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## WHITE LIGHTNING

UNSTUDIO'S EXTRAORDINARY  
HANJIE WANDA SQUARE PLAZA

RETAIL LIGHTING • FESTIVALS OF LIGHT... ART OR ENTERTAINMENT?  
EXTERIOR PRODUCT ROUND-UP • ANNE BUREAU INTERVIEWED



*Dr. Karolina M. Zielinska – Dabkowska is an architectural lighting designer and researcher. As one of the plenary speakers during the inaugural ALAN 2013 conference considering the problems of light pollution, she offers her overview of the event.*

# VALUE OF LESS LIGHT

Since the invention of the electric light bulb by Thomas Edison in 1880, humankind has embarked on a large-scale experiment with a number of negative consequences we are just beginning to grasp. For millions of years darkness at night was part of our existence, yet today darkness is often nowhere to be found, today we are more and more exposed to artificial light at night.

Now our cities are active 24/7 and people spend as much time experiencing the built environment during the hours of darkness as they do by day, particularly in winter. Lighting therefore plays an important role not only in providing the basic means by which to see but also in creating an appropriate atmosphere, making experiences of the public space both positive and enjoyable.

However, the general experience of many cities in Europe, after dark, is relatively poor. The streets, squares, parks and other public spaces often feel insecure and tend to disorient people due to poor quality lighting, such as poor contrast and colour rendering and orange spill from high pressure sodium lamps. Additionally, white metal halide or LED light sources are a constant reminder of consumption, pollution and waste. Great buildings and monuments are disfigured due to unnecessary light spill from street lighting, advertising and other uncontrolled sources. In recent years research in apparently distant and unrelated disciplines to architectural lighting design, such as biology, medicine, ecology, astronomy and environmental protection, has highlighted a number of conditions and restrictions that exterior lighting projects should take into consideration. Inappropriately designed exterior lighting in cities has been identified as one of the reasons for climate change and disorders in maintaining the integrity of ecosystems and light pollution. Attempts to address these interdisciplinary conditions in today's projects of external illumination are not an easy task. However, thanks to interdisciplinary conferences, such as ALAN 2013, the first International Conference on Artificial Light at Night in Berlin, Germany, there is a hope, that through collaboration and exchange with experts from different fields, appropriate external lighting solutions can be developed.

This interdisciplinary conference that took place from 28-30 October 2013, was organised

by the research consortium "Verlust der Nacht" ("Loss of the Night") with contributions from the International Dark Sky Association. With 141 participants from 24 countries and five continents, thirteen plenary speakers, 60 contributed talks and fourteen posters, a proper platform of knowledge and experience



**At the ALAN conference participants also took part in unique measurements, using the Loss of the Night (Android) or Dark Sky Meter (iOS) smartphone App, which uses the phone's camera to accurately measure the brightness of the night sky above Berlin and delivered the results to a central database that will create a worldwide map of light pollution.**



**View of Earth from outer space showing light pollution.**

exchange was created for the conference. The issues discussed related to interdisciplinary conditions, which translated directly into new research questions, such as whether the technical expertise, complex requirements arising from the need to save energy, protection of the environment or even politics would have a negative impact on the quality of proposed lighting design solutions and how we can make sure that they are safe for humans, flora and fauna.

In my opinion the answer to the problem can be resolved only by quality lighting masterplans, established collaborations with experts such as biologists, ecologists, medical scientists and astronauts, combined with the incorporation of their research findings. On

top of this, simply dimming and switching off decorative lighting after a certain time at night can have a big effect.

In the past, cities in Europe did not employ a professional lighting designer to design such lighting masterplans. The lighting proposed focused mainly on functional needs, way finding as well as safety. However, Europe is now opening up to good quality lighting, and this recognition has created job opportunities for independent lighting designers.

There are already good examples; countries such as France have positioned themselves in the lead of the anti-light pollution campaign with a series of laws. As of July, office buildings have been obligated to switch off their interior illumination one hour after the last employee has left the building. As well as this, after 1am external illumination of retail shops, façades, including neon advertisements, must be switched off. Also, initiatives such as Lights Out Boston that started in 2008 are worth following. Under this voluntary program participating building owners and managers agree to turn off or dim all architectural and internal lighting between 11 pm and 5am during the autumn migratory bird season. It has since been proved that the buildings committed to this program saved money reducing energy use, reducing the risks of climate change, while protecting wildlife. Skilled professionals in the lighting design field are needed more than ever; their experience and knowledge can lead to innovations, cost and energy savings, as well as a positive environmental impact. By designing lighting with balance, intelligent thinking and awareness of environmental and civil implications, professional lighting designers will actively play a role in the quality of life for generations to come. The answers we provide today are for the questions asked tomorrow, simply stated: "Who cared enough to make life better?"

For further info and conference proceedings, please follow the links:

[www.verlustdernacht.de/alan2013-en.html](http://www.verlustdernacht.de/alan2013-en.html)  
[www.verlustdernacht.de/ALAN\\_Conference\\_Programme.html](http://www.verlustdernacht.de/ALAN_Conference_Programme.html)

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