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LOOKING INWARD, REACHING OUTWARD

This has been a good year for the profession as well as for *Architectural Lighting*. While closing this last issue, we took some time for introspection. Why are we here?

First, we contributed to some ambitious introspection along those lines at a two-day retreat sponsored by the Lighting Research Center, Rensselaer Polytechnic Institute. A group of people I admire from all walks of life in our industry met to discuss the profession's development and its values, and how these values relate to the benefit of the customer and ultimate "consumer" of quality lighting. I was pleased to be invited to sit in and cover the story, reporting the intent of

the meeting and the thoughts of those who attended in this issue's Industry Focus. The result may be a proposal for bringing the customer and his values into our own values and how we view "quality lighting"—with the idea being that if we as an industry can make the two merge in the industry's recommended practices via an evaluative system, it will benefit everyone.

Another point of introspection was closer to home. Why is *Architectural Lighting* here? We produced a mission statement this year that says in a nutshell: We are dedicated to enhancing the professional development of the design community, and providing a bridge between the manufacturer and the specifier. Next year, we will work even harder toward these ends, from the basic—adding adhesive labels to make filling out the response card easier, to the ambitious—adding a product tabloid that will be published before Lightfair next year to keep



CRAIG DILOUIE, EDITOR-IN-CHIEF



you up to date on the many new products our industry is developing.

In 1997, however, we wanted to break new ground and try to take on a deeper responsibility. The basic concept goes back to the meeting sponsored by the Lighting Research Center. Next year, we will broaden our mission by promoting quality lighting to the customer and provide a bridge between them and the design community.

We are now preparing an advertising campaign in *Facilities Design & Management*, a magazine that reaches 35,000 corporate facilities managers including those in the Fortune 1000. The ads will draw the readers of *Facilities* to a Web site where we will showcase quality lighting projects by market (office, retail, etc.), including the Lighting Research Center's Delta Program, and provide a directory of lighting professionals. Those receiving NCQLP certification next year will be highlighted in the directory. The IALD's Academy of Lighting Design schedule of courses will be listed (we're now a proud sponsor). What's more, we will provide links to the IESNA (recommended practices), inter.Light (manufacturers' products) and the Lighting Research Center (education).

We anticipate and hope that this will result in increased awareness of the possibilities awakened by quality lighting

design, and more business for our readers who participate in the directory.

Tell me what you think of this idea by e-mailing me at cdilouie@mfi.com or faxing me at (212) 279-3955.

More details on all of the new features and services we'll be offering will come in the 1997 January/February issue. For now, you'll find *this* issue packed with editorial including our design features and Spotlight; an interview with Jan Moyer, IALD; designing landscape lighting for winter; a survey of indirect lighting; new composite fixtures for landscape lighting; and a dynamic Perspectives editorial from John Nadon of Columbia•Prescolite• Moldcast Lighting as he discusses how to hold the line on specifications.

On a final note, please join me in wishing Christina Trauthwein well as she takes maternity leave after having her first child.

On behalf of the Architectural Lighting staff, I wish you all safe and happy holidays.

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IALD LAUNCHES ACADEMY OF LIGHTING DESIGN

The Academy of Lighting Design, presented by the International Association of Lighting Designers (IALD), recently announced a fall series of workshops with CEU accreditation from the American Society of Interior Designers (ASID) and the International Interior Designers Association (IIDA). The workshops are targeted to architects, interior designers, facility managers, engineers and all other lighting specifiers. The Commercial Design Network (Architectural Lighting, Contract Design and Facilities Design & Management) and Philips Lighting Co. are the official sponsors of the fall series of workshops.

The workshops will run concurrently in Houston, San Diego and Orlando, FL, starting in late October and running through mid-November. Workshop #1, "Basics of Lighting Design," will be taught by James Benya, PE, FIES, IALD, Principal, Benya Lighting Design. Workshop #2, "Humanizing Light for Residential Interior & Exterior Environments" will be taught by Randall Whitehead, IALD, ASID affiliate, Principal, Light Source. Workshop #3, "Energy Issues" and Workshop #4, "Office Lighting," will be taught by Naomi J. Miller, IES, IALD, Director of Delta Program, Lighting Research Center.

For specific dates please see our Calendar section on page 18.





Miller Freeman, Inc., publisher of Architectural Lighting and its sister publications Facilities Design & Management and Contract Design, recently announced the launch of alt.office, a trade show and professional business journal devoted to serving designers, managers, users, researchers and planners of alternative office environments. Miller Freeman is also cosponsor and producer of Interplan.

Alt.office will take place August 14-16, 1997 at the San Jose Convention Center in California's Silicon Valley. The show, with Hank de Cillia as conference consultant, will host seminars, tours of leading corporations in the area that are employing alternative officing methods, and an exhibition of alternative-office products and services. The publication will debut early next year.

For more information, check out the alt.office web site at http://www.alt.office.com.

PARIS PREPARES FOR LUMIÈRE '9**7**

Lumière 97, the Parisian lighting conference and trade show, will be held January 9-13, 1997 in Porte de Versailles, Paris (Halls 5 and 6). Established in 1966 and sponsored by the Groupement des Industries du Luminaire, Lumière '97 anticipates more than 40,000 professional visitors and more than 230 exhibitors. In 1996, the show saw 8,040 foreign attendees come to France to see lighting products from exhibitors from 16 countries.

For more information, contact Laurence Phitoussi Communication at (33 1) 42 61 19 13, Fax: (33 1) 42 61 04 93.

BOOK NOTES

The full range of energy-efficient lighting technologies and



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strategies is explained in a new book by EPA Green Lights light-

ing specialist Damon Wood, titled *Lighting Upgrades*. This 6"x9", heavily illustrated, 422-page hardcover book is published by UpWord Publishing, Inc.

Written for facility managers, engineers and designers, *Lighting Upgrades* covers strategies, applications, technologies, economics, maintenance, project implementation and how to assess one's own specific opportunities.

The book costs \$75.00 (U.S.) and is available by calling (800) 444-4881 (voice: 8 am - 5 pm CST).

LIGHTING CORPORATION OF AMERICA REALIGNS

Lighting Corporation of America, a manufacturer of light fixtures, controls and other products for commercial, industrial and residential markets, has announced that Columbia• Prescolite•Moldcast Lighting has realigned to provide greater autonomy to each subsidiary. Columbia Lighting has been separated from the other two subsidiaries. J. Kiernan White, chairman and CEO of Lighting Corporation of America, said the move strengthens each of the subsidiaries' ability to service customers in individual markets.

Integral with the realignment, Robert H. Ingram has been appointed president of Columbia Lighting. Don A. Emmons has been appointed president of Prescolite and Moldcast. In addition, Don Miller has taken the post of executive vice president of sales for all Lighting Corporation of America subsidiaries (except Progress Lighting). In addition to Columbia Lighting, Prescolite and Moldcast, Lighting Corporation of America's subsidiaries include Architectural Area Lighting, Kim Lighting, Liteway, Progress Lighting and Spaulding Lighting.

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means no shock or short circuit hazard. Fiberstars special plastic materials are unbreakable and long lasting.

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Specify Fiberstars lighting for locations that would otherwise have maintenance problems. It's the right solution for installations that would present relamping difficulties – in gardens and atriums, high ceilings or water features. The remote illuminator can be positioned for easy access. Illuminate multiple locations but relamp by changing one centralized lamp. There's nothing to break in the fiber tubing or

fixtures. Fiberstars lighting not only simplifies maintenance, it also will save money in the long run.



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RICHARD KELLY GRANT RECIPIENT

The New York Chapter of the IESNA has announced the 1996 Richard Kelly Grant winner. Richard Kelly was a pioneer in the lighting design profession. This grant recognizes new and innovative work in conceptual or applied use of light and seeks to preserve his ideals, enthusiasm and reverence for light.

This year's recipient is Liisa Roberts. She was honored during



a recent cruise around Manhattan, sponsored by the New York chapter of the IES.

Liisa Roberts, now living in New York City, received the grant for her creative work in cinemascope, which integrates both light and absence of light. The installation, titled "Betraying a Portrait," examines the evolution of daylight in December in New York City through the use of one black and white slide projection and two silent 16mm film projections.

Judges for the award were Christina Trauthwein, executive

FOR THE RECORD ...

The IALD Award-winning project that appeared on the cover of *Architectural Lighting's* July/August issue is the Hotel Kempinski in Munich, Germany. editor, Architectural Lighting; James Carpenter, James Carpenter Design Associates; Jerry Kugler, Kugler Tillotson Associates; and Jeremy Lang, Butler Rogers Baskett. Judges applauded Ms. Roberts for her sensitivity and curiosity towards daylight and for the mastery of her medium.

For more information about Roberts' project, or to learn more about the Richard Kelly Grant, please contact Holly Bernard at the IES, 120 Wall St., 17th floor, New York, NY 10018; or call (212) 248-5000 x118.

Lighting designers for project are Francis Krahe II, IALD, Elaine O'Neill and Keith Kosiba of Francis Krahe & Associates, Inc. in Laguna Beach, CA.

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Circle No. 9



INTER.LIGHT ADDS FEATURES

Inter.Light, the World Wide Web site designed for lighting specifiers, recently introduced a new product announcement feature. Specifiers can now access more than 100 new product announcements, including product photos, simply by clicking an icon that appears with company listings

in the inter.Light databases. In addition, another icon allows instant ordering of catalogs and spec sheets. Links are also provided to company Web sites.

These features are designed to enhance the product and company search capabilities of inter.Light databases—now containing information on more than 1,700 lighting companies.

As with the databases, the product announcements are updated weekly, enabling specifiers to access the most recent innovations in lighting.

Inter.Light, cosponsored by Architectural Lighting, can be found at www.light-link.com. All sections of the site are available to users without charge.

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AUTODESK AND MSA UNVEIL DESIGNBLOCKS

Autodesk and Manufacturers" Survey Associates (MSA), an affiliate of the Southam Construction Information Network, have jointly developed and are marketing DesignBlocks, a design and construction library of manufacturer product details in digital format on CD-ROM. The library provides users with digital details of manufacturers' products (now for lighting and generators), including drawings and text, that can be seamlessly inserted into AutoCAD software designs.

According to Durwood Snead, VP of marketing and sales for MSA, the digital library was developed to meet the need among designers for product details in a consistent, easy-to-use format, particularly in demand during specification of non-commodity fixtures. He added that more than 70 percent of specifiers now use CD-ROM.

For more information, call MSA at (800) 999-5502.

IESNA LAUNCHES WEB SITE

The Illuminating Engineering Society of North America (IESNA) has launched a new Internet service, divided into an area for the public and one for IES members. The site can be found at http://www.iesna.org

Features include information about the IESNA, e-mail capability to the IES headquarters, electronic membership application, contacts at IES sections, catalogs of IES publications, information about IES committees, calendars of events and bulletin boards. Mira

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people

NEW LINE-UP AT LIGHTING CORPORATION OF AMERICA

As part of the recent realignment of the business operations of Columbia•Prescolite•Moldcast Lighting, Lighting Corporation of America has appointed Robert H. Ingram to the post of president of Columbia Lighting: Don A. Emmons to the post of president of Prescolite and Moldcast; and Don Miller to the position of executive vice president of sales for all Lighting Corporation of America subsidiaries except for Progress Lighting.

Robert "Robby" Ingram, previously executive vice president of operations for Prescolite, is now responsible for all operations at Columbia Lighting, a manufacturer of energy-saving fluorescent light fixtures.

Don Emmons, previously

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executive vice president of marketing for Prescolite and Moldcast, is now responsible for all Prescolite and Moldcast operations as president. Prescolite is a manufacturer of specificationgrade recessed ceiling downlights, controls, track and wall lighting fixtures. Moldcast is a manufacturer of outdoor lighting.

Don Miller, previously regional sales manager at Lighting Corporation of America and in high-level positions at Metalux and Cooper Lighting, is now responsible for all marketing and sales activities at Lighting Corporation of America's subsidiaries except for Progress Lighting.

In other news at Lighting Corporation of America, Marc McMillan has been promoted to the position of product manager for Prescolite. His third promotion, McMillan is responsible for supporting the development and implementation of both marketing and sales activities for Prescolite products.

MYTECH NAMES SALES MANAGER

Mytech Corporation, a manufacturer of occupancy sensors based in Austin, TX, has named David C. Thurow as national sales manager. In this position, he will supervise domestic and international sales. Previously, Thurow served in marketing and sales positions at Touch-Plate Lighting Controls and Macro Electronics.

ABERNATHY JOINS AVAILABLE LIGHT

Katherine Abernathy, IES, IALD has joined Available Light Inc. as Senior Associate, where she will integrate theatrical lighting techniques into architectural niche markets. Previously, Abernathy was a lighting designer for Randy Burkett Lighting Design, Inc.

Circle No. 13 on product service card

LIGHTS, ATHLETES, ACTION

Preparation for this year's 100th Olympiad, begun in July, 1991, was no less an Olympian effort. Atlanta Committee for the Olympic Games (ACOG) oversaw more than \$250 million of construction, including the new ^5,000-seat Olympic stadium and supporting venues.

Illuminating the Olympic stadium was as challenging as it was critical. It took 3,000,000 lineal feet of wiring to supply all electrical needs and 8,500 light fixtures to illuminate six concourses, four public seating levels, a press level

nd a service level totaling more 'an 1,684,000 sq. ft. of building space. low-voltage and compact fluorescent downlights and LED emergency and exit lighting. ASDT required that the lighting manufacturer possess total package/ single source capabilities. To this end, several Cooper brands were chosen for the stadium lighting.

While ASDT represented the overall architectural and engineering disciplines, a three-way contractor, consisting of Inglett-Stubbs, G& B Electric and CCC Electric joined forces to execute the monumental electrical task.

"Because stadium design goals called for illumination that watts/sq. ft. set by the Energy Policy Act, all general fluorescent lighting in service and office areas was fitted with electronic ballasts and T8 lamps. Vaportight fluorescent fixtures were mounted under steel beams along ramp walkways.

All office and computer-intensive environments were equipped with glare-eliminating parabolic fluorescent fixtures and compact fluorescent downlights; downlighting was also utilized in suites and some consumer areas.

General concourse illumination was provided by prismatic low bay HID lighting and emergency lightproblems, special product labeling was provided by the lighting manufacturer. As fixtures arrived on an as-needed basis, labels told stadium product distribution crews exactly where the fixtures would be installed.

applications

UPDATES

Further assuring a productive and cost-efficient operation, the electrical consortium established a subforeman crew, including one person responsible for material handing for each stadium level.

At the conclusion of the Summer Olympic Games, the stadium began conversion to the Major League baseball facility for the Atlanta Braves. About half of the stadium will be renovated,



ENERGY-EFFICIENT SOURCES-PRIMARILY FLUORESCENT AND HID-ARE LOCATED IN BOTH THE SKYBOXES AND PUBLIC AREAS OF THE OLYMPIC STADIUM.

The Atlanta Stadium Design Team (ASDT), a joint venture of Atlanta architects Heery International, Inc., Rosser Fabrap International, Inc., William-Russell and Johnson, Inc. and Minnesota-based Ellerbe Beckett, Inc., was responsible for the design and engineering of the Olympic stadium.

A variety of lamps and fixtures was used to effectively and economically illuminate the stadium, including energy-efficient HID and fluorescent sources, was functional yet unobtrusive, the architects worked hard to help the engineers find the appropriate methods of lighting," noted Melanie Stephens, the Rosser Fabrap specifying engineer.

In addition to being efficient, the lighting had to meet specific criteria. It must: 1) blend with the stadium's concrete and exposed beam architecture and 2) be visually appealing and comfortable for the many visitors to the stadium.

To remain below the average

ing, using vapor-tight strips around the upper perimeter of the stadium. Floodlights were positioned around lower-level seating areas, unobtrusively installed on back beams at each viewing level.

The result was a lighting plan whose energy consumption was approximately one-half the standard established by the Energy Policy Act.

In order to maintain a consistent job flow and avoid any chance of light fixture distribution reducing its capacity from 85,000 to 46,000 seats.

While temporary Olympic seating was designed to be removed and a new outfield plaza with bleachers and a scoreboard constructed, the lighting design will remain virtually unchanged, though about 100 fluorescent fixtures will be moved from the temporary broadcasting offices to the new plaza area. The vacated space will be remodeled to accommodate baseball offices and locker rooms using downlighting.



SCHEDULED EVENTS IN 1996

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In this issue, Architectural Lighting talks to Janet Lennox Moyer, IALD, IES, Jan Moyer Design.

Ms. Moyer is an internationally known lighting designer with local and national design awards to her credit. Although she has done major interior commercial and residential lighting in her 20 years of practice, her emphasis shifted to landscape lighting in 1983.

Recently completed projects include the lighting for several city blocks in downtown Tacoma, WA, an Egyptian resort and the interior lighting for a palace in the United Arab Emirates. Jan Moyer Design is currently working on a private island in Montana, four hotels in Israel, site lighting for Far Niente winery and several large estates throughout the U.S.

Jan is the author of The Landscape Lighting Book, published in 1992 by John Wiley and Sons. —Christina Trauthwein

AL: What is the greatest opportunity for the lighting designer today? JM: Across the

nation, lighting design is starting to be an accepted profession.

Years ago, nobody used lighting designers and it was a real effort for us to get accepted on projects. While this hasn't been the case in California for a long time, throughout the rest of the country it has been. The changing economy is helping our profession to grow.

The economy was really tough for a while in many parts of the country, and lighting to a great extent is not viewed as a necessity, but a luxury...especially landscape lighting. With the economy getting better and our profession gaining acceptance, there's more opportunity for experienced lighting designers to find jobs. And I stress the word "experienced."

AL: What are some of the top trends in outdoor lighting?

JM: Equipment has improved. The outdoor environment is so tough on fixtures that our biggest issue is to find ones that will last. The trend right now is for manufacturers to use high-quality, composite material in their fixtures. Composites last better and they bring the cost of fixtures down, so we can actually use more fixtures on a project and get better effects for the same budget.

More than ever, manufacturers are really meeting our needs; they're coming out with more good equipment so its giving us more tools to do a good job.

AL: What products have seen the most growth in technologies?

JM: In the landscape area we've been blessed in the last five years with a plethora of new fixtures and several dedicated lighting manufacturers that listen to our requests on a daily basis. We've been able to form many fabulous relationships. For example, we've been using the relatively new 35W PAR20 and PAR30 metal halide lamps, especially in resort work, and several fixture manufacturers have developed some really interesting fixtures for these lamps, based on our needs.

On the interior end, a whole range of quality decorative fixtures is emerging. In the past, when we needed decorative fixtures we just held our head in our hands in despair over the poor selection, and that's just not the case anymore.

AL: Is there a specific area in landscape lighting that still must be addressed?

JM: Though I try to avoid using path

"WHILE LANDSCAPE LIGHTING IS COMING INTO ITS OWN, IT'S STILL A HUGE UNTAPPED MARKET." —JAN MOYER

lights as much as possible, that's the biggest hole I see in the landscape market. All the manufacturers are still copying each other and making the same mistake over and over—putting the light source right in the middle of the lens of a decorative fixture, whether a sconce, path light or post light. We need to conceal outside light sources as much as possible. Let the fixture do the talking, not the lamp.

AL: Has landscape lighting seen growth over the past few years?

JM: For about the last five years, landscape lighting has been expanding. I contribute this to the fact that there are a growing number of us out there who are really doing a lot of work in landscape lighting, so people have been able to see more examples of good design.

But while landscape lighting is coming into its own, it's still a huge untapped market. There are places in both the U.S. and Canada where there's nothing going on, or "bad" landscape lighting is still happening. There's just all kinds of opportunities out there.

The big caveat to this is that we've got to have more education in this area. The problem in the marketplace of landscape lighting is that the design of landscapes is approached differently than interiors, whether its architecture or interior design. There's a whole segment of landscape lighting done by landscape contractors. Throwing fixtures into a plan does not necessarily mean good design.

AL: What beliefs about lighting influence your design objectives?

JM: My approach to landscape lighting is a very subtle one. I'm really concerned about the hierarchy of visual importance and brightness balance in the landscape. I don't want to overwhelm the night with too much light or too much effect, so my lighting tends not to be dramatic, but grounded in good composition.

For the lighting to be effective it needs to have a stable cohesion to it all the brightness needs to be balanced from one area to another. Similarly, each area must be addressed to eliminate the "black hole" effect. Equipment should be carefully shielded so that you don't see light sources, which will detract from the other visual elements of the landscape.

AL: What has been the biggest challenge in your career?

JM: Being a woman in this business. In the early '70s, not only did the architects not take me seriously, the owners didn't either. But the biggest problem was the electrical contractors. The overall feeling was that if they didn't follow the specs, "I can tell her it was done and she won't know the difference." So I've sometimes had to be a bit overbearing and assert my knowledge in order to pave the way. And while it has changed changed over the years, we're still not past it yet.



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PRESCRIPTION FOR SUCCESS *The lighting design of this pediatric center is just what the doctor ordered—and kids wanted*

BY EMILIE SOMMERHOFF, ASSISTANT EDITOR

CHALLENGE It may not look like it, but the doctor is in at the St. Paul Ramsey Pediatric Unit—proof that the design team for the recent renovation succeeded in overcoming the primary challenge posed by a survey group of 17 children: that is, how to make a hospital seem nothing like a hospital.

The original pediatric center featured a typically dull hospital decor of tans and beiges and institutional 1x4 surface and recessed fluorescents.





DETAILS

PROJECT St. Paul Ramsey Medical Center Pediatric Unit

> LOCATION St. Paul, MN

OWNER Health Partners

ARCHITECT/INTERIOR DESIGNER BWBR Architects

LIGHTING DESIGNER LightSpaces, Lighting Design Studio of Michaud Cooley Erickson

ELECTRICAL ENGINEER Michaud Cooley Erickson, Consulting Engineers

> ELECTRICAL CONTRACTOR People's Electric

PHOTOGRAPHER Phillip Prowse

LIGHTING MANUFACTURERS Shaper, Fiberstars, St. Elmo's Neon



LightSpaces, the lighting design studio of Minneapolis-based Michaud Cooley Erickson, needed to formulate a lighting concept that appealed to the unique aesthetic sense of children, while maintaining the equally specific requirements of lighting a hospital environment.

CONSIDERATIONS The natural rhythms of light have an undeni-

able effect on the stability of everyone's biological clock, especially children's. The hospital, therefore, wanted a lighting system with adjustable light levels capable of reflecting the times of day. In addition, the lighting had to provide 40-50 fc for the various tasks being performed in and around the nurses' station, such as charting, administrative duties and computer data input.

Restrictive energy codes, a tight budget and the spic-and-span nature of a hospital environment placed additional demands on the choice and placement of fixtures.

METHOD On the surface, the renovated pediatric unit seems intended for "kids only." A colorful and creative decor is maintained throughout the unit, down to the red grout in the white-tiled bathrooms. LightSpaces chose a 3500K light source to fully emphasize the colorful palette.

Responding to the staff's desire for variable light levels, the design team developed a kidfriendly thematic lighting system with four column uplights surrounding the nurses' station to simulate daylight; white neon tube lights around the perimeter for a cloudy day; red neon for sunset; and 600 optical fibers pressed through random holes in the ceiling to create a starry night. (For the latter, the fiber-optic pinpoints are actually arranged to represent the constellations, which are drawn on sheets available at the nurses' station.) Addressing the original challenge, these details provide a pleasantly distracting setting for the children. "It puts the children at ease to see those stars in the middle of the night," said lighting designer Greg Lecker.

In addition to strong aesthetics, the design also meets the lighting objectives of a modern hospital. Task lighting—undercounter fluorescent striplights—illuminates the nurses' station, while 18W compact fluorescent downlights light work areas around the perimeter and in the patient rooms. "No fixture was placed where it wasn't necessary," said Lecker, which helped the project achieve a total usage of 0.9W per sq. ft., half the maximum allowed by the Minnesota Energy Code.

To accommodate budget concerns, LightSpaces customized a selection of standard fixtures. For example, they added color and specially mounted pendant fixtures on columns to create the pillar-like uplights around the nurses' station. Acrylic covers keep dust (and toys) out of fixture bowls, easing maintenance duties.

RESULT At one crucial moment, budget issues threatened a return to more traditional hospital lighting. "The architect, owner and user group realized, however, that lighting played an integral role in the success of this project," noted Guy Herr, VP, who was in charge of the project. "It was refreshing to see so much attention focused on saving a lighting concept." And the attention did not stop there—this project was both a finalist for the GE Edison Award and a winner of the 1996 IIDA Award of Excellence for interior lighting design.

THE LIGHTING DESIGN AND ARCHITECTURE AT THIS MINNESOTA PEDIATRIC CENTER IS "KID FRIENDLY." BOLD COLORS AND FUN SHAPES LINE THE HALLS (ABOVE). THE NURSES' STATION IS TRANSFORMED INTO DAYTIME, USING UPLIGHTING AND NEON ACCENTS (CENTER), AND NIGHTTIME, USING FIBER OPTICS (LEFT).



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A SOUTHERN JUDICIAL BUILDING CONVEYS A SENSE OF AUTHORITY AND STABILITY, AS WELL AS ORGANIZED SIMPLICITY IN ITS RICH DETAIL

Court

BY CHRISTINA TRAUTHWEIN, EXECUTIVE EDITOR

he verdict is in. The design team for the Alabama Judicial Building has successfully created a cohesive design. The lighting seamlessly blends with the architecture, highlighting its many distinctive elements and dignified embellishments. The overall design, from the public areas to the courtrooms, is so well coordinated that the space takes on an inviting and reassuring atmosphere. unlike typical courthouses. In fact, judging the outcome, it's fair to say the facility looks more like a Capitol building and less like a government institution-which is just what the State of Alabama ordered.

CLASSIC CASE

Modeled after state and national government buildings, the Alabama Judicial Building exhibits architecturally classic lines in a voluminous space. The design team decided early in the process that while energy and maintenance issues must be addressed, emphasizing the rich architecture through lighting was just as important, especially in the stately public spaces. For this reason, several types of fluorescent lamps are utilized where ambient illumination is required; but, incandescent sources are employed for accenting key architectural elements such as cornices. columns, capitals and finishes. The mix of sources makes the special features

"pop" through contrast in brightness and chromatics.

The abundance of stone-granite, marble and limestone-and the impressive size of the space, though refined and elegant, immediately projects a cold and impersonal atmosphere. "The lighting was instrumental in psychologically warming up the space to offset the inherent architectural coolness and to create more of an intimate ambiance in a project that is overwhelmingly grand," said Jeffrey Brown, IALD, lighting designer for the project. "We used incandescent sources at key features to add much-needed warmth. All are halogen for energy efficiency and long life, which was another significant factor when considering the potential maintenance problems of such a massive space," he explained.

Brown added, "It was also important that we add human scale in both an architectural, as well as psychological sense. The idea of being in a State Supreme Court building can be intimidating, so we wanted to make it more welcoming and approachable to visitors."

PUBLIC ARENA

Upon entering the building, there is a tremendous view from the entry through the central rotunda to the rear courtyard fountain, which is accented with halogen PAR20 underwater fixtures grazing up the rear waterfall wall and across the textured horizontal step surfaces.

Inside the rotunda, 250W quartz PAR lamps in adjustable accent fixtures emphasize the graceful columns that support the circular entablature, which is designed with an integral cove detail to conceal continuous 2-ft. strips using 39W high-lumen compact fluorescent

INSIDE THE ROTUNDA (OPPOSITE), ADJUSTABLE ACCENTS HIGHLIGHT THE STONE COLUMNS AND COMPACT FLUORESCENTS UPLIGHT THE SOARING CEILING. A CENTRAL PENDANT—THE FOCAL POINT OF THE SPACE—PROVIDES A SUBTLE WASH OF COLOR ON THE CEILING. TORCHIERES AND LIGHTED GRILLES FLANK THE LIBRARY (ABOVE).

Order

lamps. The fluorescent accentuates the volume of the space and emphasizes the classical architecture. The design team chose indirect lighting for the central space to avoid unwanted reflections and glare on the stone columns and floor, which is polished in the central traffic area.

"The fluorescents are all warm 3000K to balance and complement the incandescents," said Brown. "Furthermore, the stone is primarily taupe or peach, so a 3000K color temperature helps to enhance the soft hues."

A custom-designed central pendant uses a combination of compact fluorescent and cold cathode for a subtle wash of color on the ceiling. "The 6500K blue-white color produced by the cold cathode achieves a north sky effect, almost like we designed a skylight into the center of the space," said Brown.

The perimeter lighting on the upper level of the rotunda consists of groups of halogen PAR38 adjustable accents, and on the lower level, a combination of quartz halogen downlights and 3000K compact fluorescent wall sconces, which operate 24 hours a day, provides a subtle backdrop to the central space.

The entrance to the law library, visible from the main public area, is flanked by architectural niches. Decorative iron grilles seal off the niches and fabric walls, grazed with 90W halogen PAR38 spots concealed in a ceiling pocket, provide a dramatic backdrop. A view into the library shows the lighted grilles along with customdesigned floor-mounted torchieres on either side of the doorway.

BY THE BOOK

In the two-story vestibule behind the glass-fronted entry, a fluorescent cove emphasizes the sense of volume while accent lights highlight the signage below. The circulation desk, beyond the vestibule, and the library conference room, visible behind the desk, further emphasize the openness achieved within the architecture and accentuated by the lighting.

The two-story library has continuous fluorescent coves on both levels with additional task illumination provided at the circulation desk and study carrels by quartz halogen PAR38 downlights. The conference room behind the desk is lighted with compact fluorescent pendants in a coffered central ceiling illuminated by an indirect fluorescent perimeter cove.

Lighting at the stacks on both levels is accomplished by linear runs of 8-in.-wide T8 fluorescent parabolic stacklight fixtures centered between the stacks. Compact fluorescent downlights and wall washers provide illumination along corridors surrounding the open well and at the perimeter on both levels.

SUPREMELY APPEALING

In the smaller Appeals courtroom, a recessed incandescent slot concealing halogen PAR38 lamps on 12-in. centers provides a theatrical backdrop to the

IN THE APPEALS COURTROOM (BELOW), RECESSED HALOGEN PAR38 LAMPS GRAZE THE MAHOGANY PANELED WALL TO CREATE A DRAMATIC BACKDROP TO THE JUDGES' BENCH.





judges' bench. These, in combination with recessed adjustable accents aimed onto the pilasters, graze the mahogany paneled walls. "A lot of time and money went into designing the woodwork, so the client really wanted it to be noticed," said Brown. "Halogen brings out the beauty of the grain and the warmth of the wood tones."

A perimeter fluorescent cove, incandescent suspended pendant, compact fluorescent downlights and wall sconces provided ambient/task illumination in the general seating and counsel areas.

Inside the dome, on the uppermost level of the building, is the Supreme Court. The focal point of this space is a magnificent 75-ft.-diameter domed ceiling. To uniformly highlight this grand architectural element, continuous fluorescent strips uplight the precisely engineered acoustic ceiling in two locations. One run is concealed in a perimeter shelf that circles the base of the dome, and the other is designed into an all-encompassing freestanding architectural entablature, which is supported by a series of columns. Each run has three zones of control with one zone having dimming capabilities for lowlevel A/V purposes.

Additional design criteria included highlighting the judges' bench and counsel areas for use during proceedings. After much consideration of several possible equipment locations, the design team decided to recess groups of long-life 250W quartz halogen PAR38 adjustable accents at key positions in the dome, accessible from the perimeter shelf on the second floor balcony for ease of maintenance. THE DOMED CEILING OF THE SUPREME COURT (ABOVE) IS UPLIGHTED IN TWO LOCATIONS WITH CONTINUOUS FLUORESCENT STRIPS. ONE RUN IS CONCEALED IN A PERIMETER SHELF WITH THE OTHER DESIGNED INTO THE FREE-STANDING ARCHITECTURAL ENTABLATURE. A GRAZE WASH, SIMILAR TO THAT IN THE APPEALS COURTROOM, EMPHASIZES THE JUDGES' BENCH.

DETAILS

PROJECT The Alabama Judicial Building ■ LOCATION Montgomery, AL ■ OWNER Alabama Judicial Building Authority—State of Alabama ■ ARCHITECT Barganier Davis Sims Architects Associated; Gresham, Smith & Partners Inc. ■ LIGHTING DESIGNER Jeffrey Brown, IALD; Gary Steffy, IES, FIALD ■ INTERIOR DESIGNER Barganier Davis Sims Architects Associated ■ ENGINEER Gresham, Smith & Partners Inc ■ SPACE CONSULTANT Space Management Consultants, Inc. ■ CONTRACTOR Brasfield & Gorrie ■ PHOTOGRAPHER Gary Knight: Gary Knight & Associates, Inc.

■ LIGHTING MANUFACTURERS Edison Price; NL Corp.; Visa Lighting; Lithonia; GE; Hydrel; Alcan; CSL; Lutron

LIGHTING DESIGNER GARY ORR BRINGS AN OUT-OF-THIS-WORLD DESIGN DOWN TO EARTH

Universal

BY EMILIE SOMMERHOFF, ASSISTANT EDITOR

ne California-based lighting designer has boldly gone where few have gone before with an unusual futuristic exterior lighting concept. A commuting Trekkie driving by on Interstate 80 might easily believe the Security Pacific Real Estate building is a tender tribute to the 30th anniversary of Star Trek; it certainly projects a stellar glow. Though the motivating force behind the project was not *Enterprise* captain James T. Kirk, the owner and design team would consider this attention a mark of success. The design concept was meant to turn heads.

"The client wanted a building that would become a logo in and of itself for his business," said architect and lighting designer Gary Orr, principal of the Orr Design Office in Sacramento, CA. "He also wanted a contemporary image that would communicate the firm's progressive orientation toward the future." The "space age" concept seemed an obvious answer. The futuristic feel encourages the idea that this company will take its clients into the 21st century and beyond. "In asking ourselves what kind of design could look graphic during the day and even more graphic at night,

SECURITY PACIFIC REAL ESTATE COMMANDS ATTENTION FROM THE ADJACENT HIGHWAY. EXTERIOR LIGHTING CREATES A FUTURISTIC AND MYSTERIOUS IMAGE—THE BUILDING SUGGESTS THAT A SPACESHIP OR UFO HAS LANDED (RIGHT). we came up with a simple but modern theme that would be easily projected by lighting," said Orr.

In fact, it is the exterior lighting design that makes this project memorable. Visible from the heavily traveled interstate, the building's location was filled with potential: the trick, however, was catching the eye and interest of speeding commuters. "We realized that if we designed a building that people could see only during the daylight hours, we'd miss out on the added benefit of the nighttime viewers." noted Orr. "We felt that the project would be most recognizable if it were illuminated at night."

SPECIAL EFFECTS

The exterior lighting creates a dramatic nightime scene. The building has two "fronts"—the side visible to the highway and the entrance adjacent to the parking lot. The lighting goals for each area were different; the highway side of the building called for a high-impact, arresting lighting concept easily noticeable from a distance, while the entrance side required walkway illumination at a more intimate level.

Despite the different requirements, Orr wanted to sustain the lighting thematically from the highway to the building entry. "On the entry side we wanted a continuation of the drama from the highway side,



Appeal



PHOTOGRAPHY BY JAMES KLINE





but with a more human-scaled element."

The highway-side front of the building sets the immediate tone. While it may seem that the stepped architecture is illuminated by a series of uplights situated on each level, the exterior lighting effect is actually created by two sets of sealed beam floodlight fixtures placed at the base of the building. Each fixture houses one 500W HPS lamp that is angled to avoid hot spots and ensure that the individual architectural steps would receive equal levels of light saturation and color.

"Computer modeling and mockups helped us calculate the right location, angles of light and the brightness we needed," said Orr. "But they also helped establish the aesthetic image we were trying to find. At first we had another fixture located at the 'nose' of the building which provided a continuous scalloped effect all the way around, so you didn't have the darker area that is there now. It was too conventional looking. Leaving the fixture off the nose gives the building a Darth Vader feel."

METEOR-LITE

The glow of the highway-side face is not

visible when entering the parking lot, but the celestial lighting concept carries over to the building's entrance plaza. The area required light levels bright enough to safely illuminate the route from the parking lot to the building's main entry doors. The dimensions of the space—a round island—also invited artwork. Orr was able to supply a thematic connection, the necessary light levels and an artistic focal point by using a black granite boulder as a sculptural element.

"We were brainstorming, trying to connect the plaza to the 'space ship' idea, and we came up with the boulder to suggest a meteorite," said Orr. The meteorite image is accentuated and transformed by the lighting design, which works to illuminate the boulder—

sawed in half and set 4 ft. apart-from the bottom up as if it had recently burned through the earth's atmosphere. The boulder halves are raised 3 in. above the plaza on stainless steel pins. A cast-inplace concrete well centered beneath each half houses an exterior 500W sealed beam floodlight, accessible for maintenance from an access door located midway between each boulder half. Camouflaged in the web-like pattern of the plaza's concrete floor, the access door allows one to reach in and move the fixtures, which are connected to outdoor flexible conduit. The bottoms of the 7-ft. monoliths are coated with white reflective paint to magnify the warm, fiery glow of the HPS lamps in the wells below. Indeed, since the fixtures are set flush with the plaza surface and invisible to those above, the light seems to radiate from the bottoms of the boulders themselves.

Orr was well aware of both budget constraints and California's strong energy code, Title 24. "The client was only willing to go with this idea as long as we were able to accomplish everything we wanted to accomplish within both of those budgets," he said. "That definitely guided our solutions all the way through." Though the financial budget did interfere with the design team's plan to sheath the building's exterior in a natural-colored aluminum Alucobond, through the simplicity and efficiency of the lighting





strategy energy requirements were easily met. Excluding several surface-mounted fixtures in the soffit above the front door and low-voltage cove lighting under the lip of each step, the plaza is entirely illuminated by the light emitted from the boulder halves. The highway-side lighting—a model in efficiency using only four fixtures to achieve the stepped effect—is made more competent by a photocell timer which turns the lights off around 11 pm. The entrance-side stays on all night for security.

BREAKING GROUND

Interestingly, the boulder element supports the architecture not only thematically, but visually as well. The coarse, earth-colored surface of the boulder's exterior mimics the tan, blowntexture stucco of the building, while the polished, black granite boulder halves are near replicas of the structure's black glass windows. The boulder serves, in fact, to emphasize more than just the futuristic: "You have this boulder that is natural, not man-made, that actually has nearly the same color and finish as the building, so there is this linkage that symbolically connects the artificial with the natural," Orr pointed out.

The landscaping perpetuates this juxtaposition. The building, which almost

seems to have landed and plowed the earth with its force, melts into the ground, marrying the structure with its environment. Lichen-covered granite boulders quarried over 50 years ago are scattered haphazardly at the building's nose, again presenting the subtle connection between building and nature.

The combined effect of this space is definitely exciting, as likely to catch a motorist's eye as any unidentified flying object. "There is no delicacy to this lighting concept," said Orr. "We didn't want the lighting to be so much beautiful as theatric, which is different from a lot of lighting concepts." Indeed, the Security Pacific Real Estate building is unique enough in its simple, progressive design to become a logo not only for the client's business, but for the Orr Design Office as well. A winner of an International Illumination Design Award from the IESNA, this project has more than gone where it was intended to go.

A BLACK GRANITE BOULDER (ABOVE AND OPPOSITE) ACTS AS BOTH A SCULPTURAL AND THEMATIC ELEMENT. THE METEORITE-LIKE FORM IS ILLUMINATED BY HPS FLOODLIGHTS BURIED IN A FIXTURE WELL (SEE DETAIL, OPPOSITE PAGE).

DETAILS

PROJECT Security Pacific Real Estate Headquarters LOCATION Richmond, CA ARCHITECT Joel Agnello, Richard Avelar & Associates LIGHTING DESIGNER/ LANDSCAPE ARCHITECT Gary Orr, Orr Design Office ELECTRICAL ENGINEER Travis Townsend, CJS Lighting PHOTOGRAPHER James Kline LIGHTING MANUFACTURERS Hydrel; Lithonia; Step-Lite Systems

Simply Elegant



O PETER MAUSS/ESTO

FLUORESCENT CHANNELS, CONCEALED IN THE TOPS OF THE WOODEN CASES, UPLIGHT THE WINDOWLESS COSMETICS BOUTIQUE AT NEW YORK'S TAKASHIMAYA (ABOVE). GELS ARE USED TO COLOR BALANCE THE FLUORESCENT LIGHT WITH SURROUNDING INCANDESCENT SOURCES, SUCH AS THE CUSTOM SCONCES AND THE JAPANESE-INSPIRED PENDANT FIXTURES (RIGHT).

AFTER RECEIVING A FACELIFT, THIS UPSCALE MANHATTAN BOUTIQUE REVEALS A GLAMOROUS NEW LOOK

BY CHRISTINA TRAUTHWEIN, EXECUTIVE EDITOR

E veryone needs fixing up sometimes. And what better way to achieve a fresh look than a little cosmetic lift? The same is true in the design industry, where sometimes the right finishing touches are all it takes to create style and elegance.

Takashimaya, a small Japaneseowned department store located among exclusive shops on Manhattan's Fifth Avenue, is a prime example. "The building itself catches the attention of passersby with its tremendous glass front and stepped facade," said Emily Monato, principal, Renée Cooley Lighting Design. The 40-ft.-high atrium is occupied by a florist shop—a lush and colorful visual oasis within the streetscape—with the cosmetics boutique located in the rear of the first floor and visible to the exterior.

Prior to the new lighting design of this department, the cosmetics area could easily fade into the background, becoming a dark dead-end space to the open and airy atrium which precedes it. It now softly glows, creating a complementary jewellike backdrop to the garden setting of the foreground. "The combination of sites is very serene and inviting," noted Monato.

Originally, the space was illuminated by office-type lighting—egg-cratelouvered 8 x 8 fluorescent fixtures—the complete opposite of what any retailer wants, especially for showcasing beauty products. The cosmetics department of Takashimaya was redesigned to attract clients accustomed to personalized attention and weekend spas, where being pampered is not just a treat, it's expected. In terms of design, this idea translated into the need for a sophisticated yet subdued atmosphere.

With just three weeks for design (concept through construction) and a modest budget, the architect set out to create a space inspired by 1930s Hollywood glamour. Interior finishes were carefully selected for their luminous qualities: rice paper, translucent glass, silver leaf and pearlescent paint. Freestanding furniture serves as display units with comfortable chairs for clients to relax in while being shown various products.

The overall design reflects the Japanese concept that form is just as important as function and that space is a luxury. Consequently, the lighting, which emphasizes the sheer volume of the boutique, is architecturally integrated where possible to create a minimalist effect. "It was evident that the millwork would allow us to hide our equipment for lighting not just the products but the entire room as well," said Monato.

Lighting is accomplished in four layers:

- •ambient light
- •wash light
- task light

decorative accent

CASE WORK

The windowless space is filled with light provided by simple fluorescent channels, concealed atop each of the perimeter case units. The top lip of the millwork was specifically designed to hide the 3³/₄-in.-depth of the fixtures. The 3500K T8 fluorescent channels uplight the space, accentuating its high ceilings.





These and all fluorescent fixtures in the space were gelled with color corrective filters to warm the fluorescent light and balance it with the surrounding incandescent and halogen sources. A UV filter is paired with each colored gel to reduce deterioration.

Another layer of light is provided by existing recessed adjustable 75W MR16 accent lights. The fixtures were cleaned, retrofitted with spread lenses and relocated to wash the subtle grain of the ash-veneered display cases. Within these cases, cosmetics are highlighted by a combination of low-voltage 42W MR16 adjustable accent lights recessed into pockets less than 4 in. high to illuminate the products from above. Fluorescents in 2-ft. channels, located beneath a sandblasted glass panel, light the contents from below. All fixtures are doorswitched. Salespeople can use adjustable arm task lights for makeup application. color matching and skin analysis.

The client was concerned about heat gain within the cases since most of the products contain creams and oils which are easily denatured or discolored by intense temperatures. As an added precaution, a series of hidden fans circulate air through a series of 1-in. diameter holes to minimize internal heat. All transformers are remoted atop the cases for maximum ventilation.

CRYSTAL LIGHT

The cut-crystal display cases and freestanding glass counter, which showcase antique crystal perfume bottles, are lighted from the sides by low-voltage 6¹/₂W xenon lamps, placed 2-in. on center and mounted at a 45degree angle within the case walls. This position allows light to reach the objects while minimizing direct lamp images on the silverleafed interior.

"Since the millwork here is not very generous in proportion, positioning the lighting equipment where it could best light the objects while still being hidden from view was difficult," said Monato. It had to be carefully coordinated so that both the architect and lighting designer could achieve the desired effect. "I had to be sure that the light was being located properly; the architect wanted to ensure the cases would remain sleek and streamlined," said Monato. Although recessing depth was limited, the strips run the entire length of the display cases, concealed by the mullions. Again, all transformers are remotely located.

Nearly all of the decorative light fixtures are designed by the architect and manufactured by local crafts people. The lighting design firm consulted on the appropriate wattages and lamp types. Incandescent custom sconces and table lamps made

from synthetic rice paper provide a residential touch to walls and counters. Three large incandescent fixtures located overhead serve not only as a decorative focal point, but with their strong horizontal and vertical lines, evoke true Japanese design.



DETAILS

PROJECT Takashimaya Cosmetics **LOCATION** New York City **DOWNER** Takashimaya Inc. **DARCHITECT** MGR Architects & Designers **DIGHTING DESIGNER** Renée Cooley Lighting Design Inc. **DGENERAL CONTRACTOR** Adelhardt Construction **DHOTOGRAPHER** Peter Mauss/Esto **DIGHTING MANUFACTURERS** Reggiani; Nessen; Ardee; Renaissance Workshop (custom) ANTIQUE CRYSTAL PERFUME BOTTLES ARE LIGHTED FROM THE SIDES USING A LOW-VOLTAGE INCANDESCENT STRIP MOUNTED CAREFULLY WITHIN THE SLEEK CASE WALLS (TOP).

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industry focus

BY CRAIG DILOUIE, EDITOR-IN-CHIEF

Lighting Culture

A MEETING OF THE MINDS TO DISCUSS OUR HISTORY, OUR VALUES AND OUR CULTURE— AND WHAT IT MEANS TO OUR CUSTOMERS

hadn't met everybody before the meeting, but I knew the names well. We were introduced anyway: Rita Harrold from the IESNA; Jim Benya of Benya Lighting Design; Charlie Occhino, CLMC of Aetna Corp., an electrical and lighting contractor; Peter Bleasby from Osram Sylvania; Bill Blitzer, former owner of Lightolier; Dave Peterson from GE Controls; Dawn DeGrazio, a designer with EESCO United; Pam Horner of the faculty of the Lighting Research Center; and Dr. Mark Rea, director of the Lighting Research Center. The atmosphere was relaxed-a countryside retreat at the Rensselaerville Institute, complete with quiet comfortable residences, green open fields, trails and a remote waterfall.

The agenda for the two-day meeting? To clear the mind and discuss the culture of the lighting community in earnest.

It was Mark Rea's challenge. We get so wrapped up in the business of lighting, he said, sometimes we don't stop and think about our history and values. It sounded esoteric at first, but some excellent ideas on how to promote quality lighting to the customer as well as incorporate our customers' values into our own were put on the table. Even without the good results, I applauded the effort. This type of discourse can only benefit the profession.

In this article, we hear the words of the participants as they share their own

thoughts and values. Each seeks to answer the questions: "What is quality lighting? How can we get the customer to understand its value? What can we as an industry do about it?"

RITA HARROLD

DIRECTOR, EDUCATIONAL AND TECHNICAL DEVELOPMENT

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA

If we could define quality lighting in a

nice concise way, it would be easy to encourage everyone to subscribe! It is a combination of the established principles of lighting practice, tried and tested over time and found uniformly



acceptable, together with those requirements which a specific user deems important and valuable for the application.

We need to unify the industry with some common goals so that everyone understands and accepts the principles needed to achieve quality lighting, which will help to override the fragmentation that currently exists.

This is especially important if we want to promote good lighting, because there has to be an understanding of what that means. We need to communicate the message. In the words of Samuel Johnson, "We all *know* what light is, but it is not easy to *tell* what light is." We need to be able to define in a measurable way the values of good (and bad) lighting and demonstrate the benefits of applying the standards we produce. Developing broad communication strategies will be key to disseminating the message; making information available on-line will be of great importance to reach large groups of people.

The result may be an improved "lighting culture"—a culture in which values are respected by both the using public and those within the industry. And at the same time a culture in which the industry continues to monitor the requirements and desires of the using community.

JIM BENYA, PE, FIES, IALD PRINCIPAL

BENYA LIGHTING DESIGN

The weekend's forum proved that almost all segments of our industry, including the extremes, have a common concern for our culture. Most of the attendees, presumably representing those many segments, expressed negative sentiments about the

industry's status and direction. To this I agree. Change must occur if we are to take the next giant steps in improvement of man-made illumination and the luminous environment.

Discussions frequently reinforced the central and important role of the IESNA and IESNA leadership. At times, we needed to remind ourselves that this was not an IESNA meeting. This is at the heart of the problem. We expect the IESNA to solve industry problems something by charter it is not intended to do. Our industry's issues are technical, political and cultural, as we learned this weekend, and the IESNA officially deals with only the technical.

The political community of lighting is spread among the people and the many various organizations and companies that are the lighting industry. Our culture is clearly not defined by any one group, although the IESNA is at least one of its favorite meeting places. We are disparate and uncoordinated at best, loose bands of nomads and pirates at worst.

Here's the real issue. Because of this disparity, we tolerate multiple dissenting viewpoints without direction or resolution. Our culture, while serving reasonably well as a forum and technical resource, regularly fails to establish standards and maintain them so as to hold professional status in the outside world. We are focused too inward. We don't as a rule demand education. We don't have a certification of knowledge, much less competency. In the interest of including everyone and not offending anyone, we fail to establish or demand excellence. Lighting is thus considered low-tech, common and mediocre by the public because we accept this level of mediocrity as the status quo.

Within the lighting community, we can foster quality lighting by demanding certification and education. We must not

be afraid to promote standards of competence among application practitioners—even if it offends some engineers, designers, contractors, salesmen and architects. Until we as an industry have the courage to certify design competency through qualification by examination, we weakly support any claim that we know more than the person on the street. The NCQLP must succeed.

We must also establish and implement standards of education and continuing education. We must better organize research to resolve current issues and problems. And while we are at it, we should keep our government informed so that they understand the importance of quality illumination and the care with which our industry has addressed the topic. To remind us of how much the government is really listening, just look at the funds and manpower the EPA, CEC and DOE have committed to lighting certification in the past few years.

Outside our industry, I firmly believe that we can foster quality lighting through education. Well educated customers will demand quality results and will know the difference. Well educated architects and interior designers will be able to provide better service to their clients by assuring better lighting design regardless of which certified individual does the work. Well educated manufacturers will develop quality products at all price levels. Well educated governments will develop the minimum legislation to assure this occurs, and will respect industry's motives and opinions. Our industry's traditional weakness has been a lack of a common cause. We must be united behind quality.

PETER BLEASBY

DIRECTOR, INDUSTRY RELATIONS & STANDARDS

OSRAM SYLVANIA

Fifty years ago, many of the lighting industry's experts and strategists worked for major corporations. Company mergers, including globalization of major sectors, have increasingly focused industry on the bottom line. Those who used to concentrate on lighting

quality and lighting culture within manufacturing organizations are dispersed to other sectors of the industry, or simply no longer exist.

It was very revealing during the weekend to realize that as an industry we rarely ask the end users of lighting what is important to them. Is it therefore not surprising that we fail to communicate the importance of "quality" or "culture" to the 90 percent of lighting users who do not seek the services of lighting design professionals? To get these parties back in sync, we as an industry need to ask the customer what they regard as quality and must not be surprised if we receive a different set of criteria for different applications.

DAWN DEGRAZIO, CLEP, IES-CTK

ILLUMINATION ENGINEER EESCO UNITED

I recently picked up a postcard that showed the San Francisco Palace of Fine Arts, lighted at night. To me, that symbolizes lighting culture because it is an example of the wonderful possibilities of what can be achieved





with an optimum combination of technique and technology, not to mention talent. So I already believe our lighting culture is a good one, although it often is subverted to other concerns—such as energy efficiency to the detriment of aesthetics and function, and a misguided or incomplete notion of the true costs of a lighting system. What I would like to see is those things that make up our lighting culture and are embodied in lighting quality become more pervasive in our general culture through increased public awareness and appreciation of good lighting.

This sounds ambitious, but education can make great strides for us. We need to educate ourselves more about quality and teach newcomers that there is so much more to lighting design than workplane illuminance. We also need to educate the customer as to the possibilities. So many people know only ordinary, uninspiring lighting systems, and when they do see good lighting design, they often think it's solely the architecture or space design without realizing lighting's role in their appreciation. This will take a lot of effort, but we will all benefit when people think of lighting as a medium for enhanced comfort, inspiration and physiological and psychological well-being.

BILL BLITZER, FIES CONSULTANT LIGHTOLIER

One of the most important trends in



dustry in the last 50 years is the advent of electronics in calculations, in controls, and in communications. It's progressed to the point that today, "mass" culture is symbol-

the lighting in-

ized by the 2x4 troffer, while "class" culture is symbolized by electronics— CAD, CD-ROM, the Internet, and electronic lighting technologies. Lighting isn't about optics today; you have to include electronics. This is all good. It enables us to produce more efficient and less costly products, design better and communicate more effectively. The next big trend is that lighting is more about human performance than hardware.

This has naturally promoted the concept of "quality lighting," which I define as design that conserves energy and is responsive to human needs. To foster this, the industry must study human needs—both physiological and psychological—as defined by what we know and what we can learn through research. We must then develop recommended practices that are based on quality, defined in this way.

Toward that end, I believe we must rededicate ourselves to the advancement of good lighting practice—lighting that saves energy, enhances human performance, fosters comfort, health and safety, and contributes to the beauty of the built environment.

PAM HORNER

DIRECTOR OF CENTER DEVELOPMENT MANAGER, OUTREACH EDUCATION ASSOCIATE ADJUNCT PROFESSOR THE LIGHTING RESEARCH CENTER

Fifty years ago, quality lighting was uniform, free of glare and shadows, relatively static (few controls) and high in color rendering ability. Today, quality lighting still has good color and is free of glare; however, there are more applications where some lack of

uniformity would be considered a positive attribute, and some control dynamics can be introduced for interest. Of course, the big difference between then and now is that today's quality lighting must be energy-effective.

The lighting community can promote quality lighting by developing consensus about which elements of lighting are actually important in various applications, and then demonstrating these elements visually, using as many media and approaches as possible. This would involve both research and education that is primarily customercentered. If the elements that comprise a quality lighting installation are to be understood and appreciated by the users of lighting, then these users must be included in the consensus process and they must be able to see, not just hear, how quality lighting will benefit them.



DAVE PETERSON

PRODUCT MANAGER, LIGHTING CONTROLS GE WIRING DEVICES

"Quality is delivering to customer expectations every time." This simple definition helps clarify the problems we have in getting a handle on "quality lighting."

First, it focuses on the customer. This may be obvious, but it sure isn't easy. Most of us deal with a number of "customers" on a regular basis distributors, contractors, facility managers, etc. These people may have a strong impact on whether we get an order, but they aren't the people who "consume" quality lighting. Our consumer is our ultimate customer. Everybody in the

chain should be focused on delivering value to the occupant of the space.

Second, it requires us to define customer expectations or criteria and measure our performance against them. With lighting, that can get to be difficult. Similarly, customers can be very clear when ranking the relative quality levels of lighting jobs on a side-by-side basis ("I know quality when I see it!"). But coming up with a rating

on a stand-alone basis or telling us why one approach is preferred over another is difficult.

If it's hard to get to the ultimate customers and even harder to define and measure their criteria for rating a lighting design, then why bother? Quite simply, it allows us to increase the value of our products and services. Customers define value. But quality discussions without measurements are meaningless. If you can't measure it, you can't control it and you don't really understand it. You don't know when you are improving and it's impossible to justify increased first costs. How can we expect anybody to pay extra for something that can't be measured or understood?

Personally, I feel the quality move-



ment, particularly the formal 6-Sigma process defined by Motorola and other industrial quality leaders, has a lot to teach the lighting community. Their disciplined, statistical approach to defining customer expectations and measuring performance against those expectations can provide the kind of tools that could help us change the quality levels of lighting and increase our value to the customer.

We could start by developing and testing a customer-based quality audit of a number of completed projects. Once this process has been validated, it should be integrated into the IES recommended practices. We should never put the IES stamp on any recommendation without knowing how a significant number of endusers rate its performance.

Finally, we should find ways to link quality lighting with financial results. The proof that we are providing a service the user values is that he is willing to pay more for it. Financial results become the big score card. If we can't show a significant difference between a quality lighting job and one that simply complies with recommended light levels and watts per sq.ft., then we have no right to complain when the user puts his money into better furniture, carpeting or plumbing fixtures at the expense of the lighting package.

MARK REA, PHD, FIES DIRECTOR THE LIGHTING RESEARCH CENTER

My definition of quality lighting comes from the mission statement of the Lighting Research Center—it is lighting that is "energyefficient and responsive to

human needs." Encompassed within that brief phrase is the belief that lighting should be cost-effective, easy to maintain, flexible to meet varying needs within the space, and provide visual information to the user without wasted energy.

promote To this effectively, we should listen to the needs of the lighting customer. These will be different for different customers. Next, we should develop mechanisms for delivering what we promised to meet those needs. For example, we should develop contracts for lighting performance, not just lighting design. Finally, but perhaps this is really the first step, we need to create a lighting profession that will listen to the customer and then deliver performance, and not be afraid to put it in writing. Until we are contractually obligated to deliver on performance, lighting will continue to be a culture of "underachievers." We must be accountable for what we deliver.

To make a change, we must continue to make progress in discussing and defining who we are as a lighting culture. This process will take years of attention and nurturing. Even as we educate the customer about the possibilities of quality lighting, we must show ourselves what the lighting profession can accomplish through united action.



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LANDSCAPE LIGHTING FOR ALL SEASONS

BY CRAIG DILOUIE, EDITOR-IN-CHIEF

A designer on a residential landscape lighting project can "double the pleasure" of the client by providing a lighting scheme that works as well in the winter as well as in the summer. Too often, landscape lighting design focuses on viewing during warmer weather, as people are able to spend more time outdoors. In the coldest winter, however, whether people venture out of the home for a sled ride or merely look out a typically dark window, the lighting design can work just as well to make light bring out the best of the natural environment.

WINTER OPPORTUNITIES "Winter provides excellent opportunities for lighting design," said Janet Moyer Lennox, IALD of Jan Moyer Design. "It gets dark very early, and people come home from work but can't enjoy the view. Light allows the homeowner to appreciate the natural environment, which can be quite beautiful."

Icicles, snowfall, snow and ice on the ground and trees all can be romantic and festive, made all the more so with light. Since the winter landscape is variable, however, careful attention should be paid to technique to ensure a lighting design that is flexible and effective for typical winters at the home. Moyer offers these tips to those aspiring to light the winter landscape:

Positioning fixtures. Here, it pays to know the local climate and receive client input. While down-lighting is often more effective in landscape lighting design and therefore more popular, when uplighting



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we must pay special attention, as the fixtures must be mounted to accommodate the typical height of the snow. If snow usually lightly coats the landscape, it is possible to either recess or mount at ground level low-voltage uplighting fixtures. If the snow usually builds up into drifts, however, the uplighting fixtures should be at about the normal highest level by taking advantage of tree trunks, walls and other natural features offering a suitable mounting height. Remember that wind will help to build drifts in certain areas of the landscape higher than the usual case.

Composition. This is a function of balancing brightness and emphasizing key features from typical vantage points. This aspect of landscape lighting is similar to interior lighting in that we want to create a hierarchy of focal points, add depth to their visual appearance and then provide fill light to ensure final cohesion, said Moyer.

The trick in accomplishing this for winter months is severalfold. First is the typical vantage point. The windows and any uncovered glass sliding doors will be an important first vantage point, as in the winter people spend most of their time indoors looking out. Next, we should consider snowfall, a kinetic element, and anticipate new focal points that may emerge, such as icicles that can be turned into glittering crystals. Finally, we must pay attention to brightness, as a lawn can change from a reflectance of about six percent to 60-70 percent. Brightness ratios can change suddenly as snow melts from trees but stays on the ground, disrupting the visual composition. (On the plus side, the effect of snow rather than grass as ground cover makes the scene more vibrant and, if carefully planned for in the design,

can provide greater cohesion than in the summer scene.) These variables in a changing landscape must be accounted for in the initial design.

Control. To account for so many variables with a fundamental landscape lighting design—including snowfall—it is often desirable to separate the fixtures into groups that can be separately wired and controlled, said Moyer. A dimming system can put a variety of winter "scenes" at the hands of the homeowners, allowing them to take advantage of the changing landscape.

"When planning for the landscape lighting to work well in the winter, the best mindset is not think that you have to do something differently," said Moyer. "It's really about planning—for how a garden will look differently in the summer and winter. Be there in December in your mind. Then integrate that flexibility into the design."

RESIDENCE IN WINTER

Moyer had just finished designing the interior lighting for a residence near Lake Tahoe, and landscape architect Jonathon Plant had just finished plans for the outside garden. The client asked Jan Moyer Design to design the lighting for the landscape. Since Lake Tahoe is in a colder climate that gets a lot of snowfall—anywhere from two to eight feet—Moyer knew that lighting for the winter would be critical to the success of lighting the garden.

Moyer had the advantage of knowing the site, and she had the plans for the landscape design, although actual work hadn't started at that time. She also knew Lake Tahoe's weather well, and the client was open and helpful in research.



Moyer decided on a downlighting strategy due to the variable snowpack that can reach as high as eight feet, and because the primary focal points—trees located throughout the grounds—are tall, large conifers that did not lend themselves well to uplighting but provided an ideal mounting location. Downlight fixtures from Lumière were mounted on the trees to softly wash the grounds and the roof of the house. Additional adjustable fixtures were placed under the eaves of the house to augment the adjacent decks and plantings.



"Because of the downlighting strategy, the lighting constricts the night scene to what I call the human scale vertical portion of the garden, except for the roofs," said Moyer. "This makes the garden more inward-looking or more womblike in appearance. Since this is a very dark neighborhood, however, keeping the lighting subtle helps to keep the property integrated with the neighborhood."

The result is a soft sculpting through the site, creating both a gracious summer and winter scene, particularly during snowfall.

LAKE TAHOE RESIDENCE, LOOKING OUT THE WINDOW IN SUMMER (LEFT). THE DECIDUOUS SHRUB IS DOWNLIGHT-ED FROM THE FIXTURES ON THE EAVES, PROVIDING A VISTA JUST OUTSIDE THE WINDOW.

LAKE TAHOE RESIDENCE, LOOKING OUT THE SAME WIN-DOW IN WINTER (RIGHT). THE CHANGE IN THE VIEW IS SIGNIFICANT—THERE IS MUCH MORE DEPTH BOTH ON THE GROUND PLANE AND VERTICALLY. AS A RESULT, WE NOTICE THE TWO CONIFER TREES BEHIND THE SHRUB MUCH MORE CLEARLY.

> "I remember years ago somebody telling me that he couldn't have landscape lighting because he lived on the East Coast, where it snows," said Moyer. "I began to focus on this issue. If a garden has a good structure, it should be pleasant at all seasons. Now instead of hearing that complaint I'm told, 'I can't wait to get home and turn on my lights at night.""

> The owner of the Lake Tahoe residence was no exception. Upon the project's completion, the client authorized doing a much larger project at another of their properties.



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INDIRECT LIGHTING: STATE OF THE ART

BY CRAIG DILOUIE, EDITOR-IN-CHIEF

It is well known among lighting designers that lighting the walls and/or ceiling in a space can add depth, make a space appear larger and add visual interest and comfort. From the early studies of John Flynn at Penn State University to informal surveys conducted by the Lighting Design Lab and IES/IALD committees researching quality metrics, occupants tend to prefer light on the walls and ceiling.

In addition, the proliferation of computers in the office environment resulted in the standard desktop featuring both horizontal and vertical tasks, with the vertical task (the computer screen) reflecting distracting glare from the standard lensed recessed troffer.

As many corporations seek to increase the productivity/satisfaction of their employees/ occupants, lighting professionals are often turning to indirect lighting as a solution for their clients.

The 1992 IES RP-24 (RP-1) standard promoted the trend, stating that when lighting areas with heavy use of video display terminals (VDTs), the angle of incidence should be 45 degrees or higher to minimize glare on the screen. Since then, according to one manufacturer, U.S. indirect lighting sales have grown 15 percent per year. All while costs have come







down from \$60-\$70 per linear foot in the early *80s to \$20-\$30 today, reported another manufacturer. The same manufacturer claimed that indirect lighting is considered in at least 40-50 percent of projects where visual comfort is an important design goal.

THE PRODUCTS AND TRENDS

Indirect lighting (90-100 percent uplight) is available in an abundance of configurations, mounting options, materials, shapes, colors and distributions from a range of established manufacturers as well as newcomers. Most indirect fixture options available include wall-washers, pendant-mounted linear fluorescent fixtures,

> new workstation-integrated units, new modular indirect lighting systems, disk-shaped pendant-mounted decorative fixtures and others.

According to Luxo Corporation and other manufacturers, linear suspended fixtures are most in demand in the commercial office market. After a brief survey of new linear suspended fixtures introduced at and since Lightfair, there appear to be three growing trends.

First is the feature of an apertured bottom to allow a controlled amount of downlight. This decreases contrast between the fixture and the ceiling, and adds visual interest to the fixture itself. Various designs and methods of distributing the downlight compo-

AT THE UNIVERSITY OF WASHINGTON'S SCHOOL OF MEDICINE IN SEATTLE, THE DESIGN PARAMETERS INCLUDED 60 FC ON THE WORKPLANE. MINIMIZED GLARE ON COMPUTER SCREENS, A GOOD-LOOKING ORGANIZING ELEMENT, A SOPHISTICATED IMAGE, ENERGY EFFICIENCY AND ACCESS TO MECHANI-CAL EQUIPMENT ABOVE THE CEILING. TULLY SHELLEY OF MBT ARCHITECTURE PROVIDED THE RIGHT DESIGN FEATURING INDIRECT LIGHTING FROM PEERLESS LIGHTING CORPORATION. CIRCLE NO. 45



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tips for specifying indirect lighting

1. As with direct lighting, reflectances on the walls and ceilings must be sufficient to ensure light is properly reflected to the occupied space, which takes into account colors, finishes and housekeeping.

2. The fixture itself can be selected as a decorative element in itself and can be specified as a light color to mesh with a light-colored ceiling.

3. If the designer sees pure indirect lighting (100% uplight) as "monotone," he or she can choose an indirect fixture with a little downlight to add visual interest and soften contrast between the fixture and the ceiling. The designer can also consider a direct-indirect fixture in these cases. It's important to ensure that the downlight component meets IES RP-1 recommendations. Or, decorative accent lighting that does not degrade the visual environment can be used.

4. Indirect lighting should be more than for orientation.

Ambient illumination levels for both VDT work and many general office tasks can be provided by indirect lighting; task lighting can be used to supplement ambient, as needed.

5. Center-to-center spacing must be appropriate for glare control, brightness ratios and compliance with IES RP-1.

b. For ceilings in new buildings get lower from 8.5-9 ft. to around 8 ft., particularly in the hot South where there is heavy HVAC ductwork above the ceiling, the drop ceiling can be reduced, a fixture with an appropriate distribution can be specified, or a furnituremounted fixture can be employed.

7. If a wall is bright and pleasant, the occupant of a small office can feel that the area is more spacious.

8. In a large or enclosed space, a bright ceiling is in the field of view, offering the same effect on the viewer as a brightly lighted wall.



Lumière Design & Manufacturing, Inc., 31360 Via Colinas #101, Westlake Village, CA 91362 (818)991-2211



nent are available, including baffles, lenses, wire-mesh and silk-screen.

A second trend is that fixtures are getting smaller and are available in more aesthetic designs. "Because indirect fixtures 'penetrate their space,' architects rather than engineers play a far more important role in their selection than they do when recessed troffers are used," said Warren Meltzer, general manager for Lam Lighting. "This means that indirect fixtures must relate to the architectural design."

Peter Ngai, PE, FIES, VP of engineering for Peerless Lighting Corporation, added that fixture manufacturers have become increasingly responsive to both architectural and visual comfort needs. "At first, indirect fixtures were simply basic forms, such as rounds and squares, and the optical technology for delivering light was very limited. Now, because of significant advances in lens and reflector technologies, as well as the development of smaller and more efficient lamps and ballasts, we can provide very high quality lighting from less bulky, more pleasing fixtures designs...fixtures that can be used to help materialize the vision of the designer."

A third trend is that more companies are offering families of fixtures to provide design flexibility, including task lighting that can be integrated with the general lighting as well as furnituremounted, wall-mounted, floor-mounted and other fixtures that can be added to provide some uplight on walls and ceilings for visual comfort.

The future? Because of the number of designers turning to indirect lighting as the preferred technique for lighting computer-

equipped workplaces, there will also be an increase in the integration of task and ambient lighting, said Peter Ngai. Luxo Corporation is also supporting this trend. By designing task lighting and indirect lighting in a single cohesive plan, energy savings can be realized as ambient lighting is scaled down to provide illumination for orientation and other general tasks.

"I see the office of the future having the quality of the visual environment as the highest priority," said Ngai. "What we must continue to keep in mind is that while energy efficiency is very important, it should not be achieved at the expense of people's visual health, comfort and performance. Working together, these components can achieve a truly value-added design that maximizes both visual comfort and energy-effectiveness."



COMPOSITE FIXTURES COME OF AGE

BY CRAIG DILOUIE, EDITOR-IN-CHIEF

When planning a landscape lighting project, a major concern is durability against the elements and vandalism. Direct-burial fixtures, for example, experience corrosion due to fertilizers, chemicals, water and additives to the soil that are an ongoing natural result of the elements and standard grounds maintenance.

To ensure greater corrosion resistance, a growing list of manufacturers is now offering fixtures that are built with composite materials, with Architectural Landscape Lighting (ALL) the newest arrival on the scene with above- and belowground models.

Composites are so named because they consist of a polymer resin matrix with one or more reinforcing additives, such as glass fiber, to provide product strength. The fixtures may be injection-molded, but compression-molded fixtures offer greater strength, says Ralph Raya, lighting sales manager for Reinhold

Industries, maker of RhinoLite materials. He added that composite materials, reinforced with additives, result in superior corrosion resistance, good protection against UV degradation, and considerably more strength than typical plastic consumer "lighting kits."

Additional benefits marketed by some man-

ufacturers include no paint to peel or chip, and a non-conductive fixture.

"The outdoor lighting community has long been aware of the potential of in-ground light fixtures to illuminate a landscape without noticeably invading its space," said Ian Ibbitson, general manager for ALL. "Unfortunately, corrosive substances such as acidic soil can damage an aluminum fixture too quickly. Composite fixtures offer a solution for these applications, expanding design capabilities and enhancing reliability at a cost that is competitive with comparable metal fixtures."

As with any technology, however, it is important to recognize the limitations. Composite fixtures are usually slightly larger so as to dissipate heat properly. Some composite materials react poorly to heat and UV exposure over time. "While composite fixtures offer solid benefits, they are not a replacement for all metal and injection-molded products," said Ibbitson. "The designer needs to identify the application and select the proper material."

Current manufacturers of composite fixtures include ALL, Bronzelite, Greenlee Lighting, Lumière and Hadco, with B-K Lighting and others preparing to enter the market. All continue to offer designers a choice of metal fixtures as well as composites. Some, such as B-K Lighting, are emphasizing in-ground use because that is where there are the greatest benefits and fewest limitations on the product's performance. They report, however, that as composites become more accepted and used by the industry, new fixture designs and options will develop at an even faster rate.



TO LIGHT THIS LANDSCAPE FEATURE OUTSIDE THE PALM SPRINGS CITY HALL, THE DESIGNER SPECIFIED A SINGLE IN-GROUND FIXTURE FROM ALL. THE FIXTURE IS A COMPRESSION-MOLDED COMPOSITE FIX-TURE WHICH PROVIDES EXCELLENT RESISTANCE TO CORROSION AND STRESS THAT OCCUR IN ANY LANDSCAPE, PARTICULARLY AROUND TREES AND SHRUBS. CIRCLE NO. 50

ONE NEW ADDITION TO GREENLEE'S LINE OF COMPOSITE FIXTURES IS THE ROUND DIRECT BURIAL (RDB) SERIES FOR APPLICATIONS WHERE A DIRECT BURIAL UPLIGHT WITH A ROUND FOOTPRINT IS REQUIRED, CIRCLE NO. 51







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ORGATECH OMEGALUX

The new Orgatech Omegalux catalog of architectural landscape fixtures focuses on low-energy, highperformance fluorescent floodlighting. The fixtures are designed to withstand heavy duty commercial applications, and are constructed from solid extruded aluminum with diecast endcaps. Lenses are unbreakable, vandal-resistant lexan. The catalog features four-color photos of installations, a full graphic listing of the eight standard lengths available—from the Mini 7¹/₂-in,-long model up to 8-ft. sign lighters. Approved for wet locations. UL-listed. **Circle No. 53**

IRIDEON, INC.

The AR500 exterior fixture for specialized floodlighting features patented, computer-controlled, automated, dichroic color-changing assembly and an optional diffuser or douser mechanism. The fixture is designed and certified for use in wet locations. UL-listed. Circle No. 54





ARCHITECTURAL LANDSCAPE LIGHTING

BL-36, 38, 44 and 45 fixtures are an extension of the BL-Series of building-mounted landscape lighting fixtures, which include BL-35, 52 and 55 (shown). Each fixture housing is cast aluminum with a high-impact clear glass or opal polycarbonate lens and extruded aluminum silicon gasket for a water-tight and bug-free seal. Cast aluminum vertical and horizontal lens guards protect fixtures from debris and vandalism. ULC-, ETL-listed for wet location and through wiring. **Circle No. 55**



GREENLEE LIGHTING INC.

Complete with variable beam spread optics, Round Direct Burial fixtures are designed and engineered for high performance when a direct burial uplight with a round footprint is required. Composite construction is corrosionand condensation-resistant. The fixtures can be grade-mounted in earth or concrete and offer drive-over capability. Power packs and optics have quick disconnect connectors to allow flexibility and interchangeability. UL-listed. **Circle No. 56**

HYDREL

Hydrel has combined its efforts in the U.S. with Germany-based Franz Sill, GmbH. Sill specializes in floodlighting and its 7800 Series floodlights are now being manufactured and sold by Hydrel in the U.S. The collection features the 7800 for 100W HID and the 7801 for 400W HID in compact, high-performance fixtures with a variety of distributions. The small 7800 narrow spot (IHxIV) provides 106,000 candelas with a 70W HQI lamp. UL-listed. Circle No. 57





KIM LIGHTING

The WTH/WTV line of pedestrian-scale fixtures features a unity between pole and fixture with high performance and versatility. The cylindrical fixture head has a visual softness than blends with its surroundings. Horizontal planes have been added for architectural character and to provide a high degree of mechanical strength in the housing. The fixture appears to grow out of the pole, producing a unified look and singular design. **Circle No. 58**

LUMIÈRE DESIGN & MANUFACTURING, INC.



The Coronado is an architectural and landscape fixture engineered to accept the latest in metal halide lamp technology. A mechanism (patent pending) enables easy vertical adjustment and securely locks the fixture in place while an easy-setting swivel provides for quick horizontal adjustment and fastening. Mounting options include surface, tree, remote and in-ground. Various lamps and mounting choices enable uplighting, downlighting, floodlighting, spot lighting and accent lighting. Housing and stem are cast; bezel is corrosion-resistant silicone alloy aluminum; lens is tempered glass; hardware is stainless steel. UL-listed. **Circle No. 59**



B-K LIGHTING, INC.

Power Pipe System is a line of mounting, junction box and transformer options for both 12V and 120V applications. The Power Pipe can be a mounting stake for a 12V or 120V fixture, a vertical junction box for 12V or 120V applications. It can house a 75VA electronic transformer which can be used to make up an internally transformered 120V/12V fixture, can be used as a stand-alone architectural transformer housing for 12 remote fixtures, or can be a 12V adjustable-stem mounting option. ARL-listed to UL standards; CSA approved. **Circle No. 60**

BETA LIGHTING

The 36-in.-high Linear Bollard Panel (Series BDF) is a ground-mounted product supported by a heavy-gauge aluminum frame. It is designed to support Beta's line of Compact Surface Landscape Luminaires. The round-top Bollard Panel works well with the Compact Circular Luminaire (series BCD), which is available in 50W and 70W metal halide and 35W and 100W HPS. A 13W fluorescent model is also available. The Bollard Panel, with flat-top design, can also be specified for use with Compact Rectangular Luminaires (Series BCA). UL-listed. Circle No. 61





ARCHITECTURAL AREA LIGHTING

ALLO502H3 fixtures, part of the AAL Universe Collection, feature luminous rings and highperformance cutoff reflectors. These fixtures are designed to work well with any architectural style and can be used with AAL's extensive collection of decorative arms and poles. **Circle No. 62**

PRESCOLITE MOLDCAST

The Savannah Lantern ContraCline series is an addition to the family of high-performance pole-mounted lighting fixtures for parking lot and wide-area lighting applications. The fixture, which is reminiscent of early 20th-century designs, uses a multi-tiered reflector optical system that completely surrounds its light source. Light sources include metal halide or HPS from 70-300W in a range of voltages. Ballasts are internally mounted, high-power factor CWA-type, which start in -20°F temperatures. UL- and CSA-listed for wet locations. **Circle No. 63**



PENNSYLVANIA GLOBE & GAS LIGHT

The Replica Gas Light Series is available in either natural gas or energy-efficient HID. The #36 Boulevard fixture (shown) is now redesigned to combine modern, high-performance and glare-free HID sources with the company's Replica Gaslight Burner, offering both controlled lighting and authentic gaslight charm. **Circle No. 64**

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James R. Benya

Randall Whitehead

The Academy of Lighting Design, presented by the International Association of Lighting

Designers (IALD), announces its Fall Series of Workshops with CEU Accreditation from ASID and IIDA. Benefiting Architects, Interior Designers, Facility Managers, Engineers and all lighting specifiers, the following Workshops will be presented by these accomplished, professional lighting designer instructors

The Fundamentals of Lighting Design

James R. Benya, PE, IALD, FIES With over 23 years of lighting design and consulting experience, James Benya has been acclaimed as one of the nations leading experts in the field. He is a member of the National Council for the Qualification of Lighting Professionals (NCQLP), IALD, a former member of the IESNA Board of Fellows, and frequently serves as an expert on illumination in trials and public hearings. Currently principal of Benya Lighting Design, his team approach has been a proven tool for success and earned him over 100 lighting design awards. The Fundamentals of Lighting Design, will provide both a practical and a visual application demonstration and

- teach you the following: How to emphasize perception and design approach; oriented around a projects architectural design process
- A method of developing lighting layers and proper design techniques.
- · Common design problems of interior and exterior lighting for offices, stores, hotels, several other building types, and more!

Offered in a Two-Day format, providing up to 1.2 CEU Credits. Day 1 Cost: \$165.00; Day 1 & 2 Cost: \$325.00.

Humanizing Light for Residential Interior & Exterior Environments Randall Whitehead, IALD, ASID Affiliate

Known for his wit, humor, and extensive knowledge, Randall Whitehead has been an innovator in the lighting design field for more than eighteen years. His company, Light Source, handles projects throughout the United States and Malaysia. Whitehead's work has been published in numerous magazines; in addition to extensive industry media coverage, Mr. Whithead's latest book. Residential Lighting : Creating Dynamic Living Spaces, has recently gone into its third printing. Now he will enlighten and inspire attendees of The Academy of Lighting Design with his nationally acclaimed workshop Humanizing Light for Residential Interior & Exterior Environments which will teach you the following:

- How lighting can influence a space positively or negatively.
- . How to incorporate into your design the three functions of light- task, ambient, and accent.
- A valuable working knowledge of color temperature, and more Offered in a Two-Day format, providing 1.2 CEU Credits. Cost: \$325.00.

Office Lighting (Day 1) and Energy Issues (Day 2) Naomi Johnson Miller, IALD, IES

With 17 years of experience in the lighting industry, Naomi Johnson Miller has developed a niche in combining lighting quality and energy effectiveness. She has recieved over 15 national lighting design awards. This Fall, she brings her broad-based knowledge as both an engineer and a designer to The Academy of Lighting Design by instructing two CEUaccredited workshops.

Day 1, Office Lighting will teach you:

- . The essential techniques to enhance task visibility and visual comfort.
- · The psychological needs for bright, stimulating work spaces.
- . Important issues such as productivity, glare, brightness ratios among room surfaces, and other physiological factors affected by lighting, and more!

Day 2, Energy Issues will teach you:

- . The basic form of lighting energy codes existing in current lamp, ballast, and luminaire technologies
- The tricks and techniques of experienced lighting designers such as: control strategies to conserve energy.
- · Distinguish control approaches that worked well from those that should be avoided: case study examples, and more
- Each workshop is offered in a One-Day format, providing .6 CEU Credits. Cost \$165.00 each.



TRACK LIGHTING

Zumtobel Staff Lighting introduces Filigrano, a modular glass track system composed of straight or curved track, integral conductors and connection elements with a choice of 18 low-voltage fixtures. According to Zumtobel, Filigrano's system of modular elements allows for multidimensional configuration and easy installation. The fixtures include decorative, colorful geometric designs created from European silicate glass; glass pendants; and a series of die-cast spotlights. Shown in one available configuration. ETLlisted. Circle No. 68



REPRODUCTION FIXTURE

New Metal Crafts offers its latest reproduction fixtures designed for elegance. Fixture #61229 is a suspended pendant fixture reproduced from the early electric styles of the 1900-1920 era. Measuring 36 in. high x 22¹/₂ in. wide and available in polished or antique brass, the fixture features frosted glass with clear beveled lines illuminated by four lamps. It is suspended by ornamental rods. ULlisted. **Circle No. 67**

PRESET CONTROLS

Macro Electronics Corporation offers a brochure describing the company's new Theatrical Preset System (TPS). According to Macro, TPS provides light dimming and control capabilities for hotel meeting rooms, ballrooms, schools and other applications at an economical cost. The brochure lists specifications, drawings and unique features. Circle No. 66

products









ADVANCE

HID BALLASTS

Advance Transformer Co.'s new pamphlet describes its Linear Reactor ballasts, designed to cut ballast losses in half over standard CWA ballasts. This reduces energy costs during operation of metal halide and other HID lamps, and also lowers operating temperature. Circle No. 69

LOW-WATTAGE FLOODLIGHT



Sterner's new Infranor 711 low-wattage metal halide floodlight offers narrow, medium and wide beam patterns. The rectangular beam is hidden within a round fixture to provide an architecturally aesthetic fixture. Several louver and lens tint options further enhance the 711. The floodlight can be used as a facade, pathway, landscape or area lighter. The cast aluminum fixture measures approximately 9 in. high, with a 9¹/₂-in. diameter. UL-listed for wet locations. **Circle No. 70**



LED EXIT SIGN

AstraLite introduces the AstraLite 3200 LED Exit Sign with battery back-up, offering the benefits of energy savings and low maintenance at the same purchase price of an incandescent exit sign. The exit sign is UL 924 listed; meets OSHA, NEC, NFPA and BOCA requirements; provides 120 minutes of battery backup; and is backed with a 25year warranty. Circle No. 71

ASYMMETRIC FIXTURES

Elliptipar now offers the KO series of asymmetric fixtures, eight styles of wallwashers and uplights (new brochure shown). Each KO fixture features non-corrosive construction and extruded reflectors to produce maximum peak candlepower and uniformity. The contoured reflectors are available in aluminum with black trim or all semi-gloss white; the cylinder units come in perforated or solid-sheet aluminum. Options include halogen, fluorescent or metal halide lamps; and remote or integral ballasts. ULlisted. Circle No. 72





WALL SCONCE

Trend Lighting's newest wall sconce features an ellipsoid bowl of faux alabaster that crowns three satin brass blades, highlighted by polished balls. Lamping options include incandescent or compact fluorescent. Bowl is also available in white or pearl. The wall sconce is just part of the company's broad array of lighting fixtures for commercial and institutional applications. UL-listed. **Circle No. 73**



TRACK LIGHTING

Lightolier offers a new full-color catalog detailing its Lytespan family of track lighting for commercial and residential applications. Lytespan is designed for flexibility to provide unique design opportunities. New products have been added, including the Energy Smart collection which now includes ceramic arc tube metal halide in PAR20, 30 and 38 Lytespots styled to match the company's Sof-Tech series. The catalog includes an application guide and photometrics and is available on Lightolier's CD-ROM Specifier. UL-listed. Circle No. 75



NEW BROCHURE

Luceplan USA's new 68-page, four color brochure, *Encyclopedia Luceplan Vol.1*, is a complete guide to the company's lines of table/task, suspension, floor and ceiling/wall fixtures. Comprehensive descriptions, photos and diagrams accompany each offering, and feature options are listed. Circle No. 76



CRYSTAL CHANDELIER

The Rivendell collection from **Schonbek** combines intricately-worked, heavily textured hand-wrought metal with natural finishes and floral motifs. The frames are embedded with thousands of Strass crystal beads manufactured in the Austrian Alps. Rivendell includes seven chandeliers, two wall sconces and three close-to-ceiling units. **Circle No. 74**

CHARMED, I'M SURE



Circle No. 29 on product service card

perspectives

SPECIFICATIONS: HOLDING THE LINE

BY JOHN NADON, CONTRIBUTING EDITOR

S pecifications mean different things to different people. One camp in the design community strongly feels that specifications are like blueprints for the project, meant to be followed to the letter by the contractor. The other camp regards them like an outline, a set of benchmarks that a contractor should use to make final determinations. Both camps agree that the specification is the law, but the question is whether it is intended to be followed to the letter or in its spirit only.

A fact of industry life, unfortunately, is that while the courts recognize the authority of the specifier, every day specifications are looked upon not as a blueprint or an outline but as a list to cross over. There are many reasons for substitutions, some reasonable, some not so, some benefiting the client, others actually delivering reduced quality while saving very little.

One would think the first camp would be more frustrated by substitutions, but in forums I have attended both groups express equal frustration. Those who want to hold to a specifically named product are annoyed at the amount of work necessary to follow up to ensure the specification holds. Those who write more generic specifications also complain about the time required to review substitutes that often, in the words of one designer, have "no more relationship to the spec than a canoe to a battleship."

Of course, it pays for the specifier to know product when it comes to components such as ballasts and controls, but the same goes for fixtures. This year, Prescolite cosponsored a number of forums nationwide with Architectural Lighting called Illume 2000. At several of these events, I set out eight downlights installed side by side. Only the lit apertures were visible. All contained the same lamp and had similar lumen output, distribution characteristics, size of aperture and Alzak finishes. I asked the audience, usually about 80 specifiers, if the products were equals in aperture appearance. In each case where I conducted this blind "taste test," the participants couldn't find consensus on any three as equal. For some, in fact, the possibility of one being substituted for another would represent a significant risk to their relationships with their clients. Subtleties of polish and anodized coating thickness, cut-off strategies and other characteristics can create widely different visual results. Yet many of these same "unequal" fixtures are regularly placed on the same specification by name and model number.

As a marketer and product developer, I use four simple measures to compare our products with our competitors: lighting performance, electromechanical characteristics, aesthetic appearance and cost to own. With few exceptions, it is generally true that in any strict comparison using these measures, products have no exact equal. But if this is true, why are so many substitutions allowed? What can or should designers do?

From a manufacturer's perspective, I believe that every job is different. In the case where a generic specification is in the owner's interest, very broad bands of performance, features and appearance can functionally meet the designer's objectives. This should be a performance spec indicating the generic qualities that apply with a prime spec brand name and model number given as a benchmark of performance quality.

In projects where a designer has identified a specific product that is exactly right for an application, I believe that he should write a primary spec providing the brand and model number and a noequal provision. Of course, many argue that "no equals" may not only cause controversy, but are often not even allowed in contract language. However, the designer can note, with the primary spec, a secondary alternate specification that includes a list of two or more pre-approved alternates for bid.

This method offers many benefits. First, the designer satisfies the "three name" requirement. Second, a competitive bid is provided, allowing the owner to compare costs (among a group of acceptable alternatives). The designer can prepare the owner to effectively evaluate the bids based on the specifics of the two design approaches and the comparative costs. Listening to lighting designers who use this methodology gains the owner not only the "best" solution, but the best price, negotiated on the owner's own perceived level of value between "perfect" and "good."

Finally, there is a reward for the innovator by eliminating the pressure on competing manufacturers to knock-off original product, something most prefer not to do anyway, by allowing them to submit a standard product as an approved alternate.

This issue in question is more than rhetorical. For example, I received a call on one substituted product from an owner who complained that contrary to our literature, 42W PLT lamps did not work in our product. After some investigation, it turned out that the product installed wasn't ours at all. He thought it was because he had discussed with the specifier that he wanted the flexibility of choosing whether he used 26W, 32W or 42W PLT lamps after installation, and we were named in the spec. Now with the sheet-rocked ceiling closed he was calling for help, only to find out about the reality of substitutions. The installed product is designed to only work with 26W and 23W lamps.

Many manufacturers invest a great deal of work and money into delivering innovative products to the market. Unfortunately, it is possible that—because of the way specifications are written distributors, contractors and owners don't know whether or how to value these features. Certainly, our system of writing specifications today often allows ambiguities that create problems in communicating the product values through the bid process.

The long-range issue here, important to the manufacturer and also to the designer, is what will happen if the major manufacturers cannot achieve financial return on innovative and original product design. I believe that innovative new products help to spark innovative design—creating a value in service as well as in product—and that quality products as well as design are integral to "quality lighting" that best serves the client's bottom line.

John Nadon is marketing manager for indoor products for Prescolite, responsible for developing new specification-grade track and downlighting products. His perspective is based on 20 years' experience in design, sales and marketing.

International Association of Lighting Designers

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1997 IALD International Lighting Awards



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PROGRAM DESCRIPTION

The Lighting Awards Program was established to increase awareness of quality lighting design by recognizing lighting installations which display high aesthetic achievement backed by technical expertise, and exemplify excellence in the synthesis of the architectural and lighting design process.

ELIGIBILITY

Anyone may enter a project for an award. The project must be a permanent architectural lighting design solution, interior or exterior, for which construction was completed after 1 June 1994. Lighting products, lighting equipment and lighting design for theatrical performances are not eligible.

JUDGING

Projects will be judged individually based on aesthetic achievement and technical merit in accordance with the designer's concepts and goals. This is not a competition, there is no minimum or maximum number of awards granted.

AWARDS

There are two types of awards. Awards of Excellence and Awards of Merit. Award winning projects will be recognized at the IALD Awards Dinner and Presentation on April 30, 1997 in conjunction with LIGHTFAIR INTERNATIONAL in New York. Winning projects will be published in leading architectural and design publications and included in the IALD slide library.

SUBMISSION REQUIREMENTS

All submissions must be in an $8^{1/2} \ge 11$ format. No mention or identifiable illustration of a specific lighting product name, design firm, or designer may appear as any part of the presentation. Please include *all* of the following:

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			-	1
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WRITTEN BRIEF: A (50 word max) synopsis of the special challenge(s) of the project and the excellence your design solution exhibits.

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KEYED DESCRIPTION: A one page (800 word max) technical and conceptual summary of the project that is *keyed to the slides* you have submitted. Incorporate a description of the architectural and lighting design concept, special energy constraints and the design solution.

Project Name	NO
Image	
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SLIDES: A maximum of ten (10) 35mm slides of the project. Originals or high quality duplicates are required. If plans and drawings are required to describe the lighting solution, we recommend photographing essential information and including them as slides. With slides positioned right-reading, **number** each slide

in the **upper right** corner, and place **project name** in the **upper left** corner. Photographs, drawings and/or magazine articles will not be considered.



RETURN ENVELOPE: A self-addressed stamped envelope for the return mailing of your submission. If you do not want your submission returned, please indicate so in writing and include with submission.



REGISTRATION FORM: A completed registration form.

ENTRY FEE: Payment is by check or money order only. Checks must be payable in United States currency and drawn on a U.S. bank. **Make payable to IALD**. A single check may be written for multiple entries. Please do not send cash.

Entries must be submitted in requested format or they will not be considered.

Address entries to: IALD Awards Program International Association of Lighting Designers 1133 Broadway Suite 520 New York NY 10010 7903 USA Tel. 212 206 1281 Fax. 212 206 1327

DEADLINE

Submission must be received no later than Monday, 3 February 1997.

Call for Entries courtesy of Architectural Lighting magazine.

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