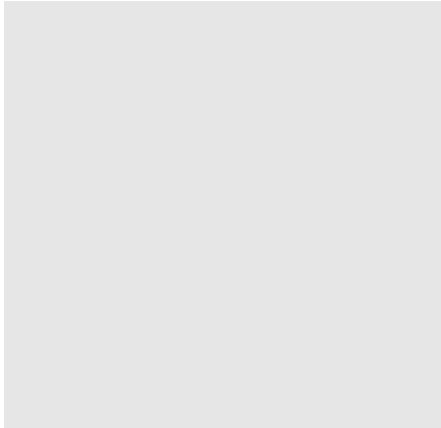
Lighting is a relative science referenced against what we know, what we last saw.

Managing the balance of lighting and transition to spaces is a critical aspect of lighting design.

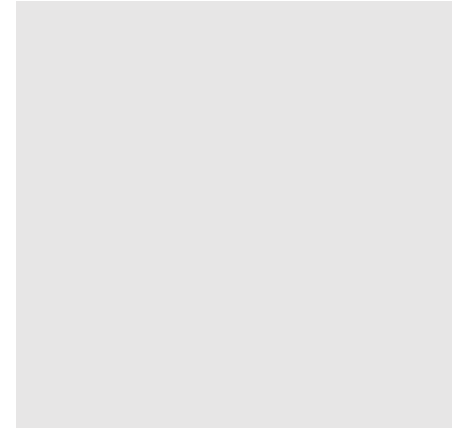


EVERYTHING IS RELATIVE

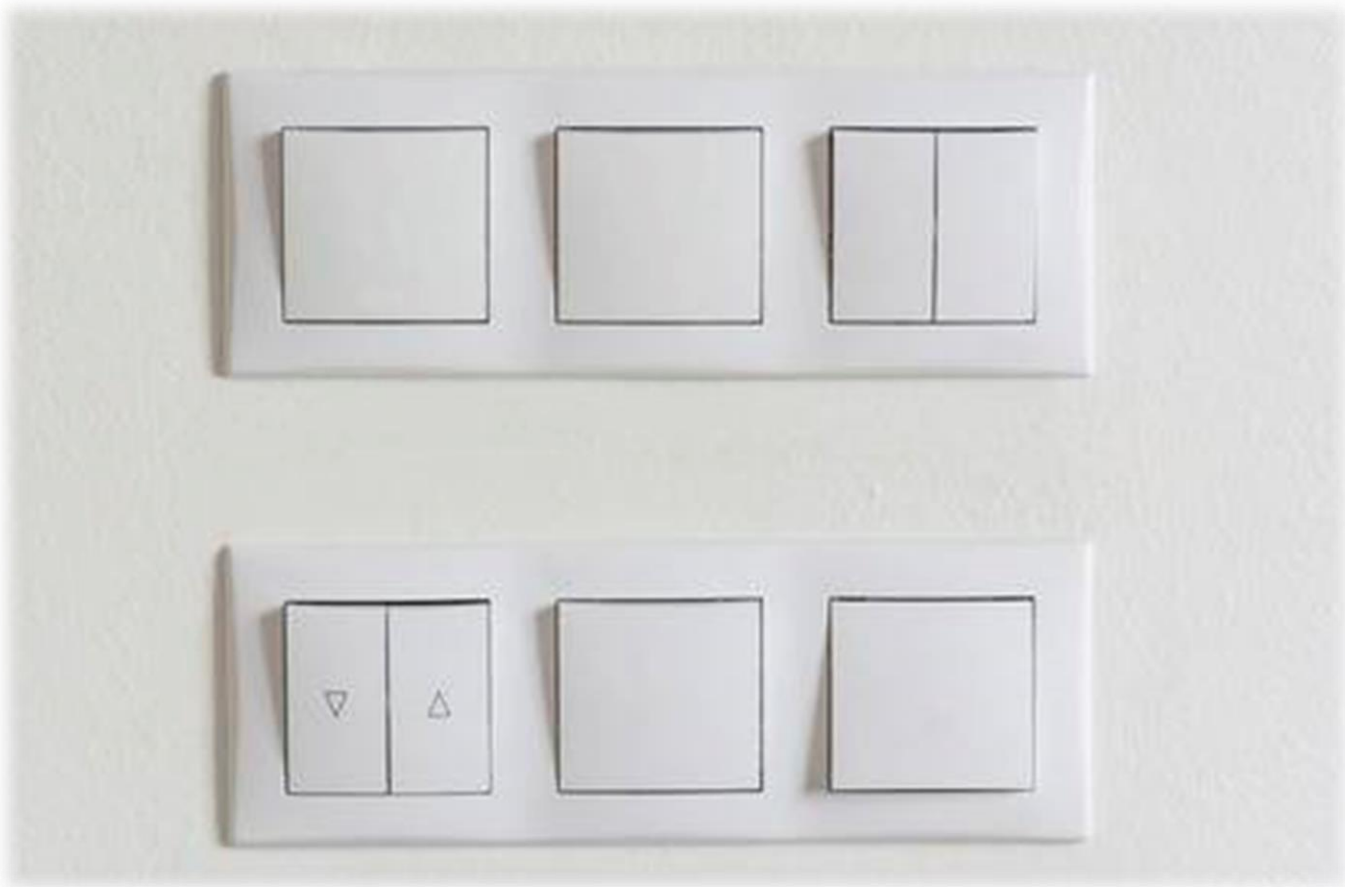




EVERYTHING **IS** RELATIVE



Lighting design: manipulating lighting effects through controls



Simplicity and ease of operation...

Lighting design: manipulating lighting effects through controls



From wired



amazon alexa

works with the Google Assistant



to wireless

The world is changing...

Lighting design: Light where and when you need it (energy management)

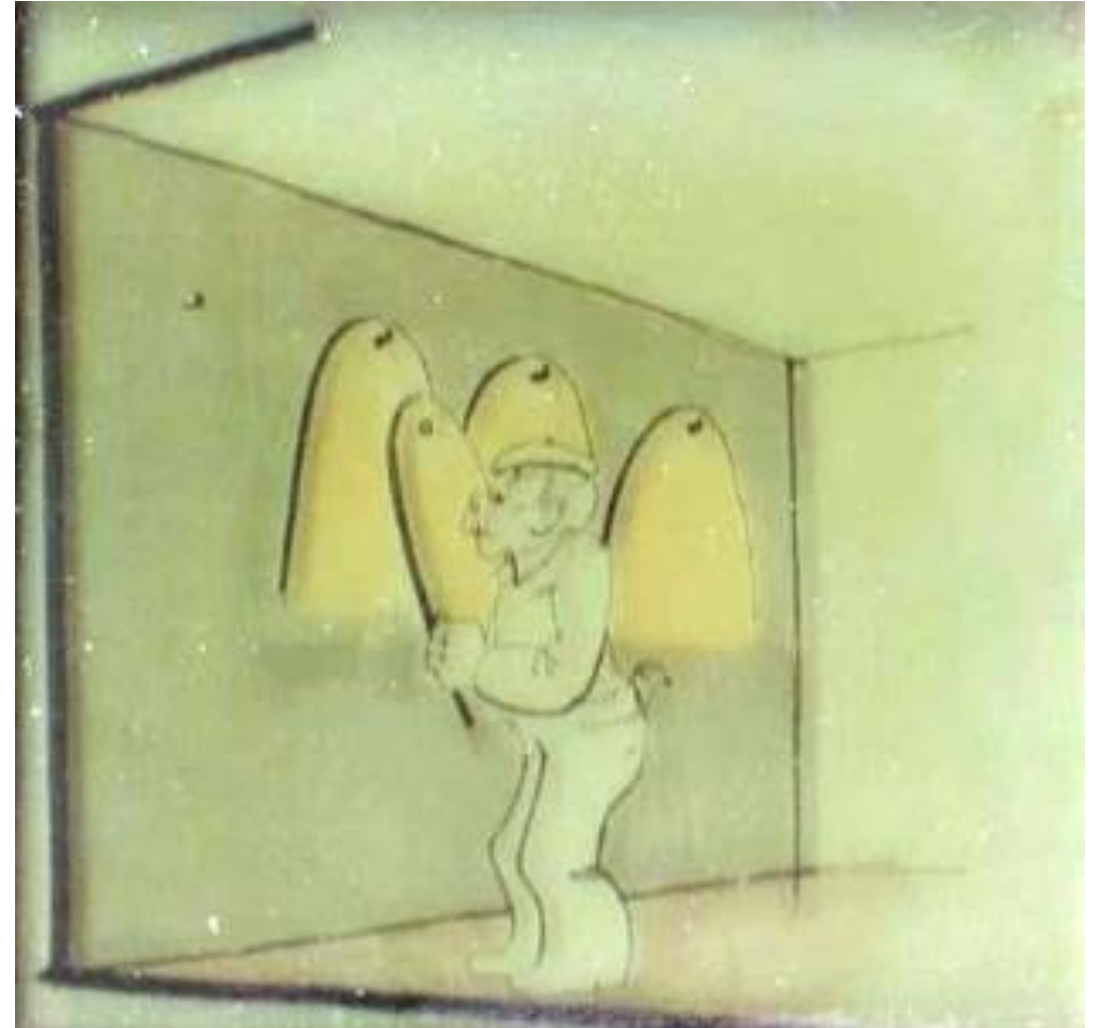


Managing the lighting energy foot print is a professional lighting design duty



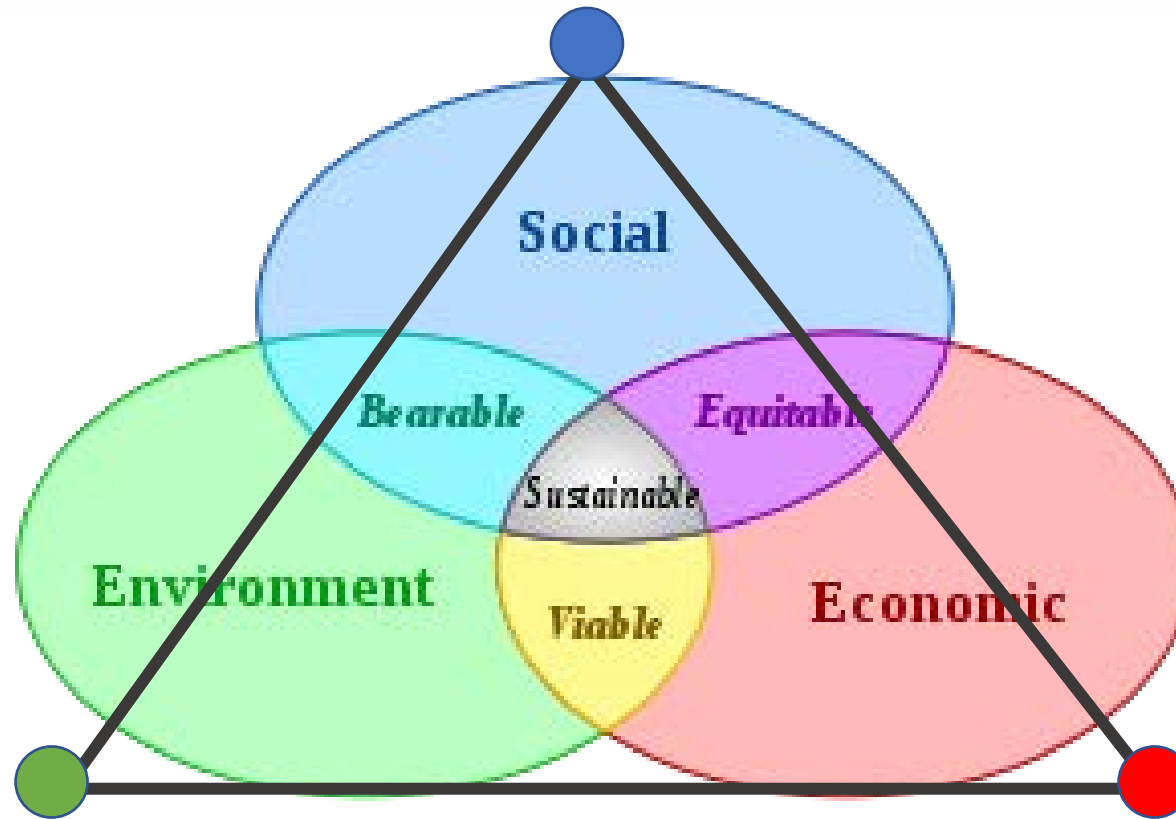
The role of a Lighting Designer

Part 2: The invisible



Lighting design: Sustainability

Mood/ Lighting levels/ Comfort/ Operational safety and security standards



Watt/m2 / Energy saving / Light pollution

Budget / Capital and Operational costs

Lighting design: Technology



Mastery and understanding of the latest lighting and control technologies are elementary to good lighting design.

Lighting design: Technology



Evolution of technology

Lighting design: Technology

from simple to sophisticated



Speed of development...

Lighting design: Technology



Towards a smart and connected world revolving around data...

LDoT

Lighting
Design
of
Things

Lighting design: Managing the cost of implementation

THE SALES COWBOYS:
...anything for a sale !



It is a lighting designer's responsibility to educate his client and adjust a budget to reasonable amounts

Lighting design: Managing the cost of implementation

Budgets and value engineering



Made in China

Made in Germany

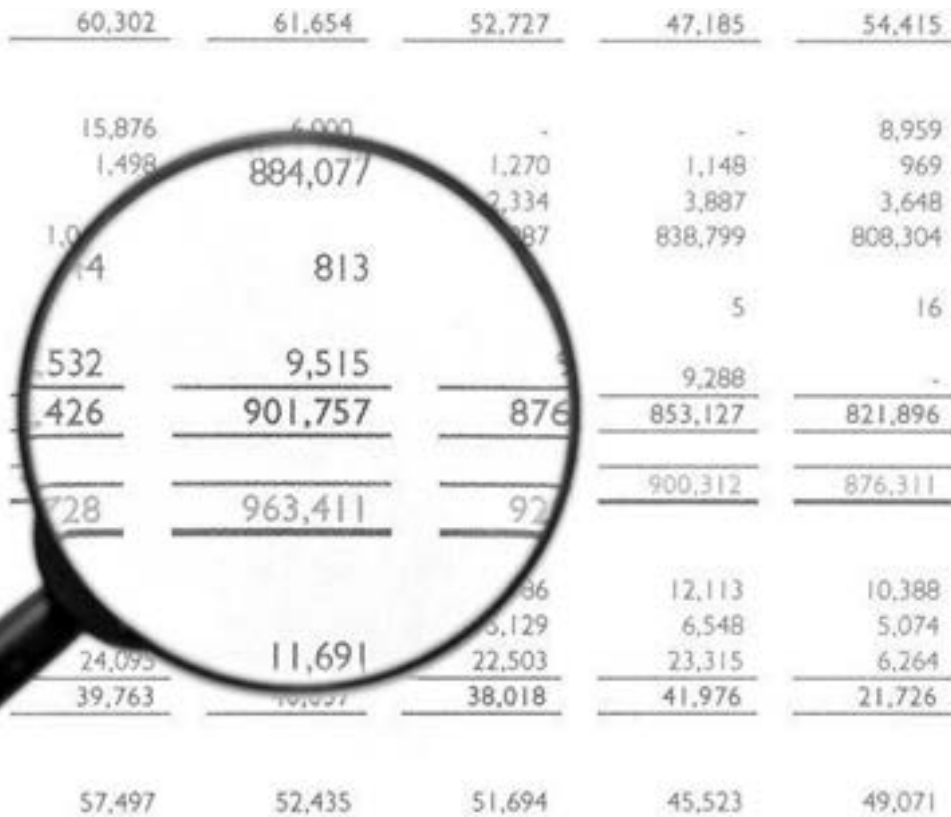
It is a lighting designer's responsibility to educate his client and adjust a budget to reasonable amounts

Lighting design: Managing the cost of implementation



Lighting design: Managing the cost of implementation

Value for money → Return on investment



60,302	61,654	52,727	47,185	54,415
15,876	6,000	-	-	8,959
1,498	884,077	1,270	1,148	969
1,014	813	2,334	3,887	3,648
532	9,515	887	838,799	808,304
426	901,757	5	16	
728	963,411	92	9,288	-
			853,127	821,896
			900,312	876,311
		86	12,113	10,388
24,095	11,691	5,129	6,548	5,074
39,763	10,957	22,503	23,315	6,264
		38,018	41,976	21,726
57,497	52,435	51,694	45,523	49,071

CapEx

Purpose: Assets purchased with a useful life beyond current year

When Paid: Lump sum up front

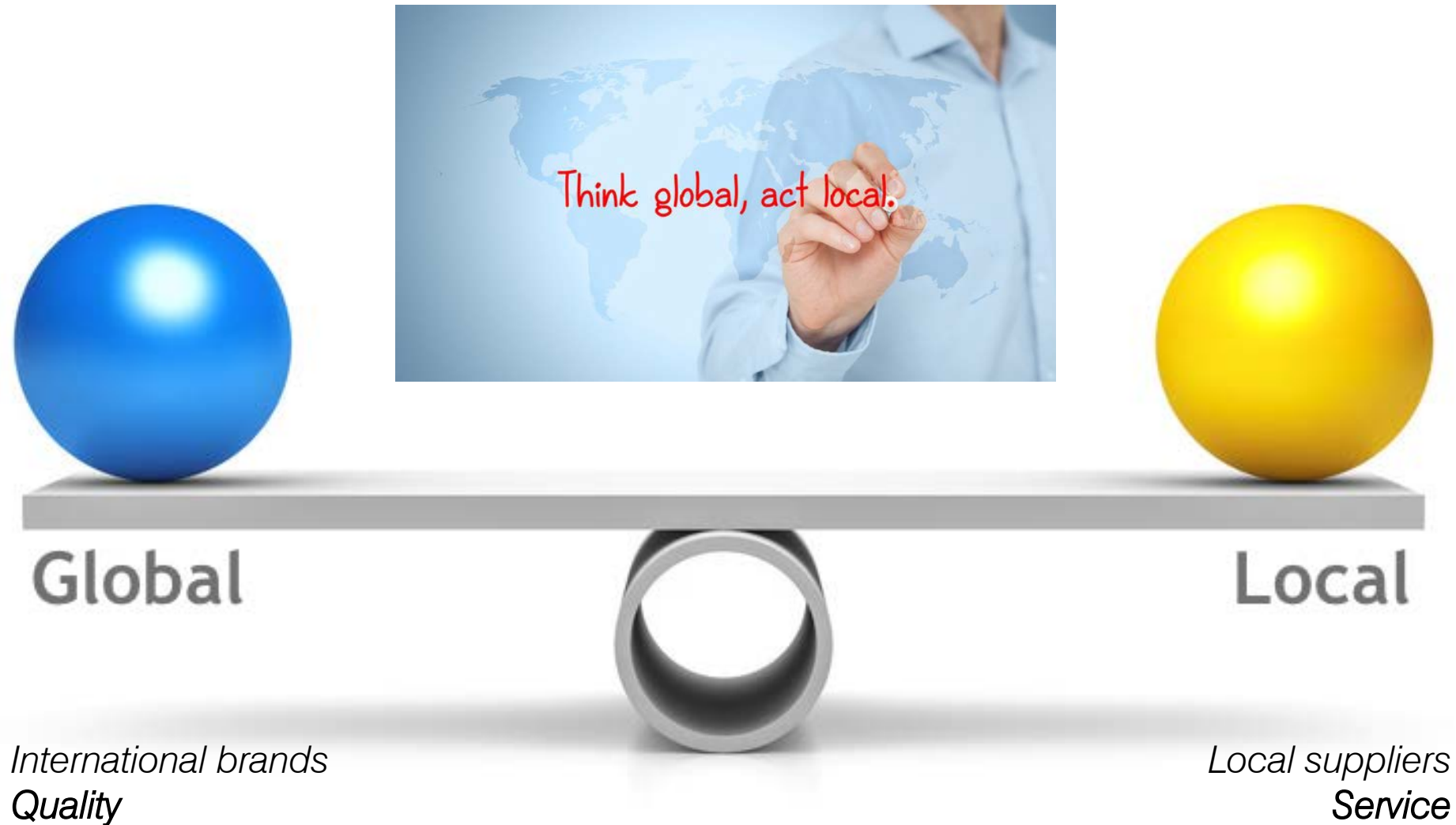
OpEx

Purpose: Ongoing costs to run a business

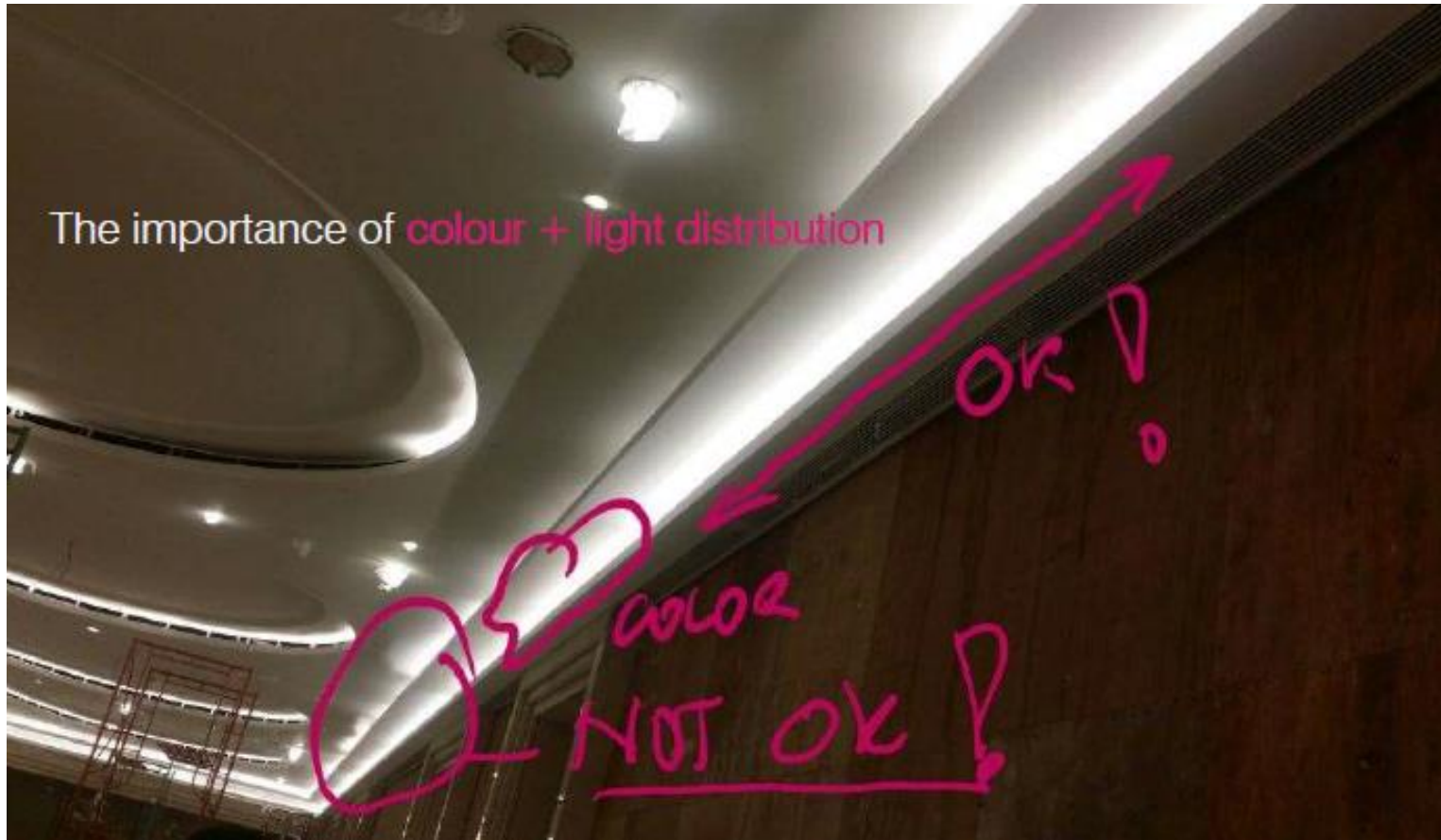
When Paid: Monthly or annual recurring

It is our **professional duty** to question ourselves on whether we are **providing the best value for money** and most of all get the client aligned with your perception of value. Value may mean different things to different people so it is important to establish good understanding of the client's interpretation of value for money

Lighting design: Availability



Lighting design: Supervising installation



Quality of workmanship!



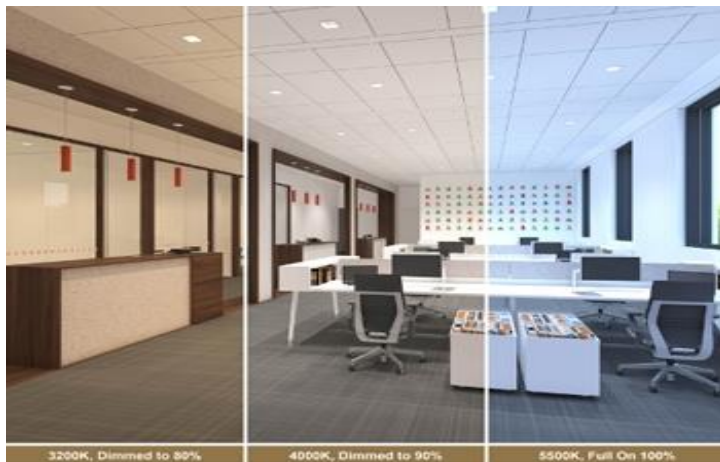
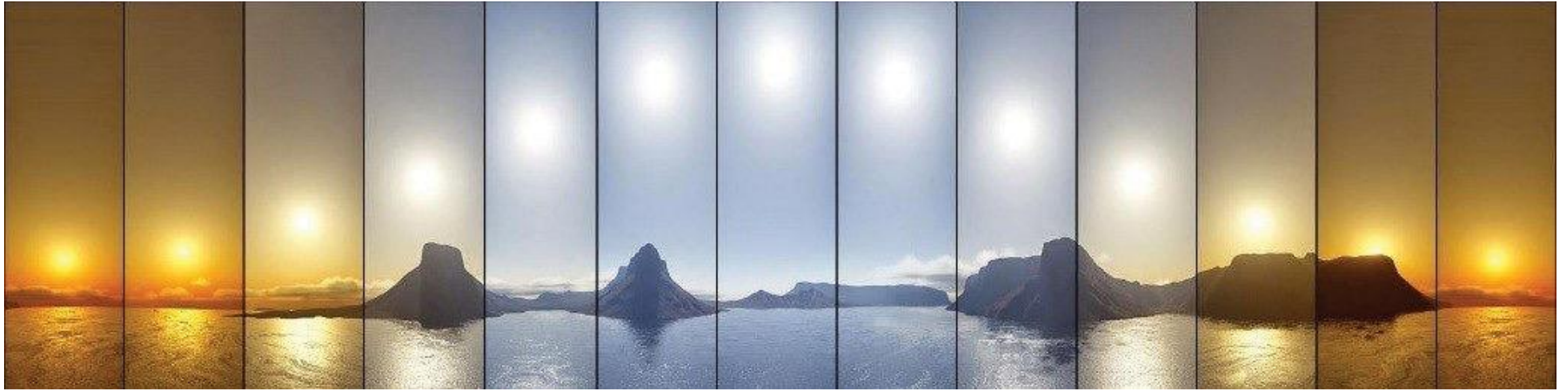
Things you don't necessarily see!

Lighting design: Standards

*International standards
Local country standards
Institutional standards
Environmental recommendations*

*Lighting design standards per application
Electrical safety standards
Manufacturers quality standards
Operational health and safety standards
Applications guidelines
Client inhouse manuals*

Lighting design: Health and safety



HEALTH

*Human Centric Lighting
Circadian Rhythms*

Reproducing natural daylight



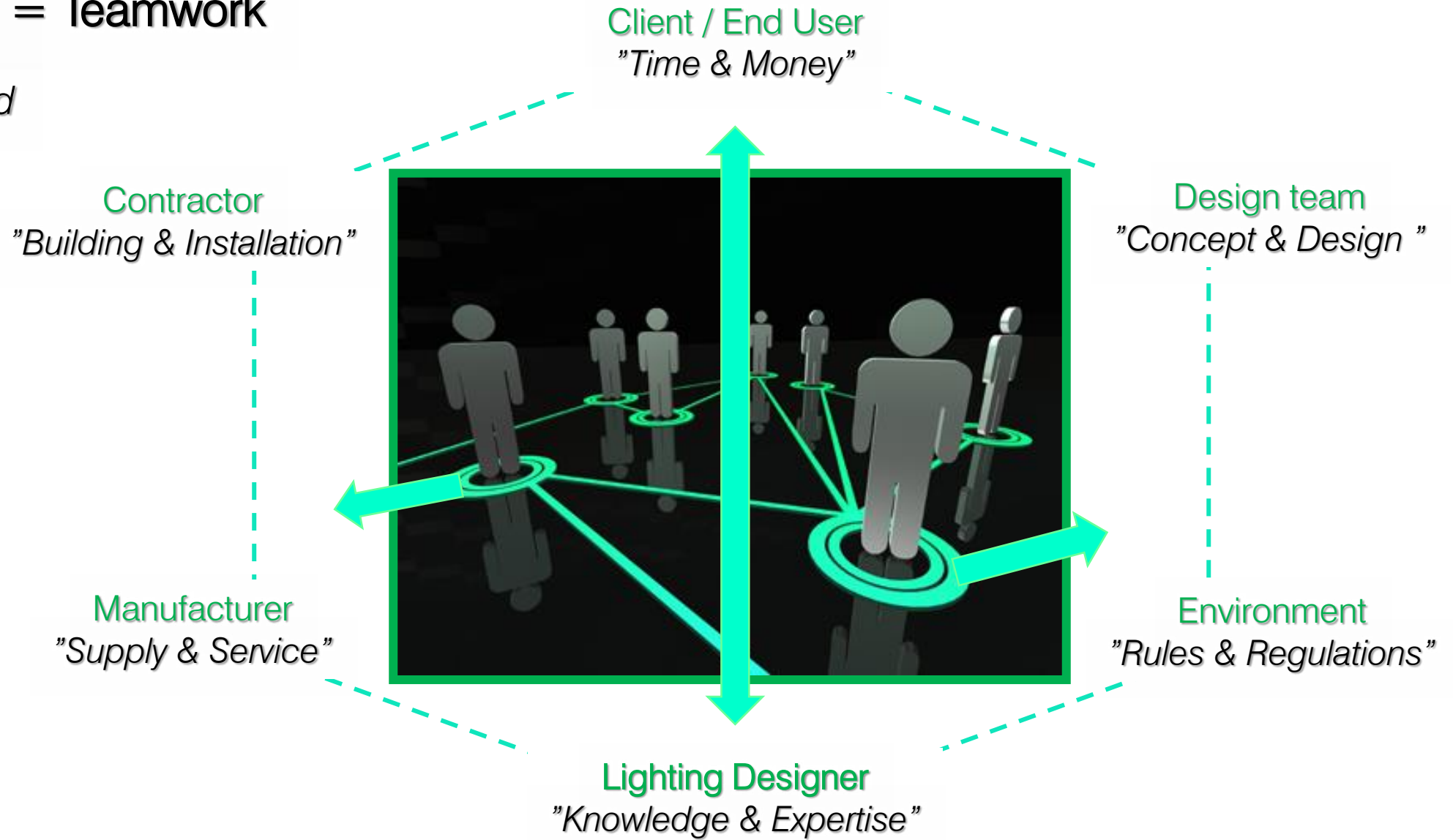
Lighting design: Health and safety



SAFETY: Hazards – Facial recognition – Way finding – Security – Vandalism

Lighting Design = Teamwork

Today's playing field



Lighting Design = Teamwork



Communicate, Educate, Deliver Quality



LEARN FROM THE MASTERS AND CREATE YOUR OWN IDENTITY



THANK YOU

MASTERCLASS SERIES



Register for 6 Power-Packed
Masterclasses by Martin Klaasen!

Sessions to be held every
Saturday for six weeks starting
June 27, 2020



Powered By:  **MEX**
MEX Exhibitions Pvt. Ltd.

A GLIMPSE INTO THE MODULES...

- 1st Module: Introduction Module: What does lighting designer do?
- 2nd Module: Creative versus engineered lighting design solutions
- 3rd Module: The process of lighting design, step by step
- 4th Module: Key considerations in the lighting design process
- 5th Module: Visualisation techniques, presenting lighting concepts (communication)
- 6th Module: Lighting design is a business
- 7th Module: What does it take to be(come) a (great) lighting designer?

Course Fee:

~~US\$250~~+GST

Register Today to Avail Discounted Fee of

US\$125+GST

**Discounted Price
For Next Week
US\$ 150+ GST**

Contact us for any queries:
info@mexexhibits.com

Register Here!

<http://www.bit.ly/lighttalks>

(The link is provided in the chat box on your screens)

MASTERCLASS SERIES

Contact us for any queries
info@mexexhibits.com



Register for 6 Power-Packed
Masterclasses by Martin Klaasen!

Sessions to be held every
Saturday for six weeks starting
June 27, 2020

<http://www.bit.ly/lighttalks>

See link in chatbox



Powered By:  **MEX**
MEX Exhibitions Pvt. Ltd.