

City Lights and Social Nights

Clementine Fletcher-Smith explains how well-designed lighting can positively impact urban spaces after dark



Exchange Square, London. Copyright: James Newton

As many urban environments increasingly operate on a 24 hour 7 days a week basis, people's experience after dark is every bit as important as it is by day, and in some cases more so. Whilst the way we see and feel such spaces during the day is down to the time, climate, season and weather, at night the visual experience is entirely dictated by the interplay of artificial light with darkness, which can be fully designed. To ensure the success of any urban landscape, the changing

pattern of use throughout those 24 hours must therefore be considered, so that the lit experience is tuned to the way in which spaces are used. To do this, lighting designers, urban and landscape designers, and planners need to work collaboratively. Light can be used to add an extra dimension to the overall impact and success of an urban design project, amplifying transformation, influencing social activity, minimising environmental impact and shaping policy to elicit wider impact.

Transformation

We often talk about the power of light to transform. By day, everything is illuminated, but under the blanket of darkness, we choose what to reveal with light and change the way that it is perceived. As part of urban masterplanning, light can make a profound contribution to the transformation of the character and use of a large urban area and over a long period of time.

For the redevelopment of the former railway goods yards at King’s Cross in London, we started working on the Lighting Vision in 2006. Eighteen years later we are still working on projects that refer back to the principles set out at that time, so they contribute to delivering a cohesive character after dark. The aim of the lighting was to create a character that acknowledged the history of the site, whilst supporting and encouraging the development of a vibrant night-time economy.

The consistency in approach to the area’s lighting design over a long period of time has resulted in a large urban area that does not feel like each new district is shouting for attention after dark. It also allows the overarching narrative of the site’s industrial heritage to be maintained by protecting some comparative darkness within the area, such as the canals and some of the landscaped spaces, and by prioritising architectural lighting for retained industrial buildings, rather than new architectural facades.

An important aspect of most lighting visions and masterplans is to restrict the use of excessive light, so that where it is actually needed, less energy is required to do so and the contrast gives a far greater impact. This also focuses the experience after dark on the elements of the design that are intentionally illuminated. We talk about lighting being the glue that joins areas together. Ensuring that there are safe and welcoming trails of light that provide connections at the lowest intensity of light required for safety, accents of light can then be used with much greater purpose to provide genuine contributions to wayfinding, accessibility, placemaking and opportunities for playfulness and delight. It is this approach that enables an urban area to be transformed into a popular and attractive destination after dark.



City of London lighting design guidance. Copyright: Speirs Major

Social activity

Whilst it might sound obvious, it is worth remembering that we only use light in the urban environment so that people can extend their use of a space beyond daylight hours. Too often it seems as though towns and cities are lit for the benefit of cars and the perceived prevention of crime, forgetting how significant the impact of light can be on the way that people feel and behave. People are like moths – we are drawn to light. So, in developing the lighting brief for any urban area, the first question should always be: how do we want people to use the space throughout the hours of darkness? This may be very different to the way that the space is used by day. Most urban projects we work on have three primary area typologies:

- areas to discourage people from using (for privacy, safety or to protect biodiversity)
- routes where the primary lighting function is to enable people to travel safely
- destinations where the aim is to encourage social activity.

In order to encourage social interaction, firstly people must feel safe. This can often be achieved by clearly defining the perimeter of the space around them, rather than by providing high levels of light on the ground. Spatial legibility can provide reassurance of being able to intuitively navigate a space after dark, even if it is unfamiliar, which in turn creates a sense of safety. Once people feel safe, then illuminated focal points naturally draw people together, like moths to a flame or people sitting around a camp fire.



Gasholder Park, King's Cross. Copyright: James Newton

In south London's Elephant Park, which is a major new mixed use development, the way in which benches are highlighted has transformed them into places for people to gather after dark. Instead of having lighting by people's ankles illuminating the paving and little else, low pole-mounted lights with an aesthetic reference to a domestic floor lamp create a pool of light around the benches and give good facial illumination, creating a small outdoor room, and the timber-slatted benches glow internally like jewels in the landscape. These pools of light within a darker landscape give a sense of separation and privacy encouraging people to inhabit and take temporary ownership of the public realm for social activity. LSE's Department of Sociology conducted a three-year study observing the Elephant Park development, noting that the increased footfall through the park resulted in people feeling safer there after dark.

Exchange Square in the City of London's Broadgate development is another landscape where the general lighting levels have been kept very low, and light gives a behavioural nudge to try to influence how the space is used. Low focal points of flowing golden light act as pseudo fireplaces for people to gather around, encouraging calm behaviour.

The combination of low seating positions and pale paving allows light to bounce up onto people's faces, and the discontinuous light provides natural areas of separation along the seating steps and within the tree groves. This allows multiple small groups of people to use the space after dark, each creating their own social space.

Environmental impact

A fundamental consideration in all urban lighting projects is the environmental impact of lighting. In addition to the energy consumption and circularity of the equipment, we consider the direct impact of the light on the surrounding environment in terms of its biodiversity. We try to use light sparingly and selectively where it will have greatest positive impact to sufficiently counterbalance any negative environmental impact.

An issue that arises on every exterior lighting project is whether to light the planting or preserve darkness for the benefit of biodiversity. The balance that needs to be struck will be different for each project, but it is undeniable that illuminated planting can be visually striking and extends the positive impact on wellbeing that our connection with

nature brings. Lit planting can frame views, create focal points, increase the legibility of an environment, and bring colour, texture and movement to a space. It is possible to benefit from some of these positive experiences without compromising the biodiversity of a landscape.

Moderation is the key. We always try to ensure that some areas of planting remain unlit, and where lighting is introduced that it is sufficiently controlled to only be operational when it will provide most benefit to people enjoying the space. In the later hours of the night when footfall is low, it would be hard to justify that lighting on planting remains on. At Elephant Park, just a few landmark trees are highlighted, but the rest is otherwise left intentionally in darkness.

Of course, it is not just active lighting to planting that can impact biodiversity, incidental spill light plays a huge role as well. Another way to moderate that impact is to decide whether all routes that are active by day really need to be lit throughout the hours of darkness. In a park lighting a path encourages people to use it, yet in discussion with the police's crime prevention unit, Secure by Design, it is sometimes deemed safer not to light a route that has little passive surveillance, as the lack of light discourages people from using that route. By channelling more people towards fewer primary routes after dark we are also leaving greater expanses of darkness not impacted by spill light.

Colour temperature is another aspect of light that can influence its impact on biodiversity. UV and blue wavelengths have the greatest impact on flora and fauna, whereas warmer wavelengths can cause considerably less interruption to normal patterns of activity. A current project example of this is a pedestrian bridge across a lake but which crosses

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a bat route. Light is needed throughout the night for pedestrian safety, but by working with the architect to consider the interaction of light and materials, a red finish for the bridge further increases the warmth of the light reflected from it. In addition to the materials choices, we have specified tuneable light that changes from a neutral warm white in the evening and seasons when bats are less active, to a much warmer light when the bats are active. This collaboration amplifies what we would have achieved as lighting designers working on our own.

Policy influence

Finally, by addressing lighting through planning policy there is an opportunity to have a far greater impact than can be achieved on a single project. There are surprisingly few British and European Standards that relate to lighting in the public realm compared to many other design disciplines. Lighting standards are often very generalised, not taking into account the materials on which the light lands, or very variable when the material surfaces are taken into account. Policy needs to incorporate an understanding of perception. Part of our responsibility as designers should be to try to improve policy, based on our experience and expertise.

Over the last few years we have been working with the City of London Corporation to help it to redefine its public lighting approach, resulting in the *City of London Lighting Vision* in 2018 and the *City of London Lighting Supplementary Planning Document* in 2023.

The Lighting Vision sets out new lighting standards for public space throughout the city including street lighting. The aim was to raise the quality of the lit environment whilst

significantly reducing energy use. The entire lighting network has been upgraded to high quality warm-white light emitting diodes (LEDs), which is dynamically controlled. It also stresses the importance of the quality and distribution of light that together inform the character and legibility of a space, not just the required quantity of light.

Working closely with the City, we demonstrated that by lowering overall street lighting levels and excessive spill light from buildings' interiors, and by improving the lighting of key landmarks to support intuitive wayfinding, an area could still feel safe after dark, but use considerably less energy and operational carbon. By dimming street lighting late at night, when there is low footfall and fewer bright interiors to contrast with, even more energy can be saved. By improving the understanding of how a lit environment is perceived, the City reduced its energy consumption

by 50 per cent. This is a staggering amount, especially given that the overall perception was that streets were better lit. It is anticipated that the new Lighting SPD will have an even bigger impact in addressing the impact of light from the early stages of architectural and urban design.

Conclusion

It can feel as though lighting design bears a heavy weight of responsibility. However light has the potential to bring a sense of celebration and delight to urban spaces, and so by treading as softly as possible, this can remain the primary aim. ●

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Elephant Park, London. Copyright: James Newton