

It's not about lux

it's about people!

From childhood visits to the Evoluon science and technology museum to recent lighting commissions for the Rijksmuseum and the Kröller-Müller Museum, museums have run as a red thread through the lives and careers of Rotterdam-based lighting designers Sjoerd van Beers and Juliette Nielsen.

Beersnielsen lighting designers is an independent lighting design firm founded by Sjoerd van Beers and Juliette Nielsen. Inspired and driven by a firm belief in the importance of designing light for people, Van Beers' and Nielsen's work is wide-ranging, from projects on an urban scale to individual buildings and interior spaces. Philips Lighting recently caught up with the two founding partners to hear their thoughts on the changing world of museum lighting.

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The evolving role of the museum



Rijksmuseum, the Netherlands



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Juliette Nielsen: “Museums are becoming more accessible to a wider public. More people are going to museums, seeing it as a day out, with family or friends, including lunch, buying presents ... It’s no longer just ‘the art’, the traditional museum function. And with audio tours, interactivity, etc. museums are becoming more people-centered.”

“Another interesting phenomenon is the rise of temporary exhibitions. Thanks to the unique combination of venue and collection, these travelling exhibitions offer people a once-in-a-lifetime experience. For example, the Late Rembrandt in London was quite different to the Late Rembrandt in the Rijksmuseum. The works of art were the same, but the spaces were very

different, which made for a completely different visitor experience.”

“Museums are also finding new ways to attract visitors and generate new revenue streams. For instance, running drawing and painting workshops, or granting visitors ‘behind-the-scenes’ access to departments like Art Restoration for a more in-depth view of how a museum works. We’re also seeing museums renting out space, e.g. for photoshoots, or for big companies to host exclusive dinners. In this way, these external parties can leverage the museum’s own brand equity.”

“These developments are also having an influence on our work as lighting designers.”



Trends in museum lighting

Sjoerd van Beers: “Lighting requirements are changing and that has a lot to do with the fact that many works of art are travelling, being loaned out to other museums. Receiving museums often have to satisfy certain conditions – humidity, temperature, light levels, no UV or IR in the beam, etc. – before the lenders will sign off on the transfer. In several cases, light levels are getting lower: at an exhibition in the Kröller-Müller Museum some drawings were only allowed to have 30 lux, while hanging next to paintings with 100 lux, and the overall feeling had to be of a ‘daylight-lit’ exhibition space.”

“Another major trend in museum lighting is of course the rise of LED. Sometimes museums want LED for the energy efficiency, but more often it’s for the reduced relamping. For lighting designers, a key advantage of LED is that, when dimmed, it doesn’t change in color temperature and doesn’t affect the stability of the color rendering. That was a problem with halogen. If you dim halogen it gets warmer; and you can have two of the same lamps side by side, and you’ll see a shift in the color temperature. For instance, one will be a stronger orange than the other.”

“Flexibility is another big thing for us. If you have changing exhibitions, you want to be able to change the atmosphere. LED enables us to do that. In the Philips Wing in the Rijksmuseum, for example, it enabled us to go from modern, with very diffuse lighting, to super-narrow beam, very dramatic. With exhibitions changing every 3 or 4 months, the lighting scheme has to be able to follow.”

“Last but not least, LED fixtures don’t get so hot, so they’re better to handle, say when you’re focusing the light beam. If you’re standing on a cherry picker 11 meters up, with paintings costing a few million below, you don’t want to be dropping anything. No heat also means that more precise beam-shaping lenses can be used, other than the glass lenses used for halogen fixtures. Also there’s no IR or UV in the beam, so from a conservation perspective too, it’s a step forward.”



Client dialogue

seeing is believing

Juliette Nielsen: “When we’re creating the lighting design plan for a museum, our first priority is to really listen to the client – ask lots of questions and analyze the situation. ‘What kind of atmosphere do you want?’ ‘Do you want to integrate the lighting in the architecture?’ Then, once we have a full understanding of the desired ambiance, we work out the lighting principles, the layers of light, the specific light qualities we need to achieve that ambiance: color rendering, color temperature, dimming protocols, etc.”

“Because light has such a decisive influence on our mood, the feeling of a place and its identity, we believe it’s vitally important to make real mock-ups, and let the client see the different fixture options on site, before final installation. This is a key element of our design approach.

We advise our clients never to decide on the basis of specifications. Fixtures with identical specifications on paper can deliver very different results in different situations. That’s hardly surprising when you think about it. If you buy three pairs of size 36 red shoes, they’ll all be different. It’s the same with lighting. The difference may be due to the LED, the reflector, the glass, the lens ... any number of factors. The only way to really be

sure is to see and compare on the wall, and then decide what’s best. This process can be a real eye-opener for the client.”

“Choosing the right fixture – it’s not a formula you can fill in and there you have your answer.”

“For us as lighting designers, the quality of the light, beam quality, flexibility and usability are the key factors. Clearly, when you’re dealing with a multidisciplinary client team including the curator, museum director, technical manager, etc., other factors such as energy efficiency and price come into play as well. It can be a question of balancing sometimes conflicting requirements. But our advice is always to focus on the factors that will shape the end-user’s experience: beam quality, stability of color rendering, flexibility, etc.”

“Another important step is to tune the lighting from the perspective of the visitor. It’s not about it looking beautiful from up on the ladder. We work as team, one up the ladder, the other in front of the object – to make sure that the frame isn’t casting a shadow on the painting, varnish isn’t causing glare, etc. Problems like these place considerable demands on the flexibility of the lighting solution.”

Lux levels – a meaningful discussion?

Sjoerd van Beers: “Measuring the actual light on a painting in relation to the maximum lux levels allowed is an interesting discussion. For example, there may be a stipulation that a drawing should have max. 50 lux. People often then think 49 lux is good, and 51 lux bad. In my opinion this whole discussion is a red herring. The angle at which you hold the lux meter can already make a substantial difference! Different meters give different readings! But the biggest shortcoming is that exposure time is not taken into account. The discussion should not be about the 50 lux: it should be about lux hours! Also, the damage that light causes to works of art is highly dependent on the spectral distribution of the light source. In other words: 50 lux of daylight is causing more damage than 50 lux from a warm white LED source.”

“Another common misconception is that if you have a picture that can take 150 lux, then you should put 150 lux on it, and it will look good. 150 lux on a dark painting is a very different proposition to 150 lux on a light painting. We shouldn’t become obsessed with absolute lux values. We’ve done exhibitions where we could use only 50 lux on the works of art, but the space was lit in such a way that it seemed like it was lit by daylight with much higher lux levels.”

The heart of the matter

“For us at Beersnielsen, it’s all about the emotion that light can bring, not lux levels! It’s about making light for people, so people feel happy in it. And in museums, it’s not about light for the art, it’s about light so the people can enjoy the art.”