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## Places

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# The Language of Light

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Our ability to know and appreciate our everyday surroundings is bound up with the language of light. Light shapes our lives, illuminating the places we use and allowing us to understand how people respond and behave in them. Light enables our perception; it stimulates our senses and offers challenges for discovery.

Light speaks to us in a language of its own. The language includes not only quantitative, technical terms and concepts, which describe the way in which designers generate and manipulate light, but also descriptive, qualitative analogues, which reveal how light interacts with people in the spaces they inhabit. If we listen, we will discover how light enlivens buildings and spaces for people.

Lighting designers (including architects and engineers) work with a quantitative, technical language of light, which includes terms like foot candles, lumens, watts, candelas, reflectors and photometric curves. Equipment like incandescent, fluorescent and high-intensity discharge lamps;

*energetic, friendly and secure;*

*elusive, demure, intangible and mysterious;*

*penetrating and monumental;*

*soft, dim and cool;*

*warm or hot, bright and radiant;*

*vivacious, lavish and exciting;*

*glowing, sparkling and vaporous;*

*harsh and glaring;*

*sublime, minimal and dark*

neon, fiber optic and laser systems; and ballasts, dimmers and computer controls also is part of the lighting vocabulary designers use.

To lighting designers, “light” often means firelight, sunlight, ambient daylight, or moonlight; “lighting” generally refers to human-made sources, such as electric lighting. To me, light is light, and there should be no distinction made in the use of the word.

The quantitative, technical language of light is limited in use and applicability. It does not enable us to appreciate the qualitative characteristics of light — the way that light can circumscribe our ordinary surroundings and sometimes create extraordinary experiences. Mastering this aspect of the language of light requires more than learning how to talk about light; it means learning how light speaks to us.

Gyorgy Kepes, professor emeritus at the Massachusetts Institute of Technology and a brilliant lighting designer, described three major roles that light can play in the “dialogue between man and light.” “The cognitive light, which reveals and delineates the world; the aesthetic light, which gives sensuous and emotional awareness of the world; and the symbolic light, which makes life focussed, meaningful and unified.”<sup>1</sup>

Just as building(s) must respond to human needs, light and lighting must connect to people. Therefore, we must be attuned to the way light behaves in spaces we inhabit. Light is precious, and if it is managed with creativity, imagination and precision, it can turn our everyday environments into enriching places. The language of light is full of metaphors for life.

### Guidelines for the Language of Light

The language of light includes a grammar, or a set of guidelines, that has its foundation in some basic and timeless concepts. For example, light reaches our eyes via the interplay of many sources, their systems of distribution and the surfaces that receive light. Light acts by striking surfaces, which have char-

### Light Character

Light as lines, dots, sparkle, glitter, glow:  
Gives direction, indicates movement, stimulates the senses and focuses attention.

Light as canopies or blankets of color, intensity, or patterns: Organizes and identifies special places, such as theater marquees along streets.

Light and water, fountains, jets, splashing light, silent water light: Provides dramatic effects by emphasizing objects in water, cascades or moving water, or by creating a quiet, almost mysterious hidden light quality of water and illuminated surfaces.



1



2

*lines,*  
*dots,*

Light as movement, time sequences, blinking, swirling, dimming, shimmering, changes in pattern and color: Engages us with its exciting and ever-changing appearance.

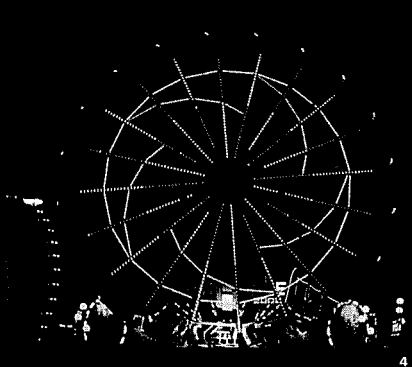
Light as programmed changes, themes, character, light levels: Adds a thematic or theatrical sense, or "light drama"; it can be colored, textured and patterned to suit particular occasions or special events, such as sound and light shows.

Light as signage, symbols, direction, sales: Identifies or informs; it should be clear, legible and understandable and correct in scale and proportion to the places in which light is employed for such use.

Light as sculpture, objects, scenes, lasers, holograms: Becomes an event or object in itself and can be viewed as art and sophisticated decoration.



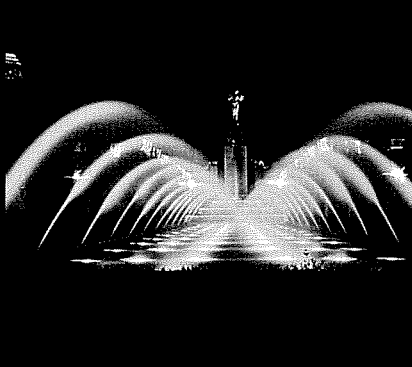
3



4



5



6

*sparkle,*  
*glitter,*

*glow:*



7

1. Beverly Hills Civic Center.  
© Steve A. Rushton.
  2. Spirit Square, Charlotte, N.C.  
© Steve A. Rushton.
  3. San Francisco-Oakland Bay Bridge.  
By Richard C. Peters.
  4. Ferris wheel at New Orleans World Fair. © Alan Karchmer.
  5. St. Clair Avenue, Toronto.  
Photo by Alfred C. Holden.
  6. Golden Gate-International Exposition, San Francisco, 1939. From collection of Richard C. Peters.
  7. United Airlines Terminal, Chicago.  
By David Nieh.
- Pages 26-27: Tivoli Gardens, Copenhagen. By Richard C. Peters.

acteristics of reflectance, opaqueness, transparency and translucence; in doing so, it helps define and reveal colors, textures, patterns and materials, and can add to our perception of depth.

This grammar provides a framework for designing, implementing and appreciating lighting. The qualitative language of light implies that it is of primary importance for lighting designers to consider how people respond to the organization of light in the public realm. Following is a sampling of guidelines for lighting public places:

*Public Spaces:* The illumination of an important public place should reinforce, identify and clarify the intent of the space. It should respond to the form of the space, the different activities that are likely to occur there, the people who are likely to use it and the patterns of movement that emanate from it. For example, lighting should respond to the way activities vary in terms of their intensity, location, time of occurrence and duration.

But public spaces have a greater potential. They can be considered as an extension of the districts that surround them, functioning effectively as “gateways of lighting” and setting the stage for the diverse and exciting events to follow. Lighting also can enhance the role of public places as landmarks or centers — places of remembrance and returning.

Light in public places also should allow for the specialness of festivity, rituals, pageantry and theater. Unique monuments should be vested with light as acts of celebration and reward. Times and events of special importance can be regaled in light; the awe and beauty of such occasions can bring light to the forefront of our experience.

*Landmarks/Organizing Features:* Many public spaces include a distinctive element that serves as a landmark for or an organizing feature of that space and, perhaps, for the surrounding districts. These elements, such as a statue, fountain, campanile, ceremonial building, or even a promenade or gathering place, should be designed with lighting in mind; they should be landmarked in light. Proper lighting can establish or reinforce the importance of such elements and the role they play in organizing the surrounding space, and it can serve as the starting point for lighting the entire space.

*Pedestrian Spaces, Paths and Promenades:* Lighting for the pedestrian realm should respond in particular to human activity. Different light forms should address and identify the different scales of activity and participation in a space; for example, strolling, sitting, observing and celebrating call for unique lighting responses. Lighting should be selected and positioned to minimize the glare and discomfort that can result from exposed light sources, except those that bring delight.

Pedestrian spaces should be illuminated to a level that will facilitate safe and satisfactory use. However, care should be exercised not to overlight pedestrian spaces. A high quantity of light does not necessarily equate to a high level of safety. Ironically, places that are lit brightly, or where there is a glare, can be dangerous because we cannot see into the darkness beyond. Moving from a bright space to a dark space can be unsafe because our eyes do not immediately adjust to new lighting conditions.

The lighting of a promenade should consider not only safety issues but also the experience of moving through light, which can include the mystery of wandering and the excitement of discovery. Tivoli Gardens, in Copenhagen, is one of the richest examples of moving from space to space through light and to light. Pedestrian pathways are illuminated with light banners of different shapes and color forms that landmark the walking experience. These lighted pathways are “light links” that lead to specific spaces, such as amusement parks, restaurants, or theaters, and make the park a wonderful night experience.

*Transitions:* As a person moves from one space to another, such as from a walkway to a park or an open plaza, he is faced with a change in his surroundings. Lighting is one of the most important environmental factors that can change from place to place, and it should be managed to make that transition as smooth as possible. The lighting level along a walkway might be lower than the lighting level of the space into which it leads so that pedestrians can recognize and adapt to the new space as soon as they enter it.

When appropriate, light can encourage or discourage movement from one space to another. People have a natural tendency to move from places of lower illumination to places of higher illumination, and this can be carefully orchestrated. A common destination, such as a sitting place or an entrance, might be marked by lighting of special intensity, color, or design.

Some transition places that have not received enough attention are the connections among different transit modes and lines, and between parking areas (especially garages) and the buildings they serve.

*Perimeters:* Special buildings and spaces should be recognizable within their larger context. Perimeter lighting, such as signage, decorative lighting and even storefront displays, can position a building and spaces in relation to their surroundings. Such lighting should relate to how people move around the edges of buildings and spaces, defining both the scale and direction of movement. It also should be compatible with the distinctive physical characteristics of the design of the building or space. In these ways, perimeter lighting can unify the design intent with the surrounding areas and the larger place.

*Entrances and Accents:* Places of arrival and departure, of entering and exiting, should be identified by distinctive lighting. The lighting of these places might be more intense than that of surrounding areas, should be coordinated with distinctive architectural elements (such as porte cocheres) and should be coordinated with any special signage. Since entrances and exits often are at the edge of a building or a space, this type of lighting also should be coordinated with perimeter lighting to avoid conflict or confusion.

*Transportation Drop-Offs:* Drop-off points for public and private transportation, which often are located around public spaces, deserve special attention. These access points should not become lost in the visual clutter that is so common along urban streets. Also, it is important to recognize the ability of drop-off lighting to attract people and to provide pedestrians and drivers with visual references for direction. Drop-offs

could be identified by distinctive light elements or higher illumination levels relative to surrounding areas. The lighting should be integrated with signs and graphics; also, it should be coordinated with perimeter lighting and entrance lighting to prevent conflict or confusion.

*Pedestrian Movement Systems:* Lighting can contribute a sense of movement delight and security to the experience of moving along mechanical movement systems, such as elevators, escalators and people movers. The lighting should make these systems clearly identifiable and should be linear in concept to reinforce the sense of continuity and directional movement. Most importantly, the lighting strategy should recognize that moving within these systems marks a transition in our movement patterns; finding an elevator or people mover, and finding our way once we get off it, can be difficult. Lighting can make the connections to and from these systems more visible.

*Layers:* The physical relationship between spaces and the experience people have as they move through a sequence of spaces can be enhanced by the careful direction of light toward surfaces and objects. A dark space pierced or pinpointed with light that comes from elsewhere creates a sensation of mystery that invites examination and offers an opportunity for discovery. Our feeling for a space can be enhanced if the space is carved into layers by different levels of brightness in sequential patterns of light.

### A Guide to Places We Love in Light

Motoko Ishii, a noted lighting designer, has written in *My World of Lights*:

*For those of us who live here on earth the most important things are air, water and light. Light is not only essential for life, but beautiful. Take the brilliance of the sun, the radiance of the moon, the twinkling of the stars and other natural and artificial light sources — they are all beautiful.*

*Until now, only the technical aspects of lighting have been dealt with. As for me, I seek to incorporate “beautiful illumination” into lighting as something most beautiful and precious for humans. The 21st century will be the “Age of Light.”*<sup>2</sup>

As we approach this “age of light,” urban designers, lighting designers, architects, interior designers, even citizens themselves, must recognize the possibilities — and importance — of using light to make our night environments wonderful.

I propose that we who love daytime and nighttime environments begin preparing a lighting guide of public places. Readers of *Places* should respond by sending a slide, drawing, sketch, diagram, or photograph of their favorite lighted place, along with a short description. The collection of articles that follows in this issue, a dozen appreciations of places with memorable qualities of light, is a start.

### Notes

1. Gyorgy Kepes, “Light as a Creative Medium,” in *Arts and Architecture*, October 1966.

2. Motoko Ishii, *My World of Lights* (Tokyo: Libro Port, 1985).

### Night Light

Most environments are not lighted for night use and designers have not fully explored how places can be wonderful at night. Nowadays, security and safety are the major criteria for night lighting. Surely, these are important concerns, but creative lighting design can accomplish much more: It can give public places a texture and appeal that they could never have during the day.

Nighttime environments are rich with possibilities. Places don't have to go to sleep: Turn on its lights, and Las Vegas wakes up! The Ginza is an ever-present panoply of light experiences. Tivoli Gardens is a romantic respite. Paris, the City of Lights, is aglow with lighting pleasures. New York's Times Square, London's Picadilly Circus, you name it, cities the world over have special night places that take on a very special meaning — chaotic, wonderful, wacky and wild.

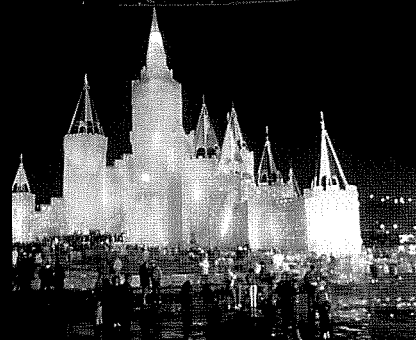
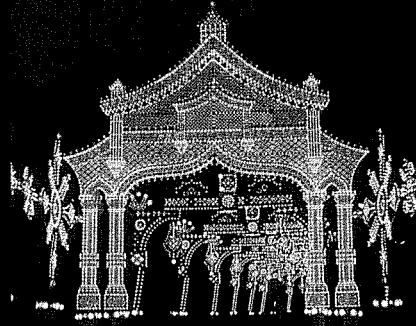
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The Strip, Las Vegas.

Photo by Todd W. Bressi.

*blink*



Night light and color as zoned activities: Light can zone or organize nighttime activities, denote the specialness of places and things and give coherence to the otherwise uniform darkness of night space.

Night light as tints and shades: Light can enrich the layers of surface in urban places. The quality, quantity, hue and value of night light can be controlled to brush or shade surfaces.

Night colored light on colored surfaces. Lighting colored surfaces with colored light is not a straightforward as painting a wall. Think, for example, of how the color of a car changes in a parking lot that uses the wrong lighting sources. Using colored lighting requires an understanding of the difference between additive and subtractive use of color.

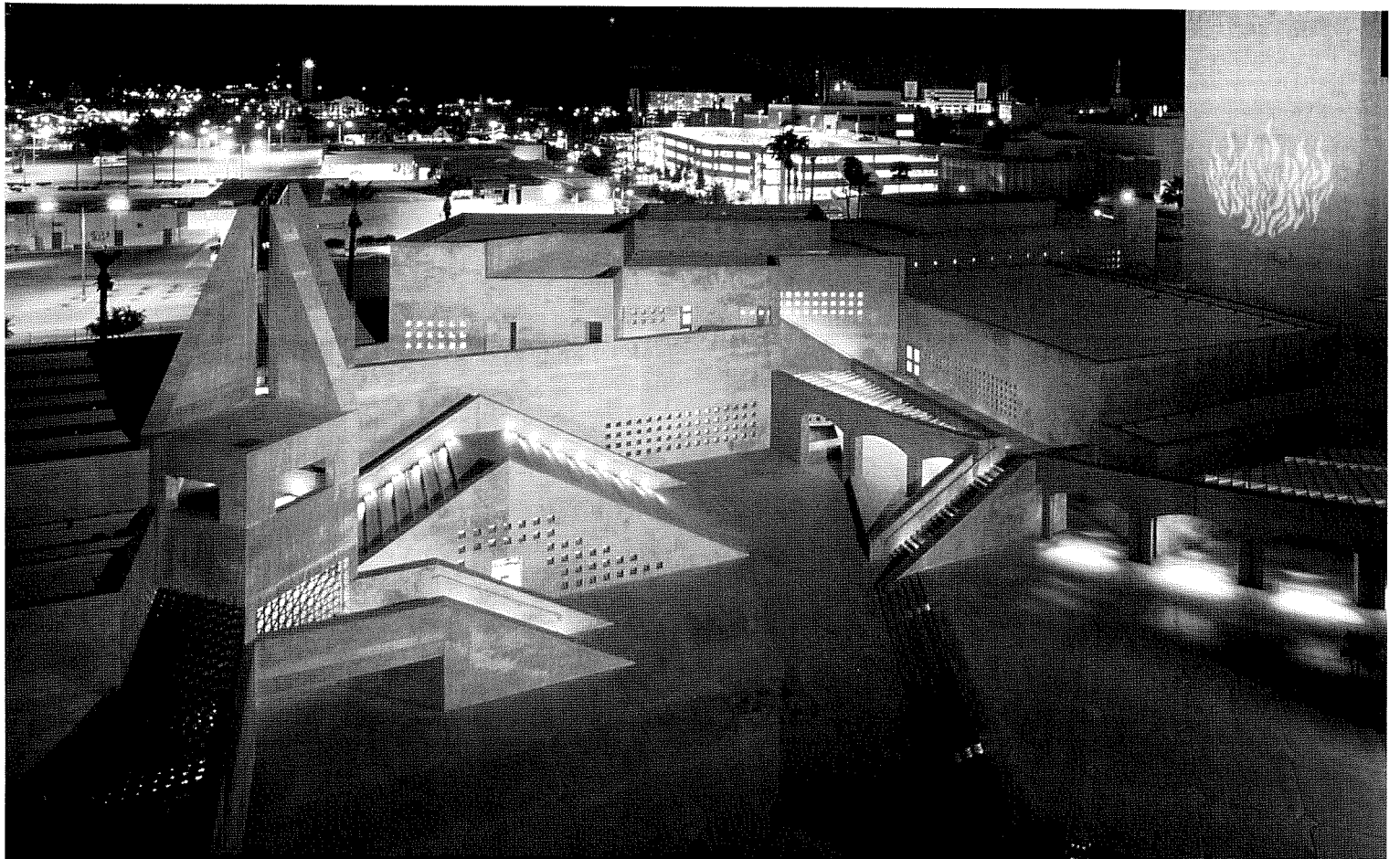
Night light as shadows and silhouettes: Even night lighting can produce intriguing shadow patterns and textures. Beautiful silhouettes of surfaces and objects can be obtained by the proper management of light.

Night light as highlight and embellishment: Night light, particularly color, as night color can enliven spaces and enhance the drama or seclusion of unique places and activities. A candlelit dinner is very different from an urban cafe on a city street; the scale of activities and the appropriate night lighting techniques are interrelated.

Night light is not daylight: Daylight cannot be replicated by other light sources because every source has its own unique qualities. No attempt to do so should be contemplated!

*shimmer*





6

*swirl*

7



8



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|--|---|
| 1. Golden Gate–International Exposition, 1939. From collection of Richard C. Peters. | By Bruce Christianson.                                  |
| 2. Madera, Italy, street lighting. By Marvin Buchanan.                               | 5. Parc de la Villette. By Martin Schwartz.             |
| 3. San Francisco Conservatory. From collection of Richard C. Peters.                 | 6. Arizona State University. Photo © Timothy Hursley.   |
| 4. St. Paul Winter Festival.   | 7. Grand Central Terminal. By F. N. Kinney II.          |
|  | 8. Mountain View Civic Center. Photo © Timothy Hursley. |