

# The light fantastic

10 January 2008 | By Trish Lorenz

Flatteringly lit restaurants, hotel lobbies and high-end retail spaces have long reaped the commercial benefits of ambient lighting design, although high cost has limited investment in other sectors. However, well-documented research into its health benefit

That light affects our wellbeing is pretty much a given. On a grey winter day, when light moves imperceptibly from limpid to barely bright it's hard to feel as vibrant and enthusiastic as it is on a clear sunny summer day, surrounded by blue sky and bright sunshine. The same is true of artificial lighting schemes, which can move beyond the functional to have a significant impact on our health.

Scientific research into the subject proves the point - scientists have concluded that light does more than just affect our visual system. The US-based Lighting Research Center has found that light can alleviate seasonal depression (known as Sad), improve the length and quality of sleep, improve the performance of nightshift workers, improve weight gain in premature infants and that it has a direct impact on brain activity.

Surprisingly - or perhaps not given the budgeting constraints on the National Health Service - research such as this is most likely to be applied in commercial organisations which recognise that lighting can both improve productivity and reduce turnover. This is particularly true of environments with little natural light such as control rooms, which are often underground for security reasons. The National Grid found that its control room experienced very high staff turnover and pinpointed poor lighting as an issue. VBK Lighting was appointed to implement a new system and chose a day-lighting scheme - where multi-lamp systems are linked to satellite clocks and replicate the ever-changing light of day. This imperceptibly alters the intensity and colour of the lighting in sync with dawn and dusk.

'We use durable fluorescent tubes behind false skylights and false windows,' says VBK design director Max von Barnholt. 'Their brightness is linked to the time of the day and the time of the year and accurately replicates the changing light. It's not about recreating the conditions of the day outside - daylight in the UK is bleak and rather grey. Rather, it's about recreating the perfect day, with the canopy of blue sky and the warmth of direct sunlight.'

According to von Barnholt, the National Grid has seen staff turnover fall significantly and has rolled out the approach across similar spaces. This type of project is now also being applied in office and restaurant schemes. Lighting specialist Mindseye worked with Tequila, a space in Soho with no natural light that functions as a meeting room during the day and a bar in the evening. Alongside dimmable lights for evening use, the consultancy installed a series of panels that act as false windows and used day lighting schemes to alter the lighting as the clock ticks.

'In the past, we've assumed that people need a specific amount of light in their work environments and have applied it uniformly. In fact, that's not how human beings function,' says Mindseye managing director Douglas James. 'We prefer a subtle variation of light over time; the nervous system doesn't like monotony and we need variation to keep our senses alert.'

Mindseye also created lighting at the newly revamped Barbican multi-arts venue in London and was briefed to up the ante from what was previously a soporific scheme. By adding drama with high and low lights and changing the spectrum to a stronger quality of light, the venue has seen a change in the response of its patrons. 'It's much buzzier and busier,' says James.

It's an approach that can also have benefits in retail spaces. Arup Lighting associate Jeff Shaw says employees who are comfortable in their environment are happier and provide better service. 'Lighting in the Adidas Performance Store in London's Oxford Street contributes to the interior design and highlights the merchandise well, but it also creates a gloomy atmosphere. In my experience, staff are noticeably less enthusiastic than in nearby Nike Town with its dynamic, well-lit surroundings,' says Shaw.

It's a concept again backed by scientific findings. Humans need to be exposed to a sufficient amount of light, for a sufficient amount of time and at the right time, for our biological clocks to remain synchronised with the solar day. Fall out of sync and you'll find a reduction in performance, as anyone who's tried to work while jet lagged will know.

Even simple colour changes can make a difference. According to James, research has shown that blue-coloured

light aids recovery times in hospital wards and yellow stimulates communication. Spas are among the first commercial ventures to trial chromotherapy. At InterContinental Hotel's London Park Lane, the KDD-designed spa which opened in June 2007, features treatment spaces in which the colour of the ambient light can be altered to suit the type of treatment or the client's mood, reputedly enhancing the benefits of the experience.

Lighting systems that aim to improve health and wellbeing are becoming more common. 'Although the initial cost of the project is quite high they are very cheap to run,' says von Barnholt. 'Two years ago these projects were the reserve of high value spaces, but now it's much more accessible and more cost effective and more people are recognising the benefits.'

Like

Share

Pin it