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Cover: "Light Writing Poem" lighting installation by the Guerrilla Lighting initiative in the United Kingdom.

This page: Creative Artists Agency Headquarters, Century City, Calif.; School of American Ballet at Lincoln Center, New York; Underground, Oklahoma City; Burlington Dane Imaging Centre, London.

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**Celebrating Craftsmanship** 

This issue represents an exciting milestone for ARCHITECTURAL LIGHTING; it

is our 5th Annual Light & Architecture Design Awards. The program was started in 2004 because the editorial team believed there was the need for an additional outlet to showcase outstanding examples of architectural lighting design. In establishing the program, the editors wanted to create something that would appeal to architects and lighting designers alike. Our instincts were right. In five years, the number of project entries each year has steadily increased, as has the program's appeal to an international audience.

The 12 projects that grace this year's pages join a select group of works that have been scrutinized and debated by juries of esteemed architects and lighting designers. The caliber of projects entered this year was by far of the highest level the program has ever received, and required a full two days of review and discussion. What always amazes me as I look through the projects, after the jury has made their selection, is how effortless all the designs appear to be and the extraordinary amount of skill that is required to implement them. In marrying aesthetic and technical requirements, the projects achieve a level of craftsmanship.

In his new book, The Craftsman, Richard Sennett

argues that craftsmanship is more than just "skilled

manual labor." Rather, it applies just as equally to the

violinmaker as it does the computer programmer, the doctor, the artist, even the parent and citizen. Craftsmanship for Sennett represents "the desire to do a

job well for its own sake," and the ability to combine skill with commitment and judgment. Sennett writes,

PHOTO BY SPENCER LUM

"The craftsman represents the special human condition of being engaged." This distinguishing feature of the craftsman certainly is the case with this year's AL Light & Architecture Design Award winners. Without the level of engagement these projects exhibit in unifying space and form with light, the projects at hand simply would be ordinary. Instead, the architects and lighting designers behind this year's work have created something extraordinary, a feat that becomes even more of an accomplishment against the backdrop of stricter energy codes, rising costs, and unstable markets. There will be plenty of time in the next several months to talk about the economy and the impact of upcoming political changes (see "Uncharted Territories," p. 80). For the moment, though, I prefer to celebrate amazing work. Craftsmanship, like good design, is not something that ever goes out of style.

ELIZABETH DONOFF

#### SEPT/OCT 2008 EXCHANGE QUESTION

With the slowdown in the current U.S. economy, what effect is it having on your firm/company's workflow and projected workflow for the next 12 to 18 months? To be considered for print, responses are requested by August 26, 2008.

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### **INDUSTRY** LETTERS

RESPONSE TO SPRING 2008 LED SUPPLEMENT ARTICLE "LEDS, LIGHT, AND ARCHITECTURE."

In response to Kevin Dowling's article, bravo! Brilliant, beautiful coverage of LEDs. I have been harping on the same issues in my publications and continuing education classes for interior designers and architects, especially the fact that LEDs need not imitate our current light sources as just retrofits. LEDs can offer a complete new way to light spaces by being self-illuminated surfaces.

The last time we had this opportunity was when electroluminescence promised, among other things, being applicable for walls to create vertical brightness. It did not happen, much to my unhappiness. It probably was not commercially feasible. However, I am anxious for LEDs to become economically feasible. Hurry; hurry!

However, I would suggest changing the term "penumbra" in the subtitle—The Penumbra of a New Medium to the term "comet." Penumbra is a dark shadow, which I don't think LEDs are. Comets were born long ago, have a lengthy trajectory, and don't become visible until they pass Jupiter, where they become brighter and brighter as they approach Earth and we become aware of them. Previously, LEDs were in the background and we were not so aware of them.

#### JANE GROSSLIGHT

JANE GROSSLIGHT LIGHTING DESIGNS TALLAHASSEE, FLA.

RESPONSE TO JUNE 2008 EDITOR'S COMMENT "TO BE OR NOT TO BE? ... A LIGHTING TRADE SHOW."

I read with interest (post-Lightfair, actually) your recent piece comparing Light+Building to Lightfair. Aside from the hospitality noted in your piece, another element that strikes me each year is the dichotomy between both fairs when it comes to customer interaction, best exemplified by a simple piece of plastic. In Frankfurt, there are no visible attendee badges. At Lightfair, we are tagged like wild game. Exhibitors at Light+Building are quick to share product details and market analysis, and will answer just about anything else relevant to their business. Not so at Lightfair. Not being tethered to a booth at Lightfair this year, I noted with amusement in Las Vegas that virtually every exchange with a customer began with the exhibitor "looking down" at the visitor's name badge in order to better frame the resulting conversation. It was quite educational

Thanks as well on your comments regarding a biannual show. The timing conflicts between AIA and Lightfair are going to continue for the next several years. One just has to look at the march of specification-brand [lighting] manufacturers signing onto AIA to see what is happening.

RONALD S. NAUS, EXECUTIVE VICE PRESIDENT B-K LIGHTING + TEKA ILLUMINATION MADERA, CALIF.

### Correction

In the article "Women in Lighting Design," April/May 2008, Lesley Wheel's name was spelled incorrectly.

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# Lightfair 2008 Recap



More than 19,800 lighting industry professionals attended Lightfair 2008 in Las Vegas. With 157,600 square feet of exhibit hall space, 510 exhibitors, and a comprehensive offering of seminars and workshops, attendees' schedules were filled.

There was vibrancy to Lightfair 2008.

An impressive lineup of seminars and workshops, including the Lightfair Daylighting Institute, contributed, along with a busy trade show floor.

Sustainability, both at home and abroad, was the focus of the keynote talks the first two days of the conference. Dave Irvine-Halliday, founder of the Light Up the World Foundation (LUTW), spoke of the organization's work in providing attainable and affordable lighting to developing nations. Started in 2002, the LUTW has been involved with more than 16,000 installations in 42 countries. (See "Lighting the Way: LEDs for the Developing World," June 2004.) David Gottfried, founder and CEO of WorldBuild and founder of the U.S. Green Building Council, presented the second keynote. Gottfried spoke of his personal experience in arriving at a "green" awareness in his business and everyday life. Both thoughtprovoking keynotes left the audiences inspired and motivated to take action.

The trade show floor was extremely busy with 510 exhibitors and a number of luminaire offerings. There was the usual array of light-emitting diode products, but lighting controls were in abundance. Several manufacturers showed control systems of varying degrees of complexity depending on project scope and user needs.

The LFI Innovation Awards presentation, which A|L co-sponsors with eLumit, saw program refinements implemented last year pay off. This year's assembly of products reflected the requirements of today's marketplaceenergy efficiency and incorporation of new technologies. Fourteen products received "Best of Category," and the overall Innovation Award winner was SPOT Version 4.0 from the California Energy Commission. This software evaluates electric lighting, annual daylighting characteristics, and associated energy use of a space. SPOT also received the Attendees' Choice Award, a new component of the program introduced this year to actively engage Lightfair attendees. ELIZABETH DONOFF

### **INDUSTRY** BRIEFS

# Lighting Industry Website Attracts Members by Word-of-Mouth



The lighting community has a new online forum with the May 2008 launch of we-light.com, a site dedicated to connecting designers, manufacturers, students, and others with an interest in light and lighting. Started by Ken Douglas, principal of Bloomfield, N.J.-based architectural lighting design firm Illumination Arts and a member of the International Association of Lighting Designers board of directors, the site offers members a place to share ideas and experiences with colleagues in the lighting industry through blogs, photos, message boards, and community groups.

"I'm trying to make it so anyone who is involved in the industry can participate in the conversation," Douglas explains. "It seemed like [welight] would be a useful addition to the industry to give people a forum, a site where they can go online and chat and exchange questions."

Membership to the site is free and allows individuals to create a user profile where they can describe who they are and what they do in regard to the lighting industry. Members can write blog posts, converse via message boards, upload photos, video, or audio, and join various groups aimed at a specific lighting-related audience or topic. RSS feeds also are an option on the site to alert members about new posts. The site's membership-approximately 20 members at press time-is growing by word-of-mouth among those in the industry. Currently, Douglas says he is overseeing the site as a public service to try to resolve what he sees as a communication problem in the lighting community. While his business partner from Illumination Arts, Faith Baum, is helping with the site, Douglas notes that we-light is entirely separate from their firm. Once the site's membership grows, Douglas might want to set up networking opportunities where industry professionals can come together to meet and interact personally, but for now he explains that he just wants we-light to be "a place for people to go to share and feel like they're part of the lighting community." JENNIFER LASH

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# Learning to See, A Matter of Light

Howard Brandston's New Book Explores a Lifetime in Lighting

A love letter to the lighting profession might be the best way to describe lighting great Howard Brandston's newly penned 138-page volume published by the Illuminating Engineering Society of North America. Insight gathered from more than 50 years in the lighting industry, coupled with the author's unique sense of wit and inquisitive ness, make for an engaging read.

Organized into four sections—"Learning to See," "Taking Responsibility," "Getting Creative," and "Communication"—Brandston challenges architects and lighting designers to be proactive in their life and their work, never discounting an image or an experience as irrelevant. Anything can spark creativity.

For Brandston, lighting is an art, and to think of it only in terms of lighting calculations and energy codes is to miss out on the artistic journey of exploration that lighting can provide for designers. Brandston recounts his experiences in lighting with both a philosophical mindset and practicality. Peppered throughout the book and supplementing the text are images of some of the projects Brandston has worked on, including the Petronas Towers in Kuala Lumpur, the Chihuly Lounge at the Ritz-Carlton, Millenia Singapore, and the Fossil Hall at the American Museum of Natural History in New York. Specific project discussions of some of the work Brandston is best known for—including the relighting of the Statue of Liberty in 1986; the lighting concept for St. Meinrad's Archabbey, a Benedictine monastery in southern Indiana; and the lighting master plan for Detroit's business district—offer a behind-the-scenes-look at the issues involved with the design of these projects. However, as Brandston recounts the steps, this reader was left wondering if it can really be so simple, given the complexities of the project process, to get clients to change scope of work and budget, to "see the light" so to speak, even if it means a better overall outcome.

Essays from Peter Boyce, professor emeritus of architecture and Human Factors program leader at Rensselaer's Lighting Research Center in Troy, N.Y., and neurologist and writer Oliver Sacks complement Brandston's text. These authors speak to the importance lighting plays in our everyday lives and built environments.

A series of appendixes conclude the book. Appendix I addresses popular lighting terms such as "glare." In Appendix II, "Ethics and Design," Brandston debates the energy code versus quality of light issue. Finally, Appendix III—"Wit and Wisdom"—offers Brandston at his best with sound bites of advice.

Part lighting primer and part general advice, Brandston combines knowledge with experience and science with emotion. *Learning to See* as a lighting text is as unique as its author. **ED** 





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### **Professional Sustainability**

### DESIGNERS AND MANUFACTURERS DISCUSS THE FUTURE OF THE LIGHTING PROFESSION



Lighting industry professionals joined ARCHITECTURAL LIGHTING magazine in Boston for a roundtable discussion about the future of the lighting profession. From left to right: Carrie Knowlton Hawley, Paul Zaferiou, Melissa Hertel, and Robert Davis.

**Building on a series of roundtable discussions** ARCHITECTURAL LIGHTING magazine held in 2007 at the American Institute of Architects (AIA) National Convention and Lightfair, A|L organized similar events at this year's two conferences/trade shows in Boston and Las Vegas, respectively. Expanding on last year's theme of sustainability and lighting, this year's conversations took a slightly different twist—professional sustainability.

In early May 2008 in Boston, A/L gathered a group of highly respected members of the lighting community representing both design and manufacturing to discuss the future of the profession and steps to be taken to ensure that there is new talent infused into the workforce and a continuity of lighting knowledge. Moderated by ARCHITECTURAL LIGHTING editor Elizabeth Donoff, participants included:

Robert Davis, director, product management, Litecontrol, Hanson, Mass. Carrie Knowlton Hawley, associate principal, HLB Lighting Design, Cambridge, Mass.

Melissa Hertel, specification marketing manager, Lightolier, Fall River, Mass.

**Enrique Rojas,** principal, Steffian Bradley Architects, Boston **Paul Zaferiou,** principal, Lam Partners, Cambridge, Mass. **ED**: Welcome. The goal of this roundtable is to gather designers and lighting industry professionals to discuss issues facing the lighting community. One issue the magazine has heard repeatedly the past year is about the shortage of lighting designers, and the lack of qualified lighting designers in the workplace. How should the lighting community address this? What will this mean long-term for the profession?

**MH:** One place to start would be better coordination between architecture, design, and lighting programs. I studied environmental design at the University of Colorado. When I tell people I went there, their first response is "great lighting program," but in reality there was absolutely zero overlap between the lighting, environmental design, or architecture programs.

**CKH:** I had a similar experience in architecture school. The first year was about design. The second year, was about systems, but it wasn't satisfying. I started taking electives and was introduced to a daylighting class. When my teacher asked me, "Have you ever thought about taking an electrical lighting course?" I hadn't, but in order to take the class I had to switch over to the interiors program because that was where lighting was being taught. Those students were all getting a very good lighting education.

### INDUSTRY REPORT

**PZ:** I had similar experiences in undergraduate architecture. I had the environmental controls class where we touched on lighting basics. It was interesting, but it was formula and dry. Fortunately, I did have several studio professors who did bring lighting into the equation, and they had us talk about how to introduce daylight and electric light into our designs. They got us thinking about light and that determined where I went to graduate school—the University of Oregon because George C. Brown (aka Charlie Brown) and John Reynolds were heading up the program there. They were great mentors. I kept asking myself, "How can I incorporate this into what I want to do in architecture?" When you get into the profession, you find that there are fewer people to guide you. You have to do your own discovery.

**ED:** How important is a mentor? What have all of you tried to do in your careers as you become mentors to a younger generation?

architectural engineering programs versus architectural education. When most of us talk about lighting programs, we are thinking of Penn State and Colorado, the places that have historically put people in the industry. That is what has everyone concerned right now. It is the engineering side of the equation that just keeps getting smaller and smaller. I'm not sure there is a future in that side. However, I think there is a lot we could be doing with architectural education.

**PZ:** Are you telling me that you are concerned about the future of the architectural engineering programs? As far as I know, when students graduate, they have more job offers than they can handle.

**RD:** Yes. The problem is that these lighting programs depend on the one or two faculty people that are there. When they retire or move to another school, what happens to the program?



From left to right: Carrie Knowlton Hawley, Melissa Hertel, Robert Davis, and Enrique Rojas.

**PZ**: It is absolutely critical. In fact, I think it has a lot to do with the points raised for our discussion about the role that we could play to improve the kind of people we bring into the profession. At a minimum, you have to get [young people] fired up and passionate about lighting design, whether that is through working with your staff, teaching a class, or giving a lecture. Too many people are just not exposed to lighting as a career choice.

**ED:** Do you think lighting should be tapping into architecture curriculums to introduce lighting to larger audience?

**RD:** I think that is critical. What drives academic programs in universities is accreditation. I have not verified this myself, but I want to. I have heard from several people that architectural accreditation today requires three weeks of lighting, and that is all that is required to have an accredited architecture program. One big distinction is the

**ER:** I'm hearing a lot about technical training. What about the art part of design equation? Is there enough design in lighting programs?

**CKH:** I think it varies on the program. Working in HLB's New York office for many years, as a firm in search of new hires, we struggled with all of the programs in their current states. There are pros and cons of just taking a design approach or just taking a technical approach. Students have to have exposure to both sides.

**RD:** That is the critical question. What is it that we really need? People that have had two years of calculus and physics and then assume that design firms will teach the rest?

**PZ:** Things are changing now because the lighting industry is changing. In principle, we have always wanted to hire designers. Our clients are looking for wonderful solutions to make their architecture the

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### INDUSTRY REPORT

best it can be. You can train someone in the techniques of lighting, but you cannot train someone to be a designer. They have it or they do not. In the past, we have taken a lot of pain to hire and find the perfect person, but today because of the pressure to produce work faster and faster we have loosened up. We can hire someone who has a couple of years of experience and who may not want to be a lighting

### "A person's background does not matter so long as people develop the passion for lighting. I do not think there is a definition of where a lighting designer needs to come from."

designer for the rest of their life. We let go of this idea that we have to mold each new employee to be a quintessential lighting designer. It has changed the whole way we work and put teams together.

**CKH:** In New York, there are something like 55 lighting design firms. Is anybody not busy? No. Perhaps a person's background does not matter so long as people develop the passion for lighting. I do not think that there is a definition of where a lighting designer needs to come from. We have been thinking about how do you increase promotion about our industry. Do you need to go to the 25-year-old architects, people not registered yet who are exploring their choices and say to them very blatantly, "Are you sick of drawing bathroom details? Learn more about lighting." Maybe. The industry needs to invest in providing some very inexpensive educational opportunities on weekends like an all-day Saturday workshop. Are there creative means to get more people into the industry?

**RD:** We have tremendous pool of people later in their career—Peter Ngai, David DiLaura, and Bob Levine—who are the mentor models. We should be getting them to speak to young architects to get them interested in pursuing lighting design.

**ER:** What about a documentary that could be shown on NOVA or the History Channel? You could do a whole series on the history of lighting that could reach a huge audience.

**PZ:** Imagine if lighting could get a documentary filmmaker like Ken Burns to produce a feature about lighting!

**ED**: Does this require there be a "face" of lighting design that the public could respond to?

**PZ:** But the question is who is the face of lighting design for whom? The American public? For architecture? For the lighting industry? There are different audiences. Ultimately, I think the face of architectural lighting is published work that inspires people to say, "Wow. What an amazing building." If they really get and appreciate that lighting was part of that solution, that is our face.

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**Twelve projects, 11 firms, 9 cities.** While this data offers basic details about the award-winning projects of the Fifth Annual A|L Light & Architecture Design Awards, it by no means describes their complexity. From a field of 86 projects of the highest caliber work this design awards program has received since its commencement in 2004, these projects represent the diversity, inventiveness, and technical achievement at work in architectural lighting design today. The projects on the next 26 pages seamlessly integrate lighting in both architectural and urban contexts, and celebrate their designer's mastery of skill and imagination.

No matter the project size or budget, all of this year's selections share a common trait-excellence. The understated elegance of Armani's flagship store in Tokyo's high-end Ginza shopping district blends eastern and western traditions through state-of-the-art lighting technologies. The Bloch Building Addition at the Nelson-Atkins Museum of Art in Kansas City, Mo., transforms architecture into an otherworldly glowing sculpture and creates a new icon for the city. The relighting of the Alexander Hamilton U.S. Customs House in New York reinvigorates an architectural masterpiece. The sleek and sophisticated lighting of the Creative Artists Agency headquarters in Los Angeles redefines cool and modern. The Renée and Henry Segerstrom Concert Hall in Costa Mesa, Calif., is illuminated with technical splendor. The Burlington Danes Imaging Centre in London puts a contemporary spin on building facades. An ethereal quality of light at the School of American Ballet at Lincoln Center in New York surrounds limber dancers. Daylight turns the most unexpected of convention hall spaces, the H. Roe Bartle Hall Ballroom, into a dynamic interior completely rooted to its surroundings, and the Westminster Academy in London also is the beneficiary of a thoughtful daylighting scheme that transforms windowless classrooms into luminous spaces. Finally, colored light creates a new visual vocabulary for a system of subterranean public walkways known as the Underground in Oklahoma City.

Awards were given in all categories with the exception of Residential and Best Lighting Design on a Budget. The jury (see bios, right), an esteemed group of architects and lighting designers with more than 70 years of collective experience among them, did not feel there were any projects that met the mark in these categories. On the other hand, the jury felt that two projects, Guerrilla Lighting and the Times Square Ball, defied category structure and were awarded special citations to acknowledge their specific achievements—public awareness/activism and fixture design and incorporation of lighting technology, respectively. If the 12 award-winning projects of this year's A|L Light & Architecture Design Awards are any indication of what the promise of lighting design holds, then it is a very exciting moment for the lighting profession.

### **Jury Members**

ILLUSTRATIONS EUGENE SMITH



Laura Briggs Firm: BriggsKnowles Architecture+Design, New York Title: Partner

**Bio:** BriggsKnowles Architecture+Design is recognized for its use of light and ecological strategies. The firm's work has been published in several venues including *The New York Times, Dwell*, and *Metropolis magazine*. As director of the undergraduate architecture BFA AD program at Parsons the New School for Design in New York, Briggs teaches design studio and sustainable seminars, and is part of a joint effort to create interdisciplinary opportunities for students in product design, architecture, interiors, and lighting.

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# awards



Randy Burkett, FIALD, IESNA, CIE Firm: Randy Burkett Lighting Design, St. Louis Title: President and design principal

Bio: A member of the International Association of Lighting Designers (IALD), the Illuminating Engineering Society of North America (IESNA), and the International Commission on Illumination (CIE), Burkett is active on both technical and design committees concerned with energy, daylighting, office lighting, museums, and metrics of lighting quality. A former president of the IALD, he also has served on its board of directors. His portfolio includes a diverse collection of national and international projects in the areas of retail, museum, commercial, institutional, and site development.



Jean Sundin, IALD, IESNA, PLDA Firm: Office for Visual Interaction (OVI), New York Title: Co-founder and principal

Bio: OVI's projects include lighting for the Scottish Parliament, The New York Times Building, and the New York City Streetlight competition. The firm's illumination of the U.S. Air Force Memorial won the 2008 GE Edison Award, IES New York chapter Lumen Award of Merit, and IESNA International Illumination Design Award. Sundin currently is chair of the Professional Lighting Design Association's (PLDA) committee on curriculum fundamentals. She is a co-author of the IALD Specification Integrity Guidelines and is a member of the U.S. Green Building Council.



David Ziolkowski, IALD Firm: Hellmuth, Obata + Kassabaum (HOK), St. Louis Title: Senior associate

**Bio:** A graduate of the University of Kansas, Ziolkowski received his Bachelor of Science in architectural engineering in 2001. As a member of the lighting group at HOK since 2001, Ziolkowski is responsible for all phases of architectural lighting design. He served as the St. Louis Illuminating Engineering Society of North America chapter president from September 2005 to August 2006. In 2006, he was honored as one of St. Louis' "Top 30 Under 30" professionals by the St. Louis Business Journal.



Katherine Abernathy, IALD, IESNA Firm: Abernathy Lighting Design, North Providence, R.I. Title: Principal

Bio: Abernathy's work encompasses both architectural and theatrical lighting design. The firm's project portfolio includes national and international awardwinning designs and has focused on museums, entertainment venues, retail, health care facilities, offices, and exterior building lighting. Currently, she serves as director at large on the International Association of Lighting Designer's board of directors and is chair of the Examination Committee for the National Council on Qualification of Lighting Professions. She also is a member of the U.S. Institute for Theatre Technology.

### **Design Awards**

outstanding achievement

Armani Ginza

whole building project

### **Jury Comments**

Kathy Abernathy: I fully believe that a great lighting design tells a story and this is a great one! The thought and collaboration put into this project tell it all.

Randy Burkett: A unique and sophisticated revelation of the building's exterior façade. The design continuity between exterior and interior lighting heightens the visual experience.

David Ziolkowski: Dark, specular room finishes allow the light patterns and merchandise to become the stars of the space.

#### Details

Location: Tokyo Client: Giorgio Armani SpA, Milan Architect and Interior Designer: Studio Fuksas, Rome Lighting Designer: Speirs and Major Associates, Edinburgh, Scotland, and London Photographer: Nakasa & Partners, Tokyo Project Size: 86,000 square feet

Manufacturers: Color Kinetics, Endo Lighting, Lucent Lighting, Lutron, Osram, Philips







Haute couture meets haute architecture in Tokyo's Ginza shopping district. "Ginza is a hotbed of architectural styles," says Jonathan Speirs, principal of Speirs and Major Associates (SAM), the firm behind the lighting at Armani Ginza. "The architectural statement is as important as the fashion statement."

The principal design motif of the project—bamboo stalks and leaves—is the result of Giorgio Armani's direct involvement. The bamboo element, represented as a "forest in silhouette," is incorporated over the entire length and width of the 12-story façade. Because fixtures could not be attached to the exterior of the façade above the fourth floor, SAM devised a system—a sectional arrangement of glass curtain wall, lighting element, and blackout shades. The stalks are composed of fluorescent and cold cathode tubes, while the ellipticalshaped bamboo leaf utilizes 150 light-emitting diodes.

The bamboo motif continues in the interior spaces as the ceiling element for the first three floors, which are devoted to the Giorgio Armani line, and as the pattern on the gold mesh glass panels that line the stairs from the ninth-floor restaurant up to the 11th-floor private bar called Privé. The Emporio Armani line is housed in two below-grade floors and caters to a younger clientele. The distinguishing feature of the Emporio Armani space is a wrapper of black steel panels with staggered laser-cuts each 8mm thick. Color temperature changes from cool on the lower retail floors to warm on the upper floors, where golden tones become more prominent.

Like a Japanese paper lantern whose beauty lies in its simplicity, the success of Armani Ginza is the lighting's integration with the architecture to convey a series of distinct experiences that culminate in a unified whole.



### **Design Awards**

### outstanding achievement Bloch Building Nelson-Atkins Museum of Art

Renfro Design Group

whole building project

#### Jury Comments

Laura Briggs: This building would not have the same meaning without the light. While it is clear that light as a subject is important for the architect, without the lighting designer, the project would not be fully realized.

Randy Burkett: Technically creative solutions to daylight harvesting and brightness "management" within interior galleries. Powerful, yet ethereal presence at night.

David Ziolkowski: Light becomes a structural element. The glowing façades radiate brilliance across the rolling landscape.

#### Details

Location: Kansas City, Mo. Client: Nelson-Atkins Museum, Kansas City, Mo. Architect: Steven Holl Architects, New York Lighting Designer: Renfro Design Group, New York Photographer: Rolande Halbe, Stuttgart, Germany Project Size: 165,000 square feet (addition); 234,000 square feet (renovation); 450 square feet (parking garage) Manufacturers (Bloch Building Expansion): Alera Lighting, Alexandra Lighting Systems, Bartco Lighting, Bega, Cathode Lighting Systems, C.J. Lighting, Columbia Lighting, C.W. Cole and Co., Edison Price, Elliptipar, Finelite, Focal Point, H.E. Williams, Kirlin Co., Lightcontrol Corp., Nulux, Paramount Industries, Prudential Lighting, Winona Lighting











From its inception to its realization, light permeates every aspect of the Bloch Building, the new addition to the Nelson-Atkins Museum in Kansas City, Mo. The design by Steven Holl Architects is composed of five "lenses," glass pavilions that embed themselves along the eastern edge of the museum site. Working with the architects, lighting designer Richard Renfro and his team played a technical role on the project because, as Renfro explains, "The concept of light was already there."

The walls of the lenses are composed of 16-inch-wide planks of structural self-spanning channel glass. An intricate system of stippling the center glass surface along with a sandblasted translucent insulation gives the glass either a satin reflection or a moiré effect, depending on the viewing angle. Inside the cavity wall, two layers of low-iron laminated sheet glass are applied to maintain the clearest color rendering of daylight as possible.

Through the center of the lenses are a series of T-walls, which form a structural spine and allow a mix of north and south light into the galleries. Renfro and his team devised a passive three-layer shading system that would let natural light in without risking damage to the artwork. Daylight levels range from 7 footcandles to 27 footcandles. The other main gallery lighting element is the "stitch track"—short runs of track that create a zipper-like effect on the ceiling plane, and tie all the galleries together.

At night the building becomes an otherworldly series of glowing blocks, tumbling gently down the sloped landscape. Low-mercury 54W T5HL fluorescent lamps, chosen for their color rendering, are located in the cavity walls to achieve the luminous effect. The Bloch Building offers a new paradigm for the museum visitor, where ever-present but ever-changing light creates a dynamic expression that sculpts architecture through light.






The Alexander Hamilton U.S. Custom House contains many treasures, but visitors need not enter what is now the Smithsonian's New York branch of the National Museum of the American Indian to appreciate its 1907 Beaux-Arts grandeur. The façade is an architectural wonder adorned with Corinthian columns, cartouches, and Daniel Chester French's regal sculptures the "Four Continents." For years this impressive composition fell relatively silent at night, the casualty of an illumination scheme riddled with excessive shadows and hot spots. When Randy Sabedra, principal of RS Lighting Design, was asked to relight the façade in 2007, the remedy seemed straightforward recreate the light condition that would occur naturally on a clear evening, and use the illumination of interior surfaces to extend outward to the façade.

The new lighting scheme adds definition to the building's architectural features. The mansard's window frames each have a dedicated surface-mounted 39W PAR metal halide spotlight. The rest of the windows have ledge-hidden 45W angled grazer fixtures with high-output light-emitting diodes (LEDs). The "moon glow" effect radiates from 1000W ceramic metal halide floodlights, some mounted on surrounding buildings, and provides a color rendering index of 85. High-output LED fixtures tucked inside ledges appear integral to the building, tuned to 3000K and aimed with a grazer distribution. LED puck lights accent the building entry, while the "Four Continents" are highlighted with metal halide PAR30 spotlights concealed behind each statue and cross aimed. With a deft hand, the new lighting design maintains the historic and architectural integrity of the Custom House, using current technology to reconnect the building to the requirements of the modern city.

#### **Design Awards**

outstanding achievement

#### Alexander Hamilton U.S. Custom House

**RS Lighting Desig** 

exterior lighting

#### **Jury Comments**

Kathy Abernathy: The layering of lighting on this exterior project made it special for me. The integration of newer technologies I am sure allowed this to happen.

Laura Briggs: An exquisitely detailed project that saves energy and makes the stone so much more beautiful.

Randy Burkett: Exquisite layering of lighting elements to create a respectful presentation of the building's architecture. Creative problem solving with the statuary lighting.

Jean Sundin: The designer made the technical challenges look effortless.

#### Details

Location: New York

Clients: Smithsonian National Museum of the American Indian, U.S. General Services Administration, New York

Lighting Designer: RS Lighting Design, Brooklyn, N.Y. Photographer: Tom LaBarbera,

New York

Project Size: 2,000 square feet Watts per Square Foot: 4 Manufacturers: Hydrel, IO Lighting, Osram Sylvania, Selux

outstanding achievement

#### Creative Artists Agency Headquarters

Horton Lees Brogden Lighting Design

#### interior lighting

#### **Jury Comments**

Kathy Abernathy: Everything was thought of from the angle of light to just enough integration of color to enhance the drama.

Randy Burkett: Careful use of a lean energy budget demonstrates the power of good lighting design.

Jean Sundin: A well-executed project with creative solutions to save energy and meet Title 24.

David Ziolkowski: Clean, crisp, simple architectural lighting at its best.

#### Details

Location: Century City, Calif. Client: Creative Artists Agency, Century City, Calif. Architect: Gensler, Santa Monica. Calif. Lighting Designer: Horton Lees Brogden Lighting Design, Culver City, Calif. Photographer: Benny Chan/ Fotoworks, Los Angeles Project Size: 240,000 square feet Watts per Square Foot: 1.06 Manufacturers: a•light, B-K Lighting, California Accent Lighting, DelRay, ETC, Forms+Surfaces, Glass Illuminations, LED Power, Lucifer Lighting, Lumascape, Lutron, Martin, Modular International, Prudential Lighting, Selux, Specialty Lighting, Winona Lighting, Zumtobel For its headquarters, Creative Artists Agency wanted a space that speaks to the sophistication and power of its enterprise. Lighting designer Teal Brogden, principal of the Los Angeles office of Horton Lees Brogden Lighting Design, explains that as this project evolved, some of its focal points became a play on the iconic gestures of Hollywood—fitting for a talent and literary agency in the entertainment industry.

The project features glossy and matte finishes, and its white palette works well in regard to the lighting because with California's strict energy codes, the use of white light allowed for more effects using less power. A marble entry wall offers depth and is illuminated by pairs of MR16 uplights as "a bit of an allegory to the old Hollywood spotlights," Brogden explains. "We wanted to create a sense of drama when you entered the space, to not have it feel simply corporate and bland." Near the reception area is an eight-story-high atrium that features a grand staircase, which is illuminated by 37W MR16 uplights and downlights. The elevators and the staircase are accented by color-changing backlit glass walls, which are operable via a control system. The walls offer a variety of lighting schemes, but the day-to-day setting is 3500K, to give the atrium a sense of daylight. The office spaces boast a minimalist, crisp lighting scheme with a combination of cabinet-mounted indirect and 2-inch-wide linear slot T8 fluorescent fixtures, while adjustable 37W MR16 downlights provide accent lighting for the agency's art collection.

It's clear that much attention was paid to the details of this project. Brogden notes that the need to realize the strong vision and identity of the client while also adhering to California's Title 24 is what ultimately inspired the lighting design of the building.















The Renée and Henry Segerstrom Concert Hall in Costa Mesa, Calif., is part of the Orange County Performing Arts Center and features an undulating transparent glass wall that disappears at night as the interior rear wall is washed with light. With a mixture of metal halide lamps and light-emitting diode (LED) technology in its lighting scheme, created by New York-based Cline Bettridge Bernstein Lighting Design (CBBLD), the 26,000-square-foot space, including both the lobby and the concert hall, uses fewer watts than California's Title 24 energy code requires.

A circular staircase in the multi-tiered lobby is lined with donor names engraved on dichroic glass panels and illuminated by high-intensity discharge framing projectors. Above the stairs, a 40-foot-diameter chandelier descends from a fiber optic color-changing cove along the ceiling. The chandelier creates a spiral effect, made of 300 stainless steel rods of varying lengths. The tip of each rod features a customdesigned Baccarat crystal illuminated by one 1W 3000K white LED.

Inside the concert hall, the balconies curve "as if they have the fluidity of a sound wave," says Francesca Bettridge, president and principal of CBBLD. The balcony curves emulate the undulating glass of the façade, and Bettridge points out that the architect, Cesar Pelli, always had it in his mind that the front of the balconies would be illuminated. To achieve this, LEDs are concealed behind lightly frosted lenses in a small recess while wallwashers illuminate the wood walls and sconces mark the openings to the reverberation chambers behind the walls.

Bettridge explains that the project, completed in February 2007, had a time frame "long enough for LED technology to change" so it could be introduced to achieve the lighting design. The dynamic use of solid-state lighting taught the team at CBBLD a lot about the technology, Bettridge says, and the energy-efficient design created reinforces the architectural elements of the lobby and concert hall.

# Location: Costa Mesa, Calif.

DETAIL OF LEDS CONCEALED BEHIND LIGHTLY

FROSTED LENS IN A SMALL RECESS

Client: Orange County Performing Arts Center, Costa Mesa, Calif. Architect: Pelli Clarke Pelli Architects, New Haven, Conn. Lighting Designer: Cline Bettridge Bernstein Lighting Design, New York Project Size: 26,000 square feet (lobby and concert hall) Watts per Square Foot: 2 (lobby); 2.3 (concert hall) Manufacturers: Artemide, Creative Light Source, Designplan, Drama Lighting, Edison Price, Elliptipar, Illuminating Experiences, LED Effects, Lite Raze, Visual Lighting Technologies

#### **Design Awards**

outstanding achievement

#### Renée and Henry Segerstrom Concert Hall

#### interior lighting

#### **Jury Comments**

Kathy Abernathy: The icing on the cake is the magnificently designed and executed LED chandelier in the lobby that crawls down the stairwell.

Laura Briggs: Masterful execution. All the needs of a space are integrated into gestures that become central architectural elements.

Randy Burkett: The concert hall lighting details provide a beautiful revelation to the interior architectural forms.

Jean Sundin: It was surprising how much the designers were able to do while meeting the energy restrictions.

David Ziolkowski: The most fun of all projects under consideration for awards this year.

#### Details

ARCHITECTURAL LIGHTING 39







The most striking exterior element of the Burlington Danes Imaging Centre in London is a stainless steel mesh screen along the front façade, which is illuminated from both the foreground and background. This technique, often used in theater, more effectively shows the transparency of the material and allows passers-by a glimpse inside by showing the exposed services of the interior. The design team at London-based NDYLIGHT, the lighting design firm on the project, carefully studied the mesh and how it responded to both natural and electric light.

A bridge connects the center to the adjacent Queen Charlotte Hospital. Blue sleeved fluorescent lamps are concealed at the floor base, and white light point sources are located along the sides of the bridge, "creating pools of light and enabling good face recognition," explains Maida Hot, lighting design director at NDYLIGHT. The project uses both metal halide and fluorescent lamps, and color is integrated into the exterior lighting to give the building a nighttime presence.

For the exterior, the design team employed blue, green, and pink light. The use of color was derived from the need for the lighting design to distinctively illuminate the building without being too bright, Hot says, adding that blue and green were chosen because they are relatively dark hues that complement each other. The blue dichroic filter, which runs along the bottom of the mesh screen, has pink as a secondary color to delineate the end of the screen on the façade. With residential buildings across the street, the designers had to be aware of the center's impact on its surrounding environment. However, being conscious of the neighborhood had no negative impact on the end result: a dynamic exterior lighting design that distinguishes the building at night while also satisfying the client's goals, local regulations and guidelines, and energy codes.



#### commendable achievement Burlington Danes Imaging Centre

#### exterior lighting

#### Jury Comments

Kathy Abernathy: Beautiful combination of interior and exterior lighting techniques to create a stunning nighttime image.

Laura Briggs: By folding contrasting types of light throughout the several layers of the main exterior façade, the designers were able to do a lot with a little.

Randy Burkett: Purposeful use of color visually exploits structural and environmental building forms normally found as benign.

Jean Sundin: The lighting of the screen façade really enhances the depth of space.

David Ziolkowski: The contrasting colors of the external and internal lighting creates a dynamic nighttime façade.

#### Details

Location: London Client: Imperial College, London Architect: Sheppard Robson, London Lighting Designer: NDYLIGHT, London Photographer: Richard Leeny, Viewfolio, London Watts per Square Foot: 0.7 Manufacturers: Encapsulite, Lightscape Projects, Meyer

#### Commendable achievement H. Roe Bartle Hall Ballroom

#### interior lighting

#### Jury Comments

Randy Burkett: Skillful blend of electrical and natural light conserves energy, while providing near endless flexibility for the client.

Jean Sundin: This project is a beautiful blend of both worlds— daylight and artificial lighting.

David Ziolkowski: What a space! The lighting brings the wall material to life. The decorative pendants add depth, scale, and sparkle.

#### Details

Location: Kansas City, Mo. Client: City of Kansas City, Mo. Architect/Interior Designer: HNTB, Kansas City, Mo.

Lighting Designer: Derek Porter Studio, Kansas City, Mo. Photographer: Michael Spillers, Kansas City, Mo.

Project Size: 135,000 square feet (including the 46,450-square-footballroom)

Manufacturers: Armstrong, Bega, Ceilings Plus, Construction Specialties, Draper, Elliptipar, ETC, Focal Point, H.E. Williams, Infinity, Kurt Versen, Litecontrol, Louis Poulsen, Modular, Modular Arts, Naturalite Skylight Systems, Newmat USA, Oldcastle Glass, Osram, Performance Solitions, Philips, Power Vector, Selux, Starfield Controls, Tridonic, Winona Lighting



**One part of a multiphase expansion** of the Kansas City, Mo., convention center, Bartle Hall is a departure from traditional "black box" ballrooms that offer no context to site orientation or exterior surroundings. Instead, the space is filled with daylight that pours through clerestories on the north, east, and west sides of the room. Translucent stretched-fabric panels measuring 8-, 15-, and 30-feet, respectively, on the north, west, and east sides of the ballroom border the ceiling perimeter, diffusing the sunlight as it moves across the space over the course of the day.

Working independently of and in concert with the natural light, electric lighting was used to meet the diverse programmatic needs of the ballroom, providing both general illumination and task lighting. Two features of the electric lighting scheme stand out. First are the custom polished aluminum ring luminaires suspended from the ceiling. Ranging in size from 2<sup>1</sup>/<sub>2</sub> feet to 50 feet in diameter, they house warm-white light-emitting diodes (LED), oriented upward to reflect in the specular metal panel ceiling. Second is the LED lighting system made up of two banks of LEDs: one to backlight the stretched-fabric ceiling panels, and the other to graze the 30-foot-tall white-painted glass fiber reinforced gypsum wall panels that line three sides of the room. A sophisticated control system brings it all together. Each fixture can be independently programmed to accommodate specific room configurations.

The project strikes a balance between conceptual and practical objectives, a great asset for a project where the design could have pursued typical layout strategies—inward-focused spaces devoid of connection to the outside and light. Rather, the design provides the unexpected—daylight—and in turn creates a compelling space not usually associated with this building typology.















The School of American Ballet at Lincoln Center in New York makes the most of its space with a double-height studio, where the upper-level studios are "nested" within the studios below, sharing the same windows and outer walls. This setup created a challenge for the designers at New York-based Tillotson Design Associates because they had to make sure the dancers on the lower level felt part of the larger overall space in addition to ensuring that the light was bright enough. The upper and lower studios are illuminated with T5HO fluorescent lamps behind 4-inch-wide white lenses that run perpendicular to the mirrors on the wall. The perimeter double-height walls are washed with light, also from T5HO lamps, and a combination of a continuous wallwash and downlight located in the upper ceiling ensures the corners in the lower-level studios are appropriately illuminated.

A lounge area between the upper studios features custom recessed sockets with stainless steel cover plates and dimmable silver bowl lamps to achieve a residential lighting quality. The lounge offers views into the upper studios, as well as a peek to the ones below. The studios have glass walls with a 4-foot band of electrified glass that change from clear to more opaque, allowing visitors watching the dancers to see in while the dancers can see out, but so as not to be distracted. Suzan Tillotson, principal of Tillotson Design Associates, says the design team carefully studied how the lighting would interact with the glass and mirrors that make up the walls of the studios. "When you have glass and mirrors, you have to be really careful with reflections and viewing angles," Tillotson explains.

The building has an abundance of natural light, and shades are used on the windows, offering the school control over the daylight. Tillotson says the project was challenging but that making the studios "work for the dancers on both levels and minimizing the distractions was really unique." Working with walls of glass and mirrors, the lighting design achieves its goal of offering adequate lighting throughout the space while also giving the dancers their privacy.

#### **Design Awards**

#### School of American Ballet at Lincoln Center

commendable achievement

interior lighting

#### **Jury Comments**

Kathy Abernathy: The lighting and architecture are married in a very clean and pristine manner.

Laura Briggs: Love how the design team was able to use the architecture to produce light effects by borrowing light from adjacent spaces and working with the surfaces of materials.

Randy Burkett: A straightforward lighting solution makes this difficult - design challenge seem easy.

Jean Sundin: A clean, simple lighting design that is very effective, architecturally appropriate, and nicely detailed.

David Ziolkowski: Beautiful. Simple. Elegant.

#### Details

Location: New York Client: School of American Ballet at Lincoln Center, New York Architect: Diller Scofidio + Renfro, New York Lighting Designer: Tillotson Design Associates, New York Project Size: 12,000 square feet

Manufacturers: Bartco Lighting, Bega Lighting, Contardi, Selux





The Underground in downtown Oklahoma City is a three-quarter-mile tunnel system that connects 16 city blocks and more than 30 buildings. The space, untouched since the 1970s, featured a brown color scheme and mercury vapor lamps. The new lighting concept was "intended as a navigation tool and to be fun," says architect Rand Elliott, of Oklahoma City-based firm Elliott + Associates Architects. Architect Michael Hoffner, of the same firm, explains that because maintaining a sense of direction underground can be difficult, the colored light is used as a wayfinding tool to help make the trip through the tunnels more memorable. "The colors allow you to remember how you came along the journey," he notes.

Originally, the design team considered painting the tunnel walls in color and using white light, but it was decided that the light itself should color the space because it would allow for more flexibility. Illuminated mainly by T8 fluorescent lamps with gels to provide the color variations, the Underground has clear demarcations between tunnels where visitors experience the color transition points. While the use of color guides people through the system, galleries also are incorporated into the walkways, allowing each tunnel to have its own personality. A 300-foot-long section is the "light gallery," where on one wall yellow light runs along the floor and blue light runs along the ceiling line. Those complementary colors together create white light on the opposite wall of the space. The other tunnels have themes—for example, yellow is used to represent energy and public utilities—and those themes also correspond with historical photos of downtown Oklahoma City. Needing to stop and start the color to supply appropriate light to view the photographs, 8-foot-long sections of black wall, ceiling, and floor were created with track lighting to provide a transition from the colored light areas.

Hoffner says he's proud of how the team responded to project constraints, such as dealing with the existing electrical power locations. The end result uses light in a smart, interesting, and colorful way, giving each tunnel its own individuality while also guiding people through this public space unique to Oklahoma City.



#### best use of color



color

Jury Comments

Kathy Abernathy: The simplicity of this project makes it phenomenal.

Laura Briggs: Love the way this project worked with the interaction of color and space, and the way the design team was able to give definition to each space with modest means.

Randy Burkett: A visceral use of color and form that makes this journey memorable—color at its primitive best.

Jean Sundin: A surprising project that really uses color via light and materials as a guiding system and generates an experience for the visitor.

David Ziolkowski: Colors are used as an intelligent wayfinding device in a challenging architectural environment.

#### Details

Location: Oklahoma City Client: Downtown OKC, Oklahoma City Architect: Elliott + Associates Architects Photographer: Hedrich Blessing, Chicago Project Size: 42,000 square feet Watts per Square Foot: 1.9 Manufacturers: Columbia Lighting, Lightolier, Lithonia Lighting, Prescolite

#### best incorporation of daylight Westminster Academy



daylight

#### **Jury Comments**

Randy Burkett: Creative use of daylighting resulting from careful study of the problem.

Jean Sundin: We could clearly see that the daylight input had an impact on the configuration of the architectural spaces and made them much better than they would have been without it.

David Ziolkowski: Well done precision daylight control tied into the architectural form.

#### Details

Location: London Client: Westminster Academy, London Architect: Allford Hall Monaghan Morris, London

Lighting Designer: BDP Lighting, London

Photographers: David Barbour, Sanna Fisher-Payne, BDP Lighting, London

Manufacturers: Concord Marlin, Encapsulite International, Lightform, Fagerhult, Whitecroft Lighting, Zumtobel



The daylighting strategy for Westminster Academy, a new inner-city school in London and home to 1,175 students, was two-fold: the development of a baffle system in the atrium, and the creation of light wells in eight class-rooms that had no external windows. As London-based lighting design firm BDP Lighting, who worked closely with the architects, describes, "to maximize the daylight performance of the building to create a stimulating, efficient and, low-maintenance lighting installation."

In the school's atrium space, BDP devised a scheme that would maximize diffused skylight ingress while controlling the amount of sunlight yet still providing some direct sky views. The lighting team created an array of tilted baffles, which align with the building's north/south structural line. The baffles, which also provide acoustic absorption for the four-story open space, are painted matte white on their south-facing side to "optimize reflected sunlight" and are colored shades of green on their north-facing side. The spacing of the baffles along with their positioning angle and height were designed to attenuate the majority of sunlight entering the atrium through the glass roof, yet still allow for some direct sunlight to animate the space.

For the eight internal classrooms with no windows, the lighting designers took an iterative calculation approach to maximize diffused skylight into these areas. The solution was to create a series of light wells that bring natural light deep into the building by extending the width of the daylight corridor areas. Coupled with the light wells are direct/indirect fixtures alternated with vertical baffles. The classrooms receive 300 lux to 500 lux. In classrooms with windows, luminaires adjacent to the window wall are equipped with integral photocells and operated with closed loop daylight linked dimming. The end result is a luminous interior where students and teachers can focus on learning.









#### best incorporation of daylight H. Roe Bartle Hall Ballroom Derek Porter Studio

daylight

#### Jury Comments

Kathy Abernathy: The way the daylight is brought into the room is extremely comfortable and gives a new take on ballrooms or multifunction rooms that are normally "black boxes."

Randy Burkett: A near-masterful demonstration of daylighting in a space type that traditionally shuns the sky.

David Ziolkowski: The integration of daylight is extremely intelligent.

#### Details

Location: Kansas City, Mo. Client: City of Kansas City, Mo. Architect/Interior Designer: HNTB, Kansas City, Mo. Lighting Designer: Derek Porter Studio, Kansas City, Mo. Photographer: Michael Spillers, Kansas City, Mo. Project Size: 135,000 square feet (including the 46,450-square-footballroom) Manufacturers: Armstrong, Bega, Ceilings Plus, Construction Specialties, Draper, Elliptipar, ETC, Focal Point, H.E. Williams, Infinity, Kurt Versen, Litecontrol, Louis Poulsen, Modular, Modular Arts, Naturalite Skylight Systems, Newmat USA, Oldcastle Glass, Osram, Perfor-





mance Solitions, Philips, Power Vector, Selux, Starfield Controls, Tridonic, Winona Lighting



**The Bartle Hall Ballroom** is not your typical convention hall space. As Derek Porter, principal of Derek Porter Studio, the lighting firm responsible for the design, explains, "Maximizing daylight to conserve energy and celebrate the presence of nature in this otherwise enclosed environment was key to the lighting design."

The daylighting strategy includes clerestories on the north, east, and west sides of the room. Translucent stretched-fabric panels measuring 8-, 15-, and 30-feet, respectively, on the north, west, and east sides of the ballroom border the ceiling perimeter, diffusing the light as it moves across the space over the course of the day. "You really feel the dynamic changes of the room and how natural light sculpts and gives orientation to the space."

Natural light provides the principal form of illumination during the day with no supplemental electric lighting, and the footcandle level ranges from 60 footcandles underneath the stretched-fabric panels to 20 footcandles in the middle of the room. Working independently of but in unison with the natural light, electric lighting helps round out the general illumination and task lighting needs.

This integrated approach required a sophisticated control system. Each fixture can be independently programmed so the lighting can be adjusted to accommodate specific room configurations. Custom networking and LCD control panels link three systems—a digital addressable lighting interface, theatrical controls, and another set of controls for the facility management system—to improve usability, address diverse programmatic needs, and conserve energy through daylight harvesting controls. Indoor environmental quality credits 8.1 and 8.2 for daylight and views successfully were achieved as part of the project's Leadership in Energy and Environmental Design Silver certification.







**Imagine if you could show elected officials,** in real time, how lighting design could transform poorly lit and neglected areas of their cities. That is exactly what an initiative known as Guerrilla Lighting has done in selected cities in the United Kingdom. Initiated by London-based BDP Lighting, the goal of the program is to promote "the use of professional, sustainable lighting design in the urban environment."

The lighting installations are created by an army of 100 volunteers equipped only with flashlights outfitted with colored gels, and a few light-emitting diode (LED) fixtures. As the designers explain, "On the sound of an air-horn, the building or space is lit and photographed, then the lighting is switched off and the guerrillas move on to the next site."

While such an initiative seems spontaneous, it actually requires a great deal of coordination and planning so when the teams arrive on-site the focus is on implementing the illumination scheme. The initial sessions took place in London, Manchester, and Glasgow, and had no clients or fees. Equipment was gathered from manufacturer sponsorships and the budget assembled from volunteer donations. Participants were contacted by e-mail and details—day, time, and location—were sent the day of the actual event.

The organizers would like to see the program occur in other cities and have taken an "open-source" approach by publishing a "how-to" guide. They only ask that participants adhere to the key principles of the initiative and post the installations on the website, guerrillalighting.com.

The jury unanimously agreed that Guerrilla Lighting defies traditional categories, and felt the initiative deserved special recognition for its work in bringing greater awareness to lighting design through public activism. As the program shows, with simple means and great passion, much can be achieved.



**GUERRILLA VOLUNTEERS** 

#### **Design Awards**

special citation Guerrilla Lighting BDP Lighting

public awareness/activism

#### **Jury Comments**

Kathy Abernathy: What a great tool to grab the world's attention and spark the conversation of light.

Randy Burkett: Laudable undertaking to increase awareness of the power and poetry of light. Engaging for both participants and onlookers. The photographic record ensures that the ideas live on to educate and inspire others.

Jean Sundin: The spontaneous designs were intriging especially knowing how quickly they were put together.

David Ziolkowski: The majority of the general public knows nothing about the profession of lighting design. This program raises public awareness, gets people involved in the process and looks like a fun way to spend the evening.

#### Details

Locations: London; Manchester, England; Glasgow, Scotland Photographer: BDP Lighting, London

Equipment: High-powered battery flashlights, colored filters, LED luminaires Sponsors: Concord Marlin, Deltalight, Fagerhult, Louis Poulsen,

Osram, Philips, Rosco, Siteco

#### special citation

#### 100th Anniversary of the Times Square Ball

fixture design and incorporation of lighting technology

#### Jury Comments

Kathy Abernathy: This one is all about the details.

Randy Burkett: A near-perfect application of lighting technology as an enhancement of an inherently beautiful form.

Jean Sundin: Impressive how many scenarios can be created onto the sphere.

David Ziolkowski: An incredible, extremely high-profile use of lighting technology.

#### Details

Location: Times Square, New York Client: Countdown Entertainment, New York

Lighting Designer: Focus Lighting, New York

Structural Engineering and Development: Hudson Scenic Studio, Yonkers, N.Y. Photographer: Ian Hardy, New York Project size: 6 feet (diameter) Manufacturers: E:Cue Lighting Control, LED Effects, Lighting Science Group, Philips Lighting, Waterford Crystal



The Times Square New Year's Eve Ball has had a few upgrades since its initial descent in 1907. Most recently, the team at New York-based Focus Lighting was asked to update the ball's design in honor of its 100th anniversary using light-emitting diode (LED) technology and triangular crystal panels from Waterford Crystal.

Figuring out a way to highlight the brilliance of the crystal and have the ball look stunning to all viewers, whether they were watching the ball drop in Times Square in person or via television, was a challenge for the designers. The 6-footdiameter ball weighs approximately 1,100 pounds and features 672 individual crystal triangles that sport an exclusive pattern by Waterford called "Let There Be Light." A mirrored baffle multiplies the number of visible points of lighting behind each crystal panel. Looking to create a dynamic, colorful, and energyefficient lighting design for the ball, the team at Focus Lighting used 9,576 red, green, blue, and white LEDs to backlight the triangular crystals. The current ball operates with all solid-state technology as opposed to the 600 incandescent and halogen lamps used to illuminate the previous model.

"It is an honor to receive an award for a project that involved such elaborate problem-solving and layering of elements," says Paul Gregory, principal of Focus Lighting. "An extensive concept stage helped us to actualize our ideas on accentuating custom-cut crystal, with a series of mirrored triangular prisms and LED lights. The exciting result proved fitting for the New Year's spectacle." Using the ball's lighting control system, eight "shows" were programmed for the New Year's festivities, showcasing the ball's enhanced brightness, myriad color capabilities, and increased efficiency. The ball drop to ring in the new year allowed the designers to see their ideas confirmed with the brilliance of the crystal and the dynamic use of rich colors appearing equally spectacular to all who watched.







## postscript







An important part of the design awards review process is the jury discussion. Debate about specific projects gives way to discussion about more general issues of architectural lighting design, everything from what constitutes good lighting to the different approaches of the various lighting industry design award programs.

With this year's entries and the high caliber of design represented, the jury had its work cut out for it. The lighting under review enabled the jury to delve into a highly detailed discussion, analyzing every facet of a project. In making the distinction between truly outstanding work and what the jury members felt represented a level of competency that should be expected as a baseline norm for good lighting, six projects were at the center of their attention. Although these projects did not, in the end, receive awards, each one had particular elements that resonated with the group, and it is worth taking a moment to mention these features because they represent important discussion points within the larger context of architectural lighting design.

The first project that ignited extensive discussion was the Brooklyn Central Library. The jury found the incorporation of modern lamp technologies recessed within existing architectural details a clever solution for the renovation of this landmarked building. However, the project documentation left the jurors unsure as to how the adjacent refurbished historic street lighting came into play with the light levels on the building's façade.

Both Blue Frog, a nightclub lounge in Mumbai, India, and the Diane von Furstenberg (DVF) Studio Headquarters in New York posed similar questions regarding the role of strong architectural statements and how lighting responds. In the case of Blue Frog, the undulating landscape of dining booths was a compelling form, but with such a strong architectural feature, a more seamless integration of the lighting was expected. The DVF project also represented the challenge of a strong architectural element—a dramatic stair lined with crystals—but the building's colored nighttime façade illumination seemed to be disconnected from the project's daytime lighting approach.

Next, exhibit lighting at the Museum of Singapore was lauded for its inventive solutions in creating scenes, but exhibit lighting as a whole raised questions as to how this project typology should be evaluated in the context of the design awards categories. On the retail front, the jury was impressed with the lighting quality of the Elizabeth Arden store on Fifth Avenue in New York. Curved luminaires mimicked the interior architecture, but certain fixture selections surprised the jury in this otherwise clean retail space. Finally, while the dance studios of the Toronto Ballet School excel in their uniform illumination, the jury felt there was a dissonance between the lighting of the different scope of workspaces.

Time and time again the jury came back to the role that lighting and architecture play in creating complete environments that display a progression of light. Perhaps little comfort in not receiving an award, these projects are critical to the jury process. Without them, the jury would not have been able to complete its discussion and refine its selections.



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### **Designing for Energy Efficiency**

#### A STRATEGIC LIGHTING DESIGN FOR A FURNITURE SHOWROOM YIELDS LOW-ENERGY RESULTS



TG Couture, a furniture line inspired by haute couture fashion, is housed in Chicago's Merchandise Mart. The showroom is organized into five 20-foot by 20-foot areas that are separated by gray fabric curtains and divided into different vignettes showing furniture arrangements (above left and above right). Along the front of the showroom space, adjacent to a glass wall, is a "runway" of chairs (top right).

**Energy conservation is finding its way** into industry and commerce across America. As more and more businesses and buildings "go green," companies are looking for ways to reduce energy consumption and the waste produced by daily operations. One of the best ways to conserve energy is to reduce the daily total lighting load within a building. Chicago's Merchandise Mart is a 25-story-tall building that occupies two city blocks, houses 10 floors of office space, 11 floors of permanent showrooms along with retail shops for gifts, residential, casual and contract furnishings equaling 4.2 million gross square feet. As one of the world's largest commercial buildings, energy usage is not a casual consideration.

In November 2007, the Merchandise Mart, owned and managed by Merchandise Mart Properties, attained Leadership in Energy and Environmental Design - Existing Building (LEED-EB) Silver certification as part of a continuing effort to promote exemplary green building practices and environmental stewardship. As a component of the certification, a building seeking LEED-EB must create a plan for reducing energy consumption and demonstrate energy efficiency at least 19 percent better than buildings of a similar type. A typical existing showroom in the mart facility maintains a lighting power density (LPD) of about 4.5 watts per square foot. Based on the 2006 International Energy Conservation Code (IECC), new and renovated spaces must sustain an LPD of fewer than 2.4 watts per square foot. Adhering to this new LPD level coincides with the mart's larger long-term plan to reduce environmental impacts associated with high-energy use. TG Couture, a new high-end modern furniture showroom in the Merchandise Mart, worked within these lighting energy guidelines to display a stunning collection just in time for

NeoCon—June 9–11, 2008—the commercial furnishings industry's prestigious trade show held annually at the complex.

#### PROJECT INCEPTION

The TG Couture collection is a subsidiary furniture company developed in 2007 by Gary Lee Partners, a Chicago-based architecture and interior design firm. By January 2008, a showroom was planned for the mart to open in time for NeoCon. Lindsay Maki, associate designer at Gary Lee Partners, called on Mark Loeffler, director of lighting at Atelier Ten in New Haven, Conn., with whom she had worked on several other projects, to develop a lighting concept for the furniture showroom that would meet Chicago's energy guidelines.

TG Couture's showroom is a large rectangular space enclosed by glass walls on two sides. Within this envelope are five 20-foot by 20-foot areas separated by gray fabric curtains and divided into different vignettes showing possible living arrangements and furniture layouts. Along the front of the showroom space, adjacent to a glass wall, is a parade of chairs. The furniture line was inspired by couture fashion, composed of handcrafted pieces with vintage garment upholstery. Using fashion as a guide, the designers developed a lighting scheme that would selectively highlight and sculpt the furniture while maintaining low light levels in the circulation areas. Because Maki and Loeffler wanted the scheme to be energy efficient and environmentally responsible, the designers set an ambitious target of 1.1 watts per square foot, or roughly 200 watts per vignette. Maki and Loeffler worked together for four months to choose light sources for the showroom that would keep within this wattage allowance.

#### DETAILS METHOD



Track lighting with 20W T4 ceramic metal halide sources was selected for its flexibility, color rendering, and low wattage (above left). T5HO fluorescent wallwashers illuminate the rear walls of each furniture vignette (top right). A plan of the showroom shows the relationship of the chair "runway" and five vignette areas (above right).

#### DESIGNER COLLABORATION

Both designers participated in three rounds of mock-ups to examine the interaction of different light sources on various materials and how that would reveal the color and texture of the upholstery and furniture. Loeffler wished to push the envelope of traditional retail design, creating what he refers to as "cutting-edge lighting for cutting-edge furniture." The mock-up results also showed the designers that dimming would not be necessary, as the quality of light could be controlled with beam distribution, lenses, and focusing. Maki and Loeffler chose 20W T4 ceramic metal halide sources to illuminate the furniture because of the lamp's color rendering, point source qualities, and low wattages. To light the rear walls of the showroom, which were to be painted white, the team settled on T5HO fluorescents. The designers sought the feeling of a raw space by using tones of taupe and gray because Maki felt the contrast of the industrial materials would help the furniture stand out. After careful consideration of potential materials and finishes, all conducted under the metal halide and fluorescent sources, a new concrete floor was poured and shimmering gray taffeta silk draperies were selected.

#### DESIGN FLEXIBILITY

Because of the rotating nature of items in a showroom, Maki required flexibility built into the lighting system so the spatial configuration could shift with the furniture. Loeffler and his design team created a layout with four lengths of surface-mounted track on the ceiling of each vignette, and one long length above the runway. The nature of track lighting allows the fixtures to be reconfigured within the display as needed. The location of the track segments gave the lighting design team the high angle accent lighting desired for the "runway" of chairs, and conveniently powered both the ceramic metal halide and fluorescent sources. Once the new lighting scheme was in place with final focusing, Maki notes that the lighting "completely changed the environment," reaching "the ethereal quality" she had wanted.

#### YIELDING RESULTS

To highlight the furniture, track heads in a 15 degree spot and a 25 degree narrow flood were precisely focused on each piece. T5HO fluorescent wallwashers illuminate the rear walls of the vignettes, providing a wash of light on prints hung as part of each display. Each vignette adhered to the 200W allowance, including all of the decorative fixtures such as the cut-glass chandelier over the dining table and the bird's nest sculpture in the entry. With the total showroom square footage equaling 3,000 feet, TG Couture achieved less than 1 watt per square foot, which betters the IECC energy code of 2.4 watts per square foot and far exceeds most showrooms in the Merchandise Mart.

Loeffler recounts that when the project was complete, he and Maki both agreed that it looked exactly like they had wanted. Throughout the process, the designers remained committed to the efficient approach, both ethereal and dramatic, convinced by the mock-ups that the lighting and furniture would come together. The acceptance and thoughtful use of nondimming ceramic metal halide sources in the showroom provided high color rendering for the furniture, while the low wattages allowed the right amount of fixtures needed to craft the desired stylized look without exceeding the designers' power limits. The integration of energy conservation into the design concept at inception is a realistic and achievable practice all designers can strive toward in the global effort to be more environmentally conscious and energy efficient. JEN BICKFORD

Project TG Couture Location Merchandise Mart, Chicago Design Team Gary Lee Partners Architecture + Design, Chicago (interiors); Atelier Ten Environmental Consulting Designers, New Haven, Conn. (lighting design) Photographer Tony Soluri, Chicago Project Size 3,000 square feet Watts Per Square Foot 2.4 Manufacturers GE, Lightolier, Osram Sylvania



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## **Lighting Shines at AIA Convention**

The American Institute of Architects (AIA) 2008 National Convention and Design Exposition, held May 15-17 in Boston, attracted 23,950 registrants and 852 exhibitors, making the 140th convention the third largest to date. More than 30 of those exhibitors were lighting manufacturers looking to reach the audience of architects and lighting specifiers, and a lighting pavilion on the show floor conveniently gathered many of those manufacturers in one area. There was much discussion at the convention about light-emitting diode (LED) technology in addition to daylighting, energy savings, and the Leadership in Energy and Environmental Design program. Along with the booths showcasing products on the exhibit floor, a variety of workshops and seminars were offered, where those seeking continuing education credits could fulfill their requirements. With many manufacturers touting new products, there were numerous items that warrant mentioning, and the following is an overview of some of the offerings from the 2008 AIA show floor. JENNIFER LASH



#### ARCHITECTURAL AREA LIGHTING CUBIC INDIRECT AAL.NET

Part of an extension to the Indirect line of products, Cubic Indirect—available come fall 2008—can be wall- or polemounted and features a square fixed head, angular wall bracket, and stainless steel struts. The luminaire requires no tools for access to the lamps and comes with various options such as a center deflector cone for wider light distribution and color filter holders to attach to the fixture. CIRCLE 125

#### AUTODESK SEEK USA.AUTODESK.COM

This web service connects architects and engineers with building product manufacturers and publishers, and aims to make the project workflow process easier. With this program, architects and engineers can search and specify building products and design

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content—including2-D drawings, 3-D models, and descriptions either from within Autodesk software or using a standard Internet browser. Seek offers users the ability to search products by manufacturer, type, or file format. CIRCLE 126

#### BENDHEIM OPTICHROIC GLASS BENDHEIM.COM

Bendheim's Optichroic dichroic glass is created by using specialized interlayer technologies. As the viewer's angle to the glass changes, so does its color, ranging from soft green, cyan, blue, magenta, red, and gold hues. According to the manufacturer, Optichroic is the first glass of its type suitable for architectural applications. The scratch-resistant glass is available in numerous surface and color combinations, including clear, etched, and geometric textures. Glass sheet size can be up to 54 inches by 120 inches, and the thickness ranges from 0.25 inch to 1 inch. CIRCLE 127





#### INSIGHT SMARTWALL INSIGHTLIGHTING.COM

SmartWall is part of Insight Lighting's SmartEdge LED product line. Combining Insight's LED technology with custometched acrylic panels, Smart-Wall can be used in multiple architectural applications, from freestanding illuminated parti-

tions to backlight graphic displays to window systems. Available in transparent, translucent, and opaque versions up to 32 square feet, the product features an extruded aluminum frame around the perimeter of the acrylic panel unless otherwise specified. The LED platform options are static color, RGB color changing, and white light, and are available in four color temperatures: 2900K, 3400K, 4200K, and 5600K. CIRCLE 128



#### LUCIFER LIGHTING PUKLED LUCIFERLIGHTING.COM

This low-voltage white LED luminaire from Lucifer offers concealed or visible fasteners and features either a 3300K or 5000K color temperature. The PukLED uses a 3W AC LED with an average rated lamp life of 50,000 hours, is

well suited for interior and exterior dry and damp locations and can be recessed or surface-mounted. Available in a matte white, clear anodized, or black anodized finish, the trim can be accessorized with a variety of lenses or color gels. CIRCLE 129



#### SELUX NEO SELUX.COM/USA

A new release from Selux, the Neo line of luminaires features a housing of polished extruded aluminum with machine flushed glass on three sides and provides flexibility for suspended, ceiling-mount, or surface-mount applications. The fixture is available in 3- and 4-foot extrusions with polished die-cast endplates, which include options such as a swivel bar that allows up to a 120-degree horizontal rotation, an

extended endplate, and a flush endplate. Precision reflector and microprism systems enhance the output of T5 and T5HO fluorescent lamps, according to the manufacturer, and there is a choice of microprismatic diffusers or opal lenses for direct shielding. With a quick-release gear tray requiring no tools to open, Neo offers easy access for maintenance and lamp replacement. CIRCLE 130

www.archlighting.com

#### DETAILS TECHNOLOGY



#### SCHOTT BRIGHTBUILD US.SCHOTT.COM

Schott brings together fiber optics and concrete with its BrightBuild concrete panels, which contain layers of optical glass fiber optic strands that transmit natural or electric light throughout. Retaining the positive attributes of quality concrete, white and color light effects are possible, and the panels are well suited for various external and internal non-support walls. According to the manufacturer, Bright-Build allows architects an alternative to windows to bring natural light into interior spaces. The product is available in units up to approximately 1.5 inches thick and can be cut to the length and width as specified by the designer. CIRCLE 131

#### SOLATUBE 750 DS SOLATUBE.COM



The next generation of Solatube's daylighting system, the 750 DS extends the amount of daylight available for interior spaces. The dome delivers an effective daylight capture surface of up to 750 square inches, which according to the manufacturer is more than double that of a clear dome with the same diameter. When the sun is directly overhead, the product reduces visual discomfort by tempering glints and mixing light in the tube shaft. The Raybender 3000 technology in the dome allows for more low-angle sunlight during the winter and collects early morning and late afternoon sunlight in the spring and fall. Dimming daylight control options also are available for users to easily adjust the amount of light in the room. The 750 DS tubing can be installed with up to 50-foot runs and delivers daylight to interior spaces even when the tubes are angled up to 90 degrees to navigate around obstructions or into hard-to-reach locations. CIRCLE 132

#### SPI LIGHTING REO SPILIGHTING.COM

This line of wall sconces has more than 22,000 standard design combinations, according to the manufacturer, with three mounting options, five colors, two window styles, more than 30 powder-coat paint finishes, and four faceplate accents. A variety of panel options are offered, including 3form Varia textured resin panels and hand-painted lenses or custom faceplates. Available for use with T5, T5HO, or T8 lamps, Reo's light orientation illuminates both the front and back of the translucent panel, resulting in a 3-D effect. CIRCLE 133



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TECHNOLOGY DETAILS

## **An American in Las Vegas**

#### JIM BENYA OFFERS HIS PERSPECTIVE ON LIGHTFAIR 2008



Pure Lighting's Stratus LED Linear Wall Grazer (above left) was Jim Benya's product pick of the show. Lighting controls also were prevalent, and easy user interface was a concern addressed by all manufacturers, including Leviton's Decora Light Night Sensor (top right) and a control pad from Square D (above right).

**In past years,** this report has focused on a review of Lightfair's best products. In all fairness, that's a pretty good way to tell the Lightfair story because new products are the nuts and bolts of North America's largest lighting trade show. However, since Lightfair is a larger reflection of the lighting industry, this year's report will focus on the feel, buzz, trends, and perceptions that a week at the show provides for attendees.

#### Welcome to LEDFair

The best joke heard at Lightfair this year was from one manufacturer who proudly stated that there were only light-emitting diode (LED) luminaires in their booth. This could have been said about half of the manufacturers present, I think.

The issue this year is that LED luminaires have matured to the point of relevance in a large number of practical applications. The glam of color-changing LED systems is still there, but finally there is a large number of white light, practical LED lighting products priced low enough to be used in better quality projects. For instance, quality LED downlights with 600 to 1200 lumen packages are now available from a number of companies, many of whom offer both warm and cool white light choices. My favorite LED product was a linear wall grazer capable of illuminating multistory walls. But I also found a lot of small, creative lighting systems not possible with big, hot incandescent and compact fluorescent lamps.

The use of LEDs in outdoor luminaires was one of the biggest triumphs. Logically, an LED luminaire will be big and have lots of fins to dissipate heat—almost exactly the dominant style of many outdoor luminaires. Good designs from "shoeboxes" to "acorns" using LEDs were shown. The promise of LEDs, especially long life, seems naturally matched to the needs of outdoor lighting and at least a couple of the fixtures tried to address issues of glare with promising results.

Overall, what this means is huge. As chipmakers produce higher wattage, good color LEDs, and fixture makers devise better heat sync designs, the number of products flourish. To me, it looks like we are past the startup phase of LED lighting and going forward. Lightfair might have a new name—LEDfair. Expect 2009 to be the breakout year for solid-state lighting.

#### **Finesse in Point Sources and Recessed Lighting**

Certainly, there were plenty of LEDs showing up in attractive recessed and monopoint lampholders, but limited light output still prevents broad applications. On the other hand, MR16 halogen and MR16 highintensity discharge lamps appeared in several good recessed, track, and monopoint heads. The best design still seemed to originate from companies with long-proven histories, but many domestic and Asian companies showed very good point source equipment. This promises many more good choices at lower cost.

Now most companies are showing premium-recessed lighting of some type. The most popular are the "zero sight line" flush recessed luminaires and adjustable luminaires with hot-aiming, gear-driven adjustments. A lot of the latest recessed products are square, but with the ability to be aimed in all directions. With the addition of a 39W MR16 metal halide lamp, retail and display lighting through small apertures has just improved dramatically.

Spotted in several booths were drop lens downlights. Once available only from a couple of European lighting manufacturers, a drop lens downlight appeared in several variations at a number of booths. A nice way to provide a little ornament and eliminate deadly scallops, drop lens downlights using compact fluorescent lamps are now affordable and a dandy alternative, especially in office corridors.

#### Long Live the T5

Keeping in mind that LEDs are still only half as efficacious as T5, the mainstream fluorescent market was present, but, notably, it was hard to find any T8 lamps on the show floor other than at the lamp companies' booths. The majority of linear and mainstream fluorescent fixtures take advantage of smaller size and better looks, and now that T5 lamps are priced comparably to premium T8, the shift is inevitable. Message to manufacturers: thin is in, and the T8 is now the "fat" lamp.

But the lamp companies have not missed this trend. Having made the T8 lamp almost technically perfect with cheap dimming ballasts, 60,000-hour life span and 100-plus lumens per watt, their efforts are now focused on the skinny T5. Big improvements in the T5HO are particularly important, with better efficacy, better ballasts, and lower costs all important improvements in this particularly important product category.

#### Modernist Revival Is Here

When it comes to decorative lighting, Lightfair is not the place. A few companies do a nice job, but the newly introduced decorative lighting pavilion at Lightfair this year was not up to par with other decorative lighting venues. With too few companies, and too few products, it was not enough to entice a self-respecting interior designer to spend even a lunch hour at the show.

Of course, there were some bright spots. A trend spotted in April at Light+Building in Frankfurt was apparent here, too ... the '60s modernist revival style with its chrome and geometric shapes.



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#### DETAILS TECHNOLOGY

#### **Digital Controls**

The long wait may finally be over. Digital lighting controls have been an interrupted dream for too many years. Digital addressable lighting interface (DALI) and several other systems have been exciting ideas, but sadly, they've been too incomplete to use as much as we lighting designers would like—until now.

Radio frequency systems, based mostly on mesh networks, are on the rise. Powerful and complex lighting control systems can now be plugged in—almost. With the exception of complete systems from the big guys, there is a lot to go wrong when there are separate overlay, system, and ballast companies. However, designers need to be on top of these developments because the promise of whole building lighting control is fundamental to achieving net zero performance. Moreover, the ability to install these systems in existing buildings should encourage widespread retrofitting as energy costs rise.

Meanwhile, the maturation of DALI remains one of the better evolutionary developments in lighting controls. With universal standards for ballasts and other components, we are not far from being able to write simple specifications that result in competitively priced products and whole systems that are easy to program and commission. Several key products and partial systems were shown, suggesting a future where dimming is no longer an overly expensive word. Thank goodness the ballast companies are now making dimmable LED drivers as well as ballasts. They, too, are getting ready for the LED revolution, and they know that dimming is an essential part.

#### It's the Economy

There was an overall sense of economic concern that seemed to affect attitudes all around the show. While the booths seemed well manned, they all seemed smaller than in past years. The buzz was more reserved, the events a bit less lavish, and the awards programs seemed to end earlier. Also, attendees seemed less inclined to stay the entire week, and a lot of people were seen "working" the show quickly to get more done in less time.

#### Every Other Year?

For a number of years now, experienced North American lighting geeks, many of whom make biennial trips to Europe to attend one of the other lighting shows, question the need for annual Lightfair shows. Attending Lightfair and European shows in alternating years is widely believed to be the best strategy for staying up-to-date with lighting style as well as technology. Many choose to rotate the New York Lightfair with Frankfurt.

Not surprisingly, lighting manufacturers also recognize the potential of a biennial show. For a large manufacturer with a big booth, numerous attendees and a big entertainment program, the cost of each Lightfair easily can be hundreds of thousands of dollars. It is no secret that several lighting conglomerates have been lobbying to have Lightfair every two years.

But before we leap off that cliff, it helps to remember the role of Lightfair in the lighting industry. The successor to Lighting World and other trade shows, Lightfair is first and foremost a moneymaking enterprise. A healthy annual income from Lightfair is needed to keep the North American engines of lighting education, standards, and professional development going. Co-owned by the llluminating Engineering Society of North America (IESNA), the International Association of Lighting Designers (IALD) and AMC Trade Shows, Lightfair provides about a quarter of the IESNA's annual budget, and a whopping 80 percent of the IALD's income.

Then, there are the practical considerations of running a trade show. As with other similar events, convention hall reservations are made years in advance and planning takes more than a year. Lightfair's bargaining position at the Javits Center in New York improved when an every-other-year, long-term commitment was made. There also is a concern to alternate geographic locations of Lightfair—currently held only in New York and Las Vegas—to better serve the largest possible lighting community. There are not a lot of locations where Lightfair can draw the 15,000 to 20,000 people needed for a successful show. A lot of thought goes into the commitments for future Lightfair trade shows, lest one bad year could dramatically affect our industry's lighting associations.

I think the best argument for an annual show is the rapid change in lighting technology. To me, the biennial idea is as dead as the incandescent lamp when it comes to my needs as lighting professional. In the next 10 years, lighting most likely will change 100 percent, and not much seen today will still be around in 2018. Before the LED, I might have agreed that alternating year shows was probably valid, given the stagnancy of conventional sources and the lack of inspired product evolution in the 1990s. But solid-state lighting changes that, and every year 10 percent of the industry is going to change. I do not think it is possible to keep up with this pace by attending a trade show every two years. Lightfair is properly positioned to carry us through the upcoming LED revolution, and it deserves the lighting community's ongoing support. JAMES R. BENYA

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Circle no. 188

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#### Methodology

The ACE ballot manufacturers' list appears in the April/May and June issues of ARCHITECTURAL LIGHTING, each reaching the 30,000 nationwide circulation. In addition, e-mail campaigns are conducted to ensure the broadest base of response. Ballots are provided at the AIA, Lightfair and other industry conferences. A|L also conducts random sampling, consults with industry experts, and the list of nominated manufacturers is subject to review by an in-house publishing team.

## Results Will Be Announced In The November/December 2008 Issue.

Your votes must be received by August 22, 2008.

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## **Uncharted Territories**

**Current economic and political events** present us with a precarious and unprecedented moment in U.S. history. With the U.S. economy in turmoil in large part due to the housing and mortgage crisis, economic milestones such as gasoline hitting more than \$4 a gallon, and the outcome of the U.S. presidential election in November unknown, ARCHITECTURAL LIGHTING'S Industry Exchange questions for its next three issues—Sept/Oct 2008 through Jan/Feb 2009—take on a new immediacy.

Amid these conditions the architectural lighting community faces a paradox: lighting design firms have yet to see any kind of a downturn, rather, there is an excessive amount of work in addition to concern about the lack of qualified lighting professionals in the marketplace. (See "Professional Sustainability," April/May 2008.) However, on the manufacturing side of things, the National Lighting Bureau (NLB) referred to the National Electrical Manufacturers Association (NEMA) 2008 first-quarter Lighting Systems Index data (nlb.org/index) as "troubling." Established in 1998, the index is "a composite measure of lamps, luminaries, ballasts, emergency lighting, exit signs, and other lighting products shipped nationally and internationally from the United States by the 430 companies that comprise NEMA," according to NEMA's website.

In a press release, NLB communications director John Bachner indicated that although the index results exceeded 2007 fourth-quarter results by 1.1 percent because of an increase in emergency lighting and miniature lamp shipments, overall the U.S. lighting market is moving in a downward direction for the second consecutive quarter. The American Institute of Architects (AIA) Architecture Billings Index (ABI) also is not forecasting a bright future. A leading economic indicator of construction activity, the ABI hit a historic low of 39.7 in March 2008 (scores above 50 indicate an increase in billings). In May, the ABI was experiencing a slight rebound with a reporting of 43.4.

The question is no longer if these general economic trends will affect the lighting community, but how and when. Even more important, how will the lighting industry prepare and respond? ARCHITECTURAL LIGHTING invites its readership to respond to the following set of Industry Exchange questions and engage in this highly important discussion.

RESPONSES CAN BE SENT TO ELIZABETH DONOFF AT EDONOFF@HANLEYWOOD.COM.



#### **Exchange Questions:**

Sept/Oct 2008: With the slowdown in the current U.S. economy, what effect is it having on your firm/company's workflow and projected workflow for the next 12 to 18 months? DEADLINE: AUGUST 26, 2008

Nov/Dec 2008: How do you think the 2008 U.S. presidential election will impact the lighting industry? DEADLINE: OCTOBER 26, 2008

Jan/Feb 2009: What are your thoughts on/concerns for the economic outlook of the lighting industry in 2009? What steps will you take at your firms and companies to adjust and respond to the current marketplace? DEADLINE: DECEMBER 19, 2008