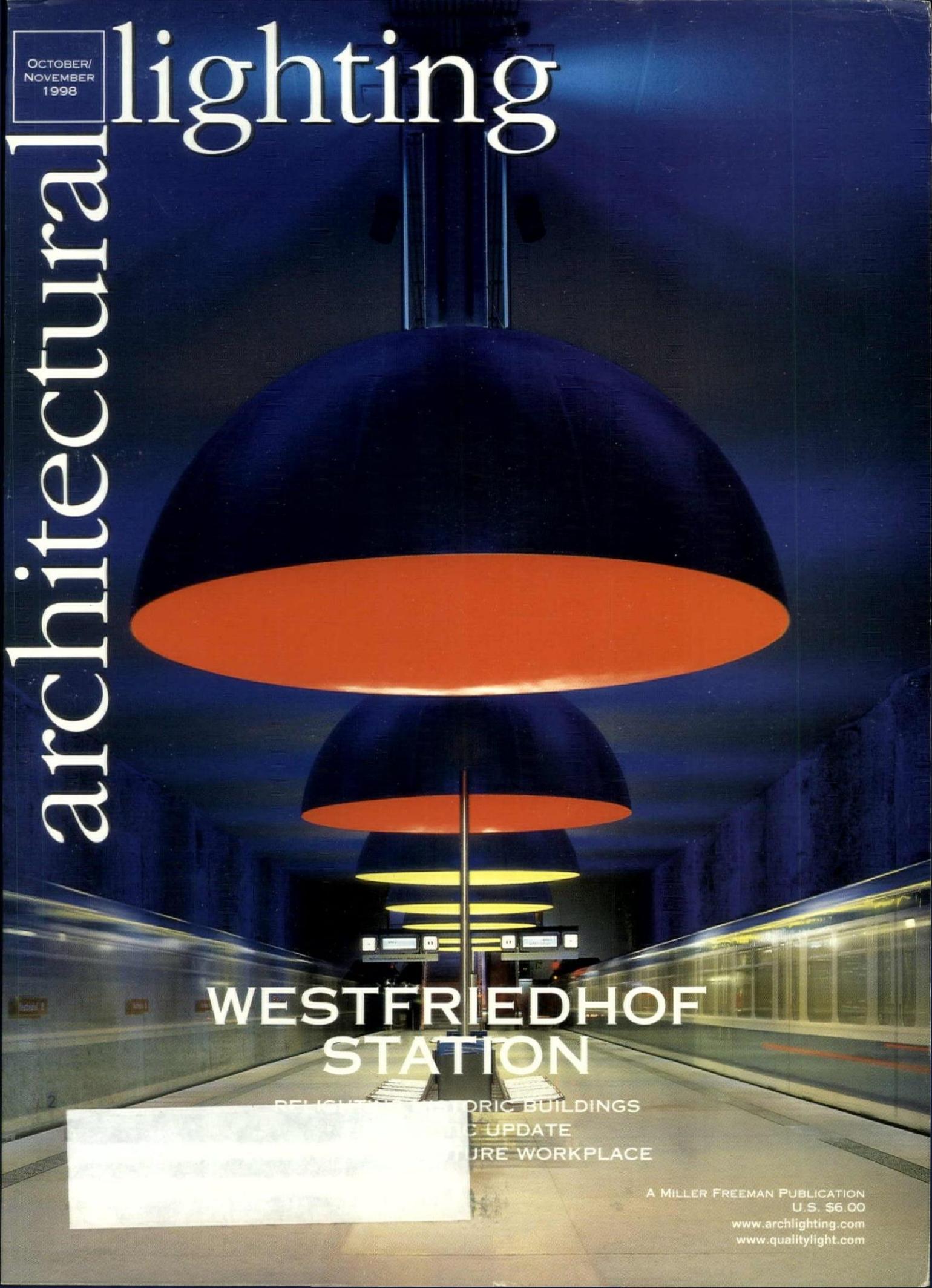


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1998

architectural lighting



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Fixture:
CP3100-IN100-BZ-TR

Location:
Corporate
Conference Center
St Germain WI

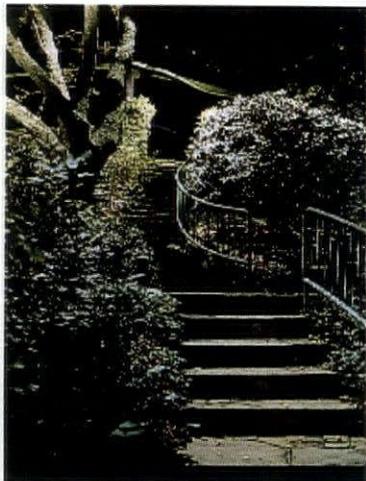
Architect:
Heike/Design Associates

Lighting Designer:
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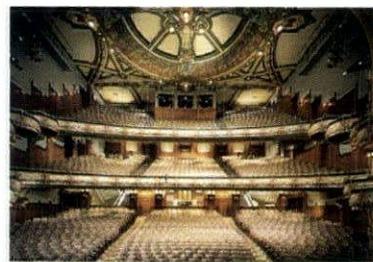
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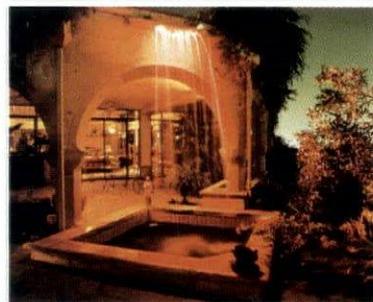
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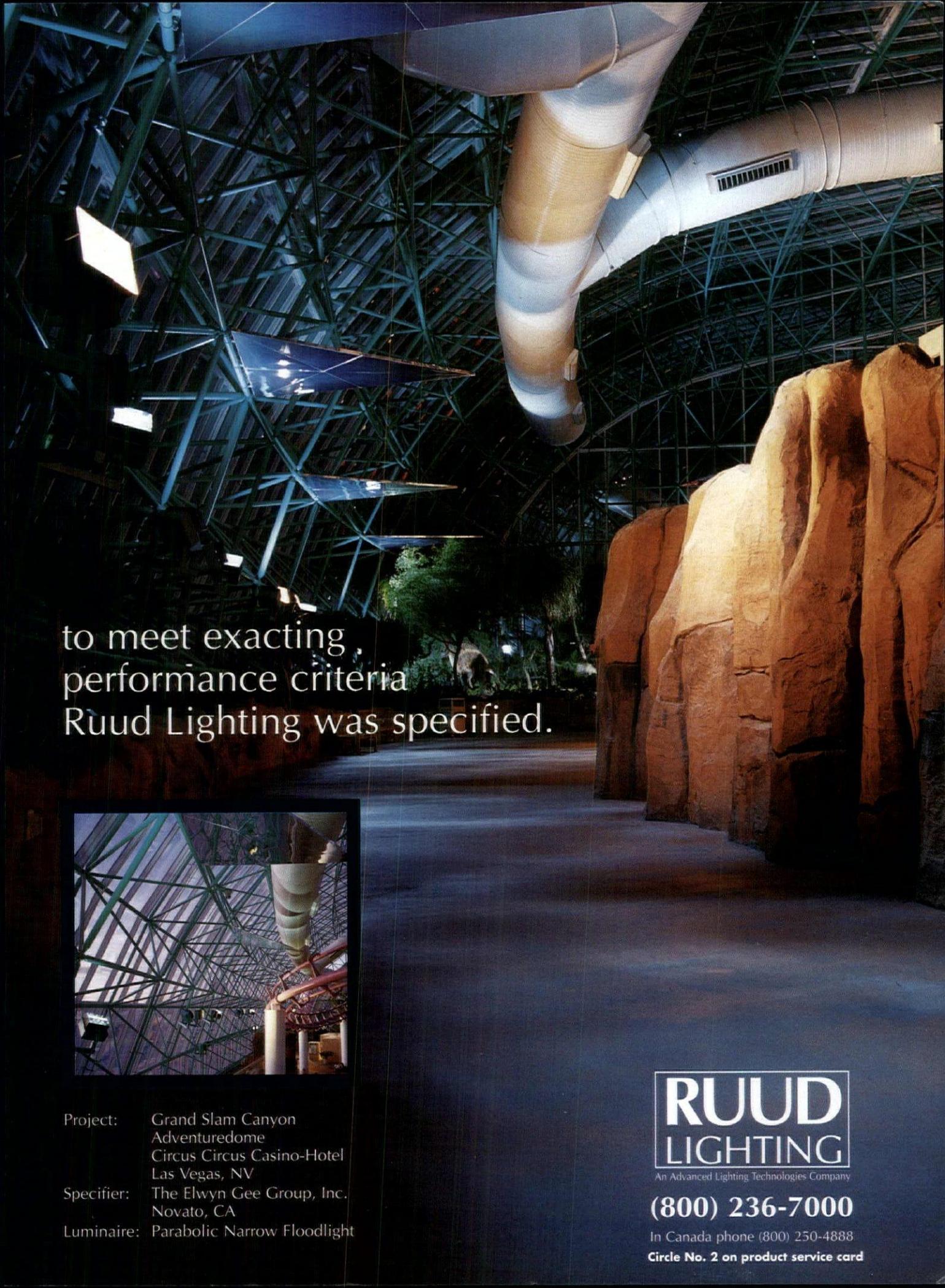


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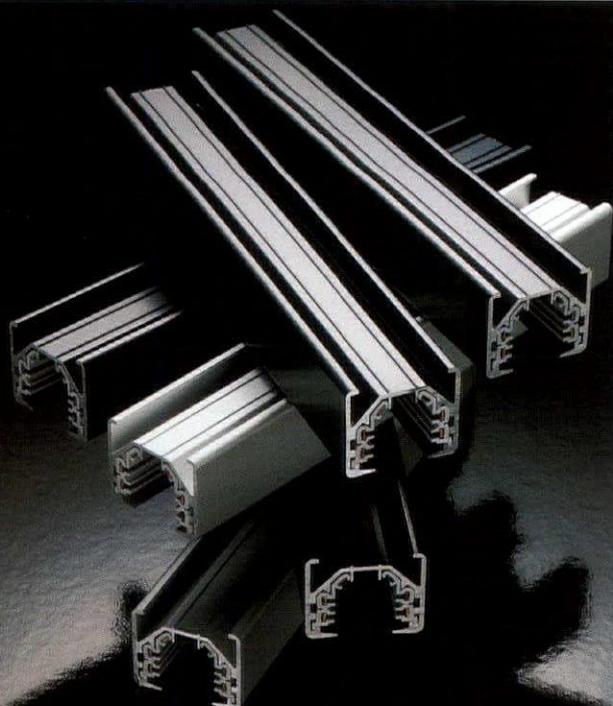
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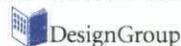
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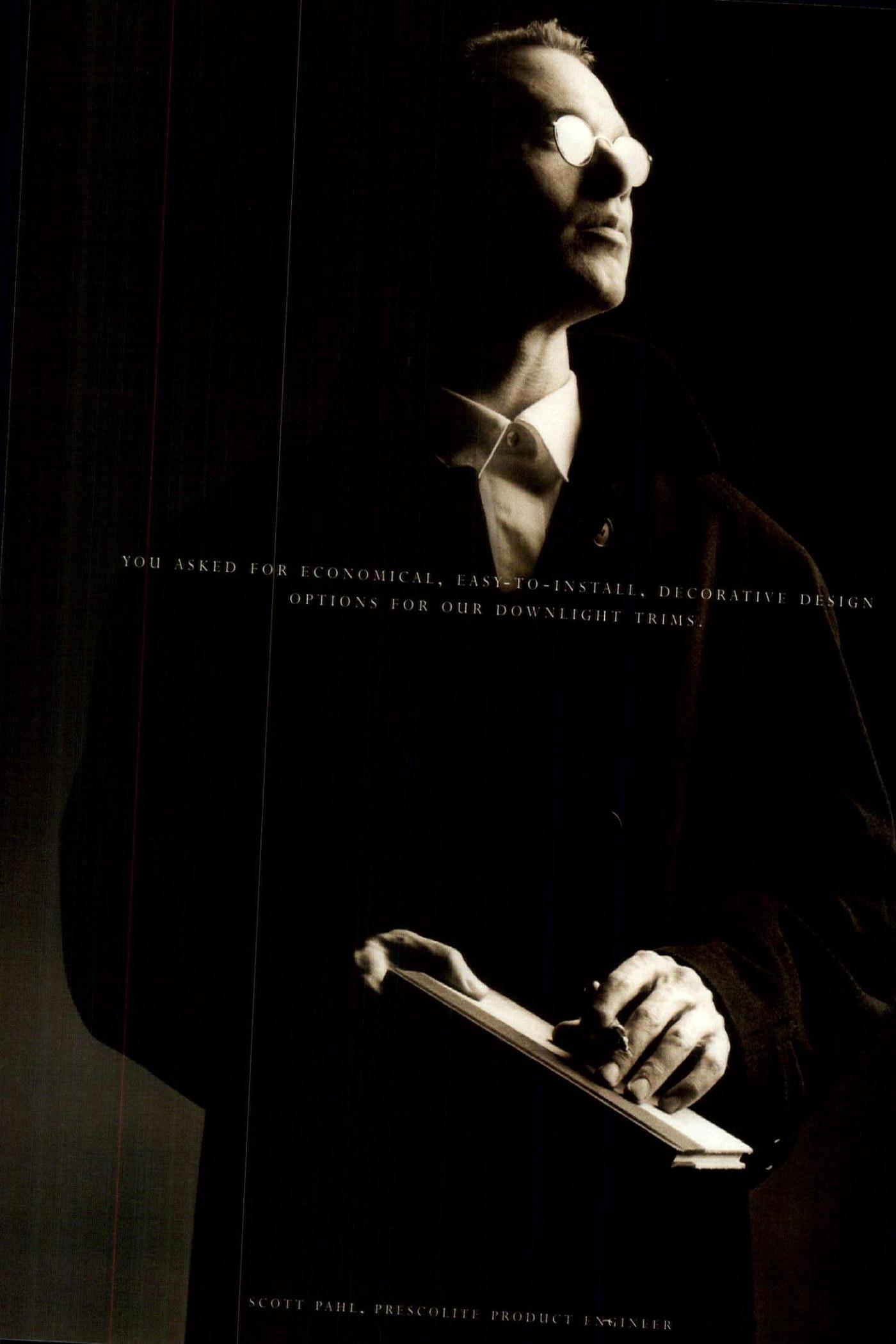
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GETTING OUR MISSION ACCOMPLISHED

Amidst the many important articles, press releases, folders and other various and sundry items that occupy my office is a single piece of paper that is most significant to my job as editor-in-chief. It is posted next to my computer and serves as a daily reminder of what goals, as a professional trade journal, *Architectural Lighting* must accomplish. The document to which I refer is our Mission Statement.

At *Architectural Lighting*, our editorial mission is to *promote lighting's purpose, showcase excellence in design, provide reliable information of value and offer a marketplace of product, technology and application communication*. Each of these points when grouped as a whole, is designed to serve architectural lighting specifiers with practical information that will help them develop the expertise and knowledge necessary to succeed professionally, become more competitive and grow their businesses. *Architectural Lighting* is dedicated to providing an ongoing discussion of topics that will both inspire and teach, and to delivering the tools necessary to maintaining and building strong relationships between the specification community and the vendors of quality lighting products and services.

To that end, we are proud to introduce our new 1999 Lighting Source Directory, which will debut in December of this year. *Architectural Lighting* is joint-venturing with inter.Light, the Internet-based lighting product search engine (www.lightsearch.com) to create this comprehensive new resource and reference tool for lighting product specifiers. In the upcoming Directory issue, lighting specifiers will have access to new sources of

lighting, spanning all major product categories—more than 1,000 manufacturers will be listed with contact information and websites. It will be the first—and *only*—lighting industry directory reaching 35,000 specifiers, including lighting consultants, architects, interior designers, electrical engineers, contractors, distributors and facilities managers.

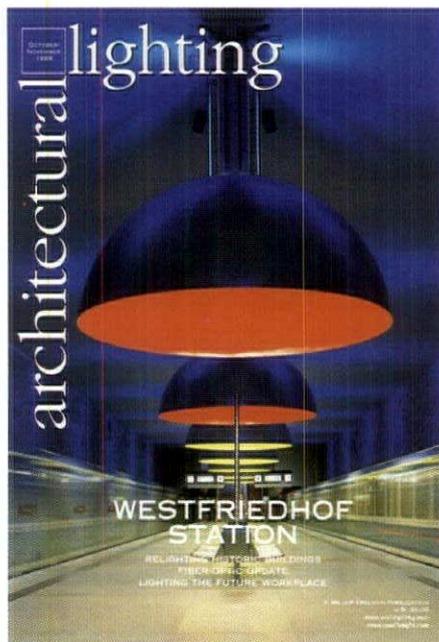
And our dedication to enhancing your jobs doesn't stop there. In our continuing efforts to provide the reader with useful hands-on information, I invite and *encourage* you to check out *Architectural Lighting's* continually evolving and frequently updated website, The Lighting Design Forum, at www.qualitylight.com. This website, developed by *Architectural Lighting* and produced by inter.Light, is a content site that was developed to provide an archive of information for specifiers about aspects of lighting design. The Lighting Design Forum presents information about lighting technique, technology, quality issues, design and research through case studies, and offers articles contributed by the industry's leading organizations: the International Association of Lighting Designers (IALD), The Lighting Research Center, Lighting Design Lab, Northwest Energy Efficiency Alliance, the National Lighting Bureau and EPA Green Lights Program, as well as selected articles published in *Architectural Lighting*. In addition, visitors to the site can access information about certification (NCQLP)

and Lightfair International, purchase books at our on-line bookstore, find manufacturers through inter.Light, visit the industry's organizations via links, locate directories of professional lighting designers, access free lighting software and learn about the site's manufacturer sponsors.

As we head toward a new year, look for more exciting news from *Architectural Lighting* as we announce our editorial plans for 1999. In the meantime, please continue to update me with industry news, what and how your business is doing and, as always, ideas and comments on how *Architectural Lighting* can serve you best.



CHRISTINA
TRAUTHWEIN,
EDITOR-IN-CHIEF

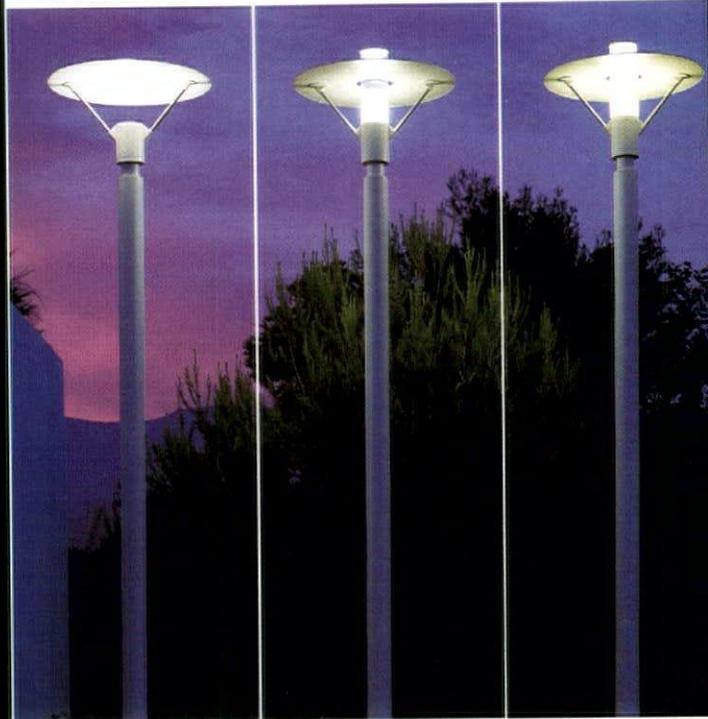


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LITHONIA LIGHTING ACQUIRES HYDREL

Lithonia Lighting, a unit of National Service Industries, Inc., has acquired substantially all the assets of GTY Industries, Inc., known by the brand names Hydrel and Noral. The purchase includes tooling and equipment as well as all patents, trademarks and other intellectual properties.

GTY, manufacturer of architectural-grade light fixtures for

landscape, in-grade and underwater applications, will continue to operate in its current form while plans for further integration are considered. Craig Jennings, former President of GTY, will remain as VP of Hydrel Products. The existing management team will continue to serve the company's customers from its present location in Sylmar, CA.

LEVITON ACQUIRES ASSETS OF NORTHWEST FIBEROPTIC TECHNOLOGIES

Expanding its position in the fiber optics market, Leviton Manufacturing Company has acquired the assets of Northwest Fiberoptic Technologies and formed the Leviton Voice & Data Communication Group in conjunction with Leviton Telecom Unit.

In the newly formed Voice & Data Communications Group, Northwest Fiberoptic Technologies will operate as Leviton Fiberoptic Technologies from its current location in Fife, WA, while Leviton Telecom will continue to operate from its base in Bothell, WA.

FIBERSTARS ACQUIRES FIBREOPTICS INTERNATIONAL

Fiberstars, Inc. has acquired the assets of Seattle-based FibreOptics International, Inc., a national designer, fabricator and installer of custom fiber-optic lighting solutions.

ADLT TO BUILD APPLICATION RESOURCE CENTER FOR METAL HALIDE SYSTEMS

Advanced Lighting Technologies, Inc. has announced its intent to build the first Application Resource Center totally dedicated to metal halide lighting technology and systems.

The 32,000-sq.-ft. facility will be built in Cleveland, adjacent to ADLT headquarters, and feature interactive displays and demonstration areas covering interior and exterior commercial, retail and industrial lighting applications. The center's amphitheater and more than 20 demonstration areas will be used for lighting seminars, courses, workshops and conferences.

HAPPY ANNIVERSARY...

Tracing its roots to 1898, the Columbus, OH-based **Holophane Corporation** celebrates its 100th anniversary. Initially headquartered in New York City, the Holophane Glass Company was founded by Otis A. Mygatt, who had acquired the rights to the prismatic globes and reflectors in 1895. Today, Holophane operates four fixture component plants in central Ohio. In 1994, the company acquired Antique Street Lamps and in 1996, MetalOptics Inc.

Columbia Lighting celebrates its 100th anniversary. Founded in 1898 as the Doerr-Mitchell Company by German immigrant Rudolph Doerr and Spokane electrician Joseph R. Mitchell, the company originally provided electrical and gas supplies. Columbia became a part of U.S. Industries in 1981 and is currently a holding of U.S.I.'s subsidiary, Lighting Corporation of America.

Lighting Services Inc celebrates its 40th anniversary. Started by President Marvin Gelman, LSI initially specialized in lighting design and installation. Within a year of its founding, LSI recognized the need for display and accent lighting and became a full-fledged manufacturer. Today, LSI is represented by sales agencies in more than 54 countries and manufactures track, accent, display and fiber-optic lighting systems.

STATE-OF-THE-ART SPACE

The eighth annual "Take Home A Nude" silent and live auction of more than 250 paintings, sculptures and photographs was presented this year in a different light thanks to Osram Sylvania and Zumtobel Staff Lighting who donated the lighting to support the event.

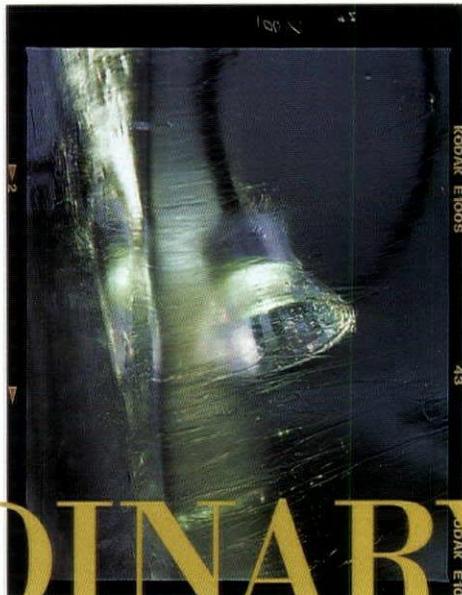
The new lighting system—120W PAR38 capsylites, over 550 linear feet of track and 100 track fixtures—highlighted the prestigious works of art, benefiting the New York Academy of Art in Tribeca.

Some of the artists represented at the showing included Michael Graves, Philip Johnson, Thierry Despont, Eric Fischl, David Bowie, Isaac Mizrahi, Natalie Merchant, Todd Oldham, Bill Blass, Peter Beard and Gene Wilder, as well as faculty, alumni and students of the New York Academy of Art.

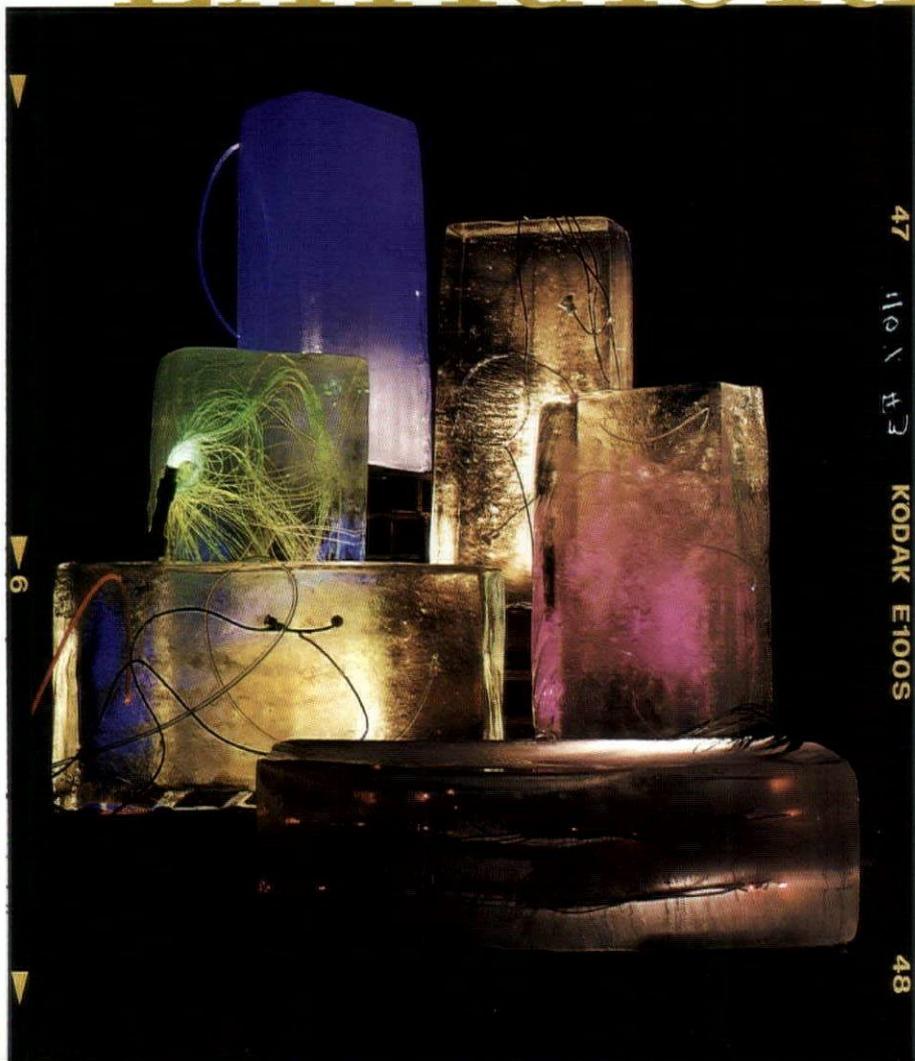
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IIDA ANNOUNCES AWARD RECIPIENTS

The International Illumination Design Award (IIDA) committee of the Illuminating Engineering Society of North America (IESNA) has announced the 1998 IIDA award recipients.

The winner of the Aileen Page Cutler Memorial Special Citation is Barbara Bouyea, Bouyea & Associates, Inc. for the Alonzo Residence. Stephen W. Lees, Horton-Lees Lighting Design Inc. won the EPRI Award of Excellence for the Washington National Airport, New Terminal. Winning the Edwin F. Guth Memorial Award Special Citation were Linda Cummings, Linda Cummings/Lighting Consultants and Kamran Mouzoon, Kamran Mouzoon Architects for Carmelo's Houston.

The projects awarded the Edwin F. Guth Memorial Award of Excellence were: Expressvu by Wallace G. Eley, P. Eng and David J. Young, Crossey Engineering Ltd.;

Lakewood Cemetery Mortuary Chapel by Lauri Tredinnick, Schuler & Shook, Inc. and Jim Miller, Rafael Architects; Fourth Presbyterian Church Sanctuary by Robert Shook and Allyn Bennett, Schuler & Shook, Inc.; Byzantine Fresco Chapel by Barry Citrin and Paul Marantz, Fisher Marantz Renfro Stone; Chan Centre by Roger Sum, Reid Crowther & Partners and William Lam and Enrique Rojas, Lam Partners, Inc.; Star Trek: the Experience by Ted Ferreira, Teresa Enroth, City Design Group, and Michael Finney, Michael Finney Lighting Design; San Francisco War Memorial Opera House, Main Chandelier & Audience Chamber by Larry French, Auerbach + Glasow; Advanced Cique by Hideo Yasui, Yasui Hideo Atelier Inc.; and Satindoll by Hideo Yasui, Yasui Hideo Atelier Inc.

The Paul Waterbury Award Special

Citation was given to: House of Hospitality by Chris Kraft, Lumenessence; Meiko Central Bridge by Motoko Ishii, Motoko Ishii Lighting Design; and Otemachi 1st Square by Takeo Kariya, NTT Urban Development and Minori Murayama, Ushio Spax Inc.

Winning the Paul Waterbury Award of Excellence were: Galleria Shopping Center by Craig A. Roeder, George Balle and Robert Mapes, Craig A. Roeder Associates and John Robertson, Ener Ken; Akashi Straits Bridge by Motoko Ishii, Motoko Ishii Lighting Design Inc.; and Kinkakuji (Temple of Golden Pavilion) by Hiroki Yagi, Shiho Fujii and Satoshi Uchihara, Uchihara Creative Lighting Design Inc.

The Paul Waterbury Award of Distinction was awarded to the Palais des Beaux Arts de Lille by Jean Francois Arnaud, Citelum and Duilio Passariello, Mise en Lumiere.



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Landscape Lighting**

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Metal Halide Imaging Projector**

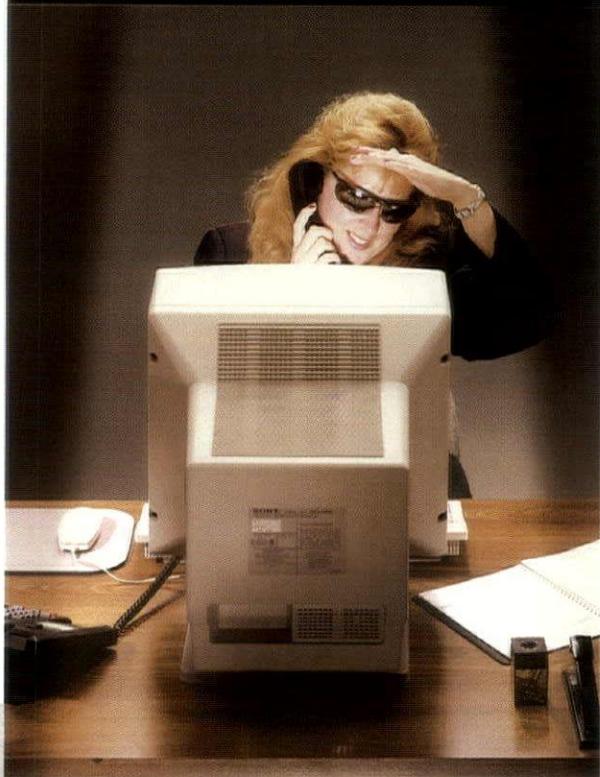
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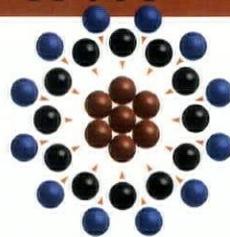
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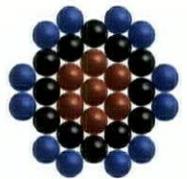
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HESS FORM+LICHT WINS "GOOD DESIGN" CORPORATE AWARD

The JJI Lighting Group, Inc. has announced that its multinational business partner, Hess Form+Licht G.m.b.H., has won the Good Design Corporate Award for 1998. The international award is presented annually by the Chicago Museum of Architecture and Design to a single manufacturer for "consistently outstanding" design of products, mar-

keting materials and presentation of the corporate image.

Hess Form+Licht designs and manufactures outdoor and indoor lighting for area, landscape and building applications. In 1997, its products were introduced to North American markets through the JJI Lighting Group, Inc. and their joint venture subsidiary, Hessamerica.

ZUMTOBEL REMEMBERS JIM NUCKOLLS

A memorial booklet is being created for the late Jim Nuckolls. Diana Mesh, director of product management at Zumtobel Lighting, Inc. is spearheading the project. The booklet will be presented at Lightfair International '99. To contribute to the booklet, contact Mesh at (914) 691-6262 or e-mail: dianam@zumtobelstaff.com.

OSRAM SYLVANIA LAUNCHES WARRANTY PROGRAM

Osram Sylvania has launched the Quick 60+, a new enhanced warranty program covering lamps, ballasts and service for its customers.

In addition to offering warranty coverage for ballasts and lamps, Quick 60+ includes a Fixtureside Assistance option, in which a trained service technician is dispatched from the nationwide Sylvania Lighting Services organization for repairs at no cost. Under the terms of the warranty, most ballast products are covered for 60 months while lamp coverage depends on the lamp type. For more information on the program, call (800) 544-4828.

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DUROLITE ACQUIRES AURA INDUSTRIER

DuroLite International, Inc. has announced the acquisition of Aura Industrier, located in Karlskrona, Sweden.

Aura Industrier, formerly Luma Lampen, is an ISO-certified manufacturer of patented, long-life fluorescent lamps. DuroLite is the parent company of DuroTest International, Inc. and Litronics, International, Inc.

ON THE MOVE...

The Washington, D.C. office of **BBGM**—Brennan Beer Gorman Monk/Architects & Interiors has moved to 1030 15th Street, NW, Suite 900, Washington, DC 20005. BBGM can still be contacted by phone at (202) 452-1644 and by fax at (202) 452-1647.

B-K Lighting, Inc. has relocated to 7595 North Del Mar Avenue, Fresno, CA 93711. The company can be contacted by phone at (209) 438-5800 or fax at (209) 438-5900.

W.A.C. Lighting has moved its corporate headquarters, design center and warehouse to a larger facility. The new 82,000-sq.-ft. facility is located at 615 South Street, Garden City, NY 11530.

LEDtronics, Inc. has moved its headquarters to 23105 Kashiwa Court, Torrance, CA 90505. They can be contacted by phone at (310) 534-1505 or (800) 579-4875; fax (310) 534-1424. The company's website address is www.ledtronics.com. In other news, LEDtronics, Inc. recently received its Certificate of Registration to ISO 9001 standards.

IESNA UNVEILS NEW PUBLICATIONS

The Illuminating Engineering Society of North America has announced the publication of several new recommended lighting practices.

Newly published are *Marine Lighting*, IESNA RP-12-97; *Lighting and the Visual Environment for Senior Living*, IESNA RP-28-98; *NECA/IESNA Recommended Practice for Installing Indoor Commercial Lighting Systems*, NECA/IESNA-500-97 and *Choosing Light Sources for General Lighting*, DG-10-98.

For a complete listing of standards and publications, contact Albert Suen at (212) 248-5000 ext. 112.

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EFFEX AREA LUMINAIRES

Wide-Lite proudly introduces the EFFEX Area Luminaire (EAL) Series. The EAL boldly sets new standards of performance and flexibility for area lighting luminaires.

Designed to complement any architectural setting, the EAL Series incorporates the most extensive array of high-performance optics available in an area lighting luminaire.

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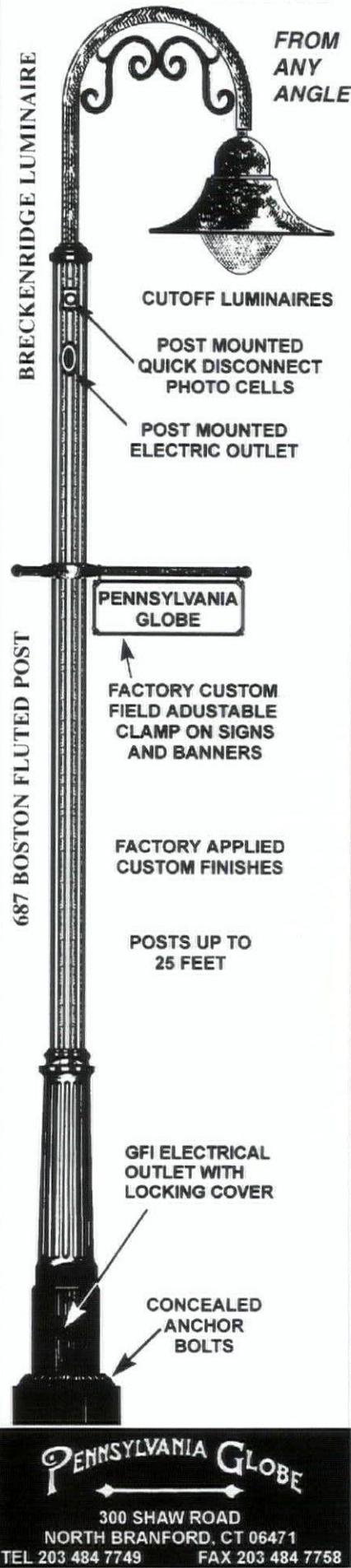
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Circle No. 29

news UPDATES

GENLYTE AND THOMAS INDUSTRIES ANNOUNCE JOINT VENTURE

The Genlyte Group Inc. and Thomas Industries Inc. have agreed to enter into a joint venture that will combine product lines from both companies and create a company with a domestic market share of 13 percent.

Under the agreement, Genlyte will contribute all of its assets and liabilities and own a 68 percent interest in the joint venture. Thomas will contribute all of its lighting assets and related liabilities and own a 32 percent interest. Existing brand identifications for each company will remain the same.

ROBERTSON TRANSFORMER CHANGES NAME AND LOGO

Robertson Transformer Company has changed its corporate name to Robertson Worldwide. Robertson Worldwide provides electromagnetic and electronic ballasts for the fluorescent lighting industry.

WATT STOPPER RECEIVES ISO 9002 CERTIFICATION

The Watt Stopper has announced that two of its manufacturing facilities have received ISO 9002 certification. ISO certification is awarded to companies whose products have met published specifications.

The Watt Stopper, Inc. manufactures automatic lighting, HVAC and office power control products.

KA INC., ARCHITECTURE AND TRIAD DESIGN INTERIOR JOIN FORCES

Triad Design Interior, established in 1988, has merged with Cleveland-based KA Inc., Architecture. Triad Design will be joining KAS Corporate/Interiors Studio.

TEXAS UNIVERSITY ESTABLISHES CENTER FOR LIGHTING EDUCATION

Texas Christian University in Fort Worth has established the TCU Center for Lighting Education within its Department of Design, Merchandising and Textiles.

The Center is equipped with a 550-sq.-ft. lighting lab containing fixtures and lamps donated by manufacturers such as Lightolier, GE Lighting, Philips Lighting and Osram Sylvania.

HNTB ACQUIRES KANSAS CITY ARCHITECTURE FIRM

Steve Reiss, AIA, Chairman of HNTB Corporation, Architecture Services, has announced HNTB's acquisition of Kansas-City-based architecture firm Mackey Mitchell Zahner Associates (MMZ) and the appointment of MMZ principal Becky Cotton Zahner, AIA, as an HNTB vice president.

MMZ's staff of 18 will join HNTB, and Zahner will lead a combined 80-person HNTB Kansas City architecture practice. According to HNTB, its 300-person national architecture group ranks as the fifth largest architecture/engineering firm in the nation.

NEMO ACQUIRES ITALIANA LUCE

Nemo srl, a subsidiary of Cassina Srl, has acquired the assets of Italiana Luce Srl and IL USA, Inc. The purchase was effective June 1, 1998. The administrative and warehouse operations for the two Italian entities will be centralized in Nemo's offices in Meda, Italy.

Nemo and Italiana Luce will continue to be marketed as separate lines, but the American operation will change its name to IL America Inc. and serve as the exclusive U.S. distributor for Nemo, Italiana Luce, Foscari and Tre Ci Luce.

CORRECTIONS

"Richard Kelly Grant Awards Four" in the news updates section of the July/August issue incorrectly named two of the judges—Inder Berry and Adrienne Shulman—and omitted the name of a third: Mary Ann Hoag.

The photographer for July/August's Spotlight was misidentified. The photographer for the Detroit Receiving Hospital is Gary Quesada, Hedrich Blessing.

In "NY Section '98 Lumen Awards Announced" in the news updates section of July/August, *Architectural Lighting* incorrectly stated there were three Awards of Merit. In fact, there were four. Omitted was Costume National, New York, NY by Matthew Tirschwell and Scott Thurm, Universe Lighting and Chris Sharple, Shop Architects.

Lighting designer Robert Tant, RTLD, was excluded from the credits as the senior lighting designer for the Stratosphere Tower in Las Vegas (April/May 1997 feature "Crown Jewel" and April/May 1998 "Bright Lights, Big City.")

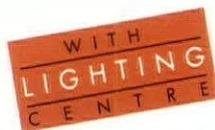
Architectural Lighting regrets the errors.

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In January Cologne will add a new feature for all those actively engaged in furniture and furnishings. Alongside a wide range of attractive furniture collections from around the world, the leading event for the industry will present the domestic lighting of the most important national and international suppliers. We invite you to the lighting section premiere in Hall 14.1.

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KA Inc., Architecture has appointed **Todd Wolfgang** to project manager and **William Ragaller**, AIA, to director of the Corporate/ Interior Studio. **Noel L. Cupkovic**, RA, has been elected to KA's Board of Directors and promoted to VP. **Teri Ianni Driscoll**, formerly a partner in Triad Design, has joined KA Inc., Architecture's Corporate/ Interior Studio.

Perkins & Will has appointed **Charles Alexander** associate principal. **Fred Alvarez** and **Deepika Shrestha Ross** have been named associate principals; **Heriberto Camacho** and **Donald Williams**, senior associates; and **David Cerruti**, **John Gerney** and **Jena Hwang**, associates.

Paul Wuennenberg and **Thomas Moore** have been named partners of Mackey Mitchell Associates.

HOK, Inc. has announced the promotion of **Thomas A. Kaczkowski** to senior associate.

RTKL has promoted **James Kitko Jr.**, PE, **Michael Considine**, **Thomas Brink**, AIA, **Mark Lauterbach**, **Ardeshir Aliandust**, **Jorge Beroiz** and **Kenneth Christian** AIA to VP. **Mark C. Huck**, AIA, **Ana Altieri**, AIA, **Dr. Abed B. Benzina**, **Scott A. Kibler**, **A. R. Ann Kosmal** and **Grzegorz Kosmal** have joined as architects.

Mike Bauer has been appointed VP, U.S. sales for Cooper Lighting.

Lexalite International Corporation has appointed **Dale A. Troppman** VP of operations and **Marc H. Wank** VP, sales and marketing.

Lightolier has named **Steven Mesh** track lighting manager.

Susan Schierwagen has been promoted to VP of worldwide sales services at Lutron Electronics Co., Inc.

Rosalyn A. Cama has been appointed ASID national president.

Con-Tech Lighting has named **Marc Davis** marketing manager and **Steve Micek** quality control/production manager.

Ralph Wilson has been appointed president of Vantage.

Osram Sylvania has announced the appointment of **Richard Comtois** to product marketing manager for incandescent lighting products.

After 49 years, **William M. C. Lam** has returned to LAM Lighting Systems Inc., his original namesake company, to design ambient indirect lighting fixtures.

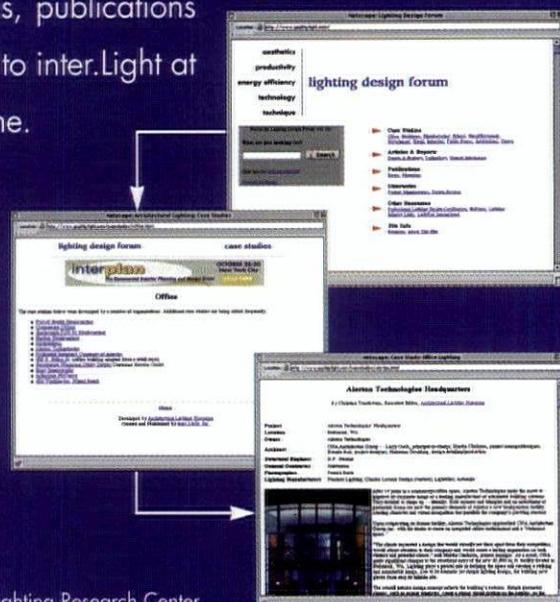
Genlyte Thomas Group LLC has named **Timothy C. Brown** chairman of the Management Board; **Larry K. Powers**, president and CEO; **Richard J. Crossland**, executive VP and COO; **Raymond L. Zaccagnini**, corporate VP of administration; and **Daniel R. Fuller**, general counsel to Genlyte Thomas Group.

High End Systems has announced the passing of **Gary Whittington**. Funeral services were held September 17 in Conroe, TX. A fund has been established to provide for Whittington's surviving family and donations can be sent to the Gary Whittington Fund, c/o High End Systems, 2217 West Braker Lane, Austin, TX 78758. For more information, contact Debi Moen (512) 837-5290 (fax), or e-mail: debi_moen@highend.com.

Meet Your New Lighting Library

The sponsors of the Quality Lighting Campaign bring you the Lighting Design Forum at www.qualitylight.com, an on-line library of articles, links and resources. You'll find projects, articles on technique and technology, links to other organizations, publications and many other resources. The Lighting Design Forum is linked to *inter.Light* at www.lightsearch.com, the on-line lighting product search engine.

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The Lighting Design Forum is sponsored by Architectural Lighting Magazine, *inter.Light*, the IALD, Lighting Research Center, Lighting Design Lab, Northwest Energy Efficiency Alliance, National Lighting Bureau, Lightfair International, Ardee Lighting, Columbia Lighting, GE Lighting, JJI Lighting Group, Litecontrol, Luxo Corporation, Prescolite Lighting, Targetti USA, Tivoli Industries and Wide-Lite.

November 19-21 4th European Conference on Energy-Efficient Lighting, Copenhagen, Denmark; (fax) 45-31 39 59 58.

December 2-4 The University of Wisconsin-Madison Department of Engineering Professional Development course, "The 1999 National Electrical Code," Madison, WI; (800) 462-0876.

December 7-11 Elec 98, Paris-Nord Exhibition Center, Paris; Elec Promotion, 23 rue Galilee, 75116 Paris, France.

December 9-10 Business Energy Solutions Expo, Walt Disney World Dolphin, Orlando; (770) 279-4390.

December 10-11 AEE Seminars: "Fundamentals of Lighting Efficiency, a Preparatory Course for the CLEP Examination," Walt Disney World Dolphin, Orlando; (770) 925-9633.

December 10-13 Broadway Lighting Master Classes, Ford Center for Performing Arts, New York City; (212) 229-2965 ext. 852.

December 11 Certified Lighting Efficiency Professional (CLEP) Examination, Walt Disney World Dolphin, Orlando; (770) 447-5083 ext. 223.

1999 SCHEDULED EVENTS

February 1-3 Enlightening America '99, Hotel Inter-Continental Dallas, Dallas; (609) 799-4900.

April 7-8 GlobalCon, Colorado Convention Center, Denver; (770) 279-4388.

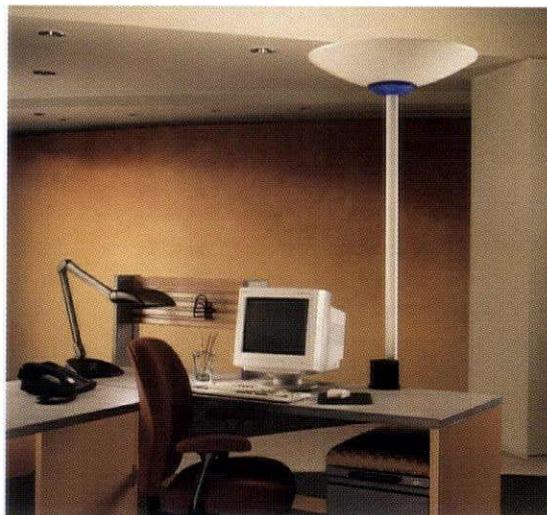
April 8-9 AEE Seminar: "Fundamentals of Lighting Efficiency," Denver; (770) 925-9633.

April 19-24 Hannover Fair '99, Hannover Fairgrounds, Hannover, Germany; (609) 987-1202.

May 11-13 Lightfair International 1999, Moscone Center, San Francisco; (404) 220-2221.

May 24-27 A/E/C Systems '99, Los Angeles Convention Center, Los Angeles; (800) 451-1196.

June 17-18 Energy Management Congress, Disneyland Hotel, Anaheim; (770) 925-9648.



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Architectural Lighting interviews Philip Gabriel, founder of Gabriel/design in Ottawa, Canada. Gabriel, educated as an architect and interior designer at Penn State University and Pratt Institute, has practiced for over 35 years in New York City, Ohio and Canada. He is chairman of the IALD board of directors and is a member of the IESNA. His firm, established in Ottawa in 1974, has completed many projects including offices, schools, museums, restaurants, hotels and historic restorations. Recent projects include the lighting of Parliament Hill, the Supreme Court and the National Gallery of Canada. Gabriel has received awards from the IALD, the IES, Canadian Architect and the Canadian Historical Association.

—Christina Trauthwein

AL: Why did you choose to become a lighting designer?

Gabriel: As an architectural student, I entered an IES student lighting competition

and won for the lighting design of a bar. I went to the IES awards dinner and really hit it off with another young attendee. Well, it just so happened that we saw each other again in a hardware store in Brooklyn and reintroduced ourselves. He needed a babysitter that night and I was still a student—so I became his babysitter for about a year. It was Howard Brandston.

He's really been my mentor, and in many ways, a big influence in my decision to pursue lighting design. It wasn't until about 15-20 years ago that I started to specialize in lighting. There seemed to be great opportunity. Also, I've been fortunate to have worked with some fine architects such as Eero Saarinen and Marcel Breuer, and to draw on my experiences with them.

AL: Has your working relationship with Howard Brandston remained strong?

Gabriel: I don't think there has been a year over the past 35 years that we haven't worked on something together. In the early years, I was bringing him in as lighting consultant for the firms in which I worked; in the middle years, I was in and out of his office assisting him on projects such as the Museum of Natural History and the Smithsonian; and for the last 15 years, we've collaborated on many high-profile jobs. He gives me many words of wisdom.

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

Gabriel: We're still seeing the formation of the profession. Until recently, it has been a small group of us who have offered total lighting design services. Now, it seems there's an enormous demand. Part of that, I think, is due to increased awareness—the exposure we're getting in the media, such as *Architectural Lighting*, is incredible.

For a lighting designer, the biggest opportunity is to embrace the profession and

establish a cohesive approach to design. We must move away from a number-crunching, engineering approach on one end and an aesthetic, theatrical approach on the other. It's all about taking an architectural approach, which combines the two. The separation of engineer and "poet" should be bridged to successfully implement architectural lighting.

AL: What do you view as a major obstacle to the growth of the lighting design field?

Gabriel: Generally the low value decision-makers have about lighting. Low awareness. Again, that's where magazines come into the picture, and of course, education. It seems that lighting has been treated as one of the mechanical systems in a building, and that if you just calculate the amount of light like you



calculate the amount of air you need for an AC system, the job's over. What we need to stress to the end-user is that there's so much more to it. And that's the biggest handicap: lack of exposure to the decisions-makers—and the general public—about the real value of lighting. I'm very optimistic that the message will be heard due to increased awareness of the value of quality, evidenced by the fact that people are more involved in cultural events than ever before and are purchasing high-end products for other aspects of their environments.

AL: Where do you think the profession will be in the year 2000 and beyond?

Gabriel: We just talked about increased awareness. Lighting designers are going to have to deliver it. In the next decade, we're

going to think of light as a building material—not just as a product. We should be thinking of light as a medium—light as it creates space.

You must consider three things at the outset of a project: What do you want the light to do? That is, what are you trying to see or create? Then, where should the light come from? And last of all, what hardware is required to achieve that? Too many times, designers take the opposite approach. The industry must continue toward being more conscious of the light and not the fixture.

AL: How do you view the relationship between lighting designer and manufacturer?

Gabriel: Lighting designers play a very small part in the entire lighting industry. A huge percentage of projects are done without any input from a professional lighting consultant. Therefore, it's presumptuous of us to expect the industry to respond entirely to our influence. But there are a number of great companies that are there for the professional and they come up with leading ideas to service the designer. Of course, the rest then follow. And they're either emulating what they see us doing in North America, or they're following what happened in Europe five years earlier.

The difference in Europe is that the lighting designers are often within the companies and therefore, the innovations come from the manufacturers, whereas here, if the innovations are not directly inspired by what's been seen in Europe, then they're coming from independent sources. We're really looking at a delicate balance between the industry being inspired by these leading ideas on the one hand, and on the other, the competitive situation that produces knockoffs and erodes quality.

AL: In what direction would you like to see technology/product development heading?

Gabriel: Good new products are generated for one of two reasons: either there's a new light source and we have to create new housings for it or we've gained new understandings about what light needs to do. For instance, in the

(Continued on page 26)

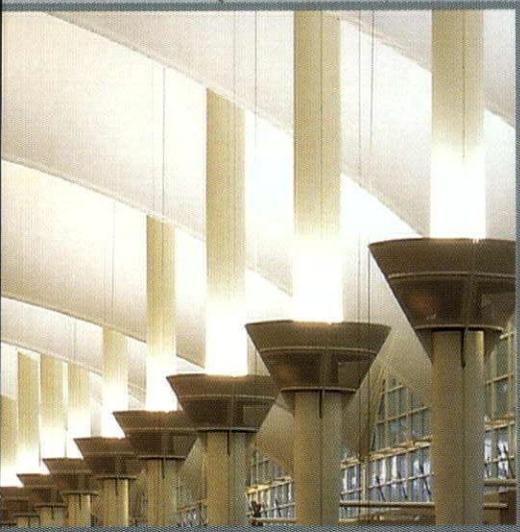
Hong Kong International Airport

SPI

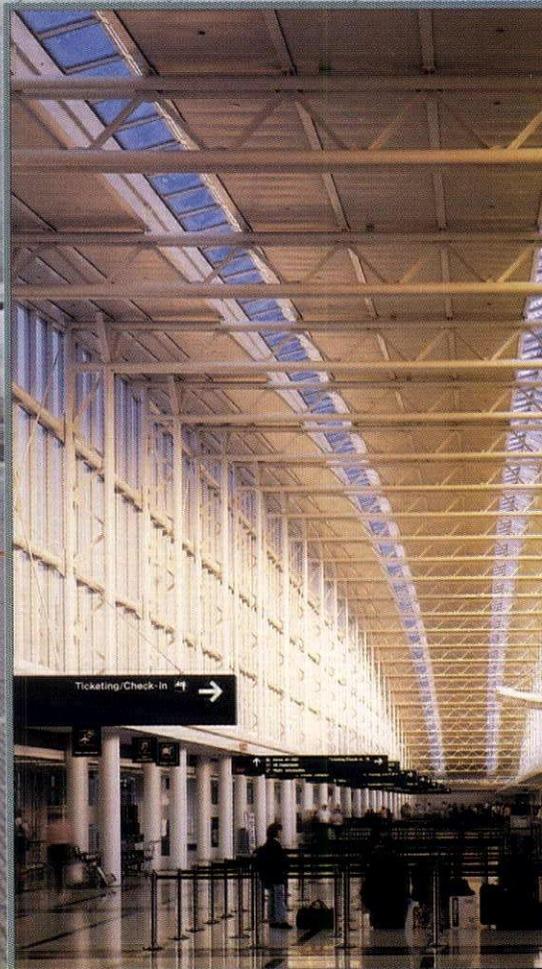
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(Continued from page 24)

work environment, new light fixtures have evolved because we have a new awareness of glare, brightness ratios, human behavior. Where would I like to see it go? More response to new information regarding quality of light. We've been responsive for the last 20 years to energy needs, primarily.

From a strictly product standpoint?

We're going to see

workplace environments using more compact fluorescents in direct/indirect fixtures, so I hope manufacturers concentrate on developments in that area. Fiber optics? Well, everybody is hot on that topic, but I feel it's just the latest buzz. It's like the MR16s or the small low-voltage lighting trends we've seen. I'm bored with MR16s and cable lights, whereas most of the interior design clients I have are just catching on and want me to fill their spaces with them. The same thing is starting to happen with fiber optics. It's an excellent solution for museum lighting and lighting small objects but I have clients who just don't understand that if you're going to run 20 ft. of fiber to put a source over a desk somewhere, why not just run an electrical wire and put a light fixture there? It becomes a fashion statement, and as a result, it's misapplied. Just like post-modern architecture—the first couple of buildings were spectacular and then everybody stuck pediments and columns on building facades.

This is often what happens with new ideas. The other thing is that once a new light source hits the market, it gets stuck in the same old containers. It takes a certain period of time before the market is ready to accept new shapes that are generated by new containers or a new need. We started bringing fluorescent lighting back down out of the ceiling about 15 years ago and started advocating direct/indirect light but still we run into clients who say that direct/indirect is a visual imposition on the space. Acceptance takes patience.

AL: *Talking about trends, theatrical lighting products and techniques are continuing to gain interest.*

Gabriel: Yes, the use of theatrical lighting is popular. It's very exciting to see the kinetic

use of light with color and scene changes, but we have to be very careful. That application in theater is typically used when people are stationary and the scene is moving in front of them. In architectural lighting, it's the people that move, so the light can remain stable. It doesn't have to be animated. To create variety in space so it directs and guides people doesn't necessitate theater technology, but a theater thinking.

I'm not anti-technology, but I would like people to think much more about the reasons behind ideas, rather than the technical aspects—not just technology for

WE MUST MOVE AWAY
FROM AN
ENGINEERING
APPROACH ON ONE
END AND A
THEATRICAL
APPROACH ON THE
OTHER. IT'S ALL
ABOUT TAKING AN
ARCHITECTURAL
APPROACH, WHICH
COMBINES THE TWO.

technology's sake. It doesn't matter how much technology is thrown onto a project; if it doesn't have the technique to reveal the space, it's just a temporary gimmick.

AL: *You're chairman of the board of the IALD. In what direction is the association heading? How will the IALD continue to support the profession?*

Gabriel: We've recently established a vision statement: "Setting the global standard for lighting design excellence." Our goal is to promote quality lighting design and to communicate the need for it. And, there are many ways we plan to do that. Education is one approach. There's an incredible need for young people in our field and there are great opportunities. This year, in the handful of degree schools, a maximum of 30 or 40 graduates will apply for jobs in lighting offices around the world. Unfortunately, though, we could use about 300 or 400. Few people enter the field because they don't know about it. The IALD, as an organization, should set the example by getting the word out to everybody. Then we must spread this word to our potential clients and users with issues and examples.

We definitely have our work cut out for us. We have such limited human resources because we are a volunteer organization, though we've recently hired a full-time professional director and staff. We're in the process now of retaining a communications firm to help us do everything from placement to training our people to appear in public to getting us in the media and advising us on paid advertising. We're taking a proactive approach.

AL: *How would you define success as it relates to lighting design?*

Gabriel: Because the ideal working relationship between the designer, architect and electrical engineer is a close-knit one, successful lighting designers have a good understanding of the other disciplines. To perform their task successfully, the group must meld science and aesthetics.

Lighting designers must get involved in projects at the earliest possible planning stage because what they contribute will ultimately benefit the architect, owners and occupants. The lighting should be designed before it is engineered. The closer the project is to completion, the fewer options the lighting designer has.

Scientists estimate that 80-90 percent of all our perceptions are made through sight. Since sight is not possible without light, it follows that a lighting designer has an incredible impact on how an architectural project is perceived. Lighting should not merely illuminate architecture, it should reinforce the creative concept. ■



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SOUTHERN COMFORT

The inviting lighting of Rush Street begs patrons to slow down and take notice

BY ALICE LIAO, ASSISTANT EDITOR

CHALLENGE When attorney Joseph Dawson wanted to open the now popular Rush Street Bar in Fort Lauderdale, FL, he called upon lighting designer Paul Morgan to create a lighting solution that could flex and respond to the changing functions of the restaurant/bar throughout the day.

DESIGN/TECHNICAL CONSIDERATIONS Located on the historic Las Olas Riverfront, the building that houses the bar is protected by local preservation laws. "We couldn't do too much to the exterior or interior that would affect the structure," said Morgan. "So we had to deal with a curving barreled ceiling and these old metal trusses that start at about 14 ft. above the ground and extend as high as 24 ft."

The 2,000-sq.-ft. space itself is also larger than what was planned in the original design. To add visual interest to the larger space and counterbalance the impressive 40-ft.-long bar, the architect, Thierry-Michel Kawczynski, designed a metal wave of steel mesh suspended over a stepped, or "wave," wall of varying thickness.

METHOD From lunch hour to happy hour to late Saturday night, Rush Street provides a comfortable environment for people to talk. Despite the building's unusual structure, Morgan was able to create a more comfortable, intimate space by fabricating a false ceiling of light. Triangular trusses are suspended from the existing metal trusses, and three parallel low-voltage systems running the length of the space were

installed at 14 ft. Controlled by separate dimmers for greater flexibility, the wire systems operate lighting for the bar, central seating area and the wave wall. The existing trusses and ceiling were painted black to conceal the theatrical lighting and automated effects mounted above the wire systems. During the day, large tinted windows spanning the front of the bar filter out the sun, allowing the upper ceiling space to remain in partial shadow.

At night, the effect is more powerful. The ceiling disappears into darkness and the room is filled with a purple light. The source, 4100K fluorescents colored with a rose-purple gel, uplift the cavity above the header, run along the top edges of the front windows and illuminate the back bar work area. In the back bar, the undercabinet fluorescent lamps with their intense purple light create a low visual horizon line. "This creates visual focus with a dramatic effect," said Morgan.

Above, generous ovals holding glass shelves are lit by recessed MR16s, providing further drama. Below, a run of fiber optics punctuates the distressed steel facia of the bar. Pendants with 20W

MR16 narrow spot lamps sheathed in parchment shades hang delicately from one of the low-voltage systems over the bar counter. As the pendants are easily batted about by customers, extra insulating material was wrapped around the wire runs and the joists of the trusses to prevent short-circuiting.

Smaller tables are tucked within the folds of the wave wall, which is lit from above by 50W MR16 floods and dichroic filters. The lights shine at an angle through the steel mesh, casting shadows that break up the monotony of the wall. Sconces fitted with rose-purple inserts echoing the back bar fluorescents provide intimate lighting for the semi-secluded seating areas. On crowded nights, a combination of fiber optics and special effects bring excitement and energy to the bar. Glass blocks, backlit by 150-strand fiber-optic tubing fitted with color wheels, form the toe kick of the bar and line the edge of the dance floor and wave wall. Shifting through eight different colors, the fiber optics for the three areas are controlled by separate systems, allowing for unsynchronized color changes. Entertainment lighting, including computerized color changes, spinning projected images and sweeping lights, are spread throughout to de-emphasize the small formal dance floor area and energize the entire bar. Intensifying the late-night atmosphere, a haze machine mounted above the entrance door shoots out bursts of particulate matter every seven minutes. The "smoke" is quickly distributed through the bar by the air-conditioning system and gives the lights a palpability.

DETAILS

PROJECT
Rush Street Bar

LOCATION
Fort Lauderdale, FL

OWNER
Joseph Dawson

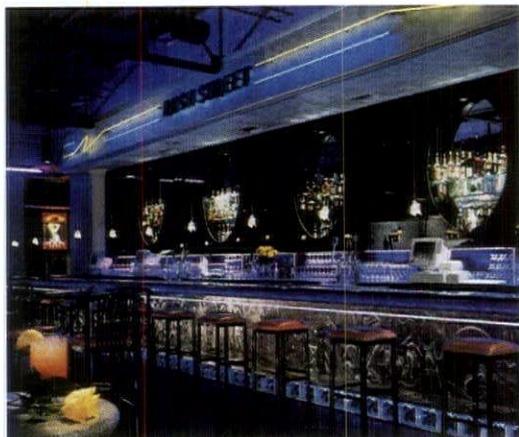
ARCHITECT
Architectology—Thierry-Michel Kawczynski

LIGHTING DESIGNER
Paul Morgan Lighting Design—Paul Morgan

INTERIOR DESIGNER
Architectology—Thierry-Michel Kawczynski; Joseph Dawson

PHOTOGRAPHER
Nancy Robinson Watson

LIGHTING MANUFACTURERS
Tech Lighting (cablelight); CSL (recessed MR11s, MR16s); Fiberstars (fiber optics); Martin (moving lights and controls); LeMatre (haze machine); Lightning Bug (wall sconces)



THIS RESTAURANT, BAR AND DANCE CLUB USES 4100K FLUORESCENTS WITH PURPLE GELS TO CREATE A DRAMATIC ENVIRONMENT (TOP). A WAVE WALL (RIGHT) IS ILLUMINATED BY MR16 LAMPS WITH DICHROIC FILTERS, PRODUCING AN ARTISTIC EFFECT.



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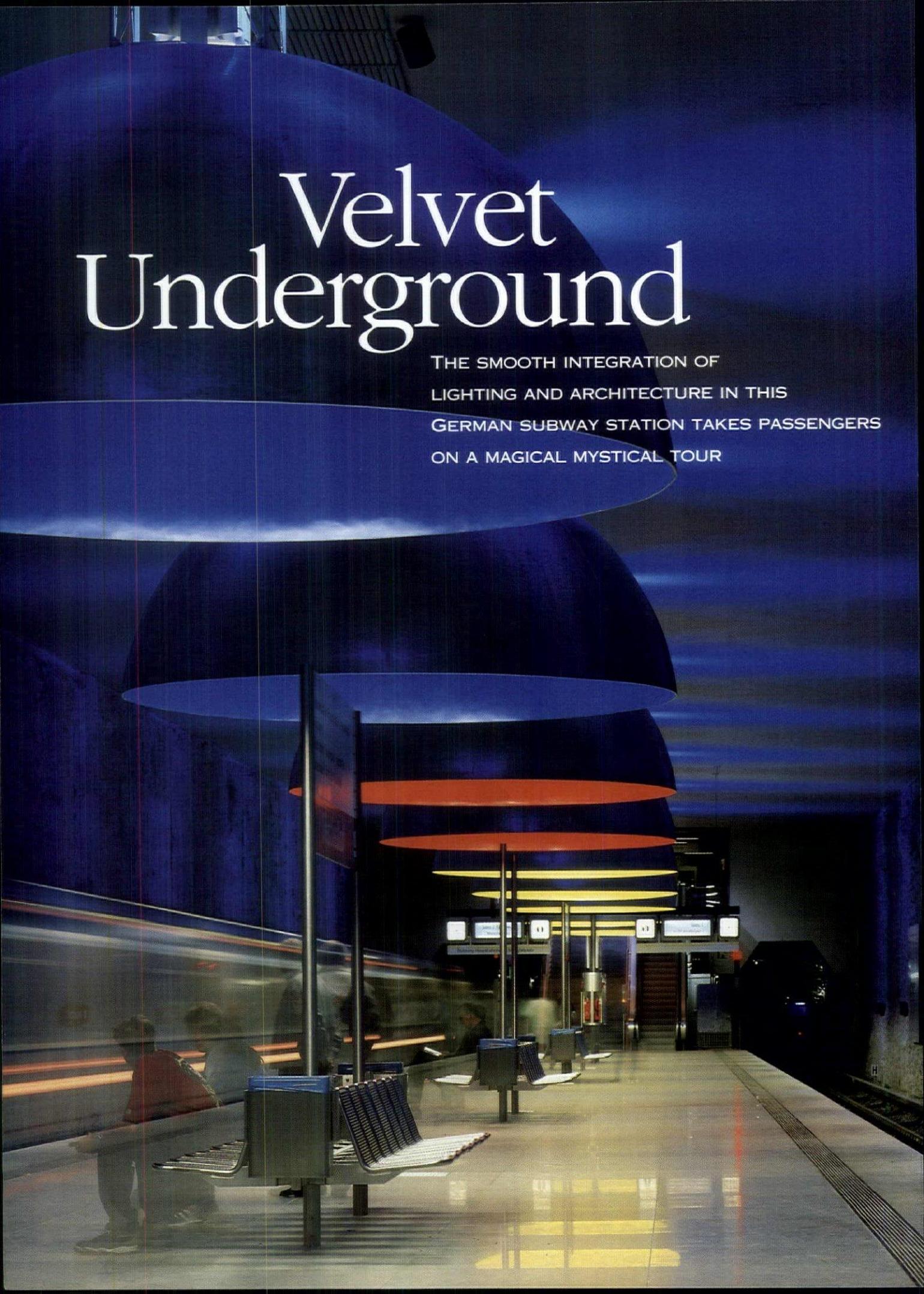
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THE SMOOTH INTEGRATION OF
LIGHTING AND ARCHITECTURE IN THIS
GERMAN SUBWAY STATION TAKES PASSENGERS
ON A MAGICAL MYSTICAL TOUR



OPPOSITE & BELOW: A SERIES OF CUSTOM-DESIGNED PENDANTS LINES THE PLATFORM OF WESTFRIEDHOF SUBWAY STATION CREATING A BOLD VISUAL STATEMENT. THE FIXTURES DIRECT LIGHT TO THE SURFACE BELOW AND WASH THE WALLS IN DIFFUSE BLUE LIGHT.

BY JEAN GORMAN, CONTRIBUTING EDITOR

"I'm very disappointed in how light is turning out in Europe," said Ingo Maurer, with the quiet candor of an experienced veteran and artist of unflinching instinct. "It's all so soft, mostly boring white globes." The same can hardly be said of the renowned German lighting designer's own lighting designs and fixtures, which have been imitated as widely as they've been admired and which stand out as vibrant counterpoints to the lack of vitality he sees. The most recent evidence of his unique approach to light appears in the new Westfriedhof subway station in Munich, where he has washed the underground platform with mesmerizing clouds of color.

Of course, as anyone who has followed his work over the past 30 years or so knows, Maurer regards lighting design from the point of view of an artist—and so his disappointment that more lighting is not as inspired as his own is, perhaps, understandable. But if, as he says, there is less interesting lighting than he would like to see, then his more avant-garde interpretation of the medium should be especially welcome by those who appreciate his work (and for those who do, an exhibition of his lighting designs will be shown at the Museum of Modern Art in New York this November). In fact, his commission to illuminate the Westfriedhof subway station was initiated by such an admirer, Fritz Auer of the Munich architecture firm of Auer + Weber, which had been enlisted to design the station by Paul Kramer, an official from the Landeshauptstadt München, or the Munich Underground Department.

The likelihood of a truly artistic endeavor arising from a commission by the local transit authority, generally an outpost of entrenched bureaucracy, may seem slim, but according to Maurer and Stephan Suxdorf, the architect-in-charge of the project, the Munich officials are quite creatively involved in making their city a progressive metropolis. One of the ways they are doing so is by making each of the subways in the city unique—they have asked local artists and architects to apply a different aesthetic stamp to each. "Munich is a very pleasant town in Bavaria," said Maurer. "It's like the California of Germany."

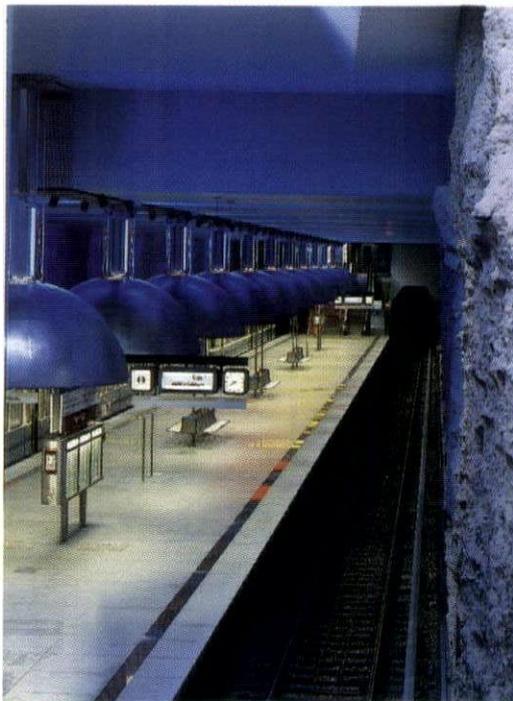
The "magic" of the design of the Westfriedhof station, as Maurer sees it, is in its simplicity. After the excavation for the station was completed, the architects and lighting designers shelved original plans to sheathe the inner walls of the

station with glass, opting instead to recreate the rough texture of the exposed earth with cast concrete. These rough-hewn walls projecting "like rocky outcrops," said Suxdorf, served as the inspiration for Maurer's lighting concept. "My idea was to make this a magical place," explained Maurer. "Mystical."

BLUE MOOD

He did this by creating an atmospheric wash of blue light that "paints" the walls and a series of focused beams of tinted light which highlights the slick surface of the platform. These two very different lighting techniques are produced by a single fixture—a gigantic, custom-designed dome pendant. Eleven of these domes—each 3.8 meters in diameter and painted inside either matte yellow, blue or red—are mounted to the ceiling of the tunnel 2.8 meters above the granite platform and 9 meters apart. If the composition of the bold visual elements is simple, the mood it evokes is subtle and complex, stemming from the tension between contrasts: polished and rough, ancient and new, earthly and ethereal, technological and poetic.

A variation on this theme was employed with fixtures in the ticket halls leading to the



PHOTOGRAPHY BY MARKUS TOLLHOFF



TWELVE 58W FLUORESCENT LAMPS WITH INTEGRAL REFLECTORS ARE MOUNTED IN A SQUARE FORMATION WITHIN THE HAND-FORGED ALUMINUM DOMES TO PRODUCE A 90-DEGREE BEAM OVER THE PLATFORM AND TRACKS.

underground tunnel. Here, terracotta-colored plaster walls “create a link between the two different worlds above and below the earth’s surface,” said Suxdorf, and serve as transitional spaces. A series of streamlined, ceiling-mounted steel fixtures gives definition to a long uninterrupted passage and illuminates the halls with the same fluorescent lamps. Coated with a rustlike finish, they echo the rough, earthy atmosphere in the tunnel. But unlike the round domes, these fixtures are narrow, elongated C-shaped bars spanning the ceiling and fitted with reflectors and only a few fluorescent tubes.

While Maurer was afforded virtually free rein by client, collaborators and context, he was not completely without limitations to the creative process. Primary among them was the constriction of a federal regulation requiring the use of only one type of light source: fluorescent tubes. Maurer made do with his only option, grouping 12 of the warmer-toned versions of the 58W lamps with integral reflectors mounted in a square formation within the hand-forged aluminum domes to produce a 90-degree beam over the platform and tracks. He also persisted in getting special permission to use cooler versions of the lamps, which are typically used only in designated areas, such as the exit and entrance to the



tunnels, in the vertical shafts of the domes. These lamps cast the diffuse blue light, a recurring theme in his work, on the walls and “emphasize the mystery of the magnificent underground space,” said Suxdorf. (Another exception to the use of the fluorescents are metal halides in some Lingotto fixtures used in the ticket hall entrance.)

OPPOSITES ATTRACT

Among the play of opposites that give the Westfriedhof station its energy are the “male and female” qualities of the light produced by Maurer’s fixtures, which he says are evident in all of his lighting. Here the feminine curves of the fixtures and the soft blue light contrast with the sharper masculine beams of light focused on the granite surface of the platform. “People feel comfortable here,” said Maurer. “The blue creates the mystic quality; it’s an immaterial light. Red becomes immediately material. We also needed to be down-to-earth. The domes make you feel sort of protected—it’s a psychological thing. Yellow is positive.”

While artistry takes center stage in the lighting scheme, practical issues have not been neglected. The load for the energy-efficient lamps, with a lamp-life of 12,000 hours, is about 8 kW for the 1,938-sq.-meter platform area. To simplify the maintenance of the fixtures when the

lamps need to be replaced, each of the domes is equipped with a hand-held, remote-controlled lift mechanism, which allows the entire lamp assembly—including the lamps of the vertical shaft—to be lowered to platform level for easy access to the lamps. Safety lights are incorporated in five of the domes and are connected to separate circuits. And the elegant fixtures also produce sufficient illumination to meet minimum light levels of 120 lux (12 fc) in the ticket halls and 150 lux (150 fc) in the tunnel.

As Maurer points out in the introduction to a catalog featuring a new line of his fixtures, his lighting is not so much an example of “design” as it is of *Gestaltung*, which is the German word for “creating” or “shaping.” He proves his claim in the Westfriedhof station by using light to give vital spirit to what is most often a banal environment. “Light is the fourth dimension,” he said. “There is so much you can do with it.” And this he proves here, too, with even the humblest of sources. ■

DETAILS

- **PROJECT** U-Bahnhof Westfriedhof
- **LOCATION** Munich, Germany
- **CLIENT** Landeshauptstadt München
- **ARCHITECT** Auer + Weber—Stephan Suxdorf, Martina Hornhardt, Heiner Reimers (project architects)
- **LIGHTING DESIGNER** Ingo Maurer GmbH, München; Ingo Maurer, Martin Degelman, Mathias Liedtke, Johannes Schmid (design/construction team); Mathias Liedtke, Gerd Pfarré (project management)
- **PHOTOGRAPHER** Markus Tollhopf
- **LIGHTING MANUFACTURERS** Pracht (fluorescent tube fixtures); I guzzini (Lingotto fixtures); Osram (lamps); Technische Antriebselemente GmbH (lift mechanism)



Light Fare

BY WANDA JANKOWSKI, CONTRIBUTING EDITOR

In Chinese, the word *baang* means to bind or tie together. This 3,200-sq.-ft. restaurant is aptly named Baang because its highly palatable offerings fuse French with Asian cuisine. The New York-based Rockwell Group designed the interiors for the first Baang restaurant opened in Greenwich, CT.

When it came time to create a second Baang in Aspen, CO, The Rockwell Group's interiors were adapted to their new locale with a lighting design by Robert Singer, Robert Singer & Associates, Inc., who maintains offices in Aspen and New York. To reflect the notion of "fusion," there are few primary colors in the interiors. Instead, the design team studied exotic spices purchased in

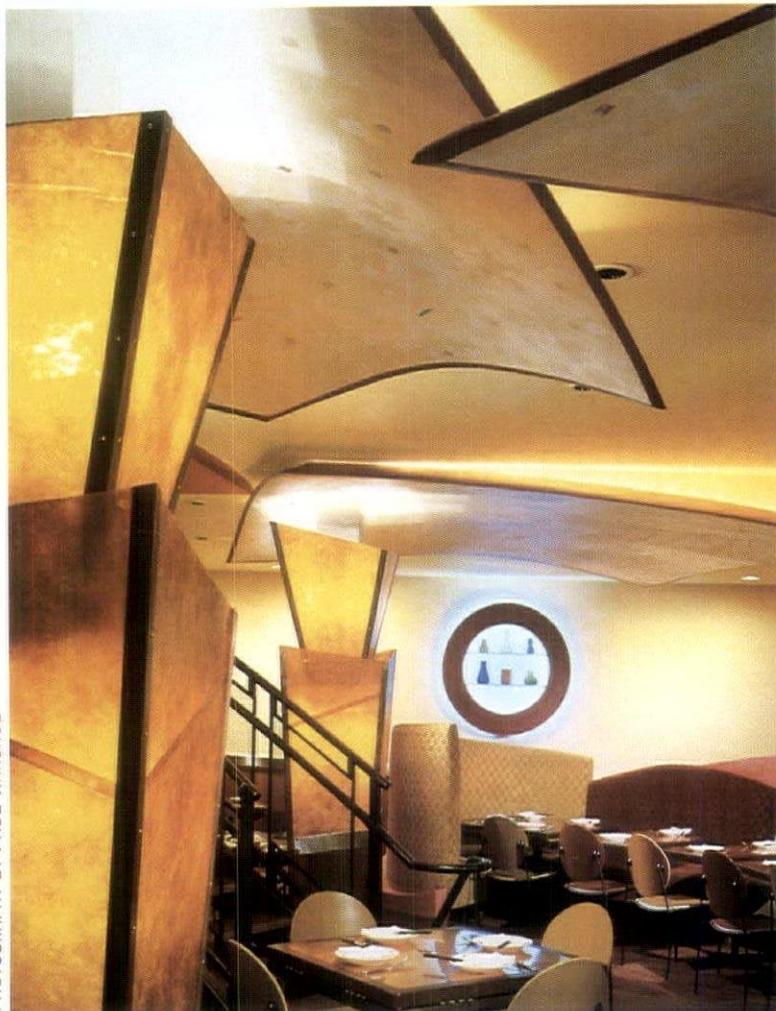
COLORS OF EXOTIC SPICES IN WHIMSICALLY SHAPED FURNISHINGS ARE ENRICHED BY THE WARM GLOW OF A MULTI-LAYERED LIGHTING SYSTEM

New York City's Chinatown to develop the rich color palette based in more subtle earth tones: ginger-root yellow, chili-pepper red and leek green.

Large panels that represent clouds are imprinted with aspen tree leaves and float below the ceiling. Linear, low-voltage strip-lights concealed behind the panels define their shape and emphasize dimension by illuminating the ceiling above. The panels rest atop four-sided columns, which glow like giant candles. "The upper portion of the columns includes panels made of mica, a stone and polymer composite," said Singer. The panels are removable for easy relamping of the incandescent sources housed behind them.

"The bar is defined with custom pendants fitted with mica shades that add a flattering glow to customers' complexions," explained Singer. "General illumination in some areas comes from wide flood MR16 downlights; very narrow spot MR16 downlights are used over tables. All downlights include black Alzak reflectors to keep them as unobtrusive as possible." The exposed kitchen at the back of the ground level is lit with recessed PAR38 downlights directed to the task areas to prevent any glare from reaching the customers' eyes.

"Upstairs, the satay bar is lit with mica-shade pendants," said Singer. "Tiered period pendants hang in the stairwell leading to the second level." At the top of the stairwell, the wall of the corridor leading to the eating area is lined with an array of illuminated niches that display



PHOTOGRAPHY BY PAUL WARCHOL



DETAILS

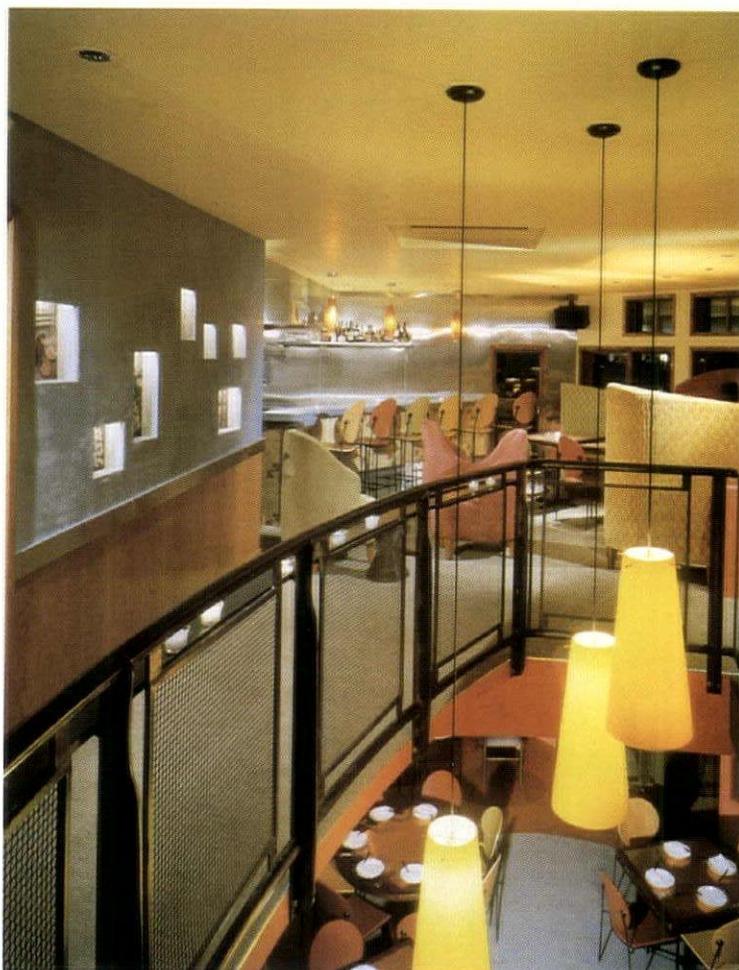
- PROJECT Baang Restaurant
- LOCATION Aspen, CO
- CLIENT Signature Entertainment
- INTERIOR DESIGNER David Rockwell and Cathy Taylor, The Rockwell Group
- LIGHTING DESIGNER Robert Singer, Robert Singer & Associates, Inc.
- PHOTOGRAPHER Paul Warchol
- LIGHTING MANUFACTURERS Juno (downlights and projectors); Ardee (indirect cove low-voltage strips); Cotule Lighting Design (decorative pendants); Flos (bath fixtures); GE Lighting (lamps)

COLUMNS INCLUDE MICA PANELS (LEFT) BACKLIGHTED WITH INCANDESCENTS. CLOUD-LIKE PANELS "FLOAT" BENEATH THE CEILING WITH THE HELP OF CONCEALED STRIPLIGHTS (ABOVE). MICA-SHADE PENDANTS LIGHT THE SECOND-LEVEL SATAY BAR (RIGHT).

artists' renderings of food in Asian markets. Each niche is equipped with an incandescent linear strip concealed behind a valance.

A charming atrium garden area that includes tables and chairs is landscaped with clusters of bamboo trees uplighted with MR16 low-voltage lamps. "All are concealed so only the effect of the light is seen," said Singer. Other special touches include: a circular display on a rear wall backlit with neon, a W and an M projected with light to indicate gender on the restroom doors and cold cathode backlighting a large clock inside the restaurant and the Baang letters above the entrance outside.

All the lighting systems are computer controlled and preset "so the staff can't mess with it," Singer noted. "The Connecticut restaurant has a lighting system that includes track lights and PARs. The interior columns are patinated and the clouds are metal mesh. The Aspen Baang is meant to have an atmosphere more in keeping with its mountain location." The warm light from unobtrusive sources and the glow from candlelit columns make Baang a fitting place to dine after a cold, hard day on the slopes. ■



Wine & Romance

BY CHRISTINA TRAUTHWEIN, EDITOR-IN-CHIEF

AT THIS NAPA
VALLEY WINERY,
LUSH GARDENS
AND INTIMATE
LANDSCAPE
LIGHTING GIVE
NEW MEANING TO
THE TERM WINING
AND DINING

When Far Niente's owner Gil Nickel wed his fiancée and best friend of 20 years, it was truly a magical experience. His beautifully manicured California winery was transformed via lighting into a romantic nighttime vision. Lighting designers Jan Moyer and Michael Hooker used subtle illumination to add depth and character to the natural beauty of the property while setting the scene for a memorable event.

"This project took four years to begin," said lighting designer Jan Moyer, "and it was the impending nuptials that finally made it happen. The ceremony gave us an initial timeline for the first phase of the project."

Explained Moyer, "The owner sets a high level of standard for his entire world, and he wanted the property to be elegant, reflecting the style and quality of the wine. Every January, Gil would call me, have me come to the winery and drive around in the rain viewing the garden renovations and talk about what he wanted the landscape lighting to do. He wanted the lighting to be spectacular—and was willing to spend the money to achieve the aesthetic. But with Gil, business decisions come first, so he would wait until he could allocate the appropriate funds for the desired lighting effects."

The client asked the lighting designers to accent the beauty of the sculpted landscape, create a spectacular nighttime environment for evening events

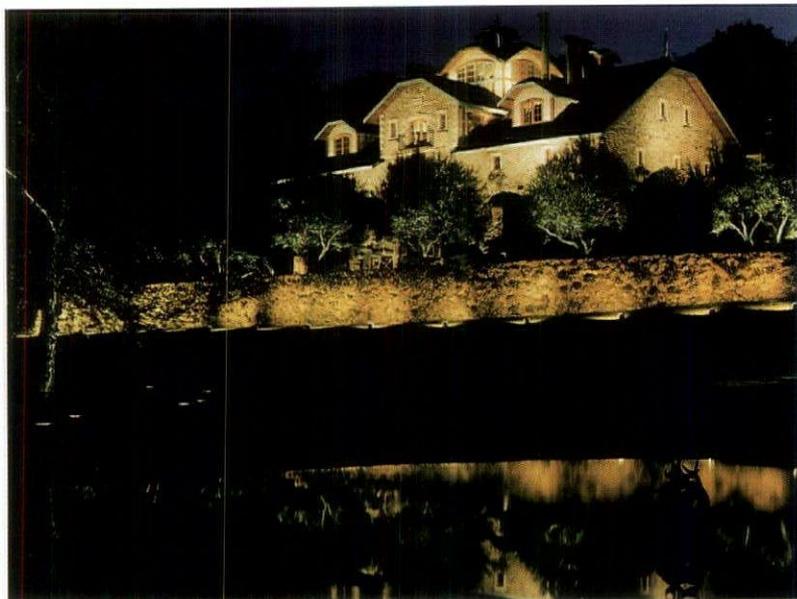
and reflect the style of Far Niente, a 19th-century winery that was abandoned in the 1920s during prohibition and remained in ruin until Nickel purchased it almost 50 years later. To accomplish this, Moyer and Hooker employed a number of techniques. First, there are no path lights. All of the lighting is discreet so that the natural beauty is accentuated, the light fixtures concealed. "In a truly successful landscape lighting design, you won't notice the lighting, just what is being lighted," said Moyer. "So, for example, on the roadway, the beauty of the woodland is revealed and the edges of the road are defined, but the actual road is not lighted." To achieve this effect, Moyer up- and downlighted the borders, letting just enough light spill over onto the roadway.

It was important that the lighting not only punctuate the beauty of the landscape when full and lush, but as seasons change. "Many of the plants are deciduous, such as the two birch groves that frame the Chardonnay garden," said Moyer. "When we light deciduous plantings, they need to have a beautiful form in the winter when the tree's structure is illuminated so that they'll look as wonderful as when the foliage is full. If the lighting is designed correctly, you shouldn't have to refocus, but you may have to have a separate switching or dimming system to balance the lighting from one season to another."

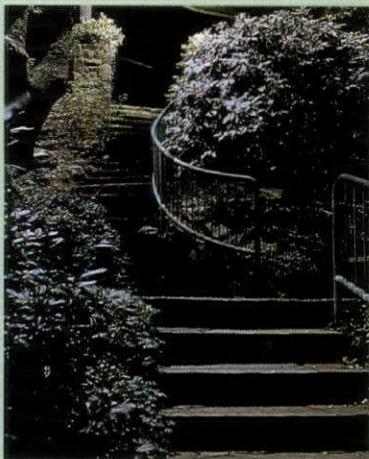
To facilitate maintenance, Moyer minimized the number of lamp types in the lighting design. "There are several hundred fixtures on this property," said Moyer, "and about 95 percent of the tree-mounted fixtures house either one MR11 or one MR16 lamp type." The lighting design team used professional tree climbers to install them, and Moyer continues to work with the climbers on a six-month basis to maintain the lighting.

"This was one of those projects that although we did drawings, almost all of the work happened on site and we worked for weeks on end doing the focusing," said Moyer. "Team work was critical to pulling it off, especially since most of the work was performed during late-night hours."

Moyer and Hooker received the 1997 GE Edison Award for the lighting of Far Niente, presented at Lightfair '98. ■



PHOTOGRAPHY BY KENNETH RICE



LANDSCAPE LIGHTING ENHANCES FAR-NIENTE WINERY'S BEAUTY FOR EVENING ENTERTAINING. GARDENS, SCULPTED WITH CONCEALED LOW-WATTAGE HALOGEN UP- AND DOWNLIGHTS—20-35W MR11, 20-50W MR16 AND 65W PAR38—PROVIDE AN INTRODUCTORY COMPOSITION, BECKONING VISI-

TORS THROUGH GRAZED IRON GATES. TREE-MOUNTED 20W MR11 AND 35W MR16 DOWNLIGHTS SAFELY DIRECT GUESTS UP THE CURVING STAIRCASE AND ACCENTUATE TREE FORM AND BLANKET SHRUBBERY (ABOVE). REMOVING FIXTURES FROM THE GROUND PLANE BETTER RETAINS AIMING, REQUIRES LESS MAINTENANCE AND MINIMIZES FIXTURE QUANTITY.

UMBRELLA-MOUNTED 35W MR11 UP- AND DOWNLIGHTS IDENTIFY THE WINE BAR WHILE PRODUCING TASK LIGHT LEVELS. TRELLIS-MOUNTED DOWNLIGHTING WASHES THE LAWN, INTRODUCING FILL LIGHTING BETWEEN FOCAL AREAS. MULTI-TRUNKED OAKS, INTRODUCING BACKGROUND AND DEPTH, REQUIRE ABOVE-GRADE, BELOW-GRADE AND TRELLIS-MOUNTED UPLIGHTS FOR NATURAL APPEARANCE. ENTERTAINING TAKES PRECEDENCE OVER TREES AT THE DANCE FLOOR. MOST LIGHTING IS TREE-MOUNTED TO MINIMIZE GLARE FOR GUESTS. REMOTE MULTI-ZONE CARRIER-CURRENT ON/OFF CONTROLS FUNCTION BY AREA.

UNDERCOUNTER MINIATURE LAMPS GRAZING THE STONE DRAW GUESTS AND ANNOUNCE THE FOOD AND WINE BARS (RIGHT). TREE DOWNLIGHTING PROVIDES CATERER TASK LIGHTING AND GENERAL LIGHTING. RATHER THAN FLOODLIGHTING,

COHESIVE MINI-COMPOSITIONS INTRODUCE VISUAL DESTINATIONS SUCH AS A GAZEBO. THESE MINI-COMPOSITIONS

ACCENTUATE FEATURES AND PROVIDE A VISUAL CONNECTION FROM ONE AREA TO ANOTHER THROUGHOUT THE SITE, SAFELY AND BEAUTIFULLY DIRECTING VISITORS' MOVEMENT WHILE LIMITING OWNER'S COSTS. MR11 AND MR16 LAMPS COMPRISE THE BRIDGE, LAWN, GAZEBO AND TREE-CANOPY DOWNLIGHTING. ACCESSORIES SUCH AS LINEAR-SPREAD LENSES AND SCREENS ALLOW USE OF THE SAME LAMP TYPE WHILE PROVIDING MULTIPLE EFFECTS.

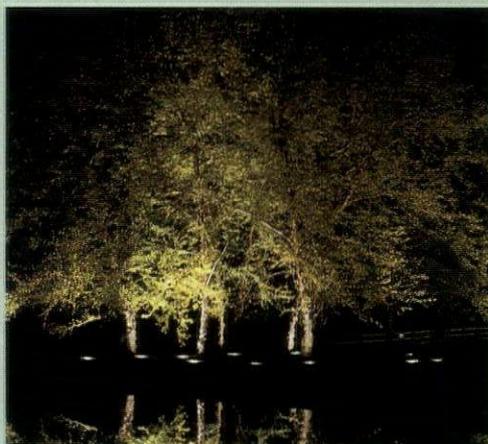
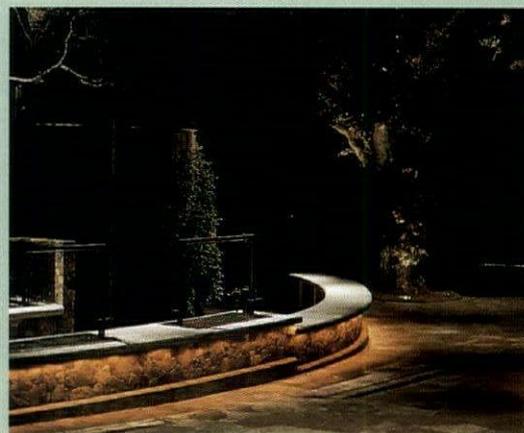
LIGHTING REVEALS THE GARDENS SUCH AS THE BIRCH GROVES THAT FLANK THE CHARDONNAY GARDEN (LEFT). THE LIGHTING EMPHASIZES THE MOTTLED, PINKISH BARK OF THE HERITAGE BIRCH TREES GROWING HERE. FURTHERMORE, SUBTLE LIGHTING DEFINES ROAD-

WAY EDGES AND PAVEMENT (RIGHT). USING PREDOMINANTLY 20W MR11 AND SOME 35W MR16 LAMPS MINIMIZES OFF-PEAK LOAD. SLIGHT UNDER-VOLTAGING AND INFREQUENT USE RESULT IN MULTI-YEAR LAMP LIFE. MINIMAL LAMP TYPES AND GROUP RELAMPING DURING NORMAL TREE-WORK SIMPLIFY MAINTENANCE FOR THE CLIENT.

70W HPS BUILDING LIGHTING (OPPOSITE) REVEALS THE WINERY'S FORM AND DETAIL, VISIBLE FROM AN ADJACENT HIGHWAY. MULTIPLE STAKE-MOUNTED HALOGEN UPLIGHTS PROVIDE CONTRAST IN COLOR AND TEXTURE WHILE RETAINING THE MULTI-TRUNK FORM OF THE OLIVE TREES; HPS ILLUMINATES THE 12-FT.-HIGH WALL BELOW THE OLIVES, PROVIDING A VISUAL FOUNDATION.

DETAILS

- **PROJECT** Far Niente Winery
- **LOCATION** California's Napa Valley
- **OWNER** Gil Nickel
- **LIGHTING DESIGNERS** Janet Lennox Moyer and Michael Hooker; Paul Schreer
- **RENOVATION ARCHITECT** Ron Nunn
- **LANDSCAPE ARCHITECT** Jonathan Plant
- **ELECTRICAL CONTRACTOR** Vintage Electric— Eddie Burhans
- **TREE-LAMP MAINTENANCE** Britton Tree Services
- **PHOTOGRAPHER** Kenneth Rice
- **LIGHTING MANUFACTURERS** Lumiere (MR11 and MR16 stake-, structure-, tree-mounted fixtures); Kim (MR16 below-grade fixtures); Greenlee (incandescent below-grade and junction box-mounted above-grade fixtures); Hubbell (HPS floods); GE (lamps); Philips and Ushio (specialty low-voltage lamps)



Divine Inspiration

PHOTOGRAPHY BY ©DOUGLAS KAHN



BY WANDA JANKOWSKI, CONTRIBUTING EDITOR

**A FLEXIBLE
LIGHTING SYSTEM
ENHANCES
THE SYMBOLIC
MEANING AS
WELL AS THE
FUNCTIONALITY
OF THE
BETH TORAH
SYNAGOGUE**

The Congregation Beth Torah synagogue in Overland Park, KS, has been designed by architects at Gould Evans Goodman, L.C., and Solomon Associates not only to provide a place for religious services and educational and community events, but to embody deep symbolic meaning for the congregants. Situated on 21 acres lush with tree-lined creeks, the synagogue's contemporary structure is composed of a cluster of integrated blocks that are an abstract representation of a Middle Eastern village. Due to significant budget limitations, "We concentrated on the public image spaces: the entry, foyer and sanctuary," said lighting designer Bruce Yarnell, Yarnell & Associates.

The view from the outside of the synagogue by night is welcoming as light streams out from the glass window walls. Marking the entrance are three poles made of brushed stainless steel. These standard metal halide fixtures have been customized in their heights, which are varied to mimic the stainless steel poles used in the foyer. "The synagogue was to resemble a village in

Israel 2,000 years ago. The foyer is meant to symbolize a village market," said Yarnell. "This 'center of the city' also needed to double as a gathering place for dinners and meetings."

Inside the structure, downlights are used only above a seating area. "The ceiling is symbolic of the sky," said Yarnell. "We wanted it to be as clean as possible." Since the ceiling usually delivers air-conditioning, sprinklers and speakers along with lights, the design team tried to remove those components from the ceiling and place them elsewhere. "We succeeded to the point where only the speakers remain," said Yarnell. "The only ceiling-mounted fixtures are downlights with 2-in. apertures fitted with 50W PAR20 lamps over the seating area at one end of the foyer."

TRANSITION SPACE

The foyer, which includes walls made with stone blocks and a paved limestone floor, represents a public square, a meeting place. The limestone floor includes two symbols: a double row of

stones angled toward the Ark that represent the Path of Jewish Continuity; and an abstracted Star of David. The focus of the foyer is the Transition, which is a miniature house of Torah and symbolically a place of refuge along the Path. The Transition is a curved structure made of connected slats of wood. Its slatted walls and ceiling rafters, which echo the stone floor pattern, are reminiscent of the great wooden synagogues of Poland. Its circular walls facilitate the actual transition from public to sacred Sanctuary space and create a welcoming gesture at the entry. Inside the Transition, the Heritage Torah in its glass display case is highlighted by 4-in.-diameter aperture recessed 50W PAR20 downlights with low-brightness, clear Alzak reflectors. The fixtures are recessed in the Transition's rafters.

Clustered around the Transition structure are seven stainless steel poles or columns in varied heights. The seven columns symbolize creation. Six columns are functional; two are structural and extend up to the ceiling; four shorter columns are each fitted with a 50W, PAR20 lamp to light the ceiling or, symbolically, the sky. The seventh, extending to the skylight, celebrates Shabbat.

From the top of the stone block partitions, which symbolize village buildings, white light is cast upward from two-lamp T8 fluorescent strip fixtures mounted within architectural coves. The uplight is reflected off the ceiling and down into the foyer to provide general illumination during community dinners and other gatherings. "The secondary lighting system casts blue uplight from fluorescents fitted with blue filters," said Yarnell.

"This system can be combined with the white light to change the atmosphere from one of brightness to one of elegant reverence." A handful of 8-in. x 8-in. ADA-complaint sconces with alabaster diffusers and PL fluorescents adorn the walls in the foyer and the foyer corridors and symbolize lanterns. During the day, a central skylight and glass window walls allow sunlight to enter the space.

HEAVENLY NATURE

The entrance to the Sanctuary is heralded with light from 6-in.-diameter aperture recessed PAR lamp downlights with low-brightness Alzak reflectors and overlapping flanges. The Sanctuary's sacred quality is enhanced by its connection with nature. The stone walls of the Sanctuary symbolize eternity, permanence and the foundation upon which the world rests. "The stone partitions don't touch the ceiling so you can see outside to the sky and treetops. The glass window wall on the left connects worshippers visually with the outside as well. About 150 ft. beyond the glass is a row of trees amid the grass," Yarnell explained. "It is planned in the future to illuminate the trees so congregants can view a pleasing nature scene in the evenings."

The Sanctuary's flexible lighting system includes 7-in.-diameter aperture recessed A-lamp downlights with low-brightness clear Alzak reflectors and overlapping flanges that



GLASS WINDOW WALLS AND SKYLIGHTS ALLOW PLENTY OF DAYLIGHT (OPPOSITE PAGE). PAR DOWNLIGHTS FOCUS ON THE DISPLAYED TORAH IN THE TRANSITION (LEFT). THE FOYER'S PRIMARY LIGHTING IS INDIRECT (ABOVE).

cast an even glow on the pews. In the platform area near the reading table, illumination from adjustable 7-in.-diameter aperture recessed 100W PAR accent lights with 45 degree cut tapered clear Alzak reflectors and overlapping flanges directs attention to the worship leaders.

The curtain that conceals the Torah is a custom artwork. Incandescent wallwashers fitted with PAR lamps on close centers are aimed straight down to highlight the texture of the curtain's fabrics. In front of the curtain, additional low-voltage 50W PAR adjustable accent lights are angled to illuminate the Torahs that are revealed when the curtains are drawn and the wood doors behind them are opened. The accent lights highlighting the Torahs are fitted with amber-colored glass filters that create a warm glow around the sacred objects. The Eternal Flame, or Nertamid, in the niche above the curtain is custom designed by a sculptor and lighted with neon.

The worship leader and the congregants are linked through the circular shaping of nine rows of curving pews that accommodate 400 worshippers and the platform that supports the reading table. The circular motif of the pew arrangement is echoed in the ceiling treatment. The 60-ft.-diameter ceiling coffer that lines the perimeter of the Sanctuary glows from a single row of luminous cold cathode tubing concealed within the cove.

The circular disc suspended from the ceiling is tilted to direct attention to the reading table, reinforcing the importance of the reading of Torah. The cloud-like form is taken from the book of Exodus, in which the Lord speaks to Moses. Uplight from cold cathode tubing mounted above the disc is unevenly cast intentionally. The most intense illumination is directed toward the reading table area. By day, a skylight in the ceiling behind the disc allows light into this area of the Sanctuary. As in the foyer, uplight is also cast from dimmable fluorescent fixtures concealed in the tops of the stone walls positioned at the perimeter of the Sanctuary. The rear of the Sanctuary behind the pews

DETAILS

- **PROJECT** Congregation Beth Torah synagogue
- **LOCATION** Overland Park, KS
- **ARCHITECT** Gould Evans Goodman, L.C., architect of record; Solomon Associates—Melvin Solomon, AIA, project director and lead designer; Pam Eugster, AIA, project manager; and Rohn Grotenhuis, AIA, project designer
- **LIGHTING DESIGNER** Yarnell Associates—Bruce Yarnell and Mark Hershman
- **GENERAL CONTRACTOR** Winn Senter Construction Company
- **PHOTOGRAPHER** Douglas Kahn
- **LIGHTING MANUFACTURERS** Lithonia (downlights); Lightolier (accent lights); Elliptipar (uplights); SPI Lighting (uplights); Metalux (T8 strip fixture); d'ac (decorative fixtures); LSI (accent lights); Litelab; Acme Sign Co. (cove lighting); GE (PAR, MR16, fluorescent lamps); Osram Sylvania (compact fluorescents); Lutron (Grafik Eye preset system, Nova T dimmers)

is bathed in natural light by day via deep ceiling coffers/skylights. In the evening, illumination comes from decorative fluorescent sconces mounted inside the coffers, enabling both the Sanctuary interior to be lighted and the skylights to serve as glowing beacons when viewed outside from a distance. Two meeting rooms on each side of the Sanctuary, behind moveable walls, add High Holiday seating for an additional 300. All synagogue spaces are universally accessible.

Controls include a 16-zone preset system with infrared remote receiver and hand-held transmitter for the Sanctuary. There is local switching for the fluorescent, non-dimmable fixtures in the social hall and dimmers for the incandescent loads in the foyer/social hall.

The Congregation Beth Torah synagogue has received recognition in three awards programs sponsored by the American Institute of Architects (AIA). The Excellence in Architecture Citation was bestowed by the AIA Central States Regional Design Awards Program. The Kansas Chapter of the AIA awarded the building an Honor Award from the Excellence in Architecture Awards Program. The project also received an Honor Award from the Kansas City AIA Chapter's 1997 Allied Arts & Craftsmanship Awards Program. ■



INSIDE THE SANCTUARY (LEFT), COLD CATHODE EMPHASIZES THE CIRCULAR CEILING COFFER AND THE SUSPENDED DISC. UNOBTUSIVE DOWNLIGHTS ILLUMINATE THE PEW AREA. SKYLIGHTS ENHANCED BY FLUORESCENT SCONCES LIGHT THE REAR.

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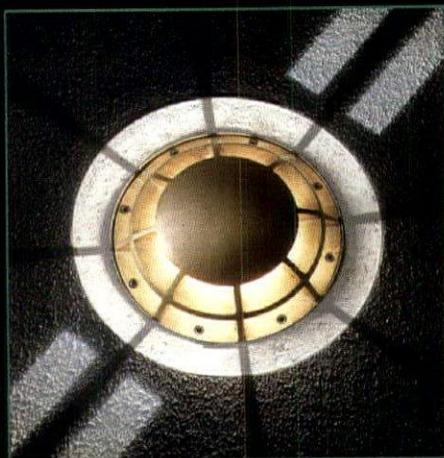
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NEW PRODUCT

Uncertainty in the Era of Utility Deregulation

DEREGULATION OF THE \$190 BILLION ELECTRIC POWER INDUSTRY CONTINUES TO BUILD MOMENTUM. WHERE DO LIGHTING SPECIFIERS FIT IN?

In 1992, President George Bush signed the National Energy Policy Act in law. While the immediate concern in the lighting industry was the gradual phase-out of several popular fluorescent and incandescent lamp types, part of the legislation was to have long-reaching implications: This section of the law provided for the deregulation of the \$190 billion electric power industry.

In a purely deregulated environment, electric utilities decouple into generating and transmission businesses, the transmission segment staying monopolies. The generators compete on the national grid for large industrial and commercial customers, and eventually residential customers, servicing these customers anywhere in the continental United States. This vision of "retail wheeling" of electric power has not become a reality, as the law had to work its way through the various state courts. But the competition trend has continued.

The benefits to corporations and eventually homeowners is a choice of electric power suppliers, which can reduce cost, and better service. Because electricity is a commodity, many utilities do not want to compete on price and are reacting by providing value-adds such as energy management services.

It is here where utilities both threaten and provide opportunity for specifiers of quality lighting systems.

COOPERATE OR COMPETE?

Most lighting specifiers remember the retrofit boom of the early '90s, when the utilities and other market forces encouraged corporations to replace less-efficient lighting components in their lighting systems with more-efficient components such as electronic ballasts and T8 lamps. These were the days of demand-side

management, when utilities spent large amounts of money as incentives to reduce energy use rather than even larger amounts to build new power plants. Energy service companies (ESCOs) prospered in this environment—companies that would front the cost of the retrofit in return for keeping the energy savings on a long-term performance contract. Most ESCOs are now either owned or strongly allied with utilities.

As retrofits abounded, many specifiers began to feel that the quality of lighting design was being compromised, the focus being only on energy use and ignoring the lighting goals of the space; in addition, as corporations retrofitted instead of renovated, many lighting specifiers found themselves competing with utilities and ESCOs.

DESIGNERS FIND A ROLE

Some designers, however, see an opportunity in partnership rather than competition.

"If professional lighting people take the energy retrofit business more seriously than they did the last time [at the height of demand-side management programs], there'll be a lot of quality work to be done, and utilities will be the incentive behind it," said Jim Benya, principal of Pacific Lightworks of Portland, OR. Benya sees nothing but opportunities at all levels of retrofit and "value added" sophisticated lighting, including new construction. The casino relighting projects he's undertaken for a major East Coast utility he finds not tremendously creative, but lucrative and sometimes rewarding. "Over the course of a year, if 10 to 20 percent of your business is one customer, and they've kept you busy, I'd say that's a good customer."

Jack Briody, president and CEO of Advance Transformer, sees the real deregulation payoff to corporations being reduced costs through lower energy use, not

Another aspect of utility deregulation is the acceleration of new technologies into development and widespread implementation, driven by demand for energy-efficient lighting products that also perform. Working with the U.S. Department of Energy, Fusion Lighting, Cooper Lighting and 3M, CES/Way International, a Houston-based ESCO, installed 288 electrodeless sulfur lamps (Fusion) housed in pendant high-bay fixtures (Cooper) and light pipes (3M) in aircraft hangars dedicated to the maintenance and overhaul of F16 and C130 aircraft at Hill Air Force base in Ogden, UT. The previous high-bay mercury and metal halide fixtures were difficult to maintain. According to Pacific Northwest National Laboratory (for the DOE), the sulfur lamp systems produce 40-160 percent higher light levels (although the light is greenish) and realize a 12 percent lighting energy cost savings; the rated life of the system is 20,000 hours for the magnetron power unit and a minimum 60,000 hours for the lamp. The payback for CES/Way is estimated at seven years. "We're trying to do things that make us stand out, separate us," said John Adams, VP of lighting for CES/Way. "And we saw this as a great way to do it."



lower rates. "Lower rates may not materialize for a lot of reasons," he said. "The end-user will pay less because he uses energy more efficiently. And he can simultaneously use lighting more effectively—improving productivity or sales, increasing safety and security."

As utilities seek value-adds in their competition with each other, they and their ESCOs may seek to build value into their lighting services. According to Kyle Chapulis, owner of Technical Artistry, New York, NY, some utilities are actively promoting lighting design. "Just the fact that utilities are promoting the concept of lighting design will bring awareness to the profession," he said. "It would be a very competitive asset for utilities to do some large installations that look amazing, and they can use them as showcase projects." Said Benya, "At least some of the utilities will involve professional lighting designers and won't just turn to the reflector salesman like they did 10 years ago."

The next step, said William Attardi of Attardi Marketing, is to convince end-users that poor lighting can actually cost dearly in terms of employee productivity and sales. "Over the years, end-users have suffered

because they're saving the energy but their lighting is nowhere where it should be. That's being recognized more and more. And ESCOs are either hiring lighting designers on their staff or are subcontracting it out."

Energy Solutions of NJ specializes in lighting and serves customers of Potomac Electric & Gas, Public Service Electric & Gas and General Public Utility. Bernie Erickson, executive VP and owner of O.K. Electric Supply Company, Energy Solutions' parent, said that his company goes beyond "plain vanilla" to offer lighting design "not just on an energy-only basis, but on a total lighting basis—lighting for the productivity of employees, for comfort and safety, for all those different factors. That's how we've differentiated ourselves."

Jerry Mix, president of The Watt Stopper, believes that utility deregulation will eventually speed the penetration of many new lighting techniques and technologies. "Lighting designers should be trying to market their services to ESCOs and getting involved as subcontractors," he said. "The ESCOs for the most part are using subs for everything."

Briody of Advance remains unsure whether ESCOs will embrace the message of lighting design on a large scale, however. The language for them, he said, will continue to be pure return on investment; their reach will be limited to component retrofits, eschewing the complex new construction and lighting renovations in which lighting designers specialize. In these environments, specifiers will have to compete with ESCOs that offer turnkey lighting programs, including financing, audit, installation and maintenance.

Said Dwight Kitchen, manager of commercial engineering at Osram Sylvania, "There's a wide range of different ESCOs out there. Some are very reputable and some are not. The end-user needs to be aware of that and do his homework to ensure he has a reputable firm. There are some ESCOs that have very qualified people, and that's where you get excellent design work."

While it will still be some time before the full impact of utility deregulation is felt, specifiers should be aware of the issue and learn as much as possible about the threats and opportunities it poses them. ■

NEW LIGHT FOR OLD BUILDINGS

BY JEAN GORMAN, CONTRIBUTING EDITOR

Regardless of the sentimental and aesthetic value one may attribute to certain historic buildings, even the most cherished of these structures loses its economic and functional value if it doesn't incorporate the technological advances that everyone in the industrialized world has grown dependent upon. The question is, "What is the best way to integrate state-of-the-art technology—and lighting in particular—into a historic structure to bring it up to current standards while at the same time honoring what is worth saving in a building that wasn't designed with modern lighting techniques or sources in mind?"

Because there are so many variables in relighting an older building, the answer, of course, is never simple. For example, the most current incarnation of the building often has very little, if any, relation to its first life. On the other hand, even if the building is still serving the same role it did when it was created, it may need numerous changes to meet current lighting standards to make it functional now and into the future. Other historic buildings may be protected by landmark status,

limiting the changes that can be made to them. One older structure might require the full gamut of specialty fixtures and controls, while the next might simply need to be fitted with more energy-efficient sources.

INTO THE PAST, UP TO THE PRESENT

With landmark historic buildings, the issues are generally twofold when new lighting fixtures are integrated:

HOUSE OF SEVEN GABLES

In illuminating the House of Seven Gables, a landmark building in Salem, MA, lighting designer D. W. Schweppe had to incorporate new fixtures into the structure to make it functional as a historic museum while limiting disruption to the original interior walls, ceilings and architectural features.

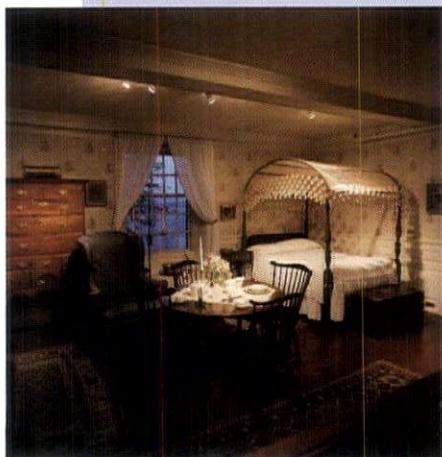
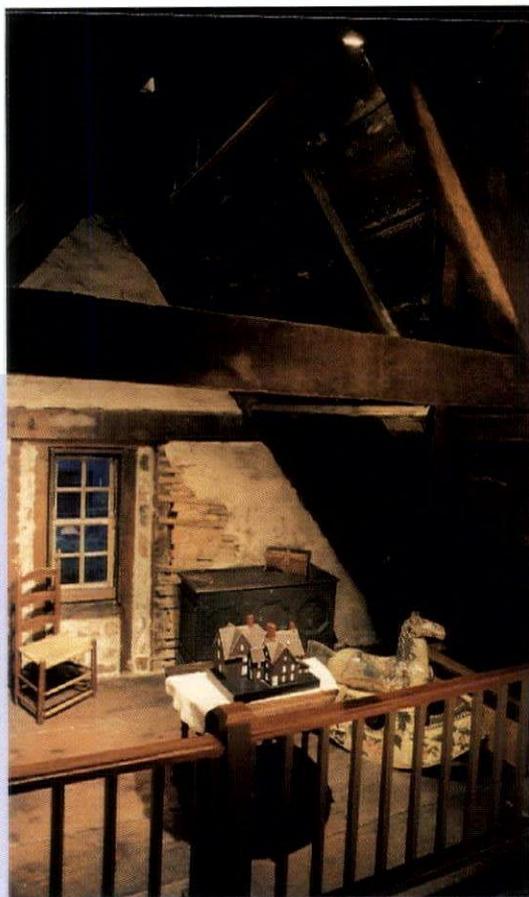
Instead of recreating or adapting original light fixtures (originally only candles were used) in this 330-year-old building, which was the home of Nathaniel Hawthorne in the 1800s and inspired him to write his famous novel *House of Seven Gables*, Schweppe installed new fixtures unobtrusively in locations that had already been established in a previous lighting installation to highlight the original architecture, delicate artifacts, Chippendale and other rare Georgian and Federal furniture and china. To limit the visibility of the fixtures, he installed track fixtures without their housings in the dining

room, some accents on the floor and subminiature Xenon lighting in the cabinet. In the parlor, he hid small striplights behind the mantel of the fireplace and added new T2 fluorescents in the cabinet. The biggest change, according to Schweppe, was to eliminate the 150W R-lamps that had been installed 20 years ago with 50W quartz halogens. Doing so allowed him to better control light beams, reduce wattage and ease maintenance. The lower wattage also helps with the conservation issues inherent in a museum containing delicate artifacts, which should have only limited exposure to the fading, damaging effects of light.

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Lighting Manufacturers: Osram Sylvania—sole corporate sponsor; Lightlier; Task Lighting; Alkco; Newstamp Lighting; Stonco

Photography: George Riley, George J. Riley Photography



DFS GALLERIA

The old Customhouse in Auckland, New Zealand, was built in 1888 with French Renaissance styling. Now designated a historic landmark, the original 24,000-sq.-ft. building received a 26,000-sq.-ft. expansion to meet the program requirements. The expansion was achieved by filling in the existing courtyard with a new five-level structure, completely concealed from the street. The designers, Charles Sparks + Company, creatively incorporated new lighting to make the structure functional in its current incarnation as the DFS Galleria, a retail venue for an array of high-end shops and luxury boutiques. They enhanced the exterior facade by concealing metal halide uplights

between the central windows of each of the bays of the

facade to create a pleasing rhythm and accent the detailing of the building. They also accented the mansard roof with hidden metal halides and added awnings at the ground floor, tucking MR16s at the corners of the their frames.

In the interior, recessed lighting was prohibited in the 14-ft.-high heritage rooms. To solve the client requirement of 100 fc ambient illumination for retail spaces, the lighting designers installed unobtrusive, sleekly designed metal halide uplight sconces at 10 ft. above the floor, painted to match the walls. And for additional accent lighting on displays, they suspended a slender low-voltage halogen track system (also at 10 ft. above the floor). To minimize disruption to the plasterwork of the original ceiling, the designers had the floorboards removed from the floor above, allowing wiring and

transformers to be concealed behind the plaster. The track lighting offers maximum flexibility for accenting changing displays, while limiting the impact to the original structure. For the protected areas of the interior, the designers also created custom movable display cases allowing boutiques to display their products. These cases are internally illuminated with vertically mounted MR11 track accents that are concealed by the mullions of the cabinets.

The original chandelier at the entrance lobby had been removed, and no records of it existed, so the designers researched the archives for chandeliers of similar structures in the area that were built in the late Victorian period and replicated a gas and oil chandelier, fitted with halogen sources. In spaces free from landmark restrictions, ambient lighting was achieved with metal halide uplights, but some recessed fittings were used such as adjustable modular fixtures with three AR111 lamps. The architects also added a structural insert into the courtyard area to create new retail areas where they could install recessed adjustable AR111 downlights that are free from landmark restrictions.

Lighting manufacturers: Targetti; Modular International; New Metal Crafts; Engineered Lighting Products; Modus; Kreon; Juno Illuma; Concord Sylvania; GE; Osram

Photography: Patrick Reynolds



Respecting the original structure and considering its current use. In a landmark townhouse on the Upper East Side of New York, for example, architect Guy Lindsay Kohn, principal of his own Bedford Hills, New York-based firm, needed to restore the architectural integrity of the original Beaux Arts exterior, yet was free to redesign the interior and the indoor lighting to serve the contemporary needs of its current tenant, Nafinsa Securities, a Mexican investment banking firm, which also serves as an unofficial ambassador in connection with the Mexican Cultural Institute by hosting cultural functions for Mexican business people and government figures.

"This building went through so many transformations that little was left of the original lighting," said

Kohn. "In the 1960s, the exterior facade was taken out by a former owner, a famous pop singer, which led to the formation of the Friends of the Upper East Side Historic Districts, a historic district group, to preserve historic buildings in the neighborhood." To meet the demands of the preservationists, the architect had to create a new limestone facade in keeping with the Beaux Arts original and added cove striplighting to a Victorian-style steel and glass canopy, an adaptation of the original canopy.

Inside, he had brought in extra service to accommodate the new lighting that was required for the new use of the building—in particular the lobby, where a series of rotating arts exhibitions sponsored by the Mexican

(continued on page 46)

(continued from page 45)

Cultural Institute are shown, and for the trading floor, which needed specialized illumination to create a glare-free environment for traders who rely heavily on computers and benefit from stress-reducing, indirect illumination. In the lobby, surface-mounted incandescents in a perimeter cove appear to heighten the ceiling, which seems to float, and recessed, low-voltage MR16s accent new stone and wood architectural features, providing flexibility to illuminate the art of the traveling exhibitions. In the trading room, the architect said he "brought a theatrical philosophy to the space to solve a purely technical problem—minimizing glare on the computer screens." He installed a curved barrel vault and fitted it with fluorescent fixtures to create a residential atmosphere with soft indirect light. He also installed low-voltage lighting in a perimeter soffit to accent the architecture and provide illumination on fabric-covered panels where market surveys and stock prices are posted. The architect pointed out that these touches aid in creating a more soothing environment and added, "the tension between the old beautiful Beaux Arts facade and the new, ultra modern, non-traditional fashion forward design of the interior creates an exciting dynamic. It's a surprise element that makes you say 'Wow, this is what's inside?'"

The old Customhouse in Auckland, New Zealand, is also protected by landmark status, but its preservation restrictions not only apply to the exterior of the build-

ing, but extend to the interior as well. When Chicago-based designers Charles Sparks + Company were enlisted to convert the building into the DFS Galleria, which houses a collection of luxury boutiques, modern illumination needs for the retail settings had to be reconciled with the original aesthetic of the building. "We agreed with the Auckland Historic Places Trust that we wouldn't put any recessed lighting into the heritage ceiling," said lighting designer Don Stone. But retail environments need a high level of general illumination, as well as numerous accent lights on displays. "The client required at least 100 footcandles throughout the retail areas and between 150-250 footcandles at displays," he claimed. Their solution included incorporating unobtrusive metal halide upright sconces painted to match the walls to provide ambient illumination and suspending a slender track system from the ceiling. Mounting the track system required minimal penetration through the ceiling surface; it was installed to interfere as little as possible with the original crown molding and to offer maximum flexibility for accenting changing displays.

ENHANCING NOSTALGIC ALLURE

When a historic landmark undergoes a stricter restoration and, at the same time, needs a lighting upgrade to meet modern standards, even subtler and more sophisticated

(continued on page 48)

NEW AMSTERDAM THEATER

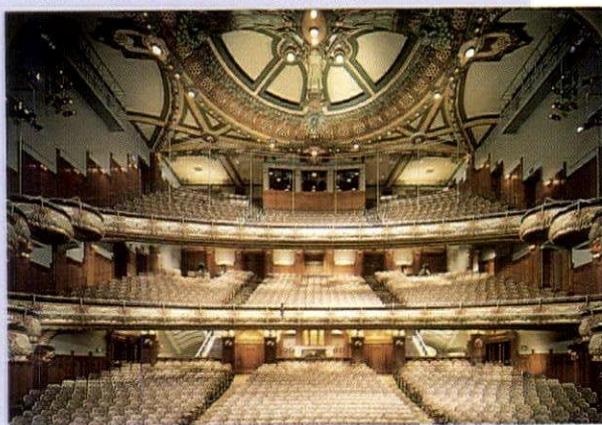
The New Amsterdam Theater, the first theater in New York to be illuminated with electric light when it opened in 1903, was recently restored by Hardy Holzman and Pfeiffer Architects. While the architects carefully restored the architectural features of the historic landmark, the lighting needed a substantial upgrade to meet modern standards. According to Daina Yurkus, who is the principal of Boston-based lighting design firm Light This! and who served as a lighting designer with Fisher Marantz Renfro Stone, which was the firm responsible for the lighting design of the New Amsterdam, the issues were divided between meeting the public expectations for higher light levels and minimal changes to the character of the historic fixtures and structure.

To meet both demands, the lighting designers discreetly placed recessed adjustable MR16 downlights in the auditorium and balcony areas, which allowed the designers to increase

light levels enough for the members of the audience to easily read their programs and get to their seats. The higher output/wattage and beamspread of these sources also allowed the designers to limit the number of fixtures used and still meet today's higher standards of required light levels for circulation and egress. They also used theatrical lights as architectural accents, hiding new ETC Source 4 fixtures within banks of new theatrical fixtures to uplight the proscenium arch and ceiling features with shutter cuts and controlled beamspreads. PAR38s were hidden within the restored decorative ceiling fixtures for ambient illumination. Additional low-voltage accent lights were hidden in the restored chandeliers and escutcheons to accent various restored features. Finally, all original sockets and exposed incandescent lamps were replaced.

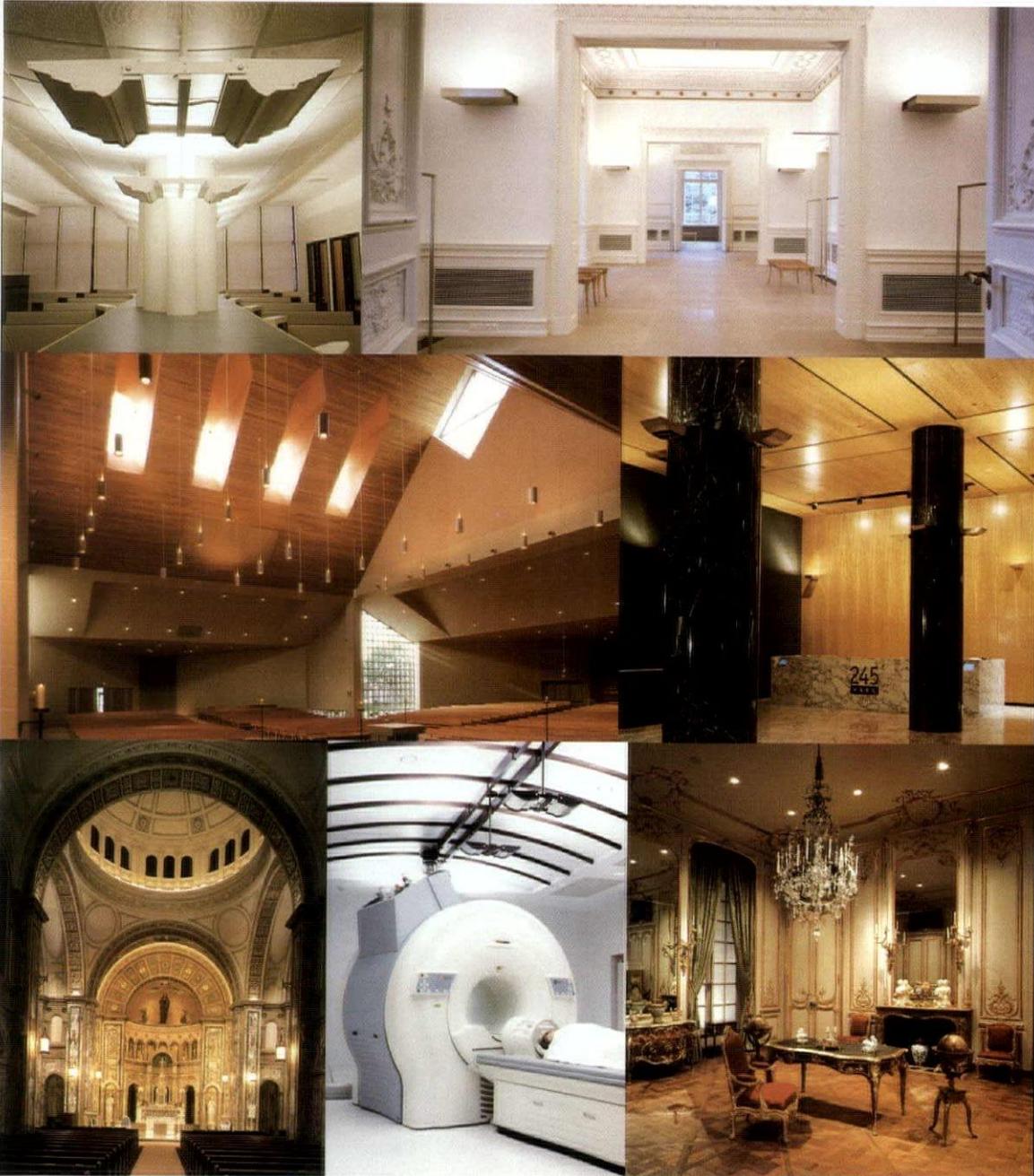
Photography: Whitney Cox

Lighting Manufacturers: Louis Baldinger; Nulux; Lightolier; Fiberstars; Electronic Theatre Controls



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Mt. Sinai Hospital Infusion Clinic NY NY Architect: Perkins Eastman Architects • **Jill Sander Hqtrs.** Hamburg, Germany Architect: Gabellini Associates, Lighting Designer: Johnson Schwinghammer
St. Mary's Church Alexandria, MN Architect: HGA, Liturgical Designer: Br. Frank T. Kacmarcik Obl. S.B. • **245 Park Ave. Lobby** NYC Architect: Moed de Armas Shannon, Lighting Designer: Kugler Tillotson •
Our Lady Of Angels Chapel Baltimore, MD Architect: Kelly, Clayton & Mojescak, Interior: Francis Gibbons, Engineer: Spears Votta & Associates, Lighting Designer: Bruce Dunlop •
MRI Suite, Univ. of MD Med Systems Baltimore, MD Architect: Jens Manmen AIA & Zeidler Roberts Architect, Engineer: Henry Adams, Lighting Designer: Bruce Dunlop •
Getty Decorative Arts Galleries Los Angeles, CA Architect: Richard Meier, Interior Designer: Thierry W. Despont, Lighting Designer: H.M. Brandston

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1898
1998

(continued from page 46)

integration of contemporary light sources is called for. One such building is New York's New Amsterdam Theater, which continues to serve its original purpose and was recently restored by Hardy Holzman and Pfeiffer Architects. When a beloved building is restored, there are several layers of public expectations to contend with, according to Daina Yurkus, who is the principal of Boston-based lighting design firm Light This! and who served as a lighting designer with Fisher Marantz Renfro Stone, the firm responsible for the lighting design of the New Amsterdam. "A lot of time, money and craftsmanship goes into restoring a historic theater, and everyone wants to see the results," she said. "The challenge for the lighting designer is to enhance the architectural features in a discreet way." She also pointed out that people expect a higher level of light than they did in the past, too. "At the time this building was constructed, people were used to candle and gas light, which provided extremely low light levels," she said. "Now there are much higher levels required for egress and general circulation." The lighting designers discreetly placed recessed downlights in the auditorium to increase light levels enough to allow audience members to easily read their programs and get to their seats and hid new fixtures within banks of new theatrical fixtures to uplight the proscenium arch. Additional low-voltage accents were hidden in the restored chandeliers and escutcheons to accent wall friezes.

The same issues came into play in relighting the San Francisco War Memorial Opera House, which was badly damaged during an earthquake in 1989 and was just renovated by Auerbach + Associates. "This is a historic structure that is especially important to the people of San Francisco—they have strong personal feelings about the building," said Larry French, a lighting designer on the project. "Even though this was the first opportunity since it was built in 1932 to give it a full upgrade, we touched very little in terms of visible fixtures and architectural lighting. If you're going to make changes, they better be changes that support the historic nature of the building unless you're intentionally taking a radical departure." Here, the lighting designers also wanted to increase light levels. "We were afraid to increase the wattage of the original design because we were still using much of the original wiring, but we wanted to increase the light output," said French, "so we replaced the original incandescent sources with halogen A-lamps of the same wattage." They also gutted the wiring of the original giant 28-in.-diameter starburst chandelier and replaced it with a new system of lift-out socket raceways to enable it to be easily relamped from above, while leaving its three-tiered structure intact. Originally, the theatrical fixtures were mounted in plain view, but in the

reconstruction, the designers hid them in newly created vertical slots in the side bays, which made room for two new lighting positions to be added to uplight and accent the proscenium. "You need to be very respectful of what is existing and to reveal what's there in a careful way," said French. "Basically you're making it visible again in a way that's invisible; it's trickery."

INTEGRATING BEAUTY WITH PRACTICALITY

In many historic structures, the lighting fixtures themselves are often dominant architectural features that define character and connect disparate elements when changes or additions occur over time. A case in point is the Timberline Lodge, another historic landmark, which is the second oldest ski resort in the U.S. Located on Mount Hood in Oregon and built in 1937 as one of a number of Forest Service projects that were part of the WPA, the lodge was designed in what Richard Spies, director of design of Group MacKenzie, calls "a Cascadian-style of architecture." In honor of the Lodge's 60th Anniversary, an ongoing effort called "Light Up the Lodge," which is sponsored by Portland General Electric and chaired by Spies, promises to recreate many of the original light fixtures, which ranged from ceiling fixtures and wall sconces to floor and table lamps crafted of wrought iron, stained glass, mica, and raw hide.

Adaptations of these fixtures will also be created for later additions to the lodge, which were constructed in the 1970s to serve as conference banquet halls, but lack the beautifully detailed light fixtures of the original structure. Here, light fixtures are used as a link to tie together old and new architecture. "The lighting was so drastically different in the newer additions that they didn't feel as if they were part of the lodge," said Spies, who worked with George King Associates to adapt energy-efficient sources into reproductions or interpretations of the original fixtures. According to Lark Lahart of PGE, the new fixtures and sources will allow for a 35-50 percent reduction in the light load. "In this isolated location, the increased utility demand of the less efficient lighting would be a financial hardship," said King. "The energy-efficient sources allows the lodge to have more energy for dishwashers, computers and other modern amenities that business people and conference attendees expect." In addition to reducing operation costs, the changes will result in potential energy rebates and business tax credits. ■

See page 50 for sidebar by Howard Brandston.

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VIRTUAL REALITY: LIGHTING THAT RECAPTURES THE PAST

By Howard M. Brandston, FIES, FCIBSE, FIALD, LC

One reason Americans go to Europe is for a glimpse of the past. We visit chateaux, palaces, stately homes: those unique repositories of art and furnishings which took generations to assemble. And as we move through the rooms of Queen's House in Greenwich or tour the palace of Versailles, we often step back in time and picture ourselves living, being of this place, of that era. Momentarily, we become lord of the manor, queen for a day. That imaginative leap is one of the prime experiences of travel.

Our own country is too young for chateaux, too democratic for palaces. We do, however, have the new Decorative Art Wing of the Getty Center in Malibu, and visiting it is quite possibly the next best thing to a seat on the Concorde. The wing consists of a superb sequence of period rooms, installed within the new Getty Museum complex, by architect Thierry Despont, with whom I had worked before.

Each room is virtually historically perfect as to dimensions, window design, ceiling. Each is packed with treasures of the period. Visual proof that with sufficient taste and money, almost every element of the past can be replicated. With one exception—lighting.

Few commissions present the designer with such thorny problems as Decorative Art galleries. I geared myself for a major challenge.

I had previously lighted Clayton, the former home of Anne Frick, as a museum in Pittsburgh. Clayton, however, is a Victorian-style mansion as befits its collection. Whereas the Getty campus is young and its architecture is contemporary. All told, about as far from the stately homes of Europe as you can get. My difficulties were compounded by the fact that this wing and the exterior walls left little space for the windows that were part of the architecture of the historic rooms. Yet I hoped to light these rooms in a way that would encourage visitors to take that leap backward in time. To settings, several centuries past and in an approximation of the same light of that period.

I had visited many decorative art galleries and went back to see what other designers had done. Most resorted to track lighting mixed in with accent lights, etc. To me, this did not respect the integrity of the decor. Indeed, the well-lighted room needs no gimmicks, merely an occasional highlight or touch-up to provide interest and focus.

I'm old enough to remember with affection a time before rural electrification, when country houses were lit by candles, kerosene lamps, fireplaces. In my experience, nothing produces as warm and flattering an ambiance as live flame.

Candle light would have been ideal for the Getty project, though impossible for safety and several other reasons. My solution called for a new type of luminaire that could approximate the intimacy of candlelight (in other words, employ hi-tech to create a low-tech impression) without sacrificing the clarity required by visiting scholars and antiquarians.

The Getty people shared this vision. Thanks to their generosity, we purpose-built a quarter of an entire gallery to serve as a lab. Also, by using perspective drawings that showed every chandelier, candelabra and bracket in place, we analyzed what it would be like to pass through actual rooms lighted by these sources. I felt it important to view the wing not as a collection of antiques but as a holistic celebration of time and place. The past recaptured. And to achieve this effect with a single type of fixture to be used throughout.

Edwin Rambusch of Rambusch Lighting collaborated with me to take conceptual design and build this unique luminaire. The end result is, I believe, an important breakthrough in museum lighting.

The fixture is almost infinitely flexible, with fully adjustable wall washing, downlighting, accent lighting, variable beam spread, UV protection—all focused through one minuscule aperture. The luminaire is small enough to be set flush with the ceiling, snuggled into decorative details. Nothing hangs down, nothing obtrudes. At the same time, it is flexible and powerful enough that the biggest room requires only 18 fixtures.

The luminaire uses two lamp types. One is 150W, 250W, or 500W T4 tungsten halogen lamp for downlighting and wall washing. The other is 50W or 75W MR16 lamp, which can tilt vertically as well as rotate 360 degrees, thus permitting accenting of almost any object in the room.

The lights are controlled by a multi-scene dimmer system, which creates a variety of brightness from space to space to help differentiate the visitor's experience within the different galleries. It could also be programmed to adjust to changes in the amount of natural light entering the space. With so few luminaires and with automatic dimmers extending lamp life, the savings in staff time and power costs are substantial. Moreover, by dimming the incandescent lamps, we can approximate the aura of candlelight—my primary goal.

To complete the "you are there" illusion, I drew upon my experience in theater lighting in treating the windows. Each has a length of theatrical striplighting in place.

Beyond it, through a scrim, the visitor sees what appears to be a genuine landscape from an earlier era. It is, in fact, a painting set one foot outside the window. But, with the visual impression, enhanced by diffused colored light spread through the scrim, the impression is extraordinarily plausible—almost real.

Let the computer people talk about Virtual Reality. The Getty's Decorative Arts Wing has captured it. Reality here is in the light, the art, the porcelains, the textures of the fabrics, the gleam of antique wood and Georgian silver.

Wherever you look, the past is present. And perhaps for a fleeting moment it is yours.

PHOTOGRAPHY: J. PAUL GETTY TRUST



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Bronzelite commercial landscape lighting fixtures blend perfectly with their surroundings, no matter what the application. These classic fixtures lend a measure of sophistication and beauty to enhance any commercial landscape setting. There is a specific Bronzelite fixture for every application, and each can be ordered with a variety of specialized optics for endless lighting possibilities. Bronzelite will transform your lighting ideas into a grand architectural statement.



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LIGHTING THE FUTURE WORKPLACE

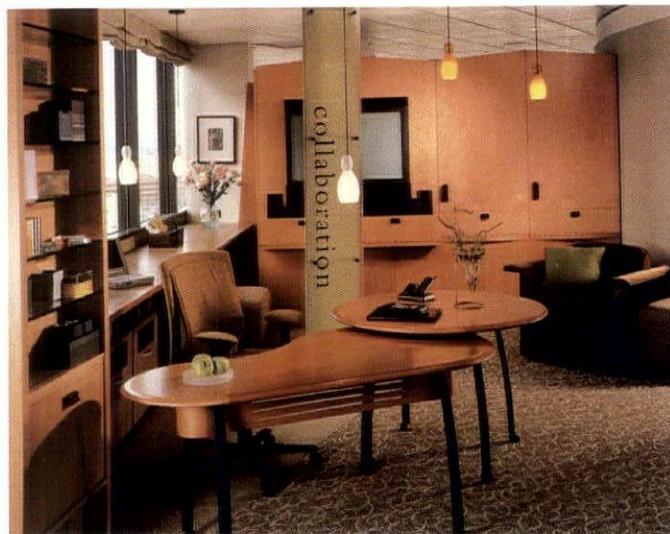
BY LOIS I. BURGNER, CONTRIBUTING EDITOR

Advances in technology and interior design are changing the way we work—and lighting design is expected to play a key role in the office of tomorrow. According to the Office of the Future consortium, the success of the work environment in improving a company's overall performance balances on four issues:

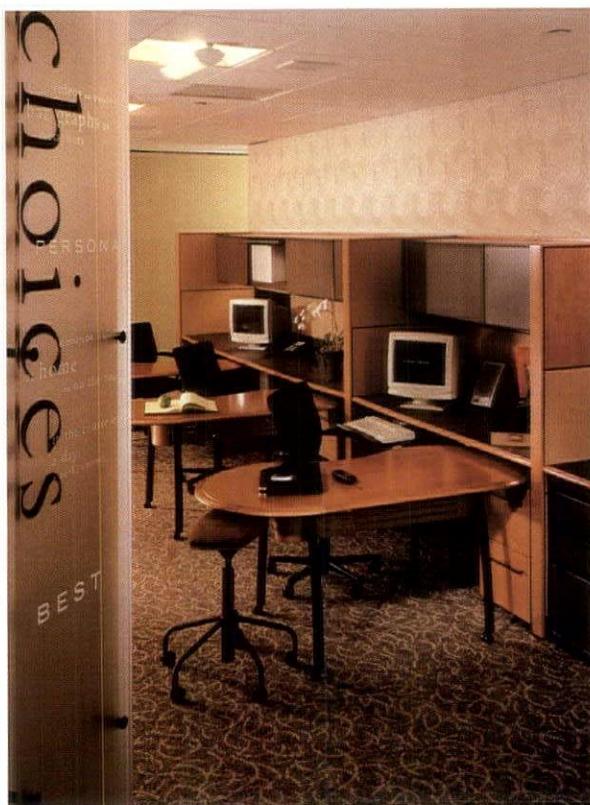
- business processes
- workforce behavior
- technology
- the workplace environment itself

Only when all of these are carefully integrated can the peculiar talents of lighting—enhancing communications and positively influencing human behavior—be harnessed to increase efficiency, productivity and customer responsiveness.

Future@Work: A Collaborative Exhibit to Improve Workplace Performance was created by the Office of the Future, a collaborative nonprofit partnership among 150 regional, national and international companies. The Future@Work demonstration project, located in Seattle, WA, and conceived



CONCIERGE DESK AND PRESENTATION ROOM: PENDANT FIXTURES ESTABLISH AN INVITING ATMOSPHERE AND PROVIDE AMBIENT LIGHT WITH A RESIDENTIAL FEEL. ANTICIPATED INCREASES IN WORKER MOBILITY DICTATE ADAPTABLE OFFICE LIGHTING—THE SWAGGED CORD ALLOWS THE PENDANT FIXTURES TO CHANGE LOCATION WITH THE FURNISHINGS.



OPEN PLAN OFFICE AREA: LOW CEILING HEIGHTS PREVENT THE USE OF INDIRECT LIGHTING, SO DIRECT/INDIRECT LIGHTING FROM SEMI-RECESSED 2x2 FIXTURES PROVIDE DIFFUSED WORK LIGHT, WHILE RECESSED LOW-VOLTAGE ACCENT LIGHTS ILLUMINATE SIGNAGE AND ARTWORK.

by Callison Architects in 1997, brought designers and manufacturers together to design a state-of-the-art workspace for a fictional client, Humbolt Hardware. The project then progresses beyond today's technologies and concepts to create an office of the future, circa 2007.

It was a unique challenge for Seattle's Sparling electrical engineering and technology consultants and its lighting division, Candela: it involved not just designing for an imaginary client and visualizing 10 years into the future, but bringing manufacturers on board to donate equipment. The end result is a work environment unlike any other. But beyond its example, Future@Work provides progressive concepts that break the paradigm of the '90s office.

With the mobility provided by modern telecommunications and social norms, employees can work anywhere—home, on the customer's site, at the beach. "What are you going to do to entice people to come to the office?" the team asked itself. Encouraging collaboration and *ad hoc* teaming, as opposed to independent task completion, is vital in the new business world. "We felt the whole atmosphere had to be a more comfortable space," said Denise Fong, a principal at Candela. "And it had to compete with the other spaces where you might choose to work, like your house. So there's a very strong 'residential' component."

Accent lights, decorative pendants and "homey" table lamps are scattered throughout the space. On the whole, light levels tend to be low (even though higher levels are available via controls), and color temperatures are all in the incandescent (2800K) range. Flexible track lighting helps allow the village green space to be reconfigured to meet future changes in the office layout.

"It's not the hardware so much as the overall quality of light that you don't see every day," Fong said. "When you walk into it, it doesn't feel like an office. It's not quite a hotel feel, but somewhere in between."

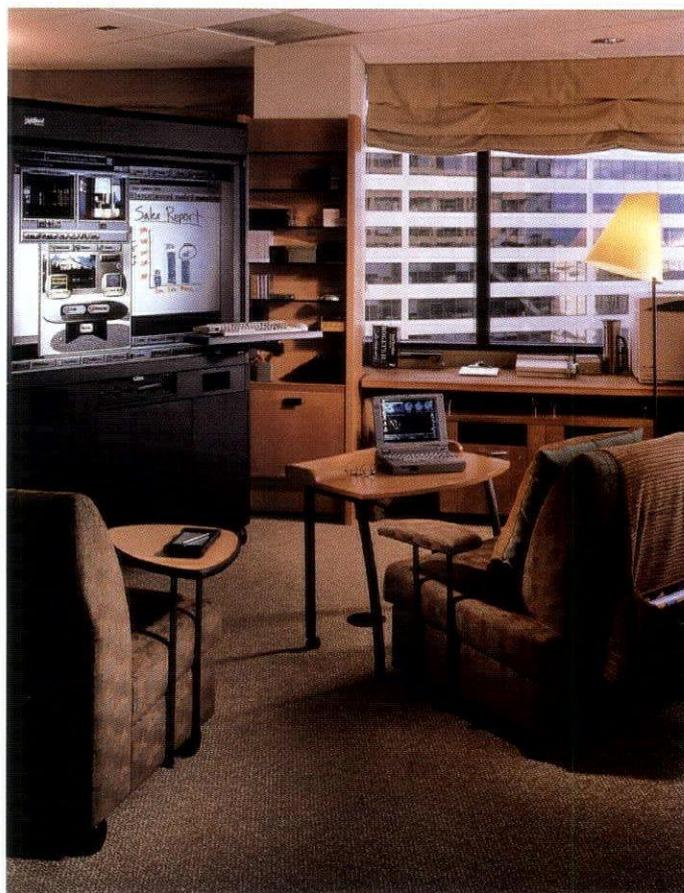
FLEX SCHEDULE

Flexibility is a key component to the project, especially in the 2007 space. Laptops, cellular phones and the nomadic nature of the workforce will lead to cost-effective nondedicated work areas designed to serve a number of individuals and tasks. Preset and manual dimming controls are provided in each room, and infrared remote controls adjust overhead fluorescent fixtures in open office areas. Said Fong, "We felt a controls system was necessary because of the variety of different tasks that might happen in any one space." The adjustability also accommodates older workers that may require higher light levels.

During design development, Fong referred to productivity studies that concluded that workers with direct control of their environment generally respond with increased productivity: "If you can increase your worker productivity even one percentage point, that's a lot more money than your yearly lighting costs. Spending \$100 a person for individual control of the lighting in their general area, will, in a year, easily recoup that amount in productivity increases." In her lighting design, she also considered the efforts of Humbolt Hardware to attract and retain choice employees: "Anything you can do in the room that gives them control of it—not just the lights, but the air-conditioning, the window screens and the way the furniture is placed in the room—all of those things help them put forth their best creative effort."

The holistic approach to office planning is a trend that the Future@Work team hopes will be the wave of the future. "For this project, we worked together from the start and put our concerns on the table at a much earlier stage than would have been done on a normal project," Fong said. "If you enter the project very early, even though you might not produce any drawings or any documentation, you have a shot at making a positive impact."

The result of a more integrated solution could be a better space for the client: more functional and more efficient use of space, lower costs, even lower maintenance. This is particularly true, Fong said, where videoconferencing and



GROUP WORK AREA: IN THIS AREA, THERE IS A LARGE MOBILE MONITOR USED FOR TELECONFERENCING OR DISPLAYING MEETING NOTES, SINCE THIS PARTICULAR USE REQUIRED LESS ILLUMINATION, LOW-VOLTAGE DOWNLIGHTS GIVE FOCUSED LIGHT FOR READING AND NOTE-TAKING. WALLWASHERS PROVIDE PERIMETER BRIGHTNESS WHEN THE BLINDS ARE LOWERED.

high-tech electronic whiteboards and computer projectors are planned. Controls and fixturing must accommodate the needs for very high or very low vertical illuminance.

"We just can't think about lighting the way we did 10 years ago, when there was a definition of the space and the lights were set a particular way for a defined task. We have to think about more flexible solutions."

As the Future@Work exhibit undergoes renovations in the coming months, it will focus more on "green" technologies. Though Candela met the Washington State energy code for office lighting—including display and signage lighting for the exhibit—the current lighting does not include low-mercury fluorescent technologies. Because the footprint was so small and many types of spaces were demonstrated, few 4 ft. T8 lamps were used. Had the compact fluorescents employed been made available in low-mercury versions, Fong would have used them. ■

Turn the page to view the lighting plan and fixture schedule.

Future@Work is located on the 28th floor of Seattle's Columbia Seafirst Center. Tours are conducted by appointment only; call (206) 484-4004. Visit their web site at www.future-at-work.org.

LIGHTING FIXTURES & MANUFACTURERS

A1 Kurt Versen Co.—K7340 recessed low-voltage accent light

A2 Kurt Versen Co.—E7519 recessed incandescent A-lamp downlight/wallwasher

A3 Resolute—Precious-T decorative triple pendant

A3A Resolute—Precious-Simple decorative single pendant

A4 Kurt Versen Co.—K7301 recessed low-voltage downlight

A5 Bruck USA—Flexline flexible cable; Butterfly decorative pendant; Bini wallwasher; Takato reflector accent light

A10 Zumtobel—ZX Series surface-mounted trunking system; ZX-RC Series trunk-mounted fluorescent direct/indirect; ZX 9051 Series trunk-mounted low-voltage accent light

FUTURE @ WORK

SCALE: 3/32" = 1'-0"



LIGHTING FIXTURES & MANUFACTURERS (CONT.)

A11 Lucifer—Barracuda floor lamp

A12 Leucos—Vittoria floor lamp

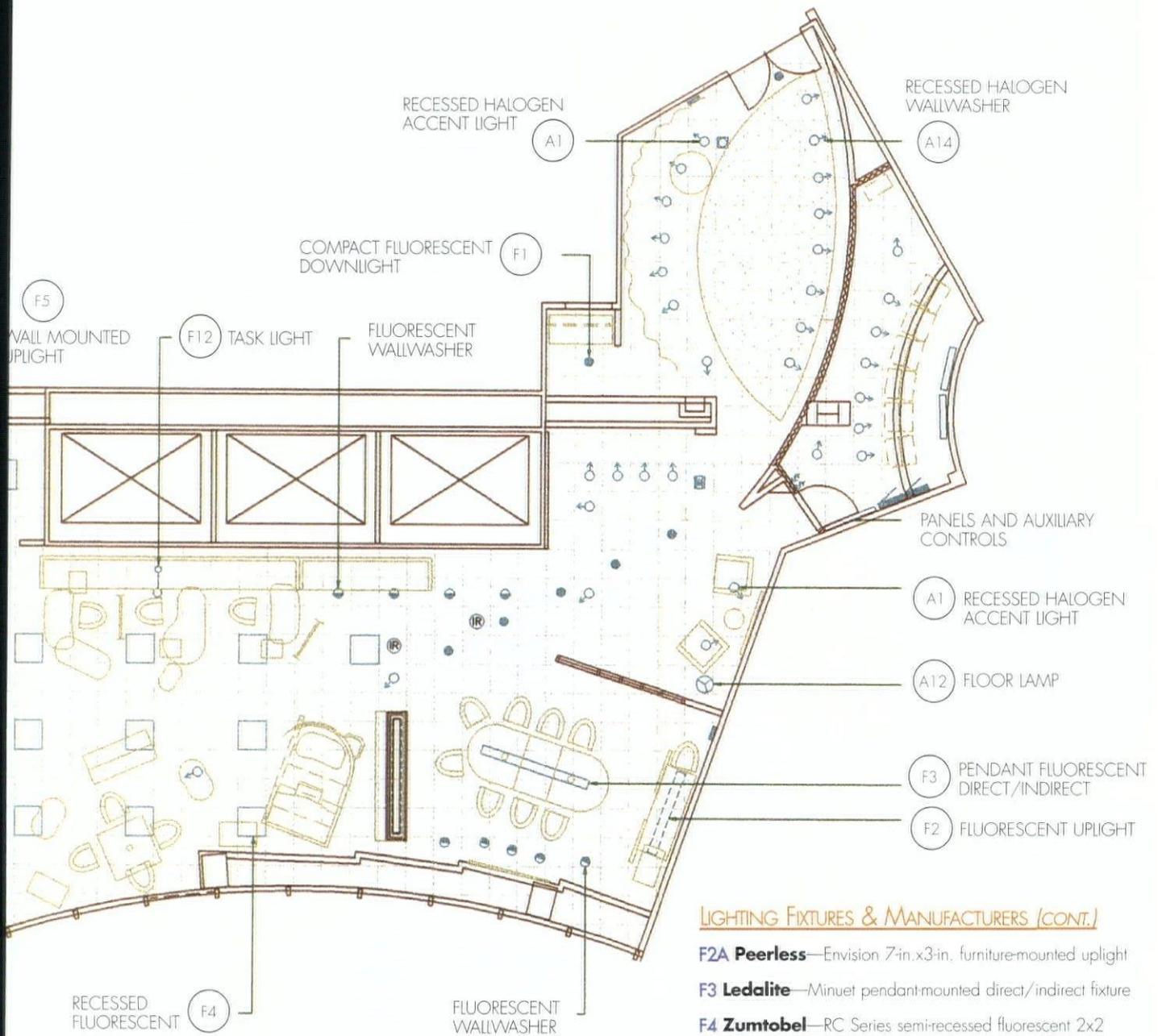
A13 Leucos—Micene floor lamp

A14 Lightolier—7037 recessed lensed wall-washer

F1 Prescolite DFT 632 Series recessed compact fluorescent downlight

F2 Litecontrol—Cove 45 furniture-mounted uplight

LIGHTING PLAN



LIGHTING FIXTURES & MANUFACTURERS (CONT.)

- F2A Peerless**—Envision 7-in.x3-in. furniture-mounted uplight
- F3 Ledalite**—Minuet pendant-mounted direct/indirect fixture
- F4 Zumtobel**—RC Series semi-recessed fluorescent 2x2
- F5 Litecontrol**—Classica Series wall-mounted indirect fluorescent uplight
- F6 Metalumen**—Acorn Series wall-mounted fluorescent uplight
- F12 Waldmann**—Sonoma tasklight; Valencia tasklight
- Translite** Cue Series clamp-on adjustable low-voltage accent light
- Prescolite** CFW 818 Series recessed lensed floor- and wall-washer

Controls: **Lutron**—Vareo Series; Grafik Eye dimming system; hand-held remote control

FIBER-OPTIC TECHNOLOGY— FROM SPECIALTY TO FUNCTIONAL

BY DAVID HOUGHTON, PE, CONTRIBUTING EDITOR

Fiber-optic lighting is steadily expanding beyond decorative and specialty applications to include more mainstream installations. Hand in hand with this trend, the fiber-optic industry is experiencing continued technological evolution, consolidation of fiber-related businesses and a leveling of the playing field via the establishment of standards for photometric data.

As a result, look for fiber-optic systems to solidify their hold on specialty markets and—within a year or two—give conventional lighting a run for its money in a few general-illumination applications such as downlighting and cove lighting.

Most of us are familiar by now with the “conventional” applications of fiber-optic systems:

- Decorative and accent lighting (high-end residential lighting, retail displays, stairways and case work)

- Lighting for spaces that are intolerant to ultraviolet radiation and/or heat, or where lighting is difficult to maintain, (museums, art galleries, refrigerated spaces, clean rooms and natatoriums)

- Multi-point installations (starry ceilings, chandeliers, theatrical effects)

- Architectural highlighting and landscape lighting (building edges, trees and walkways).

Fiber optics are sometimes regarded as the “option of last resort,” said Gilbert Mathews, president, Lucifer Lighting—often specified only when nothing else will get the job done. “Even though we’ve seen incredible interest from lighting designers and architects, we still have a lot of initial resistance to overcome because of overselling in the past,” he said. “Now that we’re moving toward standard photometric data, we will be able to

show how much light a well-designed fiber-optic system can provide, and allow specifiers to compare expected output to conventional sources.”

The cost of fiber-optic systems is still high compared to conventional lighting solutions. Typical costs for glass and plastic fibers are \$5-15 per foot, and \$400-\$1,000 for illuminators. “Right now we can do fiber-optic downlights for about \$350-400 each,” said Dan Haydt, product manager, Remote Source Lighting International (RSLI). “I think we can get that down to \$200 or less, and then our systems can compete with high-end recessed downlights.”

Art Hatley, VP and general manager of the commercial lighting division of Fiberstars, said their fiber downlights are already competitive with some conventional downlights. “The first cost premium of our fiber downlights used to be 20-70 percent compared to MR16 systems. With costs of \$100-200 per downlight (depending on intensity), we can

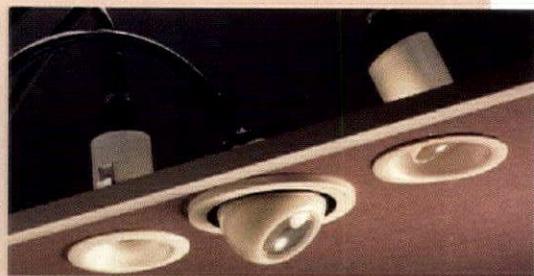


FIBER-OPTICS ARE USED IN A VARIETY OF APPLICATIONS, INCLUDING EXTERIOR. HERE, POINT-SOURCE LIGHTING ILLUMINATES A WATERFALL. LUCIFER LIGHTING, CIRCLE No. 34

FIBER-OPTIC LIGHTING OFFERS THE FLEXIBILITY TO ACCENT AND HIGHLIGHT MERCHANDISE AND ARCHITECTURAL DETAILS EVEN IN SMALL SPACES, SUCH AS THE DISPLAY CASES AT JUDITH LIEBER HANDBAGS. LSI, CIRCLE NO. 35



UP TO 300 POINTS OF LIGHT CAN BE ILLUMINATED BY A SINGLE FIBER-OPTIC ILLUMINATOR. FIBERSCENT FE-9000 SERIES, FIBERSTARS, CIRCLE NO. 36



FIBER-OPTIC DOWNLIGHTS MAY SOON BE ABLE TO COMPETE WITH HIGH-END CONVENTIONAL DOWNLIGHTS. REMOTE SOURCE LIGHTING INTERNATIONAL, CIRCLE NO. 37

deliver equal or better light than recessed MR16s for equal or lower cost," said Hatley.

"High cost and lack of brightness are still the biggest impediments to specifying fiber systems for functional lighting," said Nancy Clanton of Boulder-based Clanton Engineering, "although both are improving. I can use fiber-optic lighting in a small cove, but if I make the cove just a bit bigger I can still use a fluorescent system at a fraction of the price."

TECHNOLOGICAL PROGRESS

Although we haven't seen earth-shattering breakthroughs in fiber-optic technology recently, welcome evolutionary developments come along each year. Examples include:

Improved side-emitting fibers. Lumenyte's latest generation of Super LEF fiber uses custom-milled notches to evenly spread out light along the side of a fiber run, depending on the fiber length, illuminator locations and so on. This product recently appeared in a high-profile installation atop the "Chrysler Building" at Las Vegas' New York New York hotel/casino (see photo next page).

Improved side-emitting fibers are challenging neon lighting for signage and architectural accent applications. "The big deal is maintenance," said RSLI's Haydt. "There's a Las Vegas casino that spends \$10,000 a month on neon maintenance—replacing broken tubes and burnt transformers. In situations like that, side-emitting fiber systems can provide big maintenance savings."

New light sources. RSLI's Perpetual Light Pump is the first fiber-optic system to employ the sulfur lamp. The PLP has 64 ports, each of which can supply 1,500 lumens—about the same as a 100W incandescent downlight. RSLI's Haydt pointed out, "Even though this is still a demonstration/concept product, we're excited about its potential. We see this product being able to light large clean rooms or hazardous-material handling facilities—perhaps coupled with large-diameter light pipes for general area illumination."

Mathews of Lucifer Lighting is looking to U.S. lamp

manufacturers to come out with lamps designed to optimize the performance of fiber-optic illuminators. "We're using a very good 100W metal halide lamp from Germany, but we'd like to see more products from dedicated fiber-optic companies. The lamp manufacturers could build reflector lamps that would make illuminators more efficient and less expensive." Unison Fiber Optics is heeding that call by developing a new 68W metal halide lamp specifically for illuminators. Unison plans to use the lamps in its own illuminators and supply them to other manufacturers.

Illuminator efficiency. The light coupling efficiency of fiber-optic illuminators has improved three- to four-fold over the past few years. "The efficacy we're seeing out of the metal halide illuminators with solid core fibers today is 15 to 20 lumens per watt entering the fiber," said Dr. Nadarajah Narendran with the Lighting Research Center in Troy, NY. Losses in the fibers would reduce system efficacies to 12 to 16 lumens per watt at 10 ft. Although fiber-optic systems aren't very efficient in a lumen-for-lumen comparison with light sources such as metal halide or fluorescent, fiber-optic systems can provide efficiency benefits with their flexibility and ability to put light exactly where it's needed, allowing an illumination job to be done with fewer lumens. In general, however, fiber-optic lighting systems are still not cost effective for lighting large areas.

Shutter systems. One of the main limitations of fiber-optic systems is the difficulty in controlling individual fiber tails. RSLI is working on adding shutter control to the Perpetual Light Pump, and other manufacturers are also exploring switching systems.

CORPORATE CONSOLIDATION

Fiber-optic companies are forging alliances to offer complete fiber-optic system integration, and big players are starting to get into the fiber game. Unison Fiber Optic Lighting Systems, formed at the beginning of 1998, is a good example. The company is a joint venture of a metal halide specialist (Advanced Lighting Technologies) and a fiber manufacturer (Rohm and Haas) that now offers

(continued on page 58)

(continued from page 57)

metal halide illuminators, plastic and glass fibers, and terminal lenses including a track system. "We definitely think that offering complete systems is the way to go," said Jeff McDonald, VP marketing and sales, Unison. "It gives us better performance and cost control."

Big players are getting into the fiber-optic lighting business. Minnesota-based 3M is now a 15 percent owner of Lumenyte. RSLI's Haydt expects that large non-fiber fixture manufacturers will be acquiring equity stakes in fiber companies over the next couple of years. One by-product of deep corporate pockets is the availability of capital for opening new markets. Glass-fiber manufacturer Schott, for example, is developing an automotive lighting system that uses fiber for nearly every light source except headlights. As manufacturers gain a foothold in large new markets, production volumes will increase, driving prices lower for architectural specifiers. Similar developments in naval and aircraft applications are helping the industry mature. Lumenyte's Gregg Whitaker noted that "military and transportation are our fastest-growing markets."

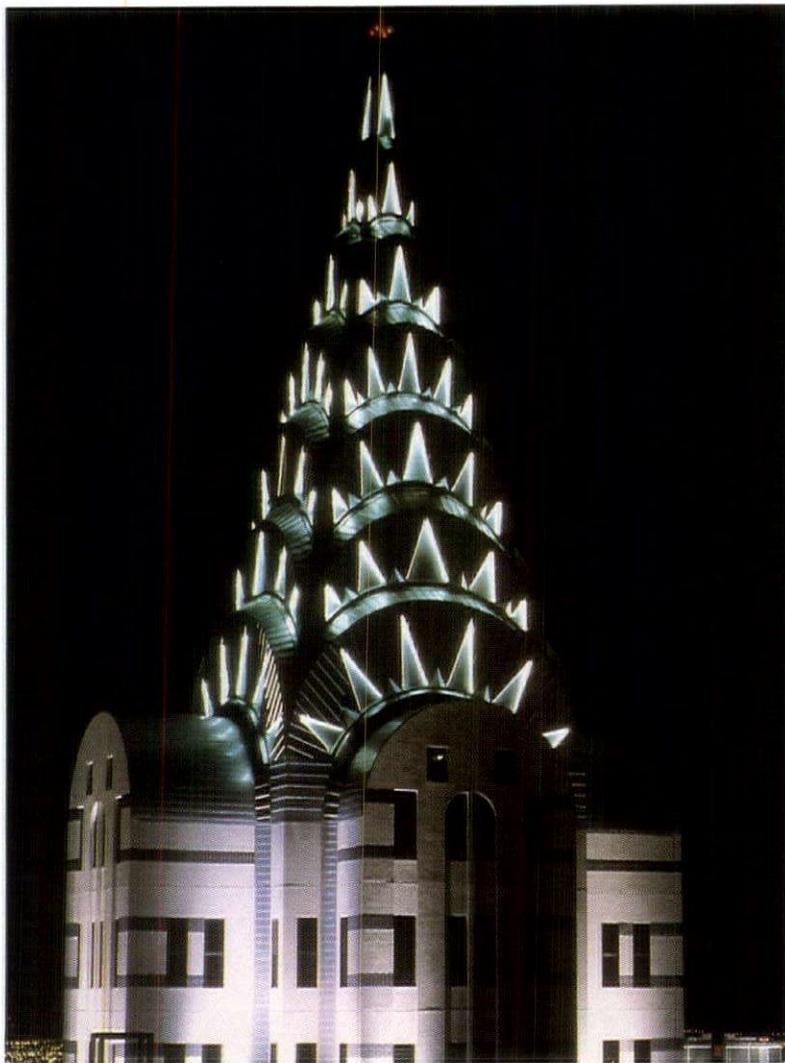
ESTABLISHMENT OF STANDARDS

Photometric data for fiber systems is now supplied by several manufacturers, including Fiberstars, Lumenyte and Schott. The nature of fiber-optic systems, however, makes standardization of photometrics much more difficult than for traditional lamps and fixtures. Long fiber runs, bending in the fibers and other installation variations, all affect final light output. Lucifer's Mathews provides another example of the difficulties in measuring fiber-optic light output. "If you've got a harness with a dozen tails, the center ones tend to be brighter. Do you report the light output from the very brightest, or take an average of all of them?"

To deal with these issues, the National Electric Manufacturer's Association (NEMA) formed the Remote Illumination Systems Section, a committee to define standards and test methods for remote lighting systems, including fiber optics and tubular light pipes. The committee, which has been meeting for about a year, is currently creating a standard glossary of terms and addressing safety issues associated with remote source lighting illumination. Committee member Michael Mlazgar of Lumenyte expects that in the first or second quarter of 1999, the group will begin addressing the challenging issue of creating standards for measuring and predicting light output from remote lighting systems.

The result will be standard "Methods of Test" (MOTs) for producing photometrics from end-emitting and side-emitting fiber systems. "We'll likely affect the National Electric Code as well," said Hatley of Fiberstars. "For example, we may get a standard color jacketing for fibers that enable electricians to avoid mistaking fibers for coaxial or other cable types."

For the near future, fiber-optic systems will continue to fill lighting niches that other systems can't. Each year, however, new products and creative installations will broaden the reach of this unusually versatile lighting technology. ■



SIDE-EMITTING FIBER-OPTIC SYSTEMS ARE CHALLENGING NEON LIGHTING FOR EXTERIOR APPLICATIONS SUCH AS LUMENYTE'S SUPER LEF SIDE-EMITTING FIBERS ON THE "CHRYSLER BUILDING" AT THE NEW YORK NEW YORK HOTEL/CASINO IN LAS VEGAS. LUMENYTE, CIRCLE NO. 38



DON'T LET YOUR PROFITS MELT AWAY.

If you display and sell heat-sensitive items such as cosmetics, chocolates, produce, meats, frozen foods or baked goods, conventional lighting can seriously hurt your sales. It can either damage the merchandise or require such low settings that the display loses its entire sales appeal.

The solution is simple: Fiber optic lighting, which moves the light, but not the heat, through fiber optic cable from a lamp at a remote location to whatever site you wish to illuminate.



In the example photographed here, the chocolate bunny on the right was lit with a standard halogen lamp (EXN type). The other was lit with a Unison Fiber Optic Lighting System to the same light level. After just two hours, the difference was obvious.

So don't lose your head over display lighting options.

Just contact Unison at: in U.S.: 1•888•unison9.
Worldwide: (440) 519•1033. Or log on to our Website at www.unison9.com

product focus

OUTDOOR & LANDSCAPE



Inspired by old world English-style lanterns, the Manhattan Series of decorative protection lanterns from **Norwell Manufacturing** features protective decorative cages and sandblasted hammered opal glass (lanterns using water glass are also available). The Manhattan series is offered in a variety of styles, models and finishes. The largest of two wall bracket models, Model 1210 (shown in Sienna Brass) measures 12½ in. wide x 22¼ in. high and extends 13¼ in. The lantern is made of spun parts, sandblasted glass and comes with three 60W candelabra sockets. Most models offer multiple candelabra sockets; two are offered with single Edison sockets. UL-listed. **Circle No. 50**

SPI Lighting's flexible Echo Series features extruded aluminum housings in lengths up to 8 ft. to provide structural integrity and corrosion resistance for wet locations. New "weathered" finishes are suited for outdoor applications. Opticals, up to 85 percent efficient lamps, accommodate linear fluorescent, metal halide and halogen in single- and multiple-lamp configurations. Integral and remote ballast options simplify form. UL-listed. **Circle No. 51**



Designed and developed by architect Alfred Homann and Louis Poulsen for **Louis Poulsen**, Kipp is a post top fixture featuring a patented tilting swivel for one-hand relamping. With a flat top shade and a white internal reflector combined with a conical shaped diffuser to shield the lamp, Kipp provides a wide uniform distribution of light. The top shade is constructed of die-cast UV and weather-resistant ASA resin that is color stabilized. Various finishes are available. Kipp uses up to 200W incandescent, 175W metal halide, 150W HPS or 85W QL lamps. UL-listed. **Circle No. 52**

The Steplyte Landscape Lighting Series from **Bronzelite** offers lighting products for walkway and stair lighting applications. The new WLA5000 incorporates a semi-recessed polycarbonate lens for maximum lighting of pedestrian areas and is field-adjustable for symmetrical or asymmetrical light distribution. The WLA4000 model features a lens of frosted tempered glass and mounts flush with the wall surface to provide fully recessed lighting. The outer housing on both models is constructed of copper-free, die-cast aluminum with stainless steel fasteners and hinges; a corrosion-resistant, polyester powder coat provides a durable finish. UL-listed. **Circle No. 53**



Lighting incorporates curvilinear and rectilinear forms to create a visual bridge between varying elements. A field-interchangeable system of segmented and hydroformed reflectors provides uniform, glare-free illumination. Boulevard fixtures are available in a variety of colors with a full range of mounting capabilities and other options. UL-listed. **Circle No. 54**



Bega/US's Product #8101, the Indirect Pole Luminaire, provides indirect illumination for outdoor spaces. The fixture features a concealed optical system which focuses the HID light source on a large 39¾-in. disk supported by stainless steel struts. The result is a uniform indirect light distribution. Product #8101 is adjustable from horizontal to 30 degrees for symmetrical or asymmetrical distribution. UL-listed. **Circle No. 55**

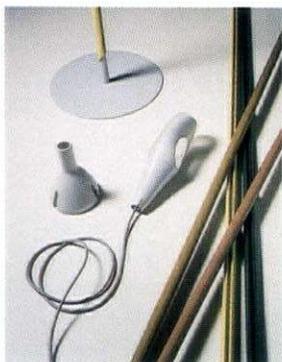


Pennsylvania Globe Gaslight's new Harbor Walk fixture and post assembly features a clear globe for a nautical flavor and an interior shielding stacked reflector system for optical control. Single, twin and wall-mounted models are standard. UL-listed. **Circle No. 56**



The CSI64/1000 from **Phoenix** is a compact outdoor architectural lighting fixture utilizing the CSI PAR64 1000W metal halide lamp. The lamp has a 6-degree beam spread and provides 1,350,000 CBCP. A side-mounted, fully encapsulated electronic ignitor is position insensitive, eliminating heat problems. A hot restrike version is also offered. Optional snoots are available for glare guard control and to hold color dichroics, optical lenses and louver glare guards. UL-listed for marine wet location-outside type and CUL-listed for indoor/outdoor. **Circle No. 57**

Natural colors and organic shapes characterize **Luceplan USA's** versatile Pod Lens line of fluorescent lighting fixtures designed by Ross Lovegrove. Essentially a waterproof polycarbonate shell structure with prismatic walls that diffuse the light from within, Pod Lens is designed for use with a 23W compact fluorescent lamp. The fixture can be placed on top of an extruded colored pole set into the ground or into a weighted base or hung individually or in groups from the branches of a tree. Pod Lens can also be attached to a wall. The fixture will be available in the U.S. early next year. UL-listed. **Circle No. 58**



Hubbell Lighting's Facade Flood is a compact HID floodlight designed to provide lighting for building facades, landscapes, signs, displays and general security. The Facade's one-piece diffuse aluminum, hammertone reflector offers wide illumination for close set-back applications. The unit has a 1/2-in. NPSM threaded knuckle for universal aiming and mounts to standard junction box covers or troughs. Facade is offered in 120V and available with 50W-150W HPS with NPF ballasts and 50W-100W metal halide with HPF ballasts. Various accessories are available. UL- and CUL-listed. **Circle No. 59**



Lumiere Design & Manufacturing's Model #1702, a new addition to the Hollywood series of compact outdoor imaging projectors, features a low-voltage system utilizing a 12V halogen MR16 light source with a 75W lamp maximum. Mounted on the ground, trees or exterior/interior walls, the

fixture can be used with metal or glass templates (not included) to produce a range of effects. Available in three standard finishes. UL-listed. **Circle No. 60**



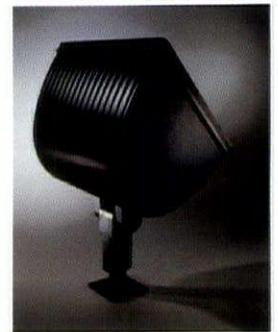
Selux's Urbi environmental design system provides the urban designer an integrated streetscape system. The fixture is constructed of a die-cast aluminum half-spherical frame with a two-piece vacuum-formed clear globe with pebble grain finish on the inside. The Urbi delivers controlled brightness on roadways, park paths and pedestrian walkways. Poles, arms and banner mounts are available in corrosion-resistant anodized aluminum. UL-listed. **Circle No. 61**



Kim Lighting's in-grade lighting fixture, Lightvault, produces lighting effects similar to above-grade floodlighting. Combining composite housing construction and bronze trims, Lightvault is backed by a 25/7-year limited warranty. The concealed lighting fixture is capable of a 60-degree aiming range. A selection of optical components is offered. UL-listed. **Circle No. 62**



Ground mounting **Ruud Lighting's** Parabolic Rectangular Series floodlight produces a low-profile, ground-hugging effect suitable for many outdoor applications. The compact fixture measures 5¹/₁₀ in. deep x 16 in. long x 9¹/₄ in. high, and its parabolic-shaped reflector provides light distribution patterns suited for highlighting tall, narrow objects such as flagpoles, columns or steeples. The fixture features the seven-year warranted Delta Guard finish, heat sunk components and weatherproof door frame with impact-resistant, tempered glass lens. 50W-175W metal halide or 35W-150W HPS. UL-listed. **Circle No. 63**



On **Sterner Lighting Systems'** Infranor Polaris-12 floodlight, a patented arc stream aligner allows for rotation of the lamp's arc tube while repositioning the arc stream in the optical design center. This increases efficiency while decreasing unwanted spill light. The Polaris-12 also helps to accentuate surrounding environments with nine metal halide and seven HPS beam patterns to select from. Its sealed optical system retains the doorframe shape and maintains a watertight seal in all aiming directions. Only inches larger in size, the Polaris-12 contains all the features of Polaris-6 and is available in 250W and 400W versions and a 1000W metal halide using a remote ballast box. UL-listed. **Circle No. 64**



Architectural Landscape Lighting's Clock bollard and building-mounted lighting fixtures provide uni- or bi-directional landscape lighting. The bollard illuminates pathways or perimeters of parks, gardens or corporate grounds while the building-mounted fixture provides general illumination of entranceways or building-feature accents. Both models feature a half-oval die-cast aluminum housing. While a frosted tempered glass lens is standard, a prismatic acrylic lens with 360-degree rotation may be specified. A 120/277V integrated ballast is readily accessible and removable. Clock uses two 13W or one 32W energy-efficient compact fluorescent lamps. UL- and CUL-listed for wet location use. **Circle No. 65**



Less than 7 in. high and available in metal halide up to 1000W, Style M454 from **Elliptipar** features a low unobtrusive profile, adjustable sidearms and various mounting. The reflector and internal end plates are extruded high-purity aluminum with clear anodized specular finish and the lens is clear thermal- and impact-resistant tempered glass. Sidearms can be rotated 90 degrees in the field to position the reflector above or to the side of the ballast housing. Precured silicone door secured with captive tamper-resistant screws in stainless steel threaded reflector inserts to prevent seizing. UL-listed. **Circle No. 66**



Hydrel's M9000 Series Modular Ingrade lights are multi-purpose units designed for flush mounting in a variety of substrates or materials. The M9000's are used to uplight architectural and landscape features. Two configurations are available: a single-lensed version with optical aiming, and a double-lensed version with lamp module aiming. Both units feature Aimlock (to allow maintenance and relamping without re-aiming). The double-lensed version offers cooler surface temperatures. The M9400 has 9-in. footprint rated at 70W and the M9800 has an 18-in. footprint and is rated at 400W. UL-listed. **Circle No. 67**

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Circle No. 14 on product service card

Arte de Mexico

Arte de Mexico, a leading supplier of premium lighting fixtures, has established the industry's standard in reviving the lost art of hand-forged wrought iron. The complete lighting collection has grown to include more than 400 different lights, available in over 30 distinct hand-applied finishes.



CIRCLE NO. 75

High End Systems, Inc.

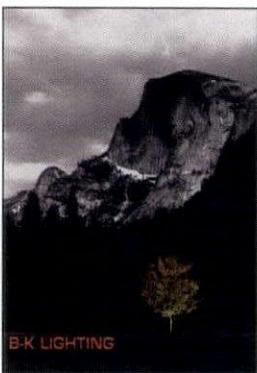
The EC-1 architectural wash luminaire brings high-tech stage and show lighting to the outdoor architectural market. Full color mixing, partial colors, color spins, color cycles, beam shaping, shutter and strobe are featured in this IP66 weatherproof-rated static fixture. ES-1, the hard-edged projection beam companion, is available first quarter 1999.



CIRCLE NO. 78

B-K Lighting, Inc.

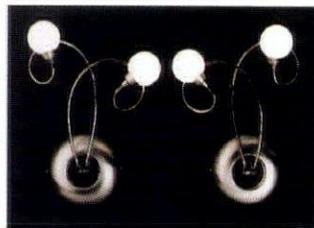
B-K announces the completion of a new catalog. This catalog features over 100 specification-grade, outdoor, architectural lighting fixtures. Included in the 106-page, four-color catalog is CAD information, lamp data, photometrics and much more. To receive one of the most informative, detailed and "engineering friendly" catalogs in the lighting industry, contact B-K Lighting today.



CIRCLE NO. 76

Koch + Lowy

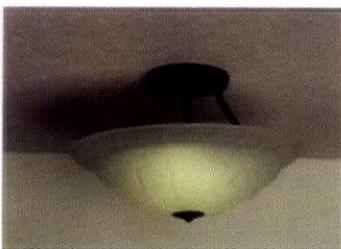
Introducing the contemporary collection of polished and brushed nickel lighting fixtures. This graceful design is also offered in a variety of floor lamps, table lamps and ceiling fixtures, all displayed with multiple 20W halogen lamps that are hidden by delicate white satin glass shades. Experience an innovative approach to lighting.



CIRCLE NO. 79

Brownlee

Featured in the New Decorative Collection catalog, which contains 21 fixtures especially for designers, architects and engineers, the 2143 is available in five finishes up to 3 x 13 lamps. The fixture features frosted etched glass, and is 9 1/2 in. high with a 14 1/2 in. diameter. Brownlee, a long time leader in the energy-efficient commercial market, has a new design team directed toward the specification market.



CIRCLE NO. 77

LexaLite

LexaLite introduces street and area lighting excellence in our new 424 Series post top lighting components. The 424 Series provides maximum optical performance for lighting applications. Specify LexaLite's LiteLid to be used with these products. The LiteLid is a patented internal reflector that increases downward efficiency and allows just enough uplight for a pleasing glow.



CIRCLE NO. 80

Lumenton

Lumenton introduces its full-color catalog of outdoor posts with matching wall mounts and gate mounts, wall sconces and bollards. Units come in compact fluorescent or HID light source application. All units are made from the highest grade of die-cast aluminum with UV-stabilized shatterproof polycarbonate lenses. UL-listed. Visit our website at www.lumenton.com.



CIRCLE No. 81

Translite Systems

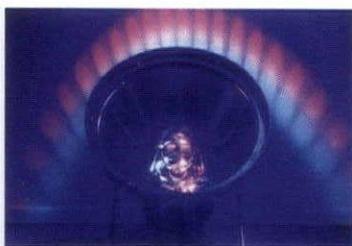
Translite introduces a range of mouth-blown glass wall sconces designed to coordinate with Translite's fixtures for cable and rod systems as well as for monopoints. A mounting plate attaches to a 4-in. junction box, which can house the 60W transformer. The canopy slides over the plate to conceal the hardware. The canopy and stem hardware is available in a number of plated and anodized finishes. The glass itself comes in many shapes, sizes and colors. A new catalog of decorative and ADA wall sconces is available.



CIRCLE No. 84

Special FX Lighting, Inc.

Special FX Lighting manufactures all types of permanent, non-fading color products for lighting, including Dichro•X hybrid dichroic lenses, color glass, non-fading color media, fluorescent sleeves and lenses for all lighting applications. All color and filter numbers may be matched, including UV and IR blocking films and glass.



CIRCLE No. 82

Winona Lighting

Windirect, a new product line incorporating asymmetric lighting and decorative options, can be used in stringent lighting conditions and contributes to the aesthetic requirements of a project. Windirect products come in four standard units called P1, P2, P3, P4. The P4 (shown) has a scalloped cut off visor. P2 and P3 use different forms of cut off visor and P2 has no visor.



CIRCLE No. 85

Thomas Omega Lighting

The new Omega 4-in., 5-in. and 6-in. Ceramic Metal Halide Adjustables and Downlights feature 45 degree vertical adjustment and a 362 degree horizontal rotation. The fixtures utilize new Ceramic Discharge Metal Halide lamps in 35W, 70W and 100W PAR20, PAR30 and PAR38 configurations. Single-tap 120 or 277V high-efficiency electronic ballasts are standard. Low-brightness Paracone trims offered in various finishes.



CIRCLE No. 83

Architectural Lighting Magazine

www.qualitylight.com

At the Lighting Design Forum web site at www.qualitylight.com, lighting specifiers enjoy a library of information from organizations across the industry, including *Architectural Lighting*. Specifiers can also link to other organizations, the inter.Light product search engine at www.lightsearch.com, and find other resources.

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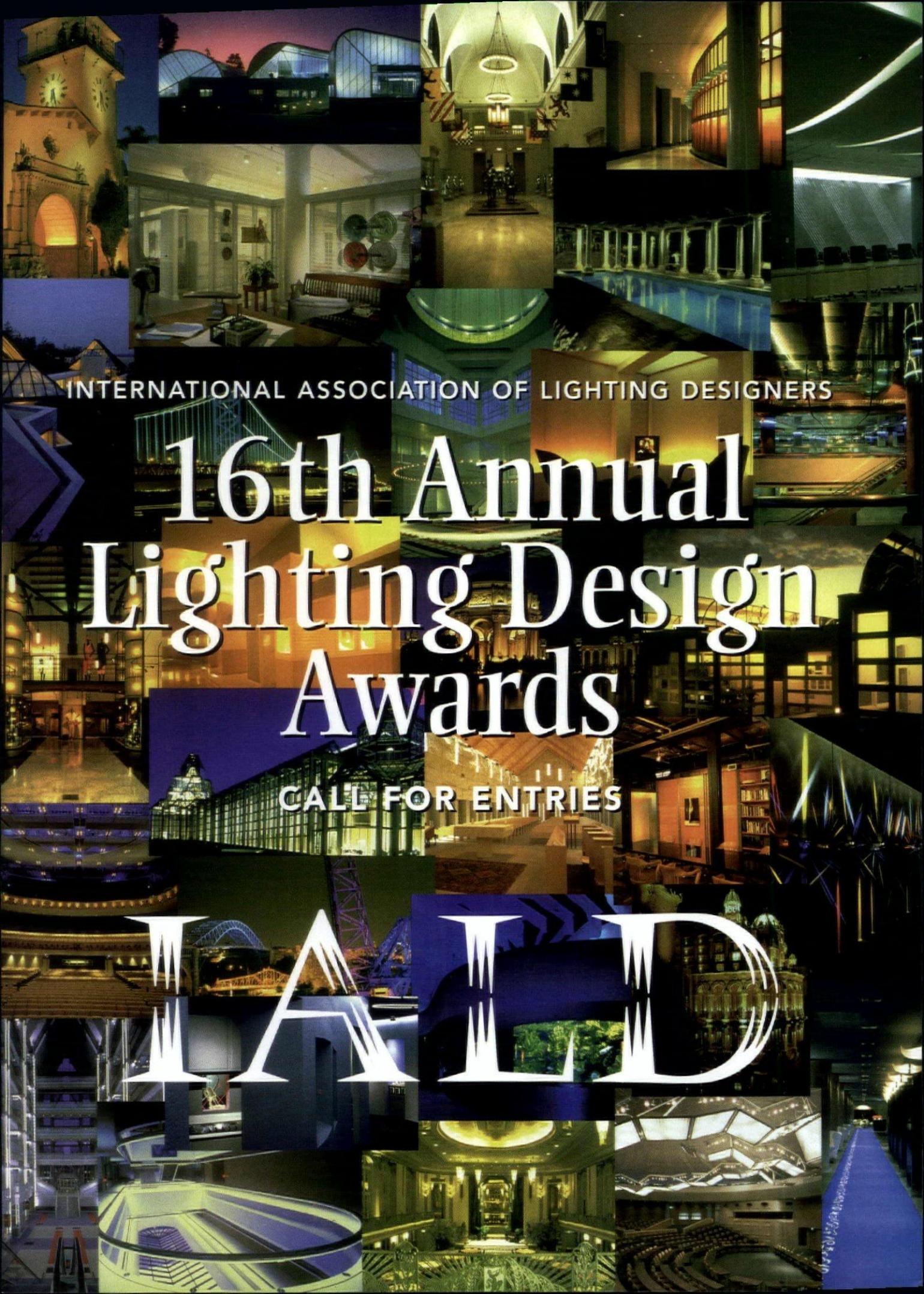
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INTERNATIONAL ASSOCIATION OF LIGHTING DESIGNERS

16th Annual Lighting Design Awards

CALL FOR ENTRIES

I A I D

IALD

Program Description

The Lighting Design Awards were established to increase awareness of quality lighting design by recognizing lighting installations which display high aesthetic achievement backed by technical expertise and exemplify a synthesis of the architectural and lighting design process. As a collection of work, the awarded projects illustrate the diversity of techniques used to create outstanding lighting design.

1999 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 1996. 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. The IALD encourages submissions of all types and sizes of projects. This is not a competition. There is no minimum or maximum number of awards granted. Each project will be judged on its own merits, not against other projects. Judging will take place over two days in February.

Awards

There are two types of awards, Awards of Excellence and Awards of Merit. Special recognition may be given for certain unique solutions. Award winning projects will be recognized at the IALD Awards Dinner and Presentation on May 12, 1999, in conjunction with LIGHTFAIR INTERNATIONAL in San Francisco, California. Winning projects will be published in leading architectural and design publications and included in the IALD slide library.

Submission Requirements

All text submissions must be in an 8-1/2 x 11 inches or equivalent format. No mention or identifiable illustration of a specific lighting design firm or designer may appear as any part of the presentation except the cover page.

INTERNATIONAL ASSOCIATION OF LIGHTING DESIGNERS

16th Annual Lighting Design Awards

CO-SPONSORED BY ARCHITECTURAL LIGHTING

CALL FOR ENTRIES

Please include all of the following for each entry—



Cover Page: Please provide the IALD with the following information on a cover page to your entry:

- Entrant's Name
- Street Address, City, State or Province, Postal Code, Country
- Phone and Fax Number
- Name of Project
- Location of Project
- Date of Completion of Project
- Lighting Designer on Project
- Size of Project (in square feet or meters)
- Installation Cost of Project
- Watts per Square Foot or Meter



Written Brief: A synopsis of the special challenge(s) or restraints of the project and a description of your design solution (75 word max.) This is a critical part of your submission and is the only written information read in the first round of review.



Keyed Description: A technical and conceptual summary of the project that is cross-referenced by number to the slides you have submitted (800 word max.). Incorporate a description of the architectural and lighting design concept, special energy constraints and the design solution.



Slides: A maximum of ten (10) 35mm slides of the project. Originals or high quality duplicates are required. The quality of the photography is important in the judging process. Entrants are encouraged to include photographs, which show the project in use, in context with its surroundings and from a human vantage point. Professional photography is advisable. Smaller scale projects should show more detail rather than reducing the number of slides. The IALD recommends a minimum of six (6) slides per project. If plans and drawings are required to describe the lighting solution, we recommend photographing essential information and including them as slides. All slides must be labeled with project and firm name and numbered to correspond with the keyed description. With slides positioned right reading, number each slide in the upper right corner and place project name in the upper left corner of the slide. Photographs, drawings and/or magazine articles will not be considered.

Return of Slides: The IALD will retain the slides of all entries for educational purposes unless you specifically request that they be returned. If you wish your submission to be returned, please indicate so in writing and include a return self-addressed envelope with the submission.



Entry Fee: (per entry, in U.S. dollars)

- \$40 IALD or LIRC Members
- \$75 Non-Members

Payment is by check, money order or credit card (MasterCard or VISA). Checks must be payable in United States currency, made payable to IALD. A single payment may be used for multiple entries. Please do not send cash.



Address entries to: IALD Awards Program, International Association of Lighting Designers, The Merchandise Mart, Suite 487, 200 World Trade Center, Chicago, IL 60654 USA, Telephone 312-527-3677, Facsimile 312-527-3680, E-mail: iald@iald.org

Make sure you include:

- Cover Page
- Slides
- Written Brief
- Entry Fee
- Keyed Description

Incomplete or late entries will not be considered.

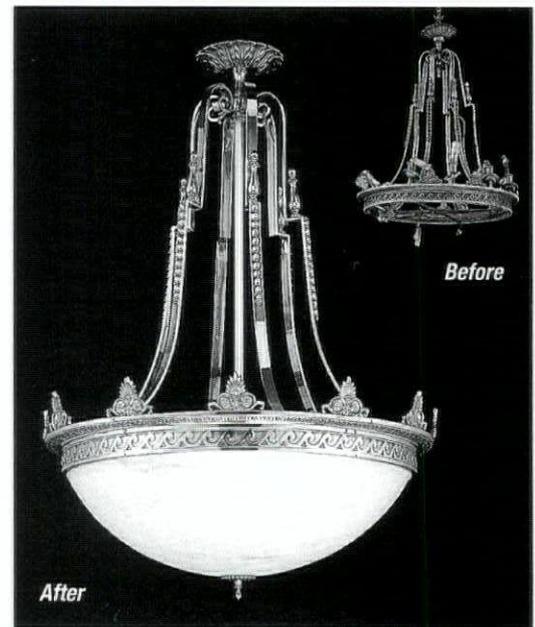
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Circle No. 25

“RE-ELECTRIFICATION OF AMERICA” HOLDS PROMISE FOR LIGHTING INDUSTRY

BY SUSAN BLOOM

Despite our lighting industry's best R&D efforts and well-executed and creative marketing activities, a number of industry statistics indicate that the penetration of more energy-efficient and higher technology products is minimal. A mid-1990s survey of commercial buildings by the Department of Energy revealed that over 80 percent of all building owners/managers were not aware of the existence of utility-sponsored DSM programs, much less the opportunity to save money by upgrading their facilities with more-efficient, higher technology electrical products. An analysis of the fluorescent ballast industry shows that less than 15 percent of the installed base of 1.6 billion magnetic fluorescent ballasts has been converted to the more-efficient electronic ballast since the introduction of electronics in the late 1980s. A 1997 industry survey conducted among spokespeople from a number of lamp, motor, drive and transformer companies confirmed that less than 10-20 percent of the average electrical product company's sales were accounted for by more energy-efficient technology introduced over the last two decades. And even within the EPA's proactive and high-visibility Green Lights Program, less than a third of all of the space pledged for lighting retrofit by more than 3,000 partners since the program's inception in 1991 has actually been upgraded.

It's certainly not for lack of trying that lighting and electrical product manufacturers face these challenges today. Studies show that a number of communications barriers lie at the heart of the issue, including the fact that many end-users don't ever question or even fully understand their electric bills each month and hence are not pursuing solutions, as they're not even aware there might be an opportunity. In addition, surveys show that many companies don't even have an individual routinely responsible for making decisions relative to the building's energy systems. As a result, an overwhelming number of the nation's commercial, industrial and institutional buildings are missing out on opportunities to significantly reduce their energy costs while often enhancing the quality of their electrical products such as lighting.

The "Re-electrification of America" campaign was born out of these realities and the premise that the opportunity for corporate America to upgrade its electrical infrastructure is still largely untapped. Conceived in 1996 and formalized in 1997 and early 1998, the campaign aims to coalesce manufacturers of electrical products in the formation of a national, unified, generic and user-friendly energy-efficiency message similar to successful campaigns in the beef, dairy and cotton industries. In an unprecedented format for the electrical products industry, the campaign's messages (communicated through public relations and advertising) are

THIS CAMPAIGN IS
DESIGNED TO
INCREASE END-USER
AWARENESS OF
UPGRADE
OPPORTUNITIES THAT
WILL DRIVE ENERGY
SAVINGS, ENHANCE
QUALITY AND BENEFIT
THE ENVIRONMENT.

targeted at the key decision makers (Presidents, CEOs, COOs, etc.) within the nation's top corporations, with the intention of raising their awareness of the comprehensive financial, environmental and aesthetic benefits which result from an electrical products upgrade, communicated in "the language of American business." Electrical products covered by the campaign include lamps, ballasts, motors, drives, HVAC, controls, building automation, on-site power, transformers and meters and monitors.

Backed by NEMA, the primary trade association of the electrical products industry, the campaign currently counts several dozen well-known manufacturers in the electrical products industry (many of them in the lighting industry) as charter members. Based on the positive response generated, the Energy Cost Savings Council (ECSC) was formed to coordinate the wide variety of PR, advertising and lead processing activity associated with campaign; the ECSC has also driven the generation of a campaign website (www.plugin.org), a campaign hot-line (888-829-2209), a campaign logo and theme ("Energize your bottom line") and a wide variety of campaign collateral. Campaign messages focus on the end-users' opportunity to save as much as 30-50 percent on annual energy costs (up to "\$1 per sq. ft." of facility space), while at the same time potentially enhancing the quality of electrical systems used, via an electrical product upgrade. Campaign momentum has

been building, and targeted pr and advertising messages have run in *The Wall Street Journal*, *Forbes*, *CEO Magazine*, *The New York Times*, *Fortune* and *Crain's Business Journal*. Following enthusiastic response from the U.S. government, the campaign received the official endorsement of both the DOE and EPA in early 1998.

It is hoped that the entire electrical products industry will embrace the "Re-electrification of America" campaign and support its efforts to build end-user awareness of upgrade opportunities that can drive energy savings, enhance system quality and positively benefit the environment. Increased awareness and generation of upgrade projects will help enable electrical product manufacturers to justify past and future R&D expenditures. At the end-user level, reduced energy usage and costs leading to reductions in operating expenditures can help make America more globally competitive as a nation as well as benefit the environment through lower levels of emissions. ■

Susan Bloom is the Manager of Market Research and Strategic Planning at Advance Transformer Company in Rosemont, IL.

parting shots



The New York section of the IES presented the Lumen 98 Awards on June 24. The event was held at the historic Puck Building in New York City. Prior to the awards dinner, guests socialized in the building's galleries, decorated with projected light images created by Leni Schwendinger of Light Projects. For a list of the winners, see *Architectural Lighting*, July/August issue.



LEFT TO RIGHT: JOE DiBERNARDO JR., THE LIGHTING GROUP; GABRIEL MITCHELL, SUSAN BRADY LIGHTING DESIGN; RICHARD DORFMAN, H.M. BRANDSTON & PARTNERS

IESNY PRESIDENT MATTHEW TANTERI (LEFT) PRESENTS AN APPRECIATION AWARD TO FRANK CONTI, ENTERPRISE LIGHTING



LEFT TO RIGHT: PHIL CIALDELLA, LOUIS POULSEN; JERRY KLUGLER, KLUGLER TILLOTSON ASSOCIATES; DAVE DOUBEK, COOPER LIGHTING



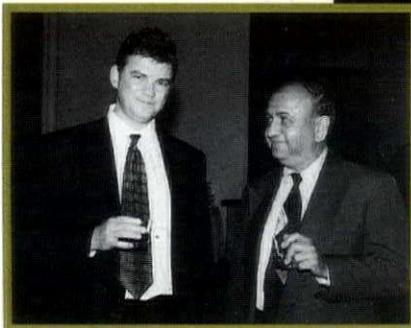
LEFT TO RIGHT: RENEE COOLEY, RENEE COOLEY LIGHTING DESIGN; MARY ANN HAY AND BILL KUCHLER, SYSKA & HENNESSEY



BARRY CITRIN OF FISHER MARANTZ RENFRO STONE RECEIVED A LUMEN AWARD FOR THE BYZANTINE FRESCO CHAPEL. HE'S PICTURED WITH (LEFT TO RIGHT) IESNY PRESIDENT MATTHEW TANTERI; CARRIE KNOWLTON, ANN KALE ASSOCIATES; AND PATRICIA DIMAGGIO, OSRAM SYLVANIA



PAUL DOUGHTY (LEFT) AND JAMES SCARANGELLA, OSRAM SYLVANIA



INDER BERRY, MAGNETEK (LEFT) AND NIKOLAI ROKHLIN, NEORAY



STEVE MARGULIES, COSENTINI LIGHTING (LEFT) AND PETE JACOBSON, CON-EDISON



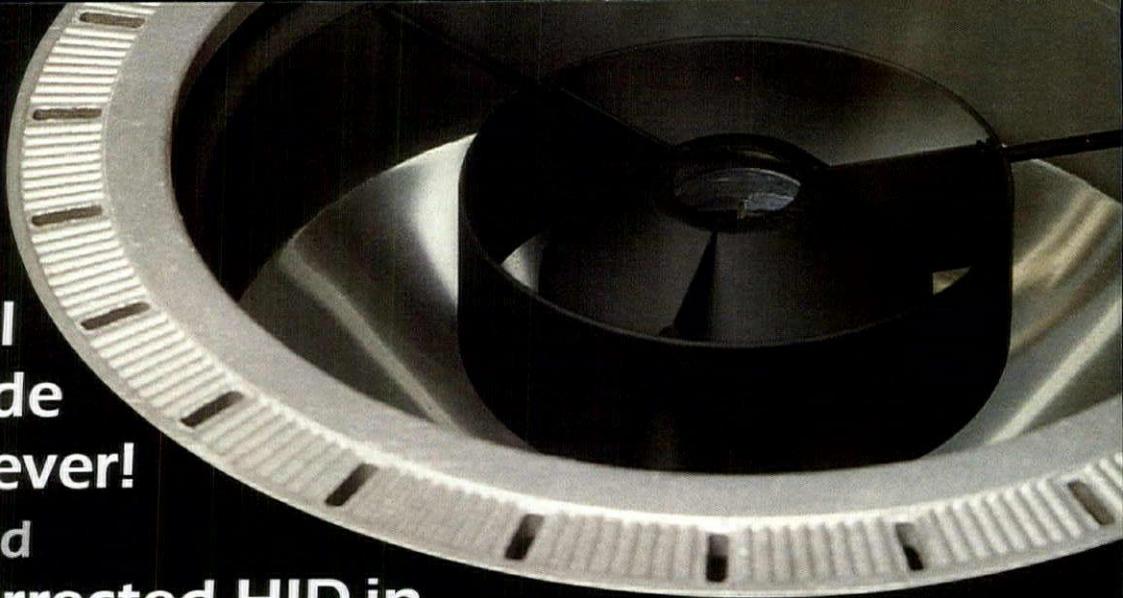
ANN SCHIFFERS, HORTON•LEES (LEFT) AND LENI SCHWENDINGER, LIGHT PROJECTS

New from
Hydrel

The most
powerful
in-grade
light ever!

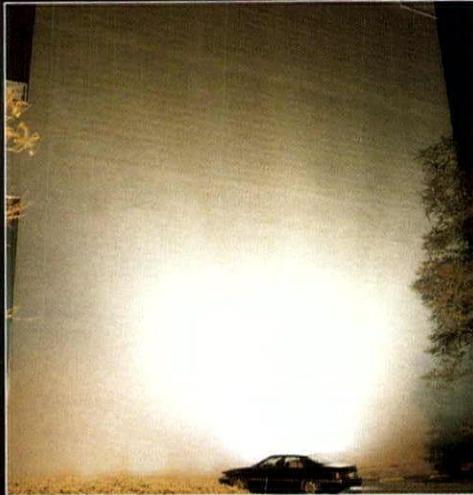
and

A color corrected HID in
only a 9" footprint!

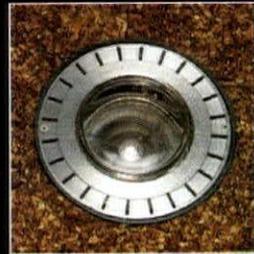


The M9800

The first modular in-grade fixture to accommodate 400 Watt mogul base lamps. Provides a new alternative for floodlighting architectural structures with in-grade concealment. Available in wall wash, spot, and flood.



A single M9810, MH400 wall wash illuminates an eight story wall. The new M9000 Series achieves the widest range of ITL photometrics for in-grade lighting.



The M9400

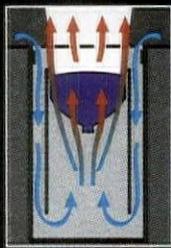
Accommodates the popular new color corrected metal halide lamps to 70 Watts. A unique housing with a small nine inch footprint provides an elegant unobtrusive, efficient installation.

The M9000 Series - best new in-grade fixtures to produce effects similar to surface floodlighting - the real benchmark for concealed in-grade lighting.

Cooler Operation:
new convective
design and double
lenses to reduce
surface temperature.



Double lens



Convection chimney

Easy Aiming: mechanical
and optical aiming now
with indexed components
to lock in settings.



Aim-Lock® modular
support ring



Light control accessories

Light Control Accessories:
including internal glare
shields to preserve the low
profile of flush in-grade
installations.

Door options



Trim Options: a variety of new
door designs to complement
any architectural style.

Rugged Construction:
computer aided
design and tough
materials to surpass
drive over
requirements.



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