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### Light Rhythms in Architecture

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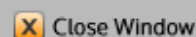
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**Proof****CONTROL ID:** 1577147**TITLE:** INTEGRATION OF RHYTHMIC URBAN LIGHTING INTO ARCHITECTURAL CONCEPTS**AUTHORS (FIRST NAME, LAST NAME):** Katja H. Bülow<sup>1</sup>**INSTITUTIONS (ALL):** 1. Institute of Technology, The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation. School of Architecture, Copenhagen, Denmark.**ABSTRACT BODY:****Body:** Rhythmic phenomena of urban lighting

On one hand, urban lighting expresses itself in a complex visual environment made by the interplay between many separate lighting schemes, as street lighting, shop lighting, traffic lighting, luminous commercials, light from buildings etc. and on the other, a noticeable order of patterns appear when urban lighting is observed as luminous formation and rhythm. Without intention, it is like streams of car lights gliding through the streets at night and formation of blinking caution lights for planes on the top of a group of high rise buildings show fragments of topographical layout in the urban landscape. Already in the beginning of the 1920'ies a fascination of urban lighting was expressed by Erich Mendelsohn in the photographic report "AMERIKA. Bilderbuch eines Architekten" and he put the power of urban lighting in words like this: "During the day the city gets loaded with energy, in the night it spreads everything alive. With the criss-cross of car lights, with the luminous shout from business commercials, with the vertical light from high-rise buildings. A light circus, and very seldom, like here, in the rhythm of architecture" [1]

What Mendelsohn means about "rhythm of architecture", the paper behind this abstract is not going more deep into than to presume, that Mendelsohn means the same kind of rhythm in architecture that Steen Eiler Rasmussen write about, when explaining how a building or a façade is experienced as a rhythmic composition. [2] Going down the line of Mendelsohn's words, he experience the change between day and night and different types of electrical light sources as luminous structures and sequences – but also as something none-architectural and chaotic made of natural forces based on both nature and man-made artefacts. Is it possible, though, to integrate the rhythmic patterns of urban lighting into architecture and make them into an aesthetic contribution to the experience of urban environment? And what qualities does such an aesthetic provide?

Examples found:

In Hoxton Square Bar and Kitchen in the Shoreditch area of London, the lights from car head lights sweep through the premises of the bar. There are many bars for people to meet after work in this area, in which this bar distinguish itself by the noticeable rhythmic sequence of pauses and strokes made by the light of the approaching cars. The creation of this concept is made by the frequency of cars coming towards the bar, access for the light to enter by a large window in the rear end of the premises and the situation of a one-way street, which turns right in front of the window. Also the electrical light of the bar is dimmed, so that the light from the cars is a noticeable force, which strikes the bodies of people being in the bar.

Westfriedhof U-bahnstation in München is out of 100 stations in the München underground system. The system has been extended gradually since 1971 containing many different station designs. Westfriedhof U-bahnstation is characterized by 11 huge lampshades coloured on the inside going from blue in one end of the platform, to red in the middle and yellow in the other end of the platform. Next to the fixed light-zones [3], made by the light coming from the lampshades, the rhythm of shifting daylight-zones entering from above appears clearly in the 'blue' end. Also, the directed light from the lampshades emphasize people movement and the lights from trains and flipping information signs, which is situated outside the light, directed from the lampshades.

The aesthetic of rhythmic integration

The examples above show that it is possible to integrate and mix 'natural' rhythmic phenomena into urban spaces by simple ecological construction of visual perception. By relating to a certain physical lay-out and balancing between perceived intensities it is possible to make rhythmic lighting phenomena appear visible in a certain context. Such ecological balances are well-known within architectural lighting, but what is nonetheless important are the choices made of what to make visible and how. In the cases of Hoxton

Square Bar and Kitchen and Westfriedhof U-bahnstation the visibility of luminous rhythmic phenomena contribute to the identity of these urban places, based on the activity of rhythms functioning in a certain place – rhythm thus contribute to both place-telling, time-telling and function-telling aspects.

The French philosophers Gilles Deleuze and Felix Guattari compare the construction of a structure expressed by rhythm with music, art and also animal-made territories. [4] The territory is a time-space based concept (like the bird with its certain pattern of rhythmic singing and moving around in order to maintain its territory) and such concepts create noticeable 'notes' in contexts of complexity, which in the case of urban environment could be interpreted as many visible scales, agendas, things, messages etc. in function at the same time. As the lighting of urban environment make even more now than in Mendelsohn's time, a 'light circus', there is aesthetic potential in regarding the rhythm of urban lighting phenomena as potential actors in architectural concepts. It is a way to connect the powers of urban environment to the people in it, and give them the possibility to discover different powers at work as a place- and time establishing mechanism. The light circus is there - why not make use of it?

[1] Mendelsohn, Erich (1928) AMERIKA. Bilderbuch eines Architekten. Rudolf Mosse Buchverlag Berlin

[2] Rasmussen, Steen Eiler (1962) Experiencing Architecture. MIT Press

[3] Light-zone in the meaning of an experienced pool of light. Madsen, Merete (2005) Light-zones(s): as concept and tool. An architectural approach to the assessment of spatial and form-giving characteristics of daylight. [www.thedaylightsite.com](http://www.thedaylightsite.com)

[4] A Thousand Plateaus: Capitalism and Schizophrenia (1988) Deleuze, Gilles and Guattari, Felix. Athlone Press

(No Table Selected)



**CURRENT TOPIC:** Aesthetics of urban lighting

**CURRENT SUB-TOPIC:** None

**PRESENTATION TYPE:** Oral Presentation

**SCORES (ALL):**

Jacques Lecocq - 4. In-Between Parallel Session and Poster

Peter Schwarcz - 3. Good for Oral Presentation at Parallel Session

**AUTHORS (FIRST NAME INITIAL LAST NAME):** K. H. Bülow<sup>1</sup>

Jacques Lecocq: A pleasant description with poetic views that desserves an oral presentation. Hope the image quality will enhance this first impress !|Peter Schwarcz: [No Comments]

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