

The Culture of Light; a discussion



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A few disclaimers before beginning this discussion. When I speak of the "culture of light", I am usually referring to commercial spaces. This is because commercial work is what I am familiar with... what my work has been mostly about. These are personal observations on the cultural use of light, and reflections upon the use of light in projects done within our culture and others. The material presented here is not meant to be a scientific observation; that is best left to scientists. Rather, this is a personal philosophy developed over the years as a critical observer of light. I hope you will find this discussion interesting.

What is meant by the "culture of light"? Culture and environment influences the way people react to light and the illuminated environment. In the Scandinavian countries, where daylight is a precious commodity, daylighting has been refined to a fine art. To the south, in the Mediterranean regions, protection from the sun is of primary importance. In societies near the equator, the preferred electric light is generally cool in color and of high intensity. In the north, light that is warm in color and of lower intensity is preferred. In more densely populated regions, illuminance levels generally are higher, while in less densely populated regions, the levels generally are lower. The culture of light is affected by climate and custom, becoming an inseparable part of the culture. Societal preferences regarding light affects all factors of the lighting systems: color rendering, color temperature and uniformity; brightness and glare, light quality and intensity. But most people don't consider or even think about most of those elements. Those considerations are left up to us lighting folks because, well, that's what we do!

There are many factors that influence the culture of light. Our societal relationship with the sun is primal. Our culture determines if we seek to protect ourselves from it or seek it out as a source of warmth, light and comfort.

People in equatorial regions must protect themselves from the sun in order to preserve life. That one criterion is a preeminent cultural factor. The buildings incorporate heavy shading. If daylight is allowed to enter at all, it will most likely be reflected into the space with the use of small, deep window wells. Fenestration will be heavily screened or louvered to filter the harshness of the sunlight. In this environment, we can expect the society to seek out electric



light that is relatively bright, yet cool in color temperature. Why prefer bright and cool? Bright light, to reduce apparent intensity contrast between the outdoor sun and the heavily shaded structures. Cool color temperature to avoid the "feeling" that additional heat has been added. The "warmth of a room" has an entirely different meaning when the temperature is 105 degrees and the humidity is 95 percent.

As we move farther away from the equator, dominant architecture becomes much more open to light. Daylight is welcomed as a precious friend. Large windows with a southern exposure take advantage of whatever daylight is available. (It is interesting to note that in the Scandinavian countries, the most successful restaurants are almost always on the north side of the street, facing south, to take advantage of sunlight on those days when it is available.) Since the average temperature is much colder in the north, the preferred electric light is warm in color temperature. Is it our primal connection to fire and resultant warmth that causes this preference? I think so, but can't prove it. Electric lighting in northern regions is also softer in quality, with less glare and of lower intensity than in the south; more indirect and diffuse sources. Again, this has to do with the transition from outdoors to indoors; thereby reducing contrast, which allows for comfortable transitions. Does glare tolerance have a relationship to the "normal" overcast Scandinavian skies at high latitudes versus the "normal" bright sun in a clear sky of the equatorial regions? Do the normally overcast Northern skies, compared to the bright, clear equatorial skies have an effect on a society's ability to tolerate glare? Again, I believe so. It is the manmade environment imitating and shaping the natural environment.

Population density can significantly affect the culture of light. A typical citizen of Hong Kong is accustomed to extremely high illuminance levels in public areas; as much as 1,500 to 2,000 lux in a commercial corridor. This is to be expected in the world's most densely populated city. Here, in the Western U.S., we tolerate much lower levels of illumination - by a factor of ten or more! But our population density is very low by comparison to Hong Kong. Different cultures, different population densities, different sense of space, different expectations for light.

In much of the Western United States, illumination is of moderate intensity and neutral in color. Why do I say "moderate intensity" and "neutral color"? Because I live in the Western United States! From the perspective of a resident of Finland, our light is "harsh, cold and intense". A resident of



Venice might say that the light of the Western United States is “warm, flat and dim”. The observer from Tokyo might say that the American light was “very dim, and not very stimulating”. It was always the same light, yet there were different perceptions due to different cultures.

If we take the ideas presented here and try to apply it to our work in the lighting professions, what should we do with it? The most obvious answer is: Consider these issues when working in other countries and other cultures. Accept that you are not familiar with the local lighting culture, and take extra care to learn from your clients what you need to know. If possible, spend some time on site, learning the culture. But if that is where we end, we have probably missed a significant point. The United States, in and of itself, is a country that embraces many cultures and includes many of the geographic and climate types discussed above. With regard to the “culture of light” in the greater United States, let us ask ourselves:

- What about color temperature?
- What about illuminance levels?
- What about daylight?
- What about glare control?

Do we consider the culture of light when designing for projects in Minnesota? New York City? Florida? What about Alaska? Or Hawaii?

I would hope that we do....but that's my answer. What's your answer?

An aside about preferences in color temperature... I have often wondered if our lamp color selections were made at different times of the year, how would it affect the outcome? If the lamp selections were made in the winter, with snow on the ground and an outside temperature of 25 degrees, would more people select warmer 3000K lamps versus cooler 4000K lamps? If the selection were made in the summer, with 90 degree outside air temperature, would more people choose the coolness of 5000K lamps rather than the relative neutral color of 3500K lamps? I think they would. It's interesting to ponder!