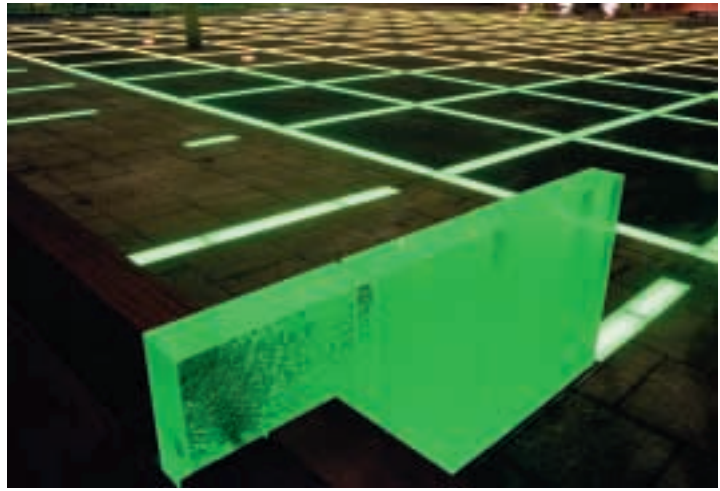




Pic: Jim Ellam



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(above and far left) Finsbury Avenue Square features 650 DMX-controlled IP68 LED units, in five different lengths, containing over 100,000 individual LEDs in RGB clusters to offer a full range of colours – all specially developed by Artistic Licence
(near left) Regents Place in contrast uses fibre optic cables developed by Philips

square lightscape

the re-imagining of two london public squares

Rob Honeywell, Senior Associate at Maurice Brill Lighting Design in London, takes us through two projects that at first glance look identical. On closer inspection however, the use of fibre optics and LED's reveal totally different schemes...

There are two new exciting city landscape lighting projects in London that share similarities in terms of concept and appearance. However this is where the similarity ends. Below the light sculptured surfaces these two commercial projects are unique in their own right. The designs, and the budgets, are worlds apart and as such should be viewed within context rather than directly compared. Two separate architects, together with Maurice Brill Lighting Design (MBLD), dreamed up concepts that have changed the face of how we view our cityscape. Designs almost seamless in detail create an engaging horizontal transition for the public while simultaneously producing a cohesive union of the surrounding buildings.

REGENTS PLACE

Conceptually, for Regents Place, the aspiration of architects Sheppard Robson and EDCO was to make the space a focal point during the day, and an exciting destination at night. The

square is framed by art in many forms, but its centrepiece is the colour changing floor feature built hidden within the paving. The narrative of this floor feature is based on the earth's tectonic plates and the fault lines that bisect them.

This kinetic lighting installation occupies almost the entire square, in the form of a grid of side-emitting colour fibre optic cables embedded within the paving slabs. The flush-recessed 25mm wide stainless steel channels sealed with resin were custom made by Philips. The channel is designed to be as narrow as possible in order that the daytime appearance is discrete, and the surface detail appears to be very clean and uncluttered. Just as important was the fact that the client wanted little or no future disruption to the paving or the lighting in the floor, and so the selection of fibre optics creates an ideal solution. The reality of this means zero maintenance above ground and minimal maintenance below ground. The below basement car park houses

all ninety-two metal halide fibre optic generators, each equipped with DMX controlled programmable dichroic colour wheels, which are used to illuminate a over half a kilometre of side emitting fibre.

An additional concept to this, designed in at an early stage, was to allow the kinetic nature of the floor feature to be influenced by the public. This was to be achieved by infrared beams mounted at low level that would link to a counter control device that would monitor the pedestrian flow about the square. The subsequent increase or decrease in pedestrian activity would create alternative lighting sequences.

The open side of the square facing the Euston underpass is fronted by a row of 8.2m high lighting totems. These six glowing orange-red light columns equipped with 70W PAR30 CDM-R lamps and specially made by Woodhouse Lighting, These columns create a site signature and act as beacons to signal the main approaches to the

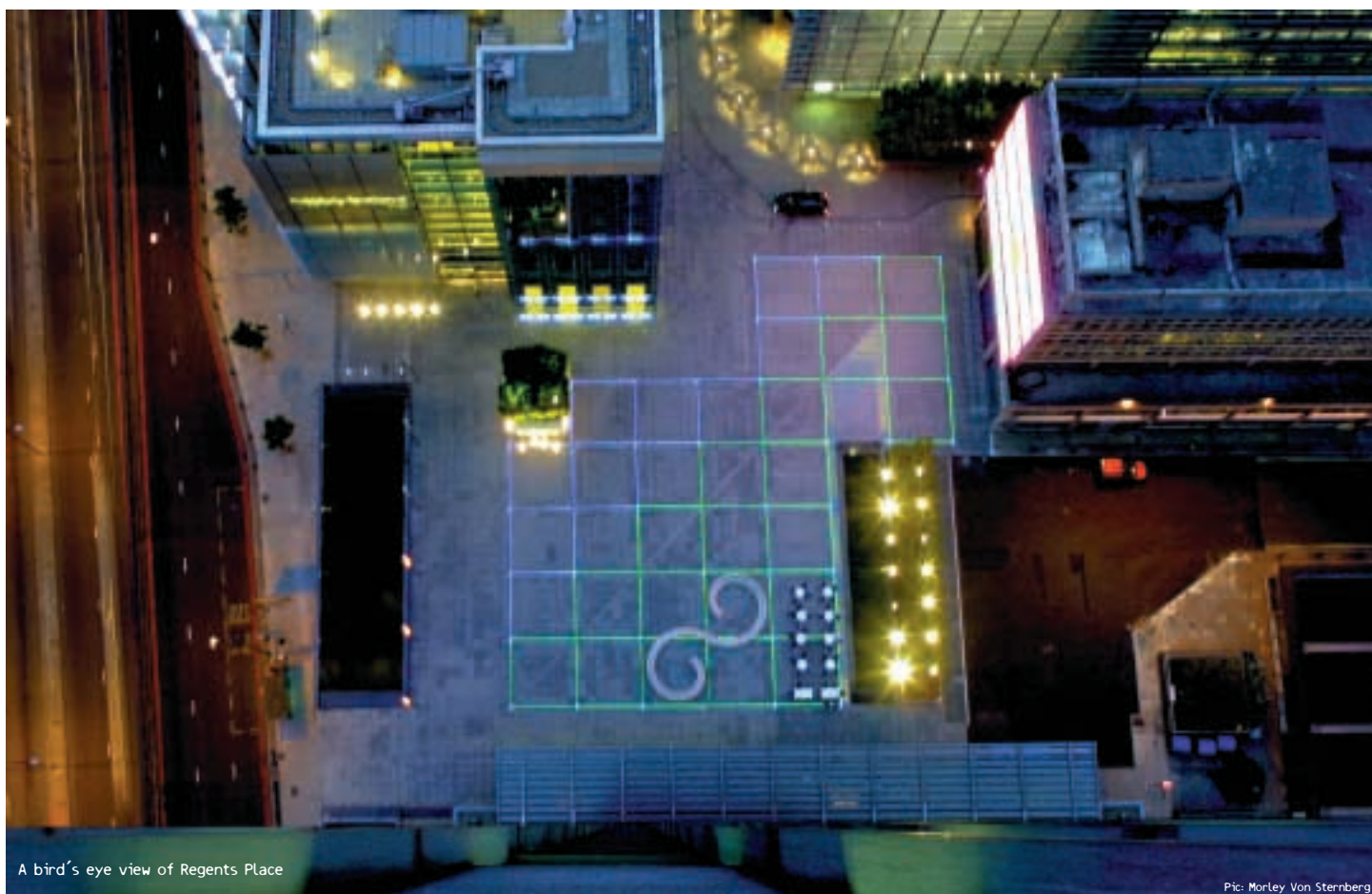
space. Alongside, next to the main entrance of the Abbey National HQ, is a huge floating planter, mounted on stilts and planted with substantial young trees. The 'floating' impression is enhanced at night by a series uplighters buried in the paving, which gently wash the planter's underside.

The front face of the planter features an 18th century white marble frieze (The Battle of St. Vincent) created by Edward Hodges Baily. One of two recently rediscovered monumental relief carvings, it was conceived for Napoleon's Arc de Triomphe but was never completed. This is dramatically uplit, using 35W CDM-R mirror spotlights, hidden within the tops of stainless steel bollards, again by Woodhouse.

FINSBURY AVENUE SQUARE

Then, one year later, September 2003, saw the completion of Finsbury Avenue Square at the heart of Broadgate's financial area. For this feature, the cost increases three fold compared to that of Regents Place.





A bird's eye view of Regents Place

Pic: Morley Von Sternberg



☉ The Square was formerly an unprepossessing space at night, which users skulked through on their way to nearby Liverpool Street station. This square represented a significant milestone in the MBLD lighting master plan for Broadgate. Architects SOM produced three options for the square, with the underlit floor proposal winning the day. Eventually the idea for an illuminated inground matrix of lights emerged for Finsbury Avenue

Square – and MBLD brought in Artistic License, specialists in lighting controls and distribution for the entertainment industry, to help develop the concept. It soon became clear that LEDs were the right light source, but there was no suitable off-the-shelf product available. So a custom product was developed, and manufactured. Because of the 150mm wide glass surface detail (Regents Place was 25mm square) and to ensure an even luminance of the glass, the LED offset needed to

be much deeper, also the LEDs required a level of thermal management.

A clean, bezel-less finish was required, and was designed in two parts – an outer load-bearing drainage channel in steel, with the RGB LED units mounted in an aluminum extrusion hung inside it. The top glazing - 32mm laminated toughened glass with an opal finish, silk-screened with an anti-slip pattern – is bonded onto the steel body.

The £750,000 scheme has a total of 650 DMX-controlled IP68 units, in five different lengths, containing over 100,000 individual LEDs in RGB clusters, to offer a full range of colours. These form a 20 x 20 metre central grid matrix, with 'arms' extending 5-10 metres further out on each side. Each 'intelligent fixture' has two-way Remote Device Management (RMD), so it's dimmed locally – and three diagnostic sensors 'talk back' to the central control system, if there's a water leak, overheating or LED failure.

There are currently ten different lighting scenes, most of which are subtle with some timed to the time it takes pedestrians to cross the square. Others, are more

kinetic like the 'Tsunami' colour wash, rapid colour changes, line movements and even a Matrix sequence (based on the film of the same name for film buffs) all of which are run in seven blocks, two shows a night, so that the programme is different each night.'

Lighting control systems for the two projects are at opposite ends of the spectrum. Regents Place, although also DMX controlled cannot be dimmed, and new show compositions are more difficult and time-consuming compared to the pc/windows based software that is quicker and can be programmed easily.

CONCLUSION

These designs have been well received by the public, and while the future of architectural lighting schemes akin to these will seek the application of current exciting developments in LED technology, LED schemes will require much higher investment. However the environmental benefits are tremendous. ☹

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