Notes from conversation with Mark Major, Senior Partner, Speirs Major, 14 June 2021

Background

About Mark Major

Mark trained and practised as an architect prior to focusing on the unique relationship between light and architecture. He was honoured as a Royal Designer for Industry in 2012, and is currently serving as Master of the Faculty of Royal Designers for Industry until 2022.

Mark established Speirs Major, with Keith Bradshaw, who are recognised as being one of the world's leading lighting designer practices, using light and darkness to enhance the experience of the visual environment. He has led a wide range of award-winning lighting projects including the Millennium Dome, 30 St. Mary Axe, Beijing International Airport, the refurbishment of Royal Festival Hall and the re-lighting of the interior of St. Paul's Cathedral. Recent award-winning projects include Gasholders London, The Macallan Distillery and Norwich Cathedral.

He is a specialist in the field of urban lighting and was named as a key city advisor by Monocle in 2013.

About Speirs Major

King's Cross Tunnel,
image John Sturrock

We are an independent, award-winning, international design practice that uses light and darkness to enhance the visual environment. Over more than twenty-five years we have completed hundreds of projects around the world ranging from lighting masterplans to pocket parks, major civic buildings to small community spaces; from airports and bridges to cathedrals and monuments. We have helped to shape our profession and set a global benchmark for excellence.

Interview

What gets someone Googling lighting designer?

When I first came into lighting design over 30 years ago, apart from the fact that Google didn't even exist, I don't think people really realised that lighting designers existed, particularly within the context of the built environment.

And in fact, there were very few of us offering that sort of a specific service. There were theatre lighting designers. There were people that worked in film and television. There were lighting engineers and there were electrical engineers who did lighting. And of course, there were manufacturers who provided you with a 'free' lighting design service. But there weren't many, independent lighting designers in the UK when I first came into the profession. And now it's expanded a great deal.

I think there's been a dawning realisation over the last few decades that how lighting is handled within the context of the built environment, whether that's externally or internally, whether it's in retail or hospitality, places of worship, or airports, that it's an art as well as a science, and there's a level of complexity that isn't simply down to deciding how much light you want and putting a few light fittings in to achieve that.

Quite often we get involved in projects far too late - where the lighting almost could be deemed to be a cosmetic addition or an afterthought or a bolt on, or something that somebody came to realise too late in the process was important. But I think these days has got better.

We always say it's never too early to involve a lighting designer in your project.

Olympic Way, Wembley, London
Image James Newton

I'm not excluding the daytime, but just to take artificial lighting and its primary use. A lot of people tend to think about their projects by day mentally. They don't realise that their project, whether it's inside or outside, has a life after dark. And actually, living in the UK, in the winter months, life after dark can be almost longer for some people than it can be during the day.

Quite a lot of people leave for work in

the morning in the dark. And they get home in the dark. And kids at school work in the dark in the late afternoon.

Lighting designer is a very broad term.

Don't think of us so much as being lighting designers but think about us as designers who create experiences for people after dark for which 'lighting' is the tool that we use.

Years ago, we used to spend a lot of time persuading people of the value of what we do, particularly end user clients who might be introduced to us and say - *"Why do I need a lighting designer? I've never had one before. You are yet another place at the table, another mouth to feed on my project, which seems to be already bursting with consultants and designers."*

I find that less so these days in the sense that we tend to find a lot of clients that approach us already know, or have already been persuaded, that they need a lighting designer

Gasholders, King's Cross,
London, UK
Image James Newton

And it's proved to be a double-edged sword because, in those early days, whilst we were trying to persuade someone to use us, we worked very hard to sell the benefits that light could bring to a project before getting anywhere near being appointed. If you achieved that, the client got excited. They would say, "actually, I can see this now". Whereas we're finding more and more today that where clients make the assumption about why they need the lighting designer, it can be an assumption based on a series of other assumptions as to what a lighting designer does.

And it's so multifaceted in so many ways: it's an art as well as the science, it's creative, as well as technical. But like any design discipline, we're constantly juggling an incredible range of sometimes conflicting criteria to end up with the right design and at the right cost and within the right energy targets and within all the parameters that the brief sets.

How do you explain the benefit of getting somebody like you involved?

100 Liverpool Street, London, UK
Image by James Newton

On the most basic level you could say, one way or another, a client building a building or developing a landscape is going to spend money on lighting. So, they know they will have a lighting budget. They will understand that they need to illuminate a space. And, like many things in life, once you've decided you have to do something, hopefully you want to do it in the best way possible.

And there may be a reticence on the part of some clients who say "as soon as I get a lighting designer involved, the cost is going to go up."

And as I have said to clients in the past, very respectfully: *"That could be the case for two reasons: One is, that like all designers you may perceive us as being extravagant and adding so much value that you then have to pay for that additional value. Or it could be that you have undervalued the role of lighting in the first place."*

So, let's take a look. Because the worst thing to do would be to spend the money on lighting and get a poor result. On every level. And I think most clients really agree with us on that, since there's no point in spending the money and then being deeply, deeply disappointed. Or indeed getting complaints from occupants or facing a whole series of problems.

I think clients therefore do recognise that we add value. You know, I am an architect by both training and qualification. I think that the fact that we speak an architectural language and can work very closely with the architects, interior designers, the rest of the design team to do lots of things beyond simply providing the right quantity and quality of light. We actually add to the identity of the building, create a visual expression for the building, create atmosphere, articulate character, contribute to placemaking.

There are all sorts of additional bits of value that we can bring to the team.

We've always recognised that's it's not just about how you see, but also how you feel. We have always talked about the value of darkness, as well as light,

Norwich Cathedral, Norwich UK
Image James Newton

about how light reveals colour, how it enhances texture, creates a sense of space. There are many, many things that light can do.

We have always understood that many of the things we're talking about are around the human condition: we're only lighting these buildings for people. There's no one else we're doing that for. We would hate to think that we are not contributing to their well-being by doing so, whether that's just pleasing them through creating a really beautiful aesthetic, or actually physically contributing light in the right quantity and the right place at the right time.

What are the main problems that you come up against?

Let's start with the brief.

Firstly, establishing that alongside the budget is critical- really pragmatic things are very important to the outset of a project. We take it as read that the client thinks that we can do a good job, make the space feel special, provide enough light for people to see by… But of course, there are technical standards, cost issues, and energy targets we have to meet.

So, setting the brief is really important and clients often want a helping hand with that. They may have an idea of what they want for the lighting, but we help to clarify that.

The next really tricky thing is visually communicating your ideas. Light is very, very difficult to draw or to represent. We can make a card model of a lighting scheme and illuminate it. But you can't easily represent the lighting accurately. And whilst developments in CGI and computer technologies have helped, curiously, we find that providing an approximation to the lighting scheme through a combination of sketches, words, visuals, images, rather than trying to show a photograph of what we think the completed lighting scheme will be is much more helpful to clients. Because it's almost impossible for somebody to convey it accurately with CGI rendering. So communicating the scheme is an important point because you're trying to put in your clients' head and in their mind's eye, what's in your mind's eye and in your head.

Macallan Distillery, Speyside, Scotland
Image by James Newton

It's a bit like saying the colour red - do you see the same red as I see when I say the colour? We have no way of knowing. We just approximate towards red. Then we'd get colour swatches out and say ‘I mean that kind of red’.

That's why we use images a lot to support our work. If we want to say something ‘glistens’, for instance and show a picture of something glistening, then everybody understands what we mean by ‘glisten’. That’s just one of the many words we might use to describe an effect.

So communication is difficult.

And finally, once you've convinced everybody of the merit of your ideas and you've communicated those clearly you then convert them into packages of technical information with all that brings.

We say this quite frequently to both clients and their architects: we have to visit and visualise every single square millimetre of the building that the architect has to visualise and visit too.

We have to understand all of the materials and details. We have to understand the heights, the widths, where the doors are, where the windows are. We need to understand the full three-dimensional realm that we're dealing with in order to do our job properly and professionally.

But having completed the technical package, I think the most tricky thing is getting that delivered on site within the constraints and requirements of a busy construction industry.

I often envy the crafts people I know: They don't just visualise a table or a chair, but they actually physically make it themselves. They are in total control of the process from cradle to grave.

Whereas as a designer you are providing a set of instructions for somebody else to deliver your vision. And that's really tough in an industry where

Queen Elizabeth Olympic Park, Stratford, London, UK.
Image by James Newton

lighting has traditionally not been high in the food chain. So, it tends to get forgotten, left to the last minute and undervalued. It is only when people see the end result, including the construction teams, and they say *"Okay. That looks pretty good. Now I understand why we were doing all of that"* that you suddenly feel that you are on the road to a positive victory.

Do the particular light fittings that you specify get cut out in the process?

We always specify something that exists in the marketplace. But it is the way of the construction industry for people to seek what they consider to be better value. This often gets confused with lower cost. But nonetheless, we understand and respect the fact that contractors have their own suppliers that they want to deal with, that they might be persuaded that this downlight is the same as the downlight that we specified in all technical information.

The interesting thing about lighting is that no two downlights are the same. Downlights are a really good example of a very generic well-known tool of the lighting profession.

A particular downlight will deliver a certain quantity of light, it will have a certain quality of light. It will have a certain colour temperature, it will have a certain spectrum providing a certain level of colour rendering. So we are quite clear as designers on all those parameters need to be met. But most importantly, it will also have a photometric file associated with it.

Sometimes it's disappointing when you're offered an alternative downlight for about a 10th of the price and the contractor says to you, *"well, it's the same"*. And you say "*can I see the photometric file?" "What's that?" "Well, ask the manufacturer that you're getting this from… and who is the manufacturer?…never heard of them, but nonetheless, it doesn't mean to say they're not a good manufacturer…. Could you ask them for a photometric file?"…*

You either never get an answer or you get the response that they don't have a photometric file. Which means that the light fitting hasn't been tested. We can't put it into a calculation model. So, we can't use it.

So, substitutions for fixtures is a very difficult area.

Having said that you can get fittings that are similar enough: a 30 degree downlight by one German manufacturer may be very similar to 30 degree downlight by an Italian manufacturer. And the Italian product may be cheaper, or indeed they may be willing to cut the contractor a better deal. In which case, of course you are open to considering the options.

Finishing touches

The real high point of our job is when we finally get to see the lights switched on. And then we may have to focus them, point them in the right direction or set the lighting scenes to direct the finish of the job.

Particularly when you are dealing with a fixture that's focused and trying to get just the right level of light, to get it just perfectly lighting the material or the object or whatever it is. And you point out to everybody on the team, that if you just move that fitting by one degree or less than one degree, that will make all the difference in the world.

And then somebody doubts you and you do the one degree and they go, *"wow, that's amazing!"*

I often say to students, if you want to test that theory, just take a torch and stick it above your head and below your head and move it by a few millimetres and see how it changes your expression. If you shine the torch sideways at your face, or you put it under your chin, but even moving it by two or three millimetres on your chin completely changes your expression. And that's exactly what you do to the architecture. The tolerances in what we do, if you're really, really getting down to the nitty-gritty are very fine indeed

And cost consultants?

There's nothing more disappointing than spending a lot of money on a beautiful building by day, only for it to appear miserable after dark.

We could be talking with a client about, say a beautiful stone wall in a reception area. And goodness knows how much per square meter the stone is costing. And you've decided to gently wash that wall to bring out the

qualities of the stone. And we might ask for a sample a stone and test it in the workshop to see what lights the stone best in terms of its colour and spectrum and all the properties of light.

Often the cost consultant will say, *"well, we've got to make some savings. How about not lighting that wall?"*

Well, of course we could not light it. That's very true. But the point is why spend all that money on that stone if you aren't going to see it or appreciate the qualities of it, if it's going to remain under-or unlit. You might as well just be buying plasterboard and then you could make yourself an even bigger saving.

I'm not meaning to be flippant, but we're trying to get the best out of every project and the best out of every space that we illuminate. I'm always arguing for light and lighting to be given the higher priority I think it deserves. Which I'm bound to say, because I'm a lighting designer. But we have to fight our corner!

Thank you!