

Volume 4, Issue 4, July/August 2011

Newsletter

The Society of Light and Lighting
Part of the Chartered Institution of Building Services Engineers



- **The SLL: lighting for the future**
- **2011 AGM awards and reception**



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The massive glacier that is lighting orthodoxy is showing signs of thawing. Occasionally it is a small splinter of ice that breaks off but there is a sense that imminently, like an iceberg calving, whole chunks of past thinking will fall.

There have been a series of shifts, driven by technology, growing knowledge and awareness, climate change, working practice change and others. At least two of those factors have been cited as reasons for the LA and LIF to finally come together, memberships willing (see News p4).

Apart from the obvious energy issue, central to these changes will be the shift in emphasis to lighting for people. There is now a sense of real impatience with irrelevancies such as the obsession with lighting the horizontal plane.

In his presidential address, Raynham highlighted the need for the Code to change. Lighting is currently specified to meet a number of light technical targets, he said. 'The problem is that there is a disconnect between the light technical targets and the impact on people in the space,' said Raynham. While he wasn't challenging the essential nature of the Code and its 'tried and trusted values', he has promised 'significant new advice on



technical targets' in the new edition later this year. A splinter or a chunk?

And to end on a quirky note. Barrie Wilde, Eric Maddock and Bob Venning have been famously known as the Three Musketeers for years. Grant Daniels has been their D'Artagnan. While preparing his citation for Venning's Lighting Award, it dawned on Wilde that D'Artagnan is an anagram of 'and a Grant'.

Jill Entwistle
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LETTERS...**LETTERS...**LETTERS...LETTERS...LETTERS...LETTERS...

I thought it appropriate to take the time out to say how much I both enjoyed and welcomed the collection of articles and projects in the May/June issue. I don't believe many in the lighting industry are in any doubt of the complexities of lighting design, and in particular where you are designing spaces for sunlight and daylight. Furthermore it was good to see the article on LG5 in the CIBSE Journal and in particular to see highlighted the importance of the role of the lighting designer.

In my experience I find lighting design – and daylight in particular – is a subject that is all too often oversimplified. Therefore

articles and exposure of this quality are essential for the lighting design industry and therefore, ultimately, for our clients.

I look forward to a time when the daylight factor button within 'all-singing, all-dancing' software packages is password protected and only available to lighting designers or, better still, we disable it altogether and see a positive step change towards actually designing spaces for people as opposed to simply chasing a percentage.

Andrew Bissell
Director, Cundall Light 4

Front cover: The Telekom Bridge in Bonn, winner of this year's IALD Radiance Award (see p11). Photography: Lukas Roth

First and foremost, I would like to thank Alan Tulla for his service to the society as president, and his support to me over the past year; at the same time, I welcome Peter Raynham to the role. I'm looking forward to working with him to achieve some of the goals he and the society's executive have set for us in the next 12 months.

I now have an interesting role within the society's executive as, at the AGM, I was elected a vice president, alongside my continuing secretariat responsibility. So as to ensure that there is no possible conflict of interest, my vice president's position on executive is a non-voting one. Everyone within the SLL executive and CIBSE management team is clear on how this will work so I am looking forward to the new challenge this brings.

I would also like to take this opportunity to thank two long-serving members of the society's executive. Patrick Baldry has completed his two years as past president and Mike Simpson has now finished his CIBSE board duties. Within the CIBSE board, there is a member with SLL portfolio responsibility and I'm pleased that Stephen Lisk has now been elected to the board and will fulfil this role in the future.

'To meet the UK's CRC target in 2050, we need to refurbish around 18 million commercial buildings in less than 40 years'

In the next few weeks, we will know whether we have provisional agreement from the DCLG to revise Part L of the Building Regulations to incorporate LENI as a metric of energy consumption in future editions. As you know, this is something that Alan Tulla raised last year in his presidential address and an issue which the whole lighting industry has been behind. I hope that this support from every sector of the industry will convince government that this really is the way forward.



Energy will again be the focus of the 2011-12 Masterclass series which will start in October. This year we are tackling the great refurbishment challenge with the theme, 'One Building a Minute'. It is estimated that, in order to meet the UK's Carbon Reduction Commitment target in 2050, we need to refurbish around 18 million commercial buildings in less than 40 years – a bit of maths will tell you that equates to around 50 buildings an hour. The Masterclasses will address the issues we face and discuss possible solutions across all application sectors. These events are proving as popular as ever, a testament to their continuing quality and usefulness, so I would encourage everyone to get along to one in your area.

We will be kicking off the Masterclass series in London, at LoveLight. This is a great event and it's exciting to be involved with the programme of activities. We're also going to be involved in staging some seminars at the LuxLive exhibition at Earls Court later this year so we have a busy summer ahead putting everything together.

Finally, I would like to express my most sincere thanks to the society for awarding me a fellowship. I was truly stunned and am deeply honoured to be recognised by my colleagues and peers in this way, so to those who made it happen – and kept it a secret – thank you.

Liz Peck
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LIF and LA consult memberships on merger

The Lighting Association and the Lighting Industry Federation are considering a merger. The first step is a consultation with their respective memberships about closer cooperation, including combining operations and assets. In recent years the two associations have increasingly cooperated on areas of common interest such as legislation and standardisation.

According to the LA and LIF, the move is being driven by the rapid changes in the industry: new technology such as LEDs and OLEDs, the drive for energy efficiency, including the growing influence of lighting controls, and developments such as wider use of the internet.

The respective councils believe that these changes will be more effectively managed by the industry through a single organisation speaking with one voice. 'The LIF Council feels that the time is right, in our rapidly developing



market, for a more combined approach to industry-wide issues that could be better managed through one association,' said Eddie Taylor, the LIF's chief executive (left).

Following the consultation, a prospectus for the new organisation will be delivered to members before extraordinary general meetings of both bodies at the end of September when members will vote.

'It would be wrong of me to predict the outcome but our hope is for a strong "yes" vote which would give us a mandate to create the new association as early as January 2012,'



said LA chief executive Peter Hunt.

The wisdom of having two bodies representing lighting manufacturers has been questioned for many years, especially as other European countries have single organisations, but previous attempts to amalgamate have failed.

'It isn't for lack of trying,' said Hunt. 'But I believe this has a far better chance of success for a number of reasons. The LIF and LA have worked closely together on consultation responses and lobbying for three years now and where possible have agreed on joint positions to represent the industry as a whole. The disruptive technology that is LEDs has also closed many gaps between the various factions of our industry, as has recent legislation.

'Increasingly, government wants to talk to one body on industry issues. This applies equally in Europe where ELC and CELMA are discussing the same process.'

Symposium endorses daylight-health link

A number of prominent SLL members took part in the recent fourth Velux Daylight Symposium in Lausanne, Switzerland. Current SLL president Peter Raynham, Peter Boyce of the Rensselaer Polytechnic Institute, John Mardaljevic of De Montfort University and Steve Fotios of the University of Sheffield were among the speakers who addressed more than 300 of the world's daylighting experts.

The event focused on the relationship between human health and wellbeing in regard to buildings and daylight. The key conclusion was that there is a clear correlation between daylight and human wellbeing, and that the primary challenge now is how to embed this

knowledge in future building designs.

'It is incredible how diverse the world of daylighting research and practice really is, from discussing a common language between the multidisciplinary participants when we initiated the first symposium six years ago, to now witnessing the flourishing development of the international daylighting community,' said Per Arnold Andersen, architect and head of daylight, energy and indoor climate in the Velux Group.

■ The first European daylight standard is scheduled for publication in 2013, with a public commenting phase in the autumn of 2012. The aim is to prevent buildings with poor daylight being built across Europe, including the UK.

NEWS IN BRIEF

■ Immediate past president Alan Tulla has formed his own company. Alan Tulla Lighting, an independent consultancy based in Hampshire, will advise on all aspects of lighting, specialising in exterior work. www.alantullalighting.com

■ The BSI has launched the first internationally recognised energy management standard. ISO 50001 is designed to help organisations of all sizes implement the processes necessary to understand and improve their baseline energy usage. It is anticipated that the standard will replace BS EN 16001 which will most likely be withdrawn from use in mid-2012.

On the lighter side...

We are all inured to some of the more extravagant claims made for LEDs, but according to the Orba Spa they not only hold the key to our lighting future but also make you slimmer and younger. Pain-free, laser-free LED Light Therapy is entirely non-invasive and, with sustained and regular use, will knock off 2-6cm of unsightly fat. (Although results will vary depending on individual metabolic composition. Well, can't have everything.) According to Orba, it works by stimulating the activity of fat cells and lymphatic channels to facilitate the reduction of tissue size. The treatment catalyses fat cell membranes making them lose their round shape by changing the cell permeability. This triggers the release of the lipase enzyme which breaks the molecules down into particles small enough to pass through the pores of the cell wall. So there you go. The rejuvenation bit (above right) is somewhat vaguer in its workings but apparently LEDs do that as well. And you thought they were just about low energy and less maintenance.



Lighting the way forward

The SLL's knowledge base is the key to tomorrow's lighting environment, argues Peter Raynham, but there is much more to be learned

'At present lighting is specified so that it meets a number of light technical targets within the lit environment. In general the lighting system is optimised so that it meets those targets with minimum overall energy consumption. The problem is that there is a disconnect between the light technical targets and the impact on people in the space' ▶

◀ Developing the role of the SLL 'in solving the mounting problems faced by lighting in a world where energy use is being restricted', was to be the focus of his tenure, said Peter Raynham, as he took over as president of the society from Alan Tulla at the AGM in May. The nature of the SLL as a fount of lighting knowledge was crucial to that purpose, he said in his presidential address. 'Members are custodians of many thousands of years experience in the field of lighting. It is critical to the success of the society that it ensures this knowledge base. It is vital to being able to solve the most important problem facing us, which is how to reduce energy consumption while still providing a well-lit environment.'

However extensive that lighting knowledge was, there was still a great deal to be learned and there were undoubtedly shortcomings which would have a bearing on energy consumption, the quality of the lit environment and human wellbeing. 'At present lighting is specified so that it meets a number of light technical targets within the lit environment. In general the lighting system is optimised so that it meets those targets with minimum overall energy consumption. The problem is that there is a disconnect between the light technical targets and the impact on people in the space. This is not due to any deliberate policy, but simply because we do not understand the processes involved in human visual performance.'

This was not to imply that the values in the SLL Code are wrong, Raynham added. 'They are tried and tested values and give results that give satisfactory lighting conditions. However, we do not know enough to say they provide the optimum lighting solution. Given the drive for energy reduction we cannot sit back and just carry on with the Code values for ever. For this reason there will be significant new advice on the sensible application of lighting targets in the next edition of the Code due out towards the end of this year.'

The call for more research is the usual response when a lack of understanding is identified, said Raynham – 'As someone whose job involves a lot of research work I quite like calls for more research' – but there was a danger that studies conducted in artificial environments led to erroneous or simplistic conclusions. He cited two seminal examples: research conducted by de Boer in Belgium starting in the 1960s that led to the current system of highway lighting, and studies carried out by John Flynn in the early 1970s into the appearance of different lighting conditions within a boardroom. Both examples have legacies in current lighting practice, he said, 'where we still have an inappropriate method for road lighting specification and a number of lighting designers who only consider empty rooms'.

'It is often the goal of a research process to achieve a clear cut and repeatable set of findings, and to achieve



'We cannot sit back and just carry on with the Code values for ever. For this reason there will be significant new advice on the sensible application of lighting targets in the next edition'

this it is often necessary to remove variable elements from the environment being tested. This process is bound to reduce the value of the results even if the changes in the environment are 100 per cent logical and justified.

'This is not to say that research cannot provide useful insights and help show the way forward,' added Raynham. 'However, it is not until new ideas have been tested in real conditions and found to work well in a number of different circumstances that we know we have made progress.'

Given their vast experience, it is SLL members who will know how best to employ ideas from research in actual lighting projects, he continued. The SLL also allowed for the results of these projects to be communicated to other members. 'Once these ideas are tried and tested they can be adopted into standards, guides and codes.'

The SLL was therefore key to innovation. 'I intend to spend my year as president promoting the SLL and its aims so that the society can grow in strength,' he concluded, 'and ensure it can provide the solution for tomorrow's lighting.' ■

Appropriately for a new president heavily associated with the Bartlett, the venue for this year's AGM, awards and reception was at the UCL's Roberts Building in Torrington Place. Bob Venning, former head of lighting at Arup and the last chairman of the CIBSE Lighting Division before it became the SLL, was given the Lighting Award, a recognition of outstanding work, contribution to the society and to the lighting industry at large. In a citation written by Barrie Wilde, former head of lighting at BDP Lighting, and read by Eric Maddock, formerly of YRM (who together with Venning have been famously dubbed the Three Musketeers), he was described as epitomising the Arup brand, 'innovation delivered through engineering excellence'.

Venning started his career as a trainee electrical engineer in the early 1960s, where his interest in lighting was sparked by a senior electrical engineer, and his first design project was Pier 7 at Heathrow. In 1972 he joined Ove Arup and remained there until he retired in 2009, continuing for a further 12-18 months as a consultant. He worked with Arup R&D, where his role was to promote lighting as a specialism, acting as a focus into all groups of the Arup organisation. He was responsible for significant lighting projects all over the world, and prestigious UK schemes such as the Royal Opera House. His remit included mentoring and training young graduates, a role he continued as an associate director.

'He gives of his knowledge and experience generously and freely, and unlike some in lighting design, he gives it openly without any concern of giving "commercial gain",' wrote Wilde in his tribute.

The President's Medal, only introduced last year and given for outstanding or lifetime achievement in lighting, was awarded to Ernest Wotton, a founder member of the IALD, now in his nineties and living in Toronto, Canada, where he moved in 1956 to head up the technical department of a street lighting company. Having been found unfit for military service, Wotton went into essential work with a lighting manufacturer and drove an ambulance, while taking electrical engineering classes at Northampton Polytechnic, now City University. At the end of the war, he moved further into the lighting business and was closely involved in its ►

'Bob Venning gives of his knowledge freely and openly without any concern of giving "commercial gain"'
– Barrie Wilde, award citation



Bob Venning and Eric Maddock



Ernest Wotton



Alan Tulla and Liz Peck



Valerio LoVerso (Leon Gaster)



Andrew Saville (Regional Award)



Iain Macrae



Lou Bedocs (Thorn Lighting), John Gorse (Philips Lighting), Dave Barnwell (Holophane), Tad Trylski (ErcO)

AGM: Awards and reception

- application to trains and ships. He was also involved in road lighting, a highlight being his design of the SO50 low pressure sodium luminaire in 1948. He eventually set up his own business as an independent lighting consultant in Toronto, travelling widely in North and South America.

'Over the years Ernest Wotton has done just about everything possible in lighting, apart from stage lighting,' said Peter Boyce in his citation. 'He has designed lighting equipment and installations, carried out research, written books and articles, taught lighting, both electric and daylighting, at universities, sat on numerous standards committees, advised government bodies and generally made a nuisance of himself.'

'He was a pioneer for energy efficient lighting and daylighting before that was the thing to do,' added Boyce. 'He was also an early advocate of understanding the effects of light on health and wellbeing. He is a living example of what can be achieved with intelligence, enthusiasm, dedication and discipline.'

This year's Leon Gaster award went to Christophe Reinhart and Valerio LoVerso for their paper, 'A rules of thumb based design sequence for diffuse daylight'. The Walsh Weston award was given to D Miller, A Bierman, MG Figueiro, ES Schernhammer and MS Rea for 'Ecological measurements of light exposure, activity and circadian disruption'.

Fellowships were awarded to immediate past president Alan Tulla and SLL secretary Liz Peck. The Regional Award went to Andrew Saville for his contribution to the Home Counties North East branch.

Sponsors in Partnership certificates were given to representatives of Erco, Holophane Europe, Philips Lighting, Thorn Lighting and Tridonic. Chairing the evening was Kevin Theobald, president elect of the IALD ■



Dr Geoff Cook, Arthur Tarrant, Liz Peck



Grant Daniels, Peter Hunt, John Pickup



Patrick Baldrey, Kevin Kelly



Iain Macrae, Peter Boyce, Peter Raynham



Bob Venning and family



Alastair Scott, Richard Frost, Patrick Baldrey

Energy saving in a good light

Iain Carlile discovers a common theme in the latest research papers

The latest issue of LR&T has diverse subject matter but a common thread – better lighting for lower energy use.

J Mardaljevic's opinion piece, Daylighting prescriptions: keep taking the pills?, challenges the use of the daylight factor (DF) in the design of buildings and performance indicator rating systems, the theme he raised in the SLL's seminar on daylighting in March (see p6, NL May/June).

For those involved with exterior lighting, two papers by Fotios and Cheal look at predicting the effects of different lamp spectrums in the mesopic range of vision. They found that a lamp's spectral power distribution (SPD) does affect people's perception of spatial brightness and safety at the mesopic level, and also their preferred appearance for skin colours and spaces. This implies that particular sources could be used outdoors at lower illuminance levels while preserving or increasing people's satisfaction with the lighting.

Bullough, Radetsky and Rea examine a provisional model of brightness perception in illuminated outdoor scenes, looking at whether the use of coloured objects, such as cars, within the illuminated scene affected the overall perception of brightness. Their findings suggest that brightness perceptions are independent of different object colours.

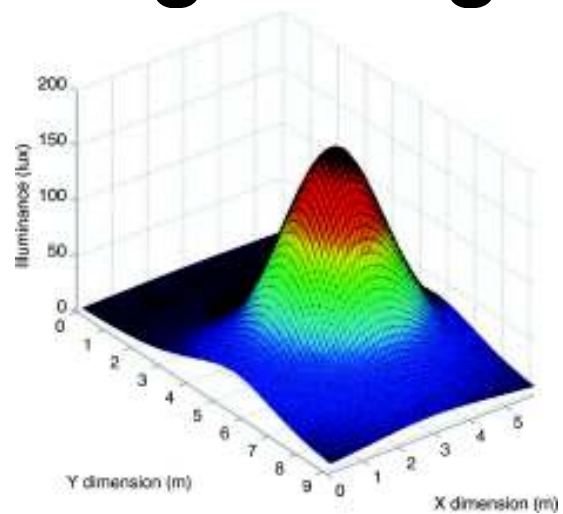
Wen and Agogino present a lighting control system for open-plan offices with two novel features: a plug-and-play wireless-networked sensing and actuation system, and a sophisticated control method to provide occupant-specific lighting. A pilot study showed energy savings of 60 per cent compared to an installation with no lighting control. By providing sophisticated lighting control with no need for new control cables, this has potential for building refurbishment.

Staying with lighting controls, Caicedo, Pandharipande and Leus consider the energy efficient lighting control of occupancy-based LED lighting systems. Using an algorithm, they optimised dimming levels based on localised occupancy detection, demonstrating energy savings.

Wilhelm et al look at illumination levels on a car production line during the daytime shift, testing the visual performance, alertness and wellbeing of workers under three different illuminance conditions (500, 1500 and 2500 lux). The study showed no statistically significant difference between the three, except for subjective alertness, which was rated significantly greater at 2500 lux than at 500 lux.

O'Hagan, Khazova, and Jones question the exposure of actors and TV workers to ultra-violet radiation (UVR) from HMI daylight fittings. They found that inadequate filtering led to a significant risk of overexposure to the skin and eye.

Figueiro et al studied eighth-grade students to determine the impact of morning light on circadian timing, sleep duration and performance. Half the students wore orange



Example of illuminance model at workplane level created for each fitting (Control of wireless networked lighting)

glasses before and during school to minimise the short-wavelength light exposure needed for circadian stimulation. Circadian timing was significantly delayed and sleep durations slightly shortened for these students when compared to the control group without glasses. ■

SLL members can view papers free at www.sll.org.uk.

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Artful design

We must not allow financial constraint to push creativity to the margins, argues Michael Grubb

The past few months have seen a wave of gallery and museum openings, many on a large scale and involving leaps of architectural innovation and imagination. David Chipperfield's Hepworth Wakefield opened in May, the biggest UK gallery to be built since the Hayward on London's Southbank in 1968. Zaha Hadid's Glasgow riverside Museum of Transport is the first to be opened in the city since the Burrell in 1983 and is expected to attract a million visitors a year. On a smaller scale, but fascinating nonetheless, the Watts Gallery in Compton, Surrey, has reopened after a £10 million refurbishment. Built in 1904, it is the biggest gallery devoted to the work of one man, George Frederic Watts, once thought of as the country's most influential artist.

Diverse as they are, what links these projects is they were begun before the credit crunch, with a view to some form of regeneration. They are also huge works of creativity in their own right. If we needed them before the banks overdosed on our debt, surely we need them all the more now.

The development of the museum and gallery sector in some ways mirrors the direction that lighting design has taken. Both have had to evolve in relation to expectations and changes in technology. The two are, of course, also interlinked; as museums become more interactive, functioning not only as centres of education but also as visitor attractions, lighting's role in creating the visitor 'experience' is becoming ever more crucial. Here as elsewhere, good lighting practice, environmental concerns, a belief in education and the need to influence policy – everything that the SLL stands for – all remain as important now as they were before the bottom line became the primary issue.

The danger when financial constraints and environmental concerns conspire is that creativity is pushed to the margins: the tick box becomes a prison of the mind and, perhaps more important, the very point of creating an exciting, imaginative and attractive environment is lost. What greater anti-climax could there be than a regeneration opportunity squandered through lack of imagination? The projects I have mentioned show that this is not inevitable. In reality the only thing that has changed since the 'golden age' of binge borrowing is that there is less real money around. That means the pressure is on to create cleverly not conservatively, imaginatively not meanly.

The basics of good lighting practice remain the same



'The tick box becomes a prison of the mind and the very point of creating an exciting, imaginative and attractive environment is lost'

regardless of economic conditions but there is an argument that it is at times like these that ingenuity and experience begin to pay. For both economic and environmental reasons, lighting design should always be about making a little go a long way; overlighting is a sin in any circumstances. When the focus is on cost and not on value it may be harder for some clients to think in the long term or weigh the costs of not following a course of action that they would cheerfully have signed up to in more optimistic times.

One of the lessons the lighting industry can learn from the museum and gallery sector is the importance of outreach. There was a time when museums were sombre and inward-looking. Then they almost literally threw open their doors, not only creating interactive attractions but also working with key groups to develop participation. They flourished and the number of visitors increased dramatically. Their challenge is to continue to do so in the face of funding cuts. Our challenge is to reach out to other design team members, clients, the public and government, to demonstrate the benefits of good lighting practice by doing what we do best, better.

Michael Grubb, MCIBSE, is a director of Sutton Vane Associates

Joined-up thinking

Winner of a Lighting Design Award, Licht Kunst Licht has now won this year's IALD Radiance Award with the well-connected Telekom Bridge

Deutsche Telekom, Europe's largest telecommunications company, is in the business of making connections, in this case linking the company's two office blocks with a 74m footbridge across a busy road in Bonn. The idea was to bring together the 4000 employees, but also to create a symbol of corporate identity. The lighting is a composition of several elements and represents the first time that German lighting consultant LKL has made exclusive use of LEDs.

Key lighting elements are the 65m-long media displays that are integrated into the structure on either side of the bridge, forming a seamless screen comprising LED video display panels. Resolution is 32 x 6500 pixels and colour saturation is 16 bit, their high luminous density (7000 cd/sq m) allowing the media content to be visible in daylight. At night brightness is reduced to 30 per cent. Created by a video artist, the dynamic but disciplined content uses only the Telekom brand colour of magenta.

Lighting on to the bridge deck, from LED fittings integrated into the handrails, is neutral white. The luminaires are narrow beam and precisely positioned to avoid distracting glare for drivers and tram conductors. The strongly directional lighting on the bridge and stairs is designed to contrast with the relatively low lighting levels of the surroundings so that the footpath appears to float, emphasising the sense of connection.

At either end of the bridge are 11m-high lift towers that mark the office entrances and provide the third lighting element. White LED profiles, dimmed to around 40 per cent of their output to produce a diffused glow, are mounted at the top and bottom of the opal glass facades. The towers also have an interactive element. Additional profiles with warm amber-coloured LEDs create light shadows which are activated by passers-by. Double-pulse laser sensors are used to detect passing individuals, triggering the coloured light behind the facade nearest to them, with the distance between person and tower determining light intensity. People can influence this by stopping or changing their direction, an effect which can be seen from some distance. ■

The Radiance is the award given to the project which accrues the most points among the Excellence winners. For a full list of this year's winners go to www.iald.org

Project: Telekom Bridge, Bonn
Client: Deutsche Telekom
Lighting design: Licht Kunst Licht
Architect: Schlaich Bergermann und Partner



Photography: Lukas Roth

'This project clearly shows the influence of light in the public space, and the trend to create new urban structures that, by night, convey a powerful visual meaning' – judges' verdict



2011

6 July

Joined Up Lighting
Lighting for circadian systems: short term benefit or long term danger?
Venue: BDP Lighting, Brewhouse Yard, London EC1
Time: 2.30pm
www.ile-events.org.uk

7 July

Lighting Association Annual Conference, Gala Dinner and Lighting Awards
Location: Stratford-upon-Avon
www.lightingassociation.com

14 July

LEDs: the truth revealed
One-day ILP event including technical lectures, professional debate and table-top exhibition
Venue: Gloucester Rugby Club
Time: 10am-4.30pm
www.theilp.org.uk

11-14 September

Plasa 2011
Venue: Earls Court, London
www.plasashow.com

27-30 September

Social Light Movement Workshop
Theoretical workshop and guerilla lighting event
(Collaboration between City of Liege, LUCI and founders of Social Light Movement)
Location: Liege, Belgium
E sharon@lightcollective.net

28-30 September

ILP Annual Conference
Sustainability in Lighting
Plus exhibition
Venue: Majestic Hotel, Harrogate
www.theilp.org.uk

6 October

LoveLight
Venue: The Classic Car Club
Old Street, London EC1
www.we-love-light.com



11-14 September: Plasa 2011, Earls Court, London

11 October

SLL event
LEDs: CRI for help
Venue: tbc
www.sll.org.uk

19-22 October

Professional Lighting Design Convention
Venue: Circulo de Bellas Artes, Madrid, Spain
www.pld-c.com

9 November

Lux Awards 2011
Venue: Chelsea Football Club, London SW6
www.luxawards.co.uk

9-10 November

LuxLive 2011
(Organised by Lux magazine and LIF)
Venue: Earls Court, London
www.luxmagazine.co.uk

13 December

SLL event
Follow the code?
Venue: tbc
www.sll.org.uk

15-20 April

Light and Building
Venue: Messe Frankfurt
www.light-building.messefrankfurt.com

7-11 May

Lightfair International and IALD Conference
Venue: Las Vegas Convention Center, Las Vegas
www.lightfair.com

Lighting Masterclasses:

Masterclasses are kindly sponsored by Erco, Holophane, Philips, Thorn and Tridonic. For venues and booking details, see www.sll.org.uk



Mid Career College: the college runs various courses across the whole spectrum of lighting and at sites across the UK. Full details at: www.cibsetraining.co.uk/mcc

LIF courses: details from John Hugill, 0208 529 6909, or email training@lif.co.uk

2012

29 February-1 March

The Arc Show
Venue: Business Design Centre, Islington, London N1
www.thearcshow.com