

City Beautification: Color and Light

Presented by Leni Schwendinger at CIHAC, Mexico City

The City as Stage

The city can be viewed as civic stage. The concept of ephemeral architecture; the use of “event” as a place -maker and -marker in cities; decoding and clarifying the “inner” uses, spatial relationships, and distinctions of buildings and structures in a city are enhanced by the judicious use of colored light

The city as kitsch burlesque: Serious architects and designers might think of colored light in the environment as an attention-getting selling tool without purpose or aesthetic values—the garish side of theater—that gives colored light a “bad name”.

Color: a powerful design tool for public realm lighting

Evaluation/Conditions

Determine the purpose of the public color-lighting design.

Is it art or architecture, or urban design?

- Art: A concept or interpretation, stand-alone realization
- Architecture: Enhancement of use, volume or materials
- A combination: focal point, beacon, integral to the architectural design
- Urban design: color used in accordance with a lighting masterplan

Objectives

Enhancement of architectural form

Visual communication

- Identity/recognition factor
- Wayfinding
- Curb appeal

Interpretation of site (history, use, topography)

- Infusion of vitality and animation

Analysis

What is the building/area type?

- Historic or modern
- Commercial, cultural, transit-oriented, infrastructural
- Late or early night closing

Evaluate the building/area surfaces

- Solid, filigreed, fenestrated
- Reflective, absorptive
- Light or dark value
- Textured, smooth

Design

Create an approach based on objectives, building/area type, and surface evaluation

- Graphic
- Environmental
- Sublime
- Carnavalesque

Create a color palette and based on the approach

- Cool – Warm tints
- Chromatic selections, symbolic, emotional, natural

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Colored light opportunity check list

Objectives

- Enhance architectural form
- Reinforce wayfinding and identity
- Enhance iconic/landmark value
- Establish artistic value: new interpretations, content

Methods

- Develop approach; graphic, environmental, sublime, carnivalesque
- Select color palette: neutral, symbolic, emotional, natural
- Provide excitement through animation or emphasize historic, serene qualities through static lighting
- Select color-mixing sources and electronic control

Color: Symbolism, Categories

- Neutral
- Emotional
- Nature
- Flags
- Trends

Factors and methods for use of tinted light

- Successful design: Lighting that strengthens the existing color, texture, shape of the object/surface which therefore renders the object as 'more of what it already is'
- Rule of thumb: To enrich a surface color, the light output should contain the same or similar wavelength as the lighted object. Therefore, warm colored objects are enlivened with warm light tones, cool colored objects with cool.

Technologies: select sources and control system

Single Color

- Color Filters
- L.E.D.

Automated color-changing (with control system)

- L.E.D. with RGB mixing (or video)
- Fiber optics with color wheel
- Floodlights with automated CMY color mixing (filters)
- Fluorescent with RGB color mixing

L.E.D. Details

L.E.D. Advantages

- Non-mechanical
- Small-scale
- Can display video
- Energy-efficient
- RGB

L.E.D. Disadvantages

- sensitive to heat
- energy-efficient operation but requires more energy to manufacture and recycle than other light sources
- quality varies greatly by manufacturer, and standards are in their infancy

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Criteria for effective design with colored light

Meet Objective

Does this design make sense for this building type, in this context? Does meet one of the following criteria?

- Enhance architectural form
- Reinforce wayfinding and identity
- Enhance iconic/landmark value
- Establish artistic value: new interpretations, content

Methods support the Objective

Does the overall approach and technology reinforce the design?

- Develop approach; graphic, environmental, sublime, carnivalesque
- Select color palette: neutral, symbolic, emotional, natural
- Animation or serene?
- Select color-mixing sources and control

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