

Display cases in the spotlight

COST D42 action *Showases Inside Out*
 Porto
 24 – 26 May 2009

Boris Pretzel
 Principal Scientist
 V&A Science Section



The British Galleries (November 2001)

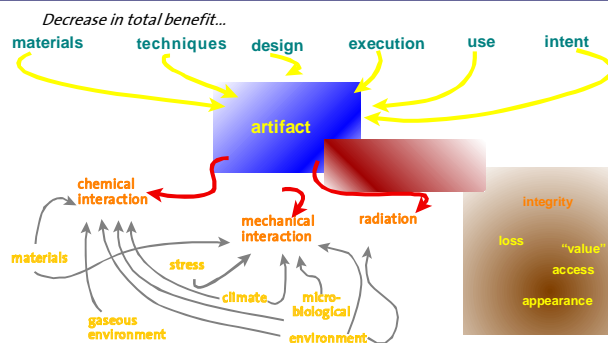


Light damage



Which is the northern hemisphere?

Damage



General light policy guidance

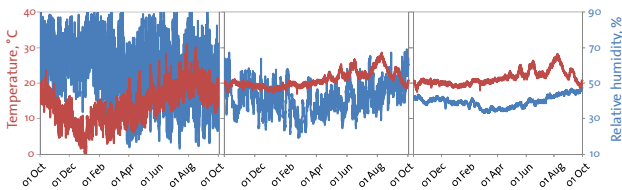
Vulnerable	Sensitive	Durable	Permanent
Display not recommended	Display at 50 lux for 20% of time (or equivalent) (36.5klx h/year)	250 lux unlimited display (900 klx h / year)	300 lux unlimited display
photogenic drawing, sensitive objects in pristine condition	water colours, pastels, Japanese prints, portrait miniatures, Indian miniatures, coloured prints, Old Master drawings, leather bound books, coloured photographs, plastics, textiles, originally upholstered furniture, pigmented feathers, discoloured paper, coloured wax	black and white drawings and etchings, drawings in graphite, black chalk, and charcoal, black and white fibre based photographs, easel paintings, painted furniture and painted sculpture	stone, ceramics, glass, metals, enamels

The Islamic Gallery

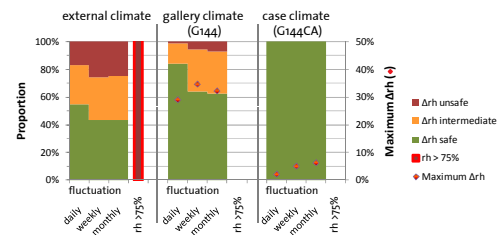


Cases and buffering

Annual climates 2003-4

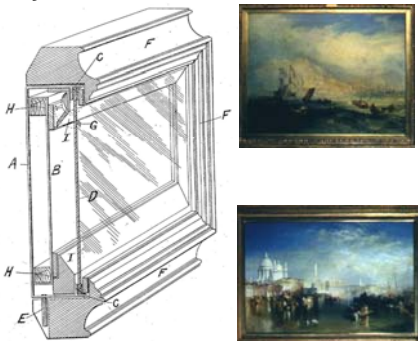


Climate fluctuation assessment



Protection – nothing new

Simpson patent of 1892



Display cases

- Security





Display cases

- Security
- Soiling

Display cases

- Security
- Soiling
- Appropriate?



Heat load?





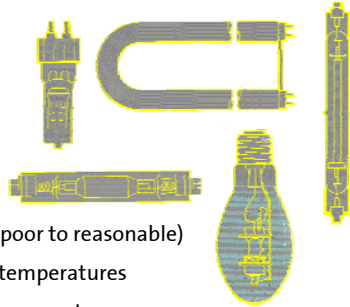


Incandescent lamps

- Continuous spectrum
- Low efficacy
- Moderate operating life
- Colour temperature: 2800K to 3200K (warm)
- Good colour rendition
- High IR component

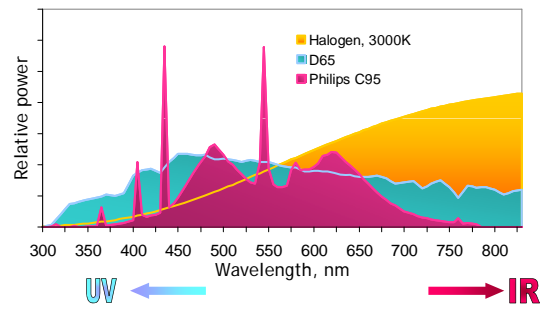
Discharge lamps

- Discrete spectrum
- High efficacy
- Long operating life
- Colour rendition: highly variable (mainly poor to reasonable)
- Broad range of colour temperatures
- Low IR but high UV component

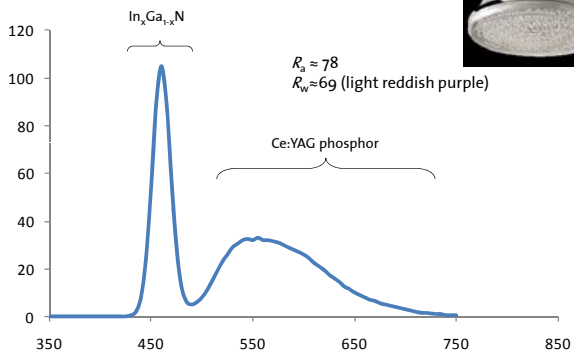


Light sources

General colour rendering index, $R_a > 95$



White LED's



Koffka's ring

