LSE — THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

KING'S College LONDON

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Cities, Light, Technology

5th ESRC Seminar by Configuring Light/Staging the Social and Philips
3 December 2015, 1.30 – 5.15pm

The seminar was filmed and all presentations can be watched here:
http://www.lighting.philips.com/main/education/lighting-academy/lighting-academy-browser/event/configuring-light.html

Seminar reflections *by Joanne Entwistle*

We were delighted to locate this seminar in this series in Eindhoven, with Philips kindly hosting us at their Philips Museum in the centre of the town. We were warmly welcomed by Susanne Seitinger (Global Sub-segment Manager, Public Segment, Professional Systems, Philips Lighting) and Laura Taylor Laura Taylor (Design Director for Innovation, Philips Lighting) and it was clear from Susanne's introduction that we were very well placed to be discussing 'Cities, Light, Technology' in Eindhoven, the 'City of Light' and the birthplace of so many major 20th and 21st lighting developments. Our audience included academics, lighting designers and practitioners from across central Europe – Netherlands, Germany and Austria and even the UK. Thus, the stage was set for a fantastic

discussion on the latest research on light and lighting and hear about the very current developments in 'smart' lighting from the very forward thinking Eindhoven Municipality.

One key theme that ran through all the papers and panels was a concern to incorporate people into technological design developments through methodologies that focus on how people use and understand light. Some papers focused more on people's practices of light, others on the technology itself while insisting on trials and demonstrations that allow the sensory nature of light to be shown and experienced.

Laura Taylor chaired our first panel and we were introduced to two pieces of innovative academic research on light and lighting practices within the city. Nona Schulte-Roemer (Research Fellow, WZB Berlin Social Centre) opened the first panel with a presentation of her ethnographic PhD project that investigated the testing of two different smart lighting technologies in two different European cities: Berlin and Lyon. Against the backdrop of her research, she unpacked the term 'smart', finding that it claims to be about efficient solutions, even though it is – or should – be more about appropriate new lighting technologies.

Her findings emerged out of her ethnographic methodology of the cities from the perspective of the main actors involved in the process. This methodology aims to give a qualitative analysis of both cities as particular locales, bringing out the different stories of each city. One important question she asks is by what rationale do urban decision makers chose sites for tests of new technologies in order to manage public attention? The two cities provide two very different examples of failure and success. Her Berlin case study, she described as being like a Greek tragedy, too many disappointments in the end. As she summarised, Berlin was efficient but inappropriate since Berlin has a history as a dark city of gaslight which is also part of a cultural heritage that many want to see preserved. In contrast, in Lyon there was a different public and different expert audience, and context within which a new lighting technology was well received. Her analysis points to the conclusion that it is better to think about appropriateness instead of efficiency for smart lighting technologies.

The research of Casper Laing Ebbensgaard (PhD candidate Roskilde University and Queen Mary University London) starts from a similar methodological intention, using qualitative methods that enable context-specific stories to emerge, but this time the focus was on ordinary users of light across a wide age range. Through interviews and observations of people's pathways through their local streets and into their house, Lang Ebbensgaard draws out the micro details of people's relationship to light in the London borough of Newham, London. He argues that there is a difference between aesthetic (i.e. looking at a place) vs. sensory (i.e. being in a place) aspects of lighting. Lang Ebbensgaard demonstrated how there is there is an engagement and interplay with public lighting from the outside through into the home, e.g. via the practice of drawing curtains and also using

public light spilling into the home to feel safe inside the home, knowing and seeing where things are inside without putting on the internal lights. This adds to the ongoing debate about light pollution: excess light has a use, it is not just light pollution. Finally, another key element is the symbolic value of light: if a council improves the public lighting, for whatever reason, then there is a sense of being taken care of while conversely, people describe how dark spaces are not necessarily problem if you can see through them.

The paper of Lorna Goulden (Director at Creative Innovation) moved things in the direction of new innovations and to thinking about the internet of things. She argued that the internet of things really is about data and not people, so her questions as an innovator are concerned with how we might design better and with people in mind and not just thinking about the technology as an end in itself. New technologies also mean new insight and more control and influence but we need to ask, from what and how to why? Her presentation went on to show the possibilities of every street lamp with an API and can, in theory, be individually controlled but with this question of use and control highlighted. Her presentation also had a methodological component, demonstrating the importance of seeing and experiencing technologies through demonstrations, and learning from the ways in which they may, or may not, work within the space. Her project on lighting drones was a good case in point, demonstrating what happens when lights fly which might yet pave the way for new innovations. We need to consider how new technologies are also about shifting business models and question what happens if private companies move into urban design.

The three papers in the second panel had a more specific focus on the applications of these new technologies within the city. Eindhoven was the case study for the first two papers since it has been leading the way in developing new, smart technologies within the Municipality of Eindhoven. There was an interesting presentation from Rik van Stiphout (Advisor Light & Culture, City of Eindhoven) on the Eindhoven 'roadmap' for lighting and new technology which dates back to 2010, feeding into a broader 10 cities programme, supported by LUCI. As Stiphout noted, there is a lack of knowledge of light - it is not just a technical thing - and the city has been drawing together a lot of information to develop a more inclusive project that sees citizens (not civilians) as experts that need to participate on their terms. Key, then, is seeing the city as a network of human preferences, arguing there is no smart city without the participation of all. Hence, his paper focused on how to incorporate citizens into the planning and design process and ensure their active participation throughout.

Elke den Ouden (TU/e Fellow, Department of Industrial Engineering & Innovation Sciences, Technical University Eindhoven) continued the story of the Eindhoven roadmap by presenting on current developments already in place within the city. The key point for the city is that it is not enough to have the smart technology; what is needed is for it to be used for the purpose of improving quality of life. She argued that, within Eindhoven, light was seen as a way to actualise smart city solutions. But to do so, the Municipality saw the need to understand the context for smart light solutions

through a laying approach that focused on how to co-ordinate infrastructure, devices, services. This would set out to both understand both the needs of citizens and enable lighting applications to develop in a meaningful way. She also raised the important point about who is responsible for the maintenance of these technologies which go beyond the original responsibility of the council and means we need to innovate business models as well to facilitate these kinds of interventions. Her presentation gave examples of different pilot projects in Eindhoven and elsewhere to show the different possibilities for smart lighting for such things as safety, crowd control, social cohesion and make better use of spaces.

Marco Bevolo (urban lighting expert and PhD Candidate at University of Tilburg), introduced the history of Philips' 'City.People.Light' research programme which – from 1996 to the present – has explored potentials for future urban illumination. The programme has used a mix of wide-ranging expert interviews, extensive place-based workshops involving both sketched and mocked up lighting solutions, and conceptual and analytical tools for categorizing future city imaginations. This history also forms the subject of his PhD, which is unique as a case study of attempts to produce structured analytical approaches to urban lighting design interventions. Marco fleshed this out with detailed case studies from most recent 'City.People.Light' book project, 'Create the Livable City', notably a design intervention in Poland that demonstrated how a derelict and threatening tunnel in Wroclaw, Poland, could be transformed through lighting into a playspace for local kids.

We look forward to continuing the debate at our next ESRC seminar which will take place at the London School of Economics in February 2016 and will be discussing NEW METHODS IN LIGHTING RESEARCH.

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