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Journal of Material Culture 2007; 12; 263
DOI: 10.1177/1359183507081894

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AN ANTHROPOLOGY OF LUMINOSITY

The Agency of Light

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Abstract

This article addresses the relationship between light, material culture and social experiences. It argues that understanding light as a powerful social agent, in its relationship with people, things, colours, shininess and places, may facilitate an appreciation of the active social role of luminosity in the practice of day-to-day activities. The article surveys an array of past conceptions of light within philosophy, natural science and more recent approaches to light in the fields of anthropology and material culture studies. A number of implications are discussed, and by way of three case studies it is argued that light may be used as a tool for exercising social intimacy and inclusion, of shaping moral spaces and hospitality, and orchestrating movement, while working as a metaphor as well as a material agent in these social negotiations. The social comprehension of light is a means of understanding social positions in ways that may be real or imagined, but are bound up on the social and cultural associations of certain *lightscaapes*.

Key Words ◆ agency ◆ brilliance ◆ colour ◆ light ◆ lightscape ◆ luminosity ◆ shadows ◆ shininess

INTRODUCTION

We find beauty not in the thing itself but in the patterns of the shadows, the light and darkness, that one thing against another creates. (Junichiro Tanizaki, 2001 [1933]: 46)

The important thing about a candle is the flame which gives light and not the wax which leaves traces. (Gypsy proverb quoted in Dobres, 1995: 26)

Even a space intended to be dark should have just enough light from some mysterious opening to tell us how dark it really is. (Architect Louis Kahn quoted in Tyng, 1984: 163)

The relationship between persons and things is at the heart of most material culture studies. Within the previous decades, one aim in these studies has been to understand how the sensation of things is inseparable from the meanings and sociality of things, and their production (see Howes, 1991, 2006). Things are part of the intimate human inhabitation and experience of the world. However, it seems that the study of some of these experiences has become too centred on the body, while neglecting to take into consideration the social orchestration of this experiential process between bodily sensation and matter. One component in this relationship between sensation and matter is *light*.

Light – from old English *leoht*, meaning luminous, from Indo-European *leuk*, to shine, to see (Classen, 1993: 68) – has been studied as *lumen* – light as external, objective matter – and *lux* – light as subjective, and interior; as sight and mental sensation (Jay, 1993: 29). The phenomenon of light has led scholars like Lucretius, Alhazen, Rene Descartes, Christiaan Huygens, Maurice Merleau-Ponty and many others to ask questions about light; what is light? How do people *sense* light?

Recently, in the article *Stop, Look and Listen: Vision, Hearing and Human Movement*, Tim Ingold argues that in the search for knowledge about seeing we have 'effectively lost touch with the experience of *light*' (Ingold, 2000: 253 original italics). Following Merleau-Ponty, Ingold argues that 'light is the *experience* of inhabiting the world of the visible, and that its qualities – of brilliance and shade, tint and colour, and saturation – are variations, upon this experience' (Ingold, 2000: 265 original italics). People move around and thereby perceive different aspects of light revealing different experiences of the world. At the same time, certain kinds of light have direct impact on the physiology of our lives. 'Natural light' lamps for example are used in many homes and offices to prevent 'Seasonal Affective Disorders' (SADs) in many countries in the northern hemisphere.

While mostly agreeing with Ingold, we also believe that this view falls somewhat short of recognizing the active use of light in social life. Light is more than just a medium; it evokes agency. Acknowledging that

light, like sound (Tacchi, 1998), has a material dimension raises questions concerning the materiality and sociality of light.

The aim of this article is to investigate the ways in which light works as a significant constituent of experience by introducing *an anthropology of luminosity*; an examination of how light is *used* socially to illuminate places, people and things, and hence affect the experiences and materiality of these, in culturally specific ways. In agreement with Peter Davey's (2004: 47) remark that 'without light, form and space have little meaning to most of us', this article seeks to investigate how light, as matter in itself, may be manipulated and used in social and material practices. How do different cultures, including our own, manipulate and orchestrate light, not just in the sense of the colour or the shininess of a surface, but also as physical and mental phenomena, and how do these dimensions of light reveal or conceal aspects of material and social life, in conscious or unconscious ways? What does light *do*?¹ How is light *used*? What does light *mean*?

Naturally, this article cannot be an exhaustive study of light and luminosity, but only offer an overview of some of the literature and implications of its study with few examples of its roles that will hopefully try to inspire further investigation and discussion within the wider field of material culture studies. As will become clear, light affects everything we experience, in obvious or subtle ways.

THE LIGHTSCAPES OF EVERYDAY LIFE

Most accounts of light, ever since the science of classical Greece, have conceived it as matter in some form (*lumen*). In this sense, light is a concrete physical phenomenon, which may be measured and quantified. Light has been identified as the opposition to darkness or as small particles classified as atoms. It has been framed by the theories of intromission and extramission, as disturbances of the 'ether' as proposed by Descartes, or within the corpuscular theory of Isaac Newton or Huygens' wave theory (Waldman, 2002).

Another aspect of light is its sensuous qualities formed as sight or vision: the *lux*. As Merleau-Ponty writes, we do not so much see light as we see in it (Ingold, 2000: 265; Merleau-Ponty, 1964: 178). The perception of light, especially in terms of the physiological responses, has undergone intensive research especially in the 20th century (see Padgham and Saunders, 1975; Perkowitz, 1996; Waldman, 2002). Still, as Nicholas Saunders, one of the first scholars to theorize on light and colour as objects in material culture studies, argues, it appears that a sort of 'neurological determinism' has prevailed, which denies that the way people conceive and experience light and colour is also shaped in culturally specific ways (2002: 212). Hence, in the field of the 'Anthropology of the

Senses' (see Classen, 1993; Howes, 1991, 2006) the role of sight within different cultures has also been propelled by acknowledging that sensuous primacy, experiences and linkages between senses may vary tremendously between cultures.

Focusing on the *production* of light, Wiebe Bijker (1992) examined ways to understand the social aspects of the development of fluorescent lighting without restricting oneself to the social groups of engineers and laboratory personnel. The result of the competition between two types of artefacts – the tint-lighting fluorescent lamp and the high-efficiency daylight fluorescent lamp – and the companies producing them gave rise to the production of a third artefact as a compromise: the high-intensity daylight fluorescent lamp. The central point is that this lamp eventually influenced society by giving rise to lighting standards, by way of social negotiation (Bijker, 1992: 98).

Even though light, especially sun and moonlight, has received significant scholarly interest, for example within archaeology in terms of solstice and lunar calendars, nobody has thoroughly tried to unravel how the actual *matter* and the *use* of light shape experiences in culturally specific ways, and why. Rather it has been argued that the relationship can be understood as 'a two-way process of engagement between the perceiver and his or her environment' (Ingold, 2000: 257–8). This opposition fails in our view to encompass the way light is inhabited, manipulated, and used socially, as a way of creating interpersonal relationships and connecting people and things. This inhabitation and use is bound up in notions of luminosity, which here is understood as the luminous qualities of the relationship between light and sight.

Few social studies have dealt with light, and those that have are concerned primarily with sight. Thorough investigations of the *sociality of light* and changing light environments are rare, and therefore we are in need of a widened comprehension of how light is practised and inhabited. We argue that light is used to reveal people, places and things in culturally specific ways. Light is shed *for* – and not just *on* – the material environment (a similar argument can be found in Bolt, 2000). It is in one way or the other used in social life as a way of reflecting notions of identity, cultural heritage, morality, securing possessions, and revealing or concealing particular aspects of social life and so on. To fully appreciate the social life of light a number of sub-fields of its manifestations are important to consider, such as shadow, shininess and colour.

SHADOWS

The dualism between dark and light should be seen as the absence of a certain kind of light or darkness, depending on the context. There may be variations of darkness; heavy shadows against lighter shadows: these

changing landscapes of light and darkness are what we here term *lightscapescapes*. The appearance of the world is determined by the changing *lightscapescapes* cast by the shadows in the relationship between things, persons and light.

The classical authors were fascinated just as much by shadows as by light, illustrated by Lucretius, who wrote,

Our shadow also appears to move in the sun, to follow our footsteps, imitate our gestures, if you can conceive that air without light can walk and follow the movements and gestures of men; for what we are accustomed to call shadow can be nothing else than air deprived of light. (Lucretius, 2003: 142)

Similarly, Plato's famous cave allegory (2003: 263–8) illuminates the relationship between thing, light and shadow as a way of creating reality, however false that reality may be. Shadows are part of reality for the person experiencing the world. The shadow will always be an extension of the physicality of the relationship between the thing it 'belongs' to and the light sources. You cannot touch, smell, hear, or taste a shadow. Nevertheless shadows are an important aspect of experiencing the world, which is more or less exclusive for sight (however, you can, for instance, feel the temperature dropping when being shaded from the sun, instead of in it).

As the opening quote by Junichiro Tanizaki indicates, aspects of materiality can also be investigated through the shadows of things: in the *lightscapescapes* of shadows. In Tanizaki's very inspiring book 'In Praise of Shadows' (2001 [1933]), he takes the reader through what he perceives as Japanese cultural heritage in terms of shadows and light, and the collision between the use of shadows in traditional Japanese interiors and the *lightscapescapes* of modernity. Guiding the reader through Japanese and Oriental architecture, toilets, jade, food, and lacquerware, he describes how those things reiterate a distinct social identity through shadows, dim muddy light, brilliance and textures of light. One example is an anecdote from a restaurant that was famous for its dining rooms illuminated by candlelight. At his visit the candlelight had, however, been replaced by electrical light in the style of old lanterns, because the customers had complained about the dim light. Still, insisting on having the *lightscape* he had come there for, he got a candlestand instead, then realized 'that only in dim half-light is the true beauty of Japanese lacquerware revealed' (2001: 22). With the introduction of electricity, he argues, the sense and appreciation of the shadows and light in the material culture of their Japanese forefathers, had succumbed to westernization and intense illumination. Things were initially made to reflect light in certain ways by the varieties of shadows they cast, and thereby obtaining a certain materiality through this light.

Similarly, in his historical account of the technological development of lighting, Wolfgang Schivelbusch (1988) describes how the attitude to

the use of light and illumination shifted during the late 18th century and throughout the 19th century. In the earlier part of this history, there was a great deal of excitement about the development of increasingly brighter light sources in interior lighting as well as in street lighting and industrial lighting. These luminous improvements – in terms of the quantity of light – were introduced especially by the advent of gas light and reached an apex with electric lighting, which transformed light on the streets markedly, illustrated by a passage in *Illustrierte Zeitung* in 1882: 'Anyone who came out of one of the gas-lit side streets and entered [Stephansplatz and the Graben in Vienna] felt as though he were stepping unexpectedly out of a half-dark passage into a room filled with daylight' (Schivelbusch, 1988: 118).

However, the excitement with the brightness of the new lighting technologies was also paralleled by the notion that the reddish glow of oil-lamps and candlelight was more natural and normal, while the brighter light sources were considered less poetic and unpleasant to look at. This also meant that lampshades changed from clear or frosted glass to shades with dark glass, when gas or electric light were used for interior lighting, in order to dim the light and soften its glare (Schivelbusch, 1988: 166–7). Likewise, the position of lamps with electric light in the streets changed, 'They had to hang outside the normal field of vision, in a place from which only their light was visible – that is, not *in* the street but *above* it' (Schivelbusch, 1988: 120). The initial hunger for increasingly more and brighter light had reached a point where shade and shadow were once again appreciated and acknowledged as significant parts of the *poetics of light*.

SHININESS

Many studies have been conducted on other relationships between identity, things and shininess, for example with regard to the brilliance of Tanizaki's lacquerware or jade. Saunders (2002), Howard Morphy (1989: 30–1), John Gage (1995), and Chris Pinney (2001) argue in different ways that colour and light, in their role of creating shininess and luminosity in objects, have sacred and spiritual dimensions. Saunders for instance argues that it is possible that 'brilliant objects could have been conceived as material manifestations of light, and of the social relationships and spiritual qualities which light embodies' (2002: 214). Shininess, in this perspective, has often been dealt with as an indicator of ancestral presence (Morphy, 1989: 27–8) in the form of its 'aesthetic of spiritual power' (Keates, 2002: 118). The spiritual qualities are part of 'the indigenous notions of the supernatural qualities of light and colour as embodiment of cosmological energy [that] were materialized in objects and validated in their myriad forms by artistic and ritual display' (Saunders,

2002: 215). In similar ways, people seek to enhance the luminous properties of for example metallic items by producing flat surfaced objects that may be polished to create a reflective surface, thereby creating a luminous effect (Keates, 2002: 111).

Light not only reveals surfaces, it also penetrates the outer 'shell' of objects and bodies, for instance in religious or metaphorical ways, where the visible can be seen as contagious or as revelation (Gell, 1998: 116). One such function of the visible is exemplified in the Hindu concept of *darshan*, which is a spiritual and physical communication between a deity, an image of a deity or a guru, and a worshipper. This communication is conveyed through the eyes, in the sense that the devotee sees the image of the deity. What is less obvious is that it is equally important that the deity or guru sees the worshipper, because it is actually through the mutual glance that the communication takes place (Babb, 1981: 387). It does not just radiate from the god to the human being, but should rather be understood as the devotee opening his mind and spirit to receive the light emanating from the deity (Babb, 1981: 391).

Andrew and Marilyn Strathern unveil a complex use of colours and brightness in their study of self-decoration among the people of Mount Hagen, New Guinea (1971). Among the various uses and understandings of colour, the notion that blackness and dark colours are associated with poisoning and warfare remains dominating. It is used to signify a dangerous element in society as well as a powerful warrior, whose ancestral ghosts support him in dancing and fighting. Similarly, the bright gleam of oil and grease on the skin of the body is a sign of health and a sound body, which is opposed to the matte surface of the unhealthy, dried-out body (1971: 156–63). Altogether, it means that colours with bright and glossy appearances possess freshness, healthiness and newness as opposed to matte colours with a dull, dry and dead appearance (1971: 144).

In the studies mentioned above, light becomes 'contained' in the matter, and it is not the light or its use, as such, that is of interest, but the effect of the reflections and lustre of the objects on sight and the materiality of the objects.

The anthropology of luminosity is also about the element of the light source itself: The materiality of the *lumen*. Therefore, questions concerning how light is used in relation to social identity are also questions of what role different *modes* of light (bright light, dim light and so on) have, what *types* of light (sunshine, electrical, gas, candlelight) are used to do what, why, and how this is socially manifested and experienced. In the aforementioned studies, luminosity refers to the reflection of light on surfaces, but as Tanizaki also argues, the 'true' appreciation of those material qualities is dependent on the modes and types of light that are present, 'were it not for shadows, there would be no beauty' (2001: 46). In other words, despite the fact that studies on luminous reflections and

lustre may offer valuable insight to understanding the role of things, these reflections are determined by *lightscares* of which they themselves become performers. Thus, shedding light on objects is about attributing perceptual form to the objects, and hence the social use of light is not as much *on* the object as it is *for* the object.

COLOUR

Diana Young (2004, 2006), as the most recent scholar, has shown that the use of colour profoundly changes and influences the world and the way people relate to it. Young argues that 'Colours animate things in a variety of ways, evoking space, emitting brilliance, endowing things with an aura of energy and light. Conversely colours are also able to camouflage things amidst their context' (2006: 173). Within a western context Young (2004) also studied the use of white and simplistic interior presentation when selling estates. In her study, white was seen as 'neutral', while colour devalues the estate. As she argues:

as commodity, the neutral property is emptied out of 'particularity and thingliness'. Yet agency is embodied in the specific materiality of things, in this case their color, which structures the creation of space, the creation of value, and influences the attachment between people and objects. (Young, 2004: 15)

Thus, not only does white manipulate the size of the room, and the reflection of light that comes into each room, it also has a social and 'value' aspect, in that it – in its perceived neutrality – appears as absent from the 'particularity and thingliness' of the lived home that it used to be.

However, it may be argued that light is what brings forth colour, and different types and modes of light create different experiences of colour, and – as Tanizaki also argued – reflect the experience of things differently. For example, ultraviolet light has been installed in public toilets in many larger cities, making the use of needles by drug addicts impossible as the blue-green colour disappears, making veins invisible. Another example is the sandstone formation in Petra, Jordan, also known as the rose red city, where the sun dramatically changes the colours of the Nabatean and Roman monuments, creating very different sensations of the monuments (see Lingis, 2002). Such studies show that colours do matter; however, they are intrinsically linked to the *lightscares* in which they perform.

LIGHT, ARCHITECTURE AND SPACE

Light has perhaps been studied no more intensely than in the field of architecture, where it is regarded as a building material, like concrete, steel, glass and so on (Büttiker, 1993; Kahn, 1975, 2003; Köhler and Luckhardt, 1956: 7; Le Corbusier, 1960 [1927]: 167–69; McQuire, 2005; Menin and

Samuel, 2002: 63–74, 117–18; Neumann, 2002). Here, the influence of light as 'Stimmungsmittel', or its role in 'living rooms' such as apartments, suggests that light is both material and social (Köhler and Luckhardt, 1956: 123, 202–5). Light 'creates atmosphere, highlights and sculpts areas, and opens up spaces, influencing not just how you look at them but also how you feel about them. Light profoundly influences both ambience and mood' (Sorrell, 2005: 58). Light is manipulating, and it can be used to hide 'faults' and illuminate places in a house, and thus ultimately to transform spaces. It 'reveals, and delineates space: the better the light the better our sense and appreciation of a space' (Sorrell, 2005: 58).

In addition, light and visibility have been applied in architecture, especially by modernist architects as indicated by the initial quote by Kahn. This emphasis on light was, for example, employed to a great extent in many of the health institutions that were built in the 1920s, for example at Sanatorium Zonnestraal (1928–1931) by Jan Duiker or Piamio Sanatorium (1929–1933) by Alvar Aalto. At that time tuberculosis was treated with sun and air, which were captured in plenty in the design of sanatoria by large glass sections, open terraces and white surfaces on interior as well as exterior walls (Cremnitzer, 2005).

In the same period, Mies van der Rohe used light to alter the traditional conceptualization of interiority and exteriority in architecture, taking the application to an extreme. His famous 'German Pavilion' in Barcelona, which was constructed for the World's Fair in 1929, employs the most modern materials of its day, industrial steel and plate glass, but also incorporates more traditional materials such as marble and travertine. What is significant in the organization of light in the German Pavilion is the flow between exterior and interior spaces, which come about through a marked continuity in the walling of the house (Quetglas, 2001).

What may be even more compelling, but is largely overlooked in the literature on the pavilion, is that image reflections in the glass and the polished marble walls delineate borders at the same time as they create a combined view of interior and exterior spaces. In this way the presence of light by use of a free and asymmetric assemblage of solid walls and glass walls – of transparent as well as opaque glass – make space appear infinite, unlike traditional architecture. This emphasis on fluid transitions and transparencies between the interior and the exterior once again became prevalent in much architecture of the later 20th century and our contemporary present, especially by the extensive use of glass façades in urban architecture.

However, as Davey observes, in a time where illumination is more substantial than ever before, 'we generally continue to pursue quantity at the expense of quality of illumination when technological development is offering so many new opportunities'. Following Tanizaki, he states that 'perhaps we have too much light and not enough shadow' (2004: 47; see

the special edition of *The Architectural Review* (2004) on 'Building with Light'). *Lightscares* in such studies are seen as means of orchestrating experiences, people and movement, but again not seen as a social phenomenon. It answers the question *how*, but leaves out the central question *why* people want to reveal more or less space, or places in certain ways.

LIGHT AS METAPHOR

Within the philosophical traditions of ancient Greece and the Enlightenment light has been seen as a medium through which people experience and understand the world. At the same time light has been influential as a metaphor of existence, clarity and truth. Hans Blumenberg (1993) has perhaps given one of the most adequate descriptions of the role of light as metaphor and physical phenomenon in western philosophy. He states,

Light can be a directed beam, a guiding beacon in the dark, an advancing dethronement of darkness, but also a dazzling super-abundance, as well as an indefinite, omnipresent brightness containing all: the 'letting-appear' that does not itself appear, the inaccessible accessibility of things. Light and darkness can represent the absolute metaphysical counterforces that exclude each other and yet bring the world constellation into existence. Or, light is the absolute power of Being, which reveals the paltriness of the dark, which can no longer exist once light has come to existence. Light is intrusive; in its abundance, it creates the overwhelming, conspicuous clarity with which the true 'comes forth'; it forcibly acquires the irrevocability of Spirit's consent. Light remains what it is while letting the infinite participate in it; it is consumption without loss. Light produces space, distance, orientation, calm contemplation; it is the gift that makes no demands, the illumination capable of conquering without force. (Blumenberg, 1993: 31)

Light is seen as deeply entwined with 'existence' in the history of western thought. It is the 'ether' or the invisible medium that reveals knowledge of the world. Blumenberg further observes that Platonic light is invisible and can only be experienced as *eidōs* (an idea, or sight with form) in the objects made visible; it is light as illumination. Thus, light has an originality of its own, and is not just an element of visibility (Blumenberg, 1993: 30–62; Vasseleu, 1998: 3). It is a metaphor for truth, purity, revelation and knowledge.

Light has generally been used as a potent visual and metaphorical tool within art at all times (see Alpers, 1983; Butterfield, 1993). During the Enlightenment, in particular, light came about as a metaphor for knowledge, denoting light as illumination, objectivity and wisdom. By emphasizing light in art, the metaphorical aspects of light became increasingly material. The metaphorical use of light is well illustrated by some of the artistic works of the Enlightenment, at a time when art,

experimentation and science were tightly interwoven. One of the artists situating light metaphorically is Joseph Wright of Derby, for example in his painting: 'A Philosopher giving that Lecture on the Orrery, in which a lamp is put in place of the Sun' from 1766. This painting shows a scientist giving a lecture on eclipses, using a so-called orrery to illustrate the lecture. The orrery is a mechanical model of the solar system, which illustrates the relative position of the planets. As indicated by the title of the painting, this particular orrery had the globe representing the sun replaced by a lamp. The faces of the audience light up in the illumination of science, bridging the spiritual and physical enlightenment of the audience, whose intellectual state of mind furthermore is indicated by the presence of several children in the painting: children represent those who are without knowledge and may learn. Similar uses of light as a metaphor are seen in other works of Wright, for example 'An Experiment on a Bird in an Air Pump' (1768) and 'The Alchemist in Search of the Philosopher's Stone' (1771).

Still, we argue that the opposition between mental and material light omits light as part of social practices of manipulating perceptions of material culture and the world. To understand what things *do* to people, which is central to all material culture studies, is in part to understand the network between light, surfaces of objects (walls, things, floors, persons), and the colour nuances and contrasts this creates and which shapes a visual atmosphere and ways of experiencing the world. Naturally, there are other aspects in addition to this, which create a certain atmosphere, such as incense, heat, sound, air quality or the tactile qualities of the objects. The social responses to such experiences are varied; however, the point to be made is that using light and its role in every culture is an active component of social life.

PRACTISING LIGHT

In one of the rare cases of an anthropologist mentioning the social influence of light, Christine Helliwell (1996) observed that when she got ill during her fieldwork on the Dayak Longhouse and had to stay in bed, she did not have any light turned on in her room. The absence of light made people anxious to help her (Helliwell, 1996: 139), because light was expected to escape from the room through minor gaps and holes in the building. Light was indexical of social wellness, and thus had sociality, and it is also part of a social technique of *revealing*. Hence, light and shadows can be a way of permeating the boundary between public and private.

One need not to go off to distant regions of the world to see that light is used in specific ways to accomplish a goal or manipulate actions and appearances. Think of the way bodybuilders employ poses, suntan, oil and other effects to use the spotlight in order to enhance the contours

of the muscles, the aforementioned public toilets in many larger cities as a means of avoiding certain unwanted behaviour, the standardization of light in public offices or the use of the candlelight to enhance intimate spaces, as well as some people's preferences for darkness during sexual activities. The multiple aspects of light may appear to be obvious, but has still not been investigated sufficiently in anthropology.

Fiona Parrot's (2005) article about domesticity in a medium secure psychiatric institution is revealing of such use. She argues that soft lighting and colours in the institution are used to create an image of domesticity, and thereby 'neutralize' the aspect of institutionalization. Creating a certain atmosphere through light, or by means of other senses, is, thus, an ephemeral intervention into the experiences of people, which has a therapeutic effect. Light in public and private places becomes luminous regimes that reveal power relations, ethics, and morals, while facilitating social life (Garvey, 2005: 168ff).

This is also seen in Pierre Bourdieu's (2003) famous argument about the relationship between gender in terms of light and darkness in the Kabyle house. Similarly, in many cultures the darkness of some rooms is related to secrecy, social death, rituals, mysticism, or the uncanny cellar of Gaston Bachelard (1994: 17–20).

For Lenin, the equation between electricity, the Soviet Union and socialism in the GOELRO plan was a symbol of power and modernity. It was materialized in the light bulb, also referred to as Ilyich's lamp, that is, Lenin's lamp. The light bulb became an icon of technological development and progress by the electrification of the Soviet Union.

Today the electric light comes in many varieties such as fluorescent light, light bulbs with dimmed glass, different voltages and colours, blinking, or even resembling candlelight. But all this does not mean that the 'old' techniques of creating light have been abandoned. Rather the contrary, the flame, in its 'material' qualities, has become a symbol of eternity, as in the Olympics or the eternal flame burning for the Unknown Soldier, and something 'authentic' in the perceived collision between traditional and modern. Candlelight, for instance, is used in commemorations, protests or to create a certain atmosphere. Creating *lightscares* are about recognizing the luminosity and materiality of the light source, and in the extended agency it offers to its surroundings.

As we have already seen, the materiality of light has the ability to alter human experiences of space, and to define sensations of intimacy and exclusion. This network between the light, the person or thing shapes the atmosphere, whereby material and social relationships are created or manifested. That network may be very different depending on the cultural position of the network.

THE LIVING LIGHT

For instance, in Denmark there is a notion of *hygge*, which is believed by many people not to have an equivalent in English or in any other language (except in Norwegian; see Borish, 1991: 276). It translates into something like 'cosiness', and may be described as an intimate state of being and an atmosphere and a mood aspired to in social gatherings among family and friends as a means of invoking hospitality (Borish, 1991: 264ff.). *Hygge* is a joint effort and the responsibility for accomplishing *hygge* does not rely solely on the host (Borish, 1991: 270); this particular atmosphere emerges just as much from the circumstances as from planning. The material infrastructure provides the setting, which influences the sense of *hygge*, but it equally relies on human agency to accomplish *hygge*. Without essentializing *hygge*, it generally implies a preoccupation with creating an informal, intimate and relaxed ambience with sweets, wine, comfortable seating, pleasant conversation and – in terms of our argument – subdued lighting, preferably, although not exclusively, using candlelight. To achieve *hygge* the amount of light should be sufficient for the members of the social group to see and gain eye contact with each other, while not illuminating the room completely.

In this way, this particular *lightscape* is about creating intimate spaces including the movement of shadows and several light sources, and candlelight in particular. Thus, the movement of the shadows and the inability of the candlelight to fully light up the room are considered more *hyggeligt* (cosy) than what the light of a bare electrical bulb would offer. This creates the intimate setting for hospitality and helps maintain or develop social relationships through the joint creation of *hygge*. It does not need a special occasion to attempt the atmosphere of *hygge*, but simply to thwart the darkness of the winter months, as *The New York Times'* magazine *Sophisticated Traveller* reported from Denmark, '[the Danes] know well how to fight the darkness inside and out. They do it on the literal plane with candles. Even at high noon, a lunch table will blaze merrily with "living lights," as candles are called' (Chowder, 2004). The term 'living light' is the popular Danish designation for candlelight, whose life is characterized by being unsteady, yet calm, and spreading unevenly unlike electrical light.

In addition, commercial producers of lamps and interior electrical lighting have recently begun marketing *softtone* light bulbs that are said to be particularly suitable for creating cosy atmospheres in interior spaces. These light bulbs throw various kinds of 'soft' and 'pleasant' light, framing *hygge* in dining rooms, living rooms as well as in bedrooms (see byggebolig, 1998). As a response – it might seem – candlelight producers accentuate the social, mental and material qualities of candlelight over electrical light more forcefully in order to maintain the candlelight as the

primary popular association between lighting and *hygge*. The candlelight is emphasized as 'living light', where the flickering of the flame is seen as invoking life itself in an interior room, but also helps creating calmness, relaxation, warmth, peace, harmony and balance (see *candleworld*, 1999).

An important effect of the subdued lighting in the creation of *hygge* is its ability to create confined spaces within a larger room. These confined spaces are considered intimate, private and exclusive to the individuals participating in the social gathering. In this way, *hygge* may occur within a segment of a larger social event, and be the result of a particular constellation of certain individuals and material spaces. These spaces are characterized by a limited amount of light, which only illuminates the restricted number of individuals in the smaller group. If candlelight is used, the flames flicker on the table and cast light and shadow onto the faces of the persons in the group, whereby these luminosities define who is in the group and who is not. If one is placed just outside the reach of the flickering of the flame, marked social differences may be experienced, and often people shift places to make sure that everybody can share the warmth of the embracing light. If someone placed outside the illuminated group utters her or his opinion in the conversation, it may very well be considered a 'voice from the dark', then creating the necessity for active steps to either invite the outsider into the group or somehow maintain the social confines. If *hygge* is the main objective of the social gathering, or if *hygge* has emerged by chance, the host and close relatives or friends of the host are likely to include everybody in the space of the flickering and subdued lighting.

Hospitality is in this way linked to the technique of revealing and concealing aspects of things, persons and space by the use of multiple light sources and their different and distinct materialities. The candlelight still has the privilege as being the primary type of light associated with *hygge*. The living light is often opposed to the electrical light and defined by its ability to move by itself, create soft shadows as well as soft light as the wax melts and the candle gradually burns down. Quoting Danish author Jens Kruuse, Steven Borish (1991: 269) notices how 'it is strange that *hygge* is found in the half-light'. The candlelight defines an interior space even within the room where *hygge* takes place. It embraces the members of the social group, who have been granted access to participating in the *hygge*.

In a similar way, social inclusion and exclusion is also emphasized in the language of *hygge*. The term is considered Danish *par excellence* and it is repeatedly said that it *cannot* be translated to any other language properly. This means that just like *hygge* exists within the light of a confined social group and the radiance of the candlelight, so does the entire concept remain restricted to the esoteric knowledge of a single, small and exclusive language group.

THE REVEALING LIGHT

A very dissimilar version of hospitality may be encountered in Arab countries, and in this case among the Jordanian Bedouin. Hospitality among the Bedouin is of paramount importance, and is closely linked to many other aspects of Bedouin life, most notably notions of reputation, generosity and honour (Lancaster, 1997: 43). Hospitality among the Bedouin can be seen as a form of control, and it is obvious that it entails a great deal of 'impression management' (Dresch, 2000: 115; Lancaster, 1997: 82–4; Nippa, 2005). By inviting people into the tent or building for good coffee or tea, and subsequently food, the guest is protected from harm, and thus rearticulates social customs by creating a 'moral space', in which the guest is treated as a member of the 'house'. The custom is related to the notion of *hurma* (sacredness, inviolability); the strong desire to safeguard the interiority of the house (Shryock, 2004: 36). Among the Jordanian Bedouin, Andrew Shryock (2004: 36) has argued that 'hospitality is a field of ritualized exchange in which performance animates and responds to social critique. Acts undertaken in this field must be carefully orchestrated to protect against "private or open warfare"'. Hospitality adopts a material element in the quality of coffee, tea, food, and the things presented – and perhaps more important *not* presented – and used during its consumption. It is also material in relation to the idea that the amount of space offered to the guest in the tent expresses the hospitality and honour of the family, indicating the equal importance of host and guest as 'members' of the family (Lancaster, 1997: 161). Many other aspects of the material culture come into play, however as Annegret Nippa (2005: 564) argues, 'the presentation of something beautiful supports the representation of honour, self-consciousness and the family'.

In the dark Bedouin goat-hair tent, the size of the 'public' area can potentially be changed at will or at least corresponds to the inhabitants' spatial ideas. Unlike the tent, the spatiality of their permanent houses are fixed, and many of those houses the Jordanian government has recently constructed as part of a relocation and sedentarization process often have a markedly different layout than vernacular Bedouin architecture. So, if offering equal or even more space between private and public area in the Bedouin tent is considered a material metaphor for hospitality among the Bedouin, whereby the host partly gains a reputation of being a good host, how is this presented in material form in the case of the Bedouin living in permanent houses, especially in those houses not designed by the Bedouin themselves? One could argue that light becomes one component in the production of hospitality. Among so-called 'settled' Bedouin in Jordan, in particular in government-planned houses, the light in a 'guestroom', measuring approximately 4×4 m, most often comes from one bare 100 W electric light bulb or, more recently, fluorescent

light in the middle of the room. The room would be rather sparsely furnished by mattresses, pillows, and perhaps a television on a cupboard or in a television drawer. There are most often bright bare walls, unless a few images of family, idealized landscapes, the Royal Family, or quotations from the Quran are posted in convenient places. The furniture in the guest room is placed up against the wall, thus leaving the centre of the room open. One interpretation could be that the room would appear bigger – that is, the host is offering more space – when the bare walls are completely illuminated by the electric light from one light bulb (or in the larger guestrooms two or three bare bulbs or fluorescent light) thus revealing every corner of the room, in comparison to the dispersed and convoluted spaces in the case of the use of candlelight in Denmark. The 'light-ness' of the light source enables the persons and things in the room to be fully illuminated and to create shadows, thereby shaping perception of the room and those in it, reflecting the reputation of the host family.

The 'lack' of furniture and decoration also relates to notions of the 'evil eye' and jealousy. It is believed that a guest's admiration of things in the house can potentially harm the family, if not immediately followed by the utterance *masha' Allah*, or 'blessed be the will of Allah' (Al-Sekhaneh, 2005: 140–60). Hence, things that can potentially be admired are often removed from the guest room, or offered to the admirer. In addition, in many places the lower part of the wall is painted with acrylic paint, often light blue (which could be seen in relation to traditional ways of protection against the evil eye by wearing light blue stones). Aside from making the lower part of the wall easier to clean, it also makes the texture of the wall appear even more luminous. Hence, colour, shininess and brightness are intrinsically linked to the light source and *lightsapes* in which they perform.

Thus, aside from being a metaphor for truth or a material metaphor for modernity light, as well as the luminous and colour qualities of the paint, becomes a way of creating and safeguarding a 'moral space' as part of a technique of hospitality, by *revealing* and orchestrating space, and by extension the reputation of the family.

CHANNELLING LIGHT

A similar kind of 'hospitality' has been involved in the creation of the architecture and *lightscape* of the underground railway in Copenhagen, which opened in 2002 and is known as the metro (Juul-Sørensen and Larsen, 2002). Light has a profound and central place in the design of the stations, which were designed by KHRAS Architects, and serves more purposes than the illumination of the submerged railway stations alone. The orchestration of light – created in collaboration between KHRAS Architects and Bartenbach LichtLabor – materializes in an intimate

relationship with the interior of the stations, that is, the other material parts of the architectural composition. Two light sources are used in these stations, namely electrical lighting and daylight, which serve to provide easy orientation, security and openness to the users of the stations. Daylight is channelled into the underground through a line of glass pyramids at street level and lights up the station through direct light as well as through reflectors. Part of the light travels through acrylic prisms located in the glass pyramids, which diffuse the light into sunbeams with a full spectrum of colours and project it onto walls, floors and objects in the station's space. As such, these beams of light are the only ornamentation in the station, which consists of concrete, glass, steel and stone elements. The interior space is composed as a large open room with stairs, escalators and elevators criss-crossing the interior station space, whereby daylight becomes abundant even at the bottom of the deep stations.

The skylight facilitates the travellers' orientation upon leaving the train and moving towards the surface. On arriving, one immediately directs oneself in relation to the daylight coming from above. The daylight is a remarkable source of orientation when moving about in the station, as it is easy to discern daylight from artificial light, thus allowing the traveller to move upwards and towards the (natural) light and out of the station without the need to consult signs. The open and bright station not only helps orientation, but is also meant to enhance the feeling of security and creates a welcoming atmosphere by avoiding dark places, corners and uncanny niches in the station. In this way, light not only helps orientation in the stations, but also social wellbeing by revealing all parts of the station. (This may also be compared to the panoptic principles mentioned by Bachelard regarding the lantern of the 18th century. See Bachelard, 1961: 102.)

The daylight illumination of the station is supplemented by the use of artificial light, which is arranged and rearranged by the use of reflectors to diffuse direct and white light in order to avoid monotonous lighting, especially at night. The artificial light is furthermore orchestrated not simply to illuminate – make visible – the interior of the underground stations, but also to unveil the existence of the station on the surface. At night time, the light in the underground escapes the station area through the very same glass pyramids that allow daylight to illuminate the station in the daytime. This emission of light makes the pyramids stand out at street level as sculptures of light that are aligned with the direction of the tubes, also helping travellers to orient themselves before entering the station.

The orchestration of daylight and artificial light in the metro stations creates an ambience of dynamism and movement, allowing easy orientation and channelling of movement to and from the platform area simply and quickly. Moreover, the subterranean environment is connected

immediately with the city on the surface, as the time of day and weather always is indicated by the colour, warmth and degree of daylight in the station space, and thus forms a transparency between interior and exterior.

SUMMATION

Light has profound influences on our lives and the way we experience the world; however, what we have tried to demonstrate is that the continuous process of manipulation and orchestration of the world by means of light is an active component of social life in every culture. The way *lightscapes* are created by revealing people, spatiality and things, may reflect issues of moral principles, power, identity, sociality, and so on. We have argued that the materiality of light has been left only vaguely investigated and understood. The study of luminosity and *lightscapes* is about attributing agency to light in the relationship between thing and person, through the illuminations and shadows this creates, and the meanings invested in these relationships. From this, questions follow about how luminosity is orchestrated in social and cultural contexts. We have suggested that understanding light must infer a three-way relationship encompassing *lumen*, *lux* and their *social orchestration*.

The anthropology of luminosity is about expanding our knowledge about the interdependence between the (changing) materiality of light and the light source in itself, lived experience, practice of 'making' *lightscapes*, and its duration over time, and thereby about the relationship between person and world, senses and forging of personhood. These components of social identities should be connected to their location in the *lightscapes* of human communities; in other words, they should be linked to a human geography of illuminating and darkening of participation in social activities, which may reveal a whole new set of social boundaries and power relations omitted by more tactile and obvious material markers. In that way, the social comprehension of light is a means of understanding one's position in the social scheme in ways that may be real or imagined, but are bound up in the social and cultural associations with certain modes, types and materialities of *lightscapes*. As such, light is both a source of social negotiation for human agents, but also a phenomenon that may transform human experiences and social frameworks without deliberate human intervention. In essence, we propose that attention is directed towards the questions about how *lightscapes* are socially constructed to shed light for the world and why. In short, how do people use light, and what does light do?

Acknowledgements

The authors would like to thank Victor Buchli, Bo Dahl Hermansen, Stephen Lumsden, Tom Mose Petersen, Chris Tilley, Juliane Wammen and two anonymous reviewers for their comments on previous versions of the article. Of course, all errors, omissions and misinterpretations remain our own.

Note

1. Following Alfred Gell's (1998) argument, we contend that agency is not limited to people, and hence objects can also act as agents (see also Hoskins, 2006; and, more generally, Tilley et al., 2006).

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