

JULY 1995

7

Focus on Casinos

Life on the River Was Never Like This:
A Visit to Mississippi's Grand Casino Biloxi

The Remarkable Aviation Facility Near Seattle
That Takes Off and Lands Every Day

Why Architects and Interior Designers
Can't Stop Thinking About Compensation

Driving Off the Information Highway:
What Computers Should Do for Design Now



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shades



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There's more than a welcome aboard and *bon voyage* awaiting guests at New York's Cafe Centro, an Art Deco delight designed by Frederick Brush for Restaurant Associates.

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Cover Photo: Detail from the reception area at Boeing Customer Services Training Center, Tukwila, Wash. Photography by Fred Licht.



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CONTRACT DESIGN ISSN 1053-5632 is published monthly by Miller Freeman, Inc., a member of the United Newspapers Group, 600 Harrison St., San Francisco, CA 94107; (415) 905-2200. Editorial offices at 1515 Broadway, New York, NY 10036; (212) 869-1300; Fax: (212) 302-2905. **SUBSCRIPTIONS:** \$35/one year, \$60/two years for firms and individuals who specify, design, buy or replace contract furnishings. All other U.S. subscriptions \$65/year. All Canadian and Mexican subscriptions \$39/year for qualified subscribers and \$67/year for non-trade. All other foreign subscriptions \$90/year. Directory and special issues \$10. Single copy \$7. Prepayment required for single copy orders. Address all single copy requests to (800) 255-2824, or write to CONTRACT DESIGN, P.O. Box 1056, Skokie, IL 60076-8056. **CUSTOMER SERVICE INQUIRIES:** Call (800) 255-2824, or write to CONTRACT DESIGN, P.O. Box 1056, Skokie, IL 60076-8056. **SUBSCRIPTIONS & ADDRESS CHANGES:** Call (800) 255-2824, or write to CONTRACT DESIGN, P.O. Box 1056, Skokie, IL 60076-8056. Allow four to six weeks for change of address. Provide old mailing label and new address, including zip or postal code. **POSTMASTER:** Send address changes to CONTRACT DESIGN, P.O. Box 1056, Skokie, IL 60076-8056. Second Class postage paid at San Francisco, CA, and additional mailing offices. The publisher assumes no responsibility for opinions expressed by editorial contributions to CONTRACT DESIGN. The publisher reserves the right to reject any advertising not in keeping with the publisher's standards.

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The Missing Event at the XXVI Olympiad

"Make no little plans," urged 19th-century architect Daniel Burnham. Yet think what Atlanta faces in 1996 when the XXVI Olympiad arrives from July 19 through August 4: 15,000 athletes and officials from 195 nations competing in 26 Olympic sports, over 2 million on-site spectators and 15,000 media representatives acting as the eyes and ears for over 3 billion off-site viewers. This ad hoc global tribe will be served by more than 71,000 paid staff and volunteers of the Atlanta Committee for the Olympic Games or ACOG working in Atlanta, where a dozen newly constructed venues are being combined with existing arenas and stadiums to accommodate 20 competitions—plus sites in Georgia, Florida, Alabama and Washington, D.C.

ACOG, its legal and financial partner, the Metropolitan Atlanta Olympic Games Authority or MAOGA, the City of Atlanta and the many corporate sponsors of the XXVI Olympiad are to be congratulated for having thought of almost everything the Games will need as final preparations continue on time and budget. Even the arts are represented. But something is surely missing—the physical design of the Olympics.

In tours of the Olympic venues conducted for attendees of the 1995 National Convention of the American Institute of Architects this spring, MAOGA officials proudly showed off the Olympic facilities being renovated or newly constructed in the Olympic Ring, a 3-mile wide circle around downtown Atlanta, and at nearby sites in Georgia to host the Games. Atlantans rightly pride themselves on a can-do attitude, and the facilities they displayed were appropriately functional, neatly executed and cost effective—no small accomplishment given the hectic circumstances.

But these admirable traits of American pragmatism appear to be unable or unwilling to turn solid engineering and construction into memorable architecture and interior design for the XXVI Olympiad. Great environmental design has always gone beyond satisfying humanity's physical requirements for shelter to address the needs of

the human spirit, whether the site in question has been the Acropolis in Athens or Route 381 in Mill Run, Penn., site of Frank Lloyd Wright's Fallingwater of 1936. What the seemingly generic designs for the Olympic venues in Atlanta do not address are the history, interests and aspirations of the people of Atlanta.

That may be a tall order for a community founded in 1837 as Terminus, a railroad freight consolidation center on the Piedmont. On the other hand, Atlanta has played a vital role in shaping the nation's destiny in spite of its devastation by William Tecumseh Sherman in his brutal Civil War march to the sea. In years past, it has given us writers such as Joel Chandler Harris and Margaret Mitchell, civic leaders such as Dr. Martin Luther King, Jr. and Jimmy Carter, a home-grown media tycoon, Ted Turner, and one of the world's most popular beverages, Coca-Cola. Today, it battles on the front lines of global epidemiology with the Centers for Disease Control, and provides headquarters for such respectable *Fortune 1000* companies as Coca-Cola, Georgia-Pacific, Delta Air Lines, CNN, Holiday Inn Worldwide, Home Depot, Scientific-Atlanta and United Parcel Service.

For these reasons and more, the billions of people who look to Atlanta for 16 days in 1996 should see

Olympic architecture and interior design that are every bit as provocative, inspiring, romantic and entrepreneurial as the city itself. Who are the people of Atlanta in this glorious moment of history? Isn't it their privilege to tell the world through their physical environment? This has certainly been the case at such Olympic venues as Tokyo in 1964, Munich in 1972 and Albertville and Barcelona in 1992. Surely the heirs to a town called Terminus deserve no less.

Perhaps the design of the 1996 Olympics represents the will of Atlanta, which must live with the construction long after the crowd fades away. So be it. Yet what does the Atlanta visible in the architecture of the Games say about the Atlanta that Sherman could not extinguish? ☪



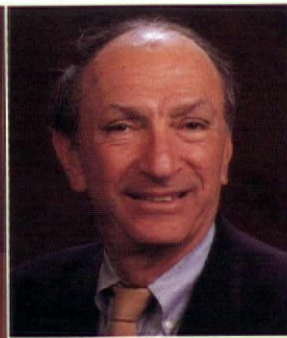
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Roger Yee
Editor-in-Chief

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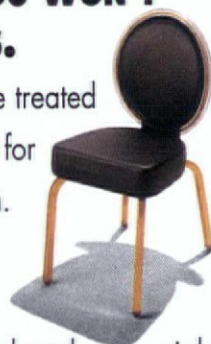
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World Workplace '95 offers something for everyone in a workplace-related discipline—and something for sun worshippers too

Miami Beach - September 17-20, the design industry is invited Miami Beach, Fla., for the first annual World Workplace '95, focusing on the varied aspects of the workplace and sponsored by World Workplace Consortium. The Consortium was created in December 1993 by the International Facility Management Association, and the Business and Institutional Manufacturer's Association to address changing workplace needs.

The event features 131 educational presentations and round tables organized into eight general informational areas including technology, health, safety and risk management, environment, productivity, lighting, building systems, organizational issues and real estate, plus a Learning Center that links educational programs to exhibits, keynote and general session addresses by renowned speakers and numerous networking opportunities. As the program that follows shows, there will definitely be something other than the glamour, excitement and fabulous weather of Miami Beach at World Workplace '95 for all professionals involved in workplace related disciplines.

EDUCATIONAL PROGRAM SCHEDULE

Monday, September 18

10:15 a.m. - 11:30 a.m.

Futureproofing: A Three Step Walk into the Next Decade

Leonard Kruk, Engle, Picasso, Kruk

Disaster Recovery and Business Continuity

Patricia Moore, Strohl Systems

New Directions in Hospital and Health Care Facility Design

Earl S. Swensson, FAIA, and Richard L. Miller, AIA, Earl Swensson Associates

Proactive IAQ Management

Frank Gallo, LZA Technology, and Michael Price, Map Environmental Services

Development of Nat'l Green Building Standards
Michael Italiano, Ogletree Deakins Nash Smoak & Stewart

Productivity Paradox: Worksettings for Knowledge Work

Audrey Kaplan and Stan Aronoff, Ph.D., Workplace Diagnostics

Strategic Planning and Management

Liz Howard, Howard Design Group

Resolving and Managing Conflict as a Tool for Improved Business Effectiveness

Jack Dawson and Michael Johan, InterMediation Inc.

Commercial Lighting Design: Making Magic in Public Places

Randall Whitehead, IALD, Light Source

Alternative Fire Protection for High-Tech Areas

Donna K. Musial, AIA, and Michael Nelson, Rolf Jensen & Associates

The Best Revisioning Opportunity of the 1990s: Outsourcing

Rodger N. Voorhees, Associate AIA, Rodger N. Voorhees Mgmt. Consultant

Gearing Up to Do Business in a Global Facility Management Workplace

Stormy Friday, The Friday Group

Collaboration Strategies for Workplace Issues: Strategic Linkages in Corporate Real Estate—Panel Discussion

Moderator: Martin McElroy, Knight Architects Engineers Planners
Panelists: Robert Hauptman, Motorola AIEG, Roger H. Kahn, Edward S. Gordon Co., W. Dinsmore White, Gannett Co. and a guest from GM Technical Center

Construction Contract Administration

Paul W. Simonsen, FCSI, RTKL

1:30 p.m. - 2:45 p.m.

Critical Ingredients for Successful CAFM Installations

Peter S. Kimmel, Peter S. Kimmel & Assoc.

Crime Prevention Through Environmental Design—Panel Discussion

Moderator: Deane Evans, AIA, The American Institute for Architectural Research
Panelists: Timothy Crowe, TDC Assoc., Michael Pyatok, AIA, Pyatok and Assoc., Mary Smith, PE, Walker Parking Consultants

Planning Health Care Facilities in the Era of Reform

Kenneth N. Dickerman, AIA, Healthcare Facility Consultants Inc.

The Relationship of Environmental Quality to Productivity and Energy Effectiveness

Vivian Loftness, Carnegie Mellon Univ.

Green Building Resources: Making them Accessible to Architects

Victoria Schomer, ASID, Interior Concerns Environmental Resources, and Lynn N. Simon, Simon & Associates

Models that Leverage Facilities to Achieve Improved Corporate Results

James Hickey, CFM, IFMA Fellow, Steelcase Inc.

Lamps, Ballasts and Controls: Sorting Out New Technology

Denise Bruya Fong, IALD, Candela Architectural Lighting Consultants

Integrating Changes in Workplace Technology Through Category 5 Data Cabling

Bryan Lundgren, Haworth Inc.

Activity-Based Budgeting and Life-Cycle Cost Analysis for Facility Professionals

Fred Klammt, Aptek Associates, and Robert Whitehair, CFM, Raychem Corp.

Strategic Facility Portfolio Planning: Sprint Case Study

Parkash Ahuja, CFM, Sprint Corp., and Susan Mosby, CFM, CDM2

Interpreting Contracts

Joseph K. Kasimer, CSI, Kasimer & Ittig

1:30 p.m. - 4:30 p.m.

Principles of Supervision and Motivation

Lander Medlin, The Association of Higher Education Facilities Officers

Client Negotiations: Owner Selection of Project Consultants

Ava J. Abramowitz, Hon. AIA, Victor O. Schinnerer Management and Co.

Procuring Professional Services: The RFP, Interviewing and Contracting Process

Paul Himes, Himes Associates Ltd.

3:15 p.m. - 4:30 p.m.

CADD: Risks, Rights and Responsibilities

Jerry Albert Laiserin, AIA, Design Technology Forum™, and Carol J. Patterson, Esq., Zetlin & DeChiara

Managing Security Technology in the Workplace

John Kostanoski, State University of New York at Farmingdale

Changing the Role of the Health Facility Project Manager

Kip Edwards, PE, Kaiser Permanente

Standard 62 Revisited: A Look at the New Version

H. E. Barney Burroughs, IAQ/Building Wellness Consultancy

Developing Green High-Tech Facilities for Global Business

Marilyn Standley, Longman Group, and Stuart Mossrop, Mossrop Associates

Developing and Using a Facility Planning Guide

Guy Thatcher, Carroll Thatcher Planning Group, and Jim Graham, Human Resources & Development Canada

Lighten Your Load: Energy-Efficient Lighting

Mary Ann Hay, IALD, Syska & Hennessey

How to Seal the Building Envelope

Dennis Kulesza, Metropolitan Restoration & Waterproofing

Alternative Officing: An FM Perspective and Survey Research Results

Gary Ottenjan, Haworth Inc., and Shari Epstein, IFMA

How Facilities Can Contribute to Your Competitive Advantage

Martha O'Mara, Harvard University School of Design

Applying CSI Formats

Charlie A. Shrive, Professional Engineer

Tuesday, September 19

10:15 a.m. - 11:30 a.m.

Creating an Electronic Master Plan

Douglas Dixon, The Hillier Group

Universal Design Directives for the Innovative Workplace

Roberta Null, Miami University

ADA for Health Care

Cynthia Liebrock, ASID, Easy Access Research

Developing an IAQ Program and HVAC Systems Hygiene

Bob Krell, IAQ Technologies Inc.

Sustainable Design Process

Charles Dorn, Hellmuth, Obata & Kassabaum

A Model Process for Planning the Integrated Workplace

Paul Heath, Facility Technics Inc., Denise Shay Castro, ISI, and Nancy O'Neal, Hewlett Packard Co.

Team Space and Empowerment: A Formula for Success

Sara S. Foland, Sharon Rowlen, CFM, and Sherry Watson, CFM, Amoco Corp.

The Art and Magic of Q&A: Maintaining Control

Joanne G. Linowes, The Corporate Media Group

Fiber Optic Lighting for Interior Applications

Kenneth Yarnell, IALD, The Kling-Lindquist Partnership

Harmonics: Your Computer's Revenge

Marty Martin, PE., Arnold and O'Sheridan Inc.

Key Indicators of Financial Success

Deborah A. Gill, CPA, Profit By Design

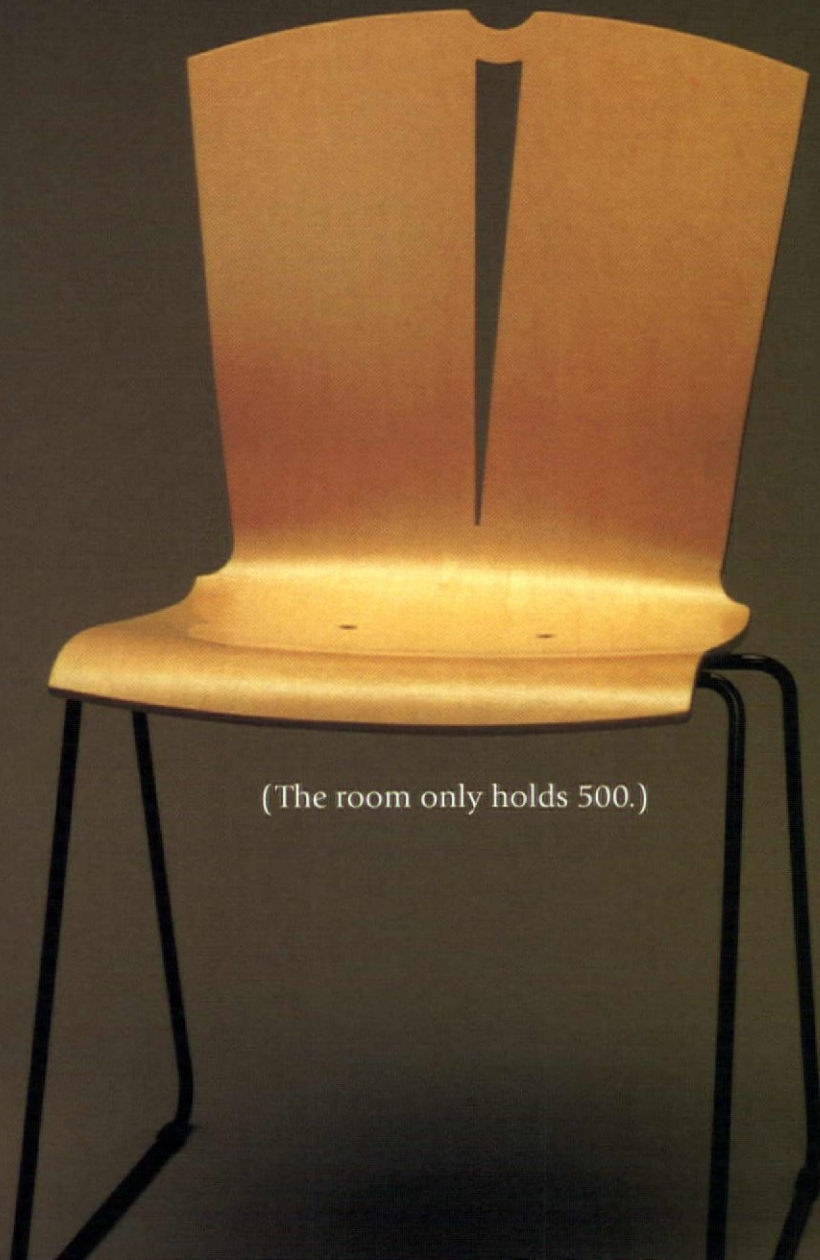
Development in the Management of Facilities at Large Corporations

J. M. Braat, IPL Facilities Industry Ltd.

Post Occupancy Evaluation: Managing Facilities Processes

Sheila Sheridan, CFM, CPM, Harvard University

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Drawings: The Other Half of Construction Documents

Christopher Bushnell, AIA, Archos Corp., and Michael Schley, FM:Systems Inc.

1:30 p.m. - 2:45 p.m.

Advanced Technologies Facilities Design:

Emerging Trends and Issues—Panel Discussion

Moderator: P. Richard Rittelmann, FAIA, Burt Hill Kosar Rittelmann Associates
Panelists: Janet Baum, AIA, Hellmuth, Obata & Kassabaum, and Bea Sennewald, AIA, Henningson, Durham & Richardson

Acoustical Environments: A Health Hazard?—Panel Discussion

Moderator: David A. Harris, CFM, Acoustic Consultants
Panelists: John Flood, Eckel Industries, Kenneth Roy, Ph.D., Armstrong, and Richard Versen, MPH, CIH, Schuller Int'l.

Re-engineering Hospitals to Be Patient Focused and Cost Effective

Louis Saksen, AIA, Stanford Health Services

Effectiveness of High-Performance Green Buildings

William G. Reed, AIA, Hillier/Reed Architects

The National Energy Policy Act: How Will Lighting in Your Facility Be Affected?

Sandra Stashik, PE, IALD, Grenald Waldron Associates

Electric Buildings: Incorporating Photovoltaics into Building Skins

Deane Evans, AIA, American Institute for Architectural Research, Richard Long, Georgia Institute of Technology, Steven Strong, Solar Design Associates, and Roger Taylor, National Renewable Energy Laboratory

Worldwide Facilities: The Ultimate FM Challenge

Tim Almone, PE, Compaq Computer, and Peter Winters, AIA, Aguirre Inc.

The Status of CRE/FM in Japan

Mototsugu Nakatsu, Nakatsu Consulting

Get Out From Behind the Renovation 8-Ball: Successfully Completing Projects

Jeff Head, CFM, PanCanadian Petroleum

1:30 p.m. - 4:30 p.m.

Carpet and Its Role in Indoor Air Quality—Panel Discussion

Moderator: Kathryn O. Wise, The Carpet and Rug Institute
Panelists: Alan Hedge, Ph.D., Cornell University, Kenneth McIntosh, The Carpet and Rug Institute, and Joe Smrekar, Ph.D., Milliken & Company

Team Building: Moving from the "I" Zone to the "We" Zone

Larry Robinson, Partners & Robinson

Ethics is Good Business—Part I

Michael Clevenger, Ph.D., FMA, RPA, The Blackwater Group; (Part II: Wed., 8 a.m.)

Managing Group Conflict

Mark Scher and Thom Lowther, American Institute of Architects

The Practice Clinic

H. Kennard Bussard, FAIA, Renaissance Design Group

3:15 p.m. - 4:30 p.m.

Designing Technology Infrastructures for the Workplace

Michael Kerwin, Corporate Connectivity Resources Inc.

Buildings at Risk: The Impact of Earthquakes on Facilities

Christopher Arnold, FAIA, Building Systems Development, and Deane Evans, AIA, The American Institute for Architectural Research

Designing for an Aging Population

Ron Blitch, AIA, Blitch Architects Inc., and Gerald Weisman, Ph.D., U. of Wisconsin

Green Architecture: Indoor Air Quality Is Cost Effective

Anthony Bernheim, AIA, Simon Martin-Vegue Winkelstein Moris, and Marilyn S. Black, Ph.D., Air Quality Sciences Inc.

Daylighting as Form-Giver and Performance-Driver

Mic Patterson, Advanced Structures Inc.

Effective Integration of IAQ with HVAC and Energy Management

Al Ferreira, Ferreira Service Inc.

Appropriate Officing for the 1990s

Tom McHugh, AIA, Barbara Hillier, AIA, and Karen Lalli, The Hillier Group

Creative Facility Planning Solutions

Bert J. Jarreau and Fred Weiss, CFM, Ford Motor Land Services

Historic County Courthouses: Architects

Renovate for the 21st Century—Panel Discussion

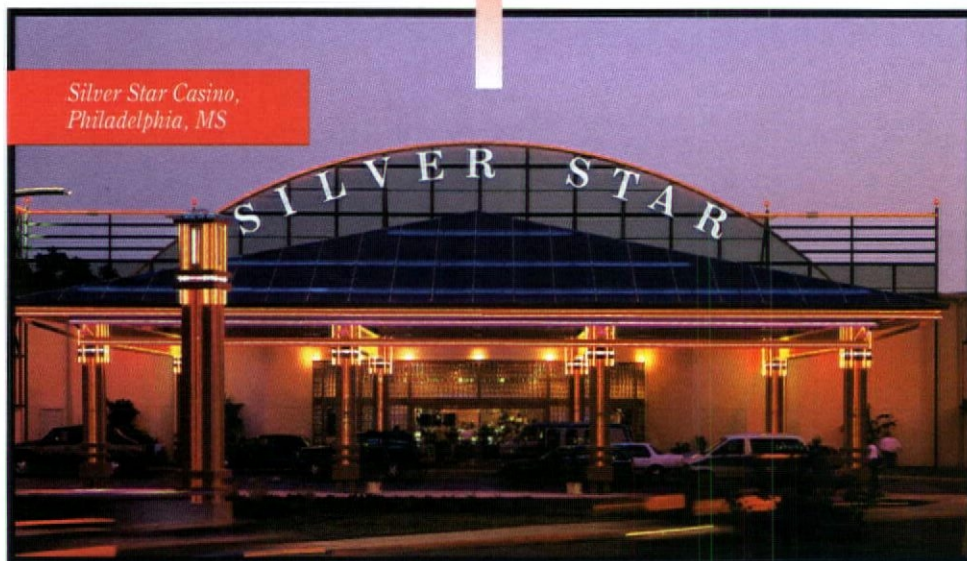
Moderator: Jerry Berggren, AIA, Berggren & Woll Architects
Panelists: Katherine McGuinness, AIA, Katherine McGuinness & Associates, Wayne Meyer, AIA, Arcodect/GBBN Architects, Hugh Miller, FAIA, and Fred Moyer, AIA, Moyer Associates

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Wednesday, September 20

8 a.m. - 9:15 a.m.

Best Practices in Technology Management
Jeffrey Hamer, Asset Direction Inc.

Health Care Facility Management in The Netherlands
Felix van Baal, Univ. Clinics, St. Radboud

Greening the Building and the Bottom Line
Bill Browning, Rocky Mountain Institute

Sustainable Growth Through Environmental Management
Paul Murray, Herman Miller Inc.

Responding to Corporate Restructuring: Bottom-Line Results
Steve Arens, AIA, Stenmark Consulting,
Robin M. Ellerthorpe, AIA, Ellerbe Becket

Effective Multimedia Presentations
Joyce Kupsh, California State Polytechnic University

Taming the Beast within: Managing the Impact of HVAC on Historic Buildings
Lonnie J. Hovey, AIA, American Architectural Foundation

An Architect's Field Guide to the Leasing Jungle
Robert Steinmetz, AIA, Steinmetz & Assoc.

Private/Public Partnerships to Ensure Building Code Compliance
James Loesch, CFM, Johns Hopkins University Applied Physics Lab

8 a.m. - 11 a.m.

Workstation Ergonomics: Standards and Research Advances—Panel Discussion
Moderator: Rani Lueder, MS, CPE, Humanics ErgoSystems
Panelists: Dennis Ankrum, Nova Office Furniture, Alan Hedge, Ph.D., Cornell Univ., and Rajendra Paul, Haworth Inc.

Ethics is Good Business—Part II
Mark Clevenger, Ph.D., FMA, RPA, The Blackwater Group (Part I: Tues., 3:15 p.m.)

Lighting Design for High-Tech Work and Presentation Spaces
James Robert Benya, PE, IALD, Benya Lighting Design

Quality Leadership: How to Grow and Sustain Your Design Practice
Dean Thompson, Milliken & Company

Project Management
David Stone, Practice Management Assoc.

9:15 a.m. - 11 a.m.

Logical Design for Good Acoustics
Ewart A. Wetherill, AIA, Paoletti Assoc.

Healthy Seating and Posture
Philip L. Witt, Ph.D., U. of North Carolina

Environmental Stewardship Program
Patricia Harris, CFM, and Dean Lindstrom, National Center for Atmospheric Research

How and Why to Sell Sustainable Environmental Design
Clint Good, AIA, Clint Good Architects

Designing an Effective Communications and Mail Center
Dan Gray, Kwik-File Inc.

Marketing and Public Relations: Principles for Principals
Joan L. Capelin, Capelin Communications

Computerized Maintenance Management Systems as a Financial Tool for the Facility Professional
Kalman Reinberg, Facilities Management Engineering

Developing a Long-Range Real Estate/Facility Strategy
Ed Rondeau, CFM, IFMA Fellow, AIA, Johnson Controls Inc.

New Uses for the Urban Church and Synagogue
Douglas R. Hoffman, AIA, Architect, Hugh C. Miller, FAIA, A. Robert Jaeger, Partners for Sacred Places, and Reverend Dr. Thomas F. Pike, Calvary St. Georges Parish

Saluting the Industrial Design "Bests"

New York - The business world's belated recognition of the importance of industrial design is finally coming to embrace not just dollars but actual designs. The *Business Week*/Industrial Designers Society of America (IDSA) annual awards highlight the best designs in the industry. This year, 150 designs have been awarded honors in this prestigious competition—twice that of 1994. Included among them were several awards for furniture designs.

One gold award for furniture went to Personal Harbor Work-space, designed by Steelcase, Grand Rapids, Mich., with Robert Luchetti Associates, Cambridge, Mass., for Steelcase. The unit provides an individual work area and retains itself as a support for the common work space. The Leveler Base from Falcon Products of St. Louis also picked up a gold award.



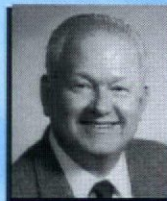
Virco's new café furniture catalog has a whole line of new designs in steel dining chairs. Wide range of frame finishes. Great upholstery selection.

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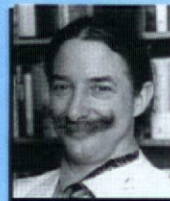
VIRCO

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Hear the Leaders in Healthcare and Design Give Voice to Their Visions.



Leland R. Kaiser, Ph.D.
Futurist and Visionary



Patch Adams, M.D., Founder
of the Gesundheit Institute

*"New Design Requires
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—Leland Kaiser, Ph.D.

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the *Journal for Healthcare Design*, contact:
The Center for Health Design Tel: (510) 370-0345, Fax: (510) 228-4018

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TRENDS

Silver awards were granted to: Aeron Chair, designed by Don Chadwick Associates, Santa Monica, Calif., and William Stumpf & Associates, Minneapolis, for Herman Miller, Zeeland, Mich.; Avian Chair, designed by Thomas J. Newhouse Design, Grand Rapids, Mich. for Phoenix Designs, a Herman Miller Company, Zeeland, Mich.; Compass Filing and Storage System, designed by Thomas J. Newhouse Design for Meridian, a Herman Miller Company, Spring Lake, Mich.; Propeller Table Trapezoid designed by Emanuela Frattini, New York, for The Knoll Group, New York; and Snap Ease Computer Desk, designed by Patton Design, Irvine, Calif., for Rubbermaid, Maryville, Tenn.

Bronze awards were received by: Improv Chair, designed by Tom Edwards, IDSA, Spring Lake, Mich., for Haworth, Holland, Mich.; Advent Door Collection, Teague Associates, Redmond, Wash., and Simpson Door, McCleary, Wash., for Simpson Door; LINGS Under Cabinet Lighting

designed by KDA Design, Addison, Ill., and Alkco, Franklin Park, Ill., for Alkco Lighting.

Business Week also reported on two intriguing trends that emerged from the event. Borders between kinds of products are falling, even as lines between consumer products and computers are blurring. The best example: Microsoft's popular ergonomic keyboard, which shapes itself to the natural placement of the hands while taking on a presence beyond a computer accessory.

Commissions & Awards

Monsanto Contract Fibers invites entries for the **1995 Doc Awards**. Entries must be postmarked by August 15, 1995. Call (800) 543-5377 for more information.

Atlanta-based **Stevens & Wilkinson** will renovate Rich's corporate offices at Perimeter Center, Atlanta.

Boston, Mass.-based **Shawmut Design and Construction** and **Ondras Associates**

Architects have been awarded the design/build contract to perform renovations to the Senior House dormitory complex at the Massachusetts Institute of Technology in Cambridge, Mass.

The Trump International Hotel & Tower, a \$250 million redevelopment of the former Paramount Building located at 15 Columbus Circle in New York, is designed by **Philip Johnson Architects**, New York and **CK Architect, P.C.**, New York. The 650,000 sq. ft., bronze-clad luxury hotel and residential condominium will be 52-stories high with floor to ceiling windows revealing unobstructed views of Central Park.

Winners of the 1995 International Contemporary Furniture Fair Editors Awards are: **Donghia** for body of work, **Goods!** for new designer, **Dakota Jackson's Library Chair** for craftsmanship, **Antoine Proulx's Dennis Miller Collection** for furniture, **Emily McLennan** for lighting, **Christine Van Der Hurd** for floor covering, **Blumenthal** for wall coverings,

Pollack & Associates for textiles, **Fish Design** for decorative accessories, **Ligne Roset** for multiple production and **Rhode Island School of Design** for student design.

Brennan Beer Gorman/Architects and **Brennan Beer Gorman Monk/Interiors**, Washington, D.C., are working with **Coakley & Williams Construction** as the design/build team responsible for renovation of the Hamilton Hotel in Washington, D.C.

Six winners have been named in the 17th Library Buildings Award Program sponsored by the Library Administration and Management Association and the American Institute of Architects. They are: **Davis, Brody & Associates** of New York, for the William and Anita Newman Library and Technology Center, Baruch College, New York; **Richard Fleishman Architects** of Cleveland for the Lake Shore Facility, Cleveland Public Library, Cleveland; **Hardy Holzman Pfeiffer Associates** of Los Angeles for the renovation of the Betram Goodhue building for the

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TRENDS

Los Angeles Public Library, Los Angeles; **Clint Pherson Architects** of Seattle for the Amanda Park Timberland Library, Amanda Park, Wash.; and **Zimmer Gunsul Frasca Partnership** of Seattle for the King Country Library System's Bellvue Regional Library, Bellvue, Wash.

People in the News

Mustafa Abadan, **Stephen Apking** and **Roger Duffy** have been named partners at Skidmore, Owings & Merrill, New York.

Ted Moudis Associates, New York, welcomes **Christopher Savoglou** as partner of the firm.

Marc Gross has been promoted to partner of Brennan Beer Gorman/Architects, New York.

Loschky Marquardt & Nesholm, Seattle, Wash., has announced the 1995 investiture of partner **John Nesholm** into the American Institute of Architects College of Fellows.

Cleveland architect **Paul Westlake, Jr.** has been elected to the College of Fellows of the American Institute of Architects.

NBBJ architects, San Francisco, has named **Gretchen Addi** director of interior architecture.

Deborah Adams was named director of corporate marketing and communications for Interface, Atlanta.

The American Institute of Architects has elected **Raj Barr-Kumar**, FAIA, RIBA, Washington, D.C. as first vice president/president elect.

The Hiller Group, Princeton, N.J., has named, **Mariano Rodriguez**, AIA and **Timothy Winstead**, AIA associate principals. **Andrew Buchsbaum** AIA has been named senior associate.

Roger Wall has been appointed vice president of Spinneybeck, a Knoll Group company in Amherst, N.Y.

Craig Stark has joined Spillis Candela & Partners, Miami, as a principal.

Sue Ann Szcpanski has joined KI, Green Bay, Wis., as marketing services manager.

Miles Glidden has been appointed vice president and general manager of KnollTextiles, New York.

Lester Kinkade AIA, has joined Henningson, Durharm & Richardson, Omaha, Neb., as program manager for the Science and Industry program.

Girsberger Office Seating, Smithfield, N.C., has named **Kay Tew**, vice president of sales, to the position of interim general manager.

Michael Gordon has joined Architecture for Health, Science & Commerce, Tarrytown, N.Y., as vice president.

Business Briefs

The Washington, D.C. office of **Brennan Beer Gorman/Architects**, **Brennan Beer Gorman Monk/Interiors**, is relocat-

ing to 1250 24th Street, NW, Suite 250, Washington, D.C.

Haworth now offers news and data about the company, its products and services on the Internet. Computer users should key in <http://www.haworth-furn.com> to access the site.

Steelcase, Grand Rapids, Mich., has opened its first office in China, located in Shanghai.

BSW International, an architecture and engineering firm based in Tulsa, Okla., has opened three new regional offices in Atlanta, Irvine, Calif., and Washington, D.C.

Randolph Germer AIA, **Richard Kronick** AIA and **Miguel Valcarcel** AIA have announced the formation of **Gerner Kronick + Valcarcel Architects**, PC located in New York.

W. Christopher Fonville, formerly executive vice president and general manager of Girsberger Office Seating, has formed the Clayton,

And Gathered People With Vision And Commitment.



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TRENDS

N.C.-based company **Contrak**, an information service dedicated to helping manufacturers in the contract furnishings industry locate independent representatives to market their products. For information call (919) 553-9006.

Hickory, N.C.-based **HBF** has opened a New York showroom at 200 Lexington Avenue.

Peerless Carpet Corporation, Montreal, Quebec, Canada, has acquired **Brumlow Rug Co.**, Calhoun, Ga.

Pentagram New York has moved to 204 Fifth Avenue, New York.

Coming Events

August 14-18: GE Lighting Conference on Fundamentals of Commercial & Industrial Lighting, Lighting Institute at Nela Park, Cleveland; (800) 255-1200.

August 18-19: Designfest, Orange County Convention Center, Orlando, Fla.; (800) 678-9490.

August 23-26: International Business Products Convention and Expo, Atlanta; (800) 542-6672.

September 13-16: IDSA's 1995 National Conference focusing on "Natural Resources", Santa Fe, N.M.; (703) 759-0100.

September 17-20: World Workplace '95 Consortium, Miami Beach Convention Center, Miami Beach, Fla.; (713) 62-WORLD.

September 21-25: EIMU '95, Milan, Italy; Contact ASSUFFICIO at 39-2-48008104.

September 27-29: The Illuminating Engineering Society's Canadian Regional Conference, Metro Toronto Convention Centre, Toronto; Contact Rhomney Forbes-Gray at (416) 443-8202.

October 1-4: 100% Design, The London Contemporary Design Show, Duke of York's Headquarters, Chelsea, London; Call 0181 849 6211.

October 3-5: A/E/C Systems Conference, Navy Pier, Chicago; (800) 451-1196.

October 3-8: CERSAIE trade fair for ceramic tile and bathroom furnishings, Bologna Fairgrounds, Italy; (212) 221-0500.

October 4-8: Masonry Craft Fair, The Palmer House and under the tents on Block 37, State Street, Chicago; (202) 383-3921.

October 5-8: Wright in Wisconsin Annual Conference, provided by the Frank Lloyd Wright Building Conservancy; Contact Sara-Ann Briggs at (708) 848-1141.

October 15-17: FM '95: Managing Facilities in a Technological World, sponsored by the International Society of Facilities Executives, Cambridge, Mass; (617) 258-8247.

November 1-3: Interplan '95, New York Coliseum, New York; Contact Jennifer Gam at (212) 626-2331.

November 11-14: International Hotel/Motel & Restaurant Show; Jacob Javits Convention Center, New York; (800) 272-SHOW.

November 16-18: IIDEX '95, Toronto, ON, Canada; Contact ARIDO at (416) 921-2127.

November 16-19: The Eighth Symposium on Healthcare Design, "Discovering New Strategies, Skills and Resources," San Diego Hyatt Regency Hotel; Call The Center for Health Design at (510) 370-0345.

November 19-22: Workplace '95, Olympia Exhibition Centre, London; (203) 840-5436.

December 2-5: Visual Marketing & Store Design Show, Passenger Ship Terminal, Pier 92 and New York Showrooms, New York; (800) 272-SHOW.

December 10-12: RESTORATION, San Francisco Hilton & Towers, San Francisco; (617) 933-9055.

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THE SMART SOURCE

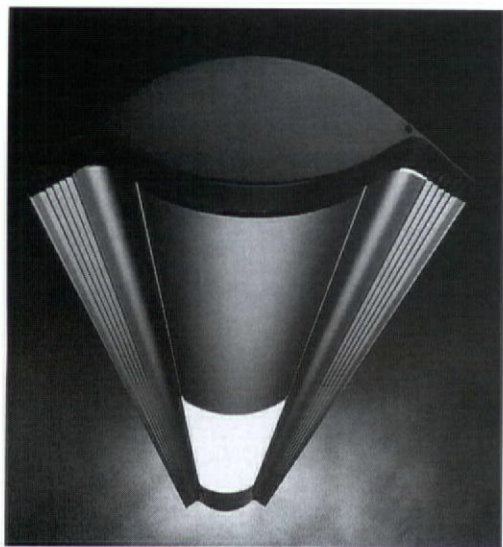
WILSONART
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MARKETPLACE



← Allseating's Therapy Seating line, introduced at NeoCon, incorporates a patented backrest and Harp RSI armrest. The chair was designed by a physiotherapist to include four individual straps on the backrest for adjustable lumbar support. The armrest is height adjustable and rotates for maximum arm support. A sliding seat and other options are available.

Circle No. 200



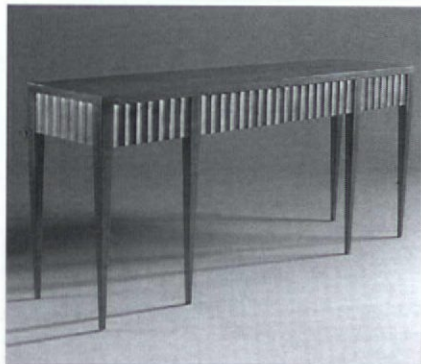
← Winglite™, presented by Axis Lighting, is ergonomically designed. The light offers a solution to the growing number of computer users with concerns about eye fatigue, caused by glare and poor lighting

reflected in VDT screens. The fixtures are built of the highest quality extruded, anodized or painted aluminum, glass or optical acrylic.

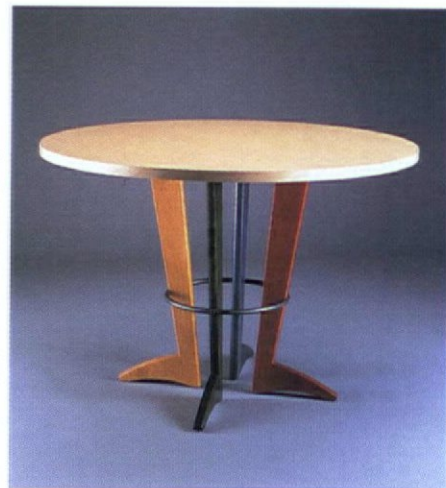
Circle No. 202

↓ The Huntboard is from the NeoClassic Collection by Baker Furniture. A sophisticated, modern approach to classic design principles, the Huntboard combines a traditional form with a

choice of innovative studio finishes. Light cherry is accented by three drawers with overscaled fluting in silver or gold leaf over a red clay ground.



Circle No. 203



→ The Big Top Table collection was designed by Jeff Behnke for Altura Studios. A playful color palette combined with natural wood and shot-blasted raw steel form the visual forte of this series. The collection is hand made in small production runs in a wide choice of colors. The tables are offered in varying diameters and are 29-in. high.

Circle No. 201

A BURST OF GOOD DESIGN

→ Patene Artectura™ by Bomanite Corporation offers a new approach to concrete flooring and pavements. The flooring can be used to update and improve the aesthetic appeal of existing concrete surfaces. The system is individualized so an unlimited range of options to fit a designer's criteria or budget is possible.



Circle No. 204

Carolina Business Furniture introduces a new table group with detailing in maple and maple veneer to complement its seating line. Standard wood finishes come in 12 choices as well as custom finishes.

Circle No. 205

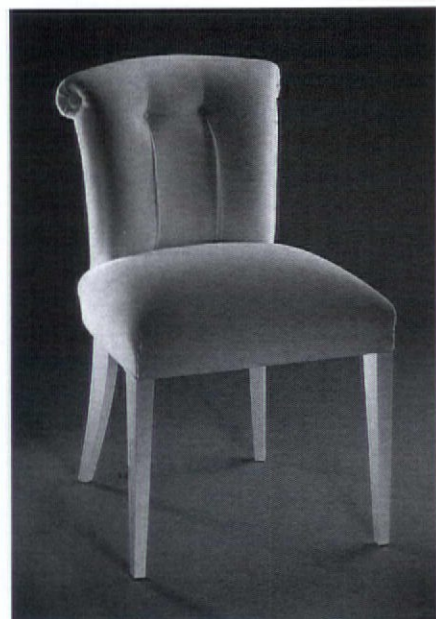


FROM CABANA TO CONFERENCE ROOM



Safety Trevira VII and VIII from Coral of Chicago are constructed in 54-in. 100% Trevira® Polyester. Traditional, modern, floral and geometric patterns blend in this collection in eight new designs. The colors and textures offer breadth, depth and versatility for use in a variety of contract interiors.

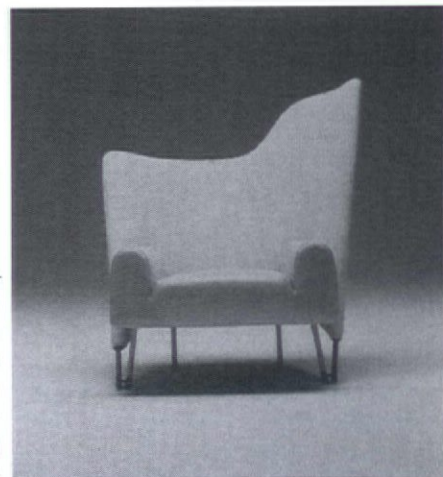
Circle No. 208



The Armonica Chair is constructed for Casa Nova with pure lines and attention to detail. The chair is handcrafted in Italy using traditional manufacturing methods. Its sophisticated and simple design is ideal for an executive office or reception area.

Circle No. 206

Paolo Deganello designed the Torso chair for Cassina to transpose the idea of active imagination into visual form. The chair is marked by color, decoration, radical shapes and historical references. The armchairs may be placed separately, as sculptures around a room or linked together to create an original profile.



Circle No. 207

Forbo's Artoleum® Scala is a patterned linoleum floorcovering designed to enliven health care, institutional, retail and



hospitality environments. The line was inspired by the colors of French Impressionist painters and is available in 30 color patterns. The floorcovering meets federal slip-resistance standards and ADA recommendations of 0.6 for flat surfaces.

Circle No. 209

MARKETPLACE



Kids' Studio's play table and seats feature rounded legs and tabletop for a kid-friendly design with no sharp edges. The set comes with two light-weight drum seats that children can move on their own and use to store toys and games. The table and seats are in natural plywood with a green table-apron accent and red and green removable seat covers.

Circle No. 210



Matel offers large attractive receptacles for heavy traffic areas. Up to 18-in. in diameter, the units are offered in vinyl or plastic laminate, in addition to eight metal finishes. The units are free standing or wall-mounted, with or without ashtrays.

Circle No. 214

HOT NEW PRODUCTS



Abbey Road is Lotus Carpet's newest multi-colored saxony product offered in 24 colorways. Made from 100% Monsanto Ultron VIP continuous filament type 6.6 nylon, Abbey Road has extra bulk and soil-hiding capabilities. The carpet is treated with 3M Commercial Carpet Protector for appearance retention.

Circle No. 212



Color and texture are interpreted in the precision velva-loop styling of Grayson from Mannington Commercial Carpets. Made of 100% DuPont

Antron® Legacy Type 6,6 continuous filament nylon, this 38-oz. face weight design provides key performance features in active commercial areas from corporate boardrooms to convention centers.

Circle No. 213

Knoll's Albini Desk is supremely modern in its simplicity. It consists of nothing more than the essential elements that define a desk. The top is polished plate glass, the legs are square, chrome finished, tubular steel and the floating two-drawer pedestal is wood. The pedestal back is open for the storage of magazines or books.

Circle No. 211



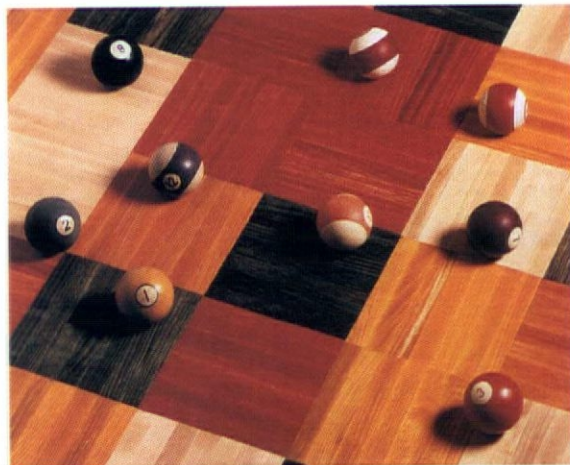
The Huxley™ Series by McGuire centers on the Martini table, which defines the collection. The crisp lines of the inverted bevel top of figured cherry expose the knee of a metal base perched atop black bamboo legs. The table is also available in figured sycamore with mottled bamboo legs or mappa burl with black bamboo legs.

Circle No. 215



PermaGrain Products introduces six colors to its PermaGrain® Series line of acrylic-impregnates, one-directional and parquet wood tiles. The new colors include natural maple and five contemporary accent colors of ash—garnet, lime, tangerine, amber and indigo. The line meets or exceeds all current ADA requirements and is backed with a lifetime full replacement wear warranty.

Circle No. 216



Robert Allen Contract's Transitions in Contract is a color-coordinated collection of 33 patterns with just over 300 skus. The name reflects a direction to offer transitionally styled designs that can be married to either a traditional or contemporary theme. Large, medium and small scale patterns work together in this series.

Circle No. 217



Vitra's Louis 20 designed by Philippe Starck is a deceptively simple multipurpose ganging and stacking chair for hospitality, office and outdoor applications. Seat, back and front legs are formed of blow-molded polypropylene that allows the chair to flex with the weight of the sitter. The chair stacks up to 12 high and is made without additives or adhesives.

Circle No. 219

DECLARE INDEPENDENCE FROM THE ORDINARY

Metro introduced two new work group products at NeoCon. Archipelago modular seating, designed by Mark Kapka and Eight Inc., supports collaborative work beyond the conference room. Island-like lounges may be linked together with occasional tables and feature armrests that double as writing or laptop computer surfaces. Metro's integrated SoftBoard is an electronic whiteboard that captures written information into a computer file. Its numerous pieces and options complement the Teamwork collection of group work products.

Circle No. 220



Sconce Lighting

Probably the first sconce light was installed by one of our ancestors thrusting a burning torch into a crack in a cave wall. Sconce lighting has been serving much the same role ever since as a source of light that is mounted at or above our height, illuminates the immediate surrounding area and takes up no floor space. To meet ADA requirements, it must project no further than 4 inches. To satisfy designers, it must display a distinct image that complements the overall design theme without getting in the way, as these products demonstrate.

ADVENT LIGHTING

This painted aluminum spun back pan with a double trim band and opal acrylic dome is offered by Advent Lighting. The fixture lends itself to custom and restorative lighting. The sphere is 18 in. in diameter with a 13-watt compact fluorescent.

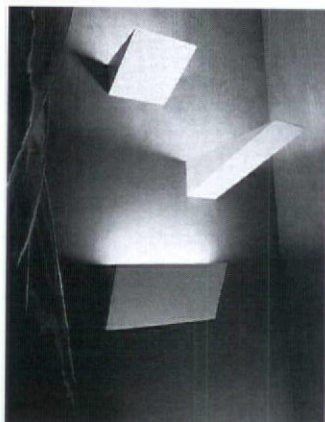
Circle No. 230



ARTEMIDE

Designer Ron Rezek introduces Artemide's Wedges, a geometrical wall sconce that provides high output, fluorescent, energy-saving light. This sconce gives four times the light-per-watt consumed compared to a standard incandescent lamp. The fixture is available in white powder coated steel, custom colors and faux finishes.

Circle No. 231



BOYD LIGHTING

Boyd Lighting unveils the Cord & Tassel Collection. This family includes two pendants and three wall sconces in styles inspired by the 18th and 19th century French design. The fixture is composed of a blending of silk cord and tassels, solid cast brass detail and European etched hand blown glass. Flame retardant treatment is available.

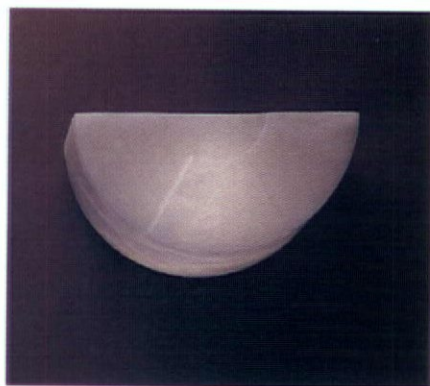
Circle No. 233



CSL LIGHTING

From CSL Lighting, the San Miro fine-grained, genuine alabaster wall sconce lends itself to commercial applications. The fixture is offered in semi-sphere, large half-sphere, semi-disc and rectangular shapes in various sizes. The sconce is featured with invisible mounting hardware designed to not distract from the elegance of the sconce.

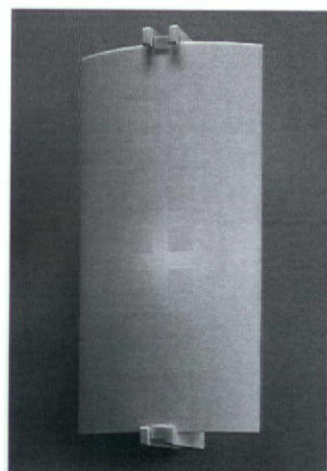
Circle No. 234



BALDINGER

Working in the tradition of 20th century Modernism, Richard Meier's lighting fixture designs for Baldinger embody the same timeless simplicity of line, purity of form and function as the whole of his work. The Ana is ADA compatible and is suitable for a variety of applications.

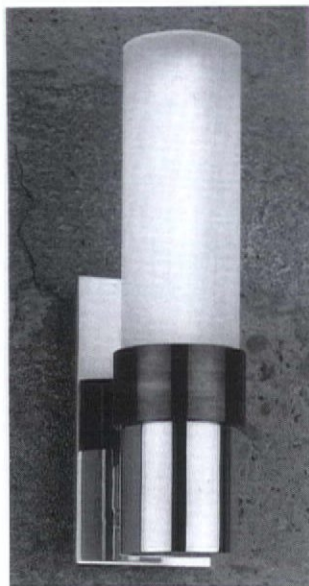
Circle No. 232



CASELLA LIGHTING

Casella Lighting introduces the petite F2370 Micro Sconce. This decorative transitional sconce houses a 9-watt PL mini-fluorescent light source in frosted Pyrex™ and solid brass with elegant flair. The solid brass is silver solder fused, delivering the clean lines of superior quality. The fixture is offered in a combination of 12 Casella finishes or custom finishes.

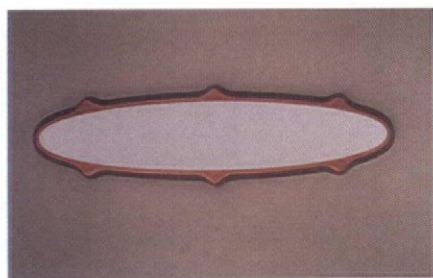
Circle No. 235



FLOS

Geco by Flos is a sconce for indoor or outdoor use. The ADA compliant fixture is part of the Arteluce Collection and is designed by Luciano Pagani and Angelo Perversi to look like a magic mirror. The diffuser is made of molded glass that has been acid-etched to soften the light. A decorative die cast metal ring surrounds the diffuser.

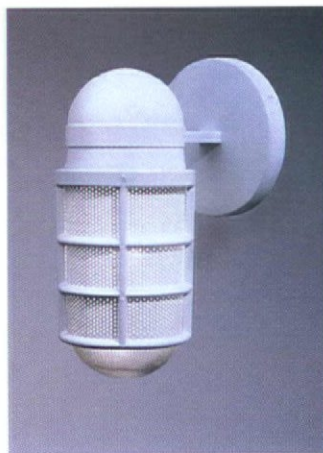
Circle No. 240



D'AC LIGHTING

The cast aluminum Soft Industrial wall lamp from d'ac lighting is designed by Shelton, Mindel & Associates. The sconce comes in a 5-in. diameter with a canopy for outlet box mounting. The light is controlled by a separate wall switch. The grill and fittings are cast aluminum in a clear glass enclosure with a 100 wattage capacity. The fixture is UL listed for dry and damp locations.

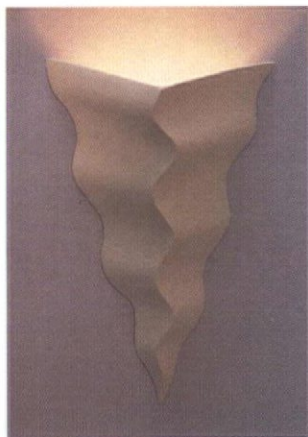
Circle No. 236



FABBY

Fabby Lighting introduces style #500. Soft contours complement the organic geometry of the hand made ceramic sconce. The fixture is available in a paintable, matte bisque finish. Kiln-fired for durability, the sconce comes with all the necessary parts for standard junction box mounting.

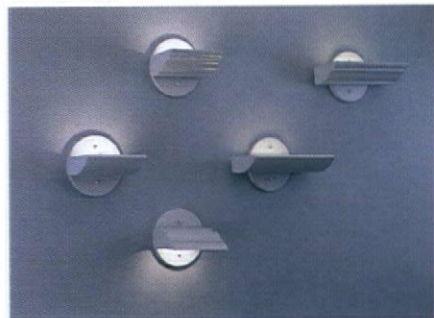
Circle No. 239



ELECTRIX

Electrix introduces a complete line of compact sconces for use with halogen as well as compact fluorescents that are designed to complement today's sophisticated designs. The fixture is constructed of extruded aluminum and solid brass with custom options available.

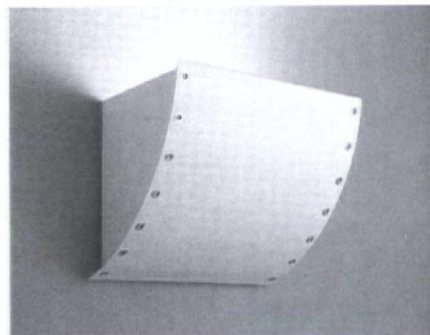
Circle No. 237



ELLIPTIPAR

The Ensconce® Series from Elliptipar, is equipped with either a tungsten halogen or metal halide light source. A reflector distributes light outward and across the ceiling, providing even, indirect illumination. All models are available with or without enclosures and in pendant versions.

Circle No. 238



JUSTICE DESIGN GROUP

The Ambiance Collection™ of ceramic wall sconces from Justice Design Group consists of over 90 designs for indoor, outdoor and ADA Compliant Fixtures. Each sconce is constructed of Ceramalight™, a safe, kiln-fired composite. Ceramalight reduces glare, insulates electricity to inhibit electric shock and reduces danger of shattered glass. All the fixtures are UL rated for damp locations. Custom glazes are available.

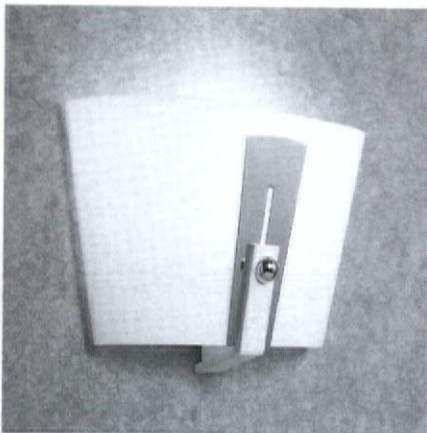
Circle No. 241



SPI LIGHTING

SPI Lighting offers Phaces wall sconces. Metal, acrylic and alabaster housings can be accented with brass, chrome, aluminum, stainless steel, acrylic or a combination of trim elements. Each fixture extends no more than 4 in. from the wall surface to meet ADA requirements. The fixtures are offered in two mounting systems, semi-recessed assembly or direct mount when conventional wall mounting is not applicable.

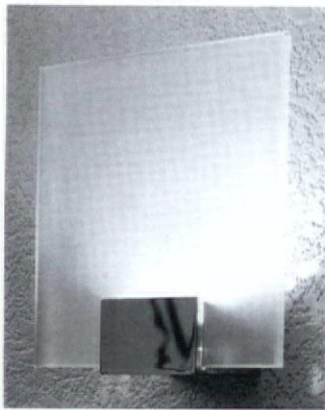
Circle No. 245



R.A. MANNING LIGHTING

An etched glass front with polished green edges makes this R.A. Manning Lighting DS-121 sconce glow at all angles. The glass plate is 1/2 in. thick, measures 11-1/2 in. square and is complemented by polished stainless steel metal parts. The bulb is 100W T-4 Quartz and the fixture is ADA compliant.

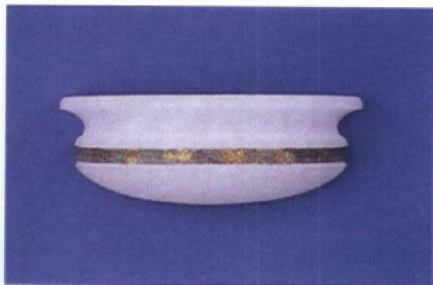
Circle No. 244



ILLUMINATING EXPERIENCES

The Alabaster Sconce from Illuminating Experiences is constructed of classic natural alabaster with a verde bronze patina metal detail. The luminous stone reveals the variation of color and veining that enriches the alabaster.

Circle No. 242



LEUCOS

The Pulce wall sconce from Leucos Lighting provides softly diffused illumination through a hand-blown satin glass diffuser. The chrome-plated polycarbonate structure supports the Murano glass diffuser and mounts to a standard junction box. The total weight of the fixture is only five pounds. Companion floor and table lamps are also available.

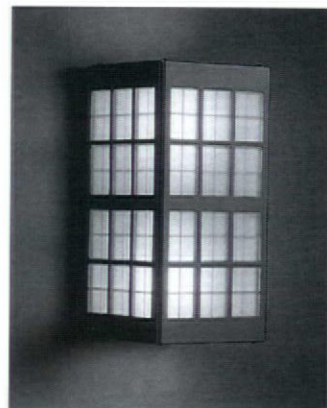
Circle No. 243



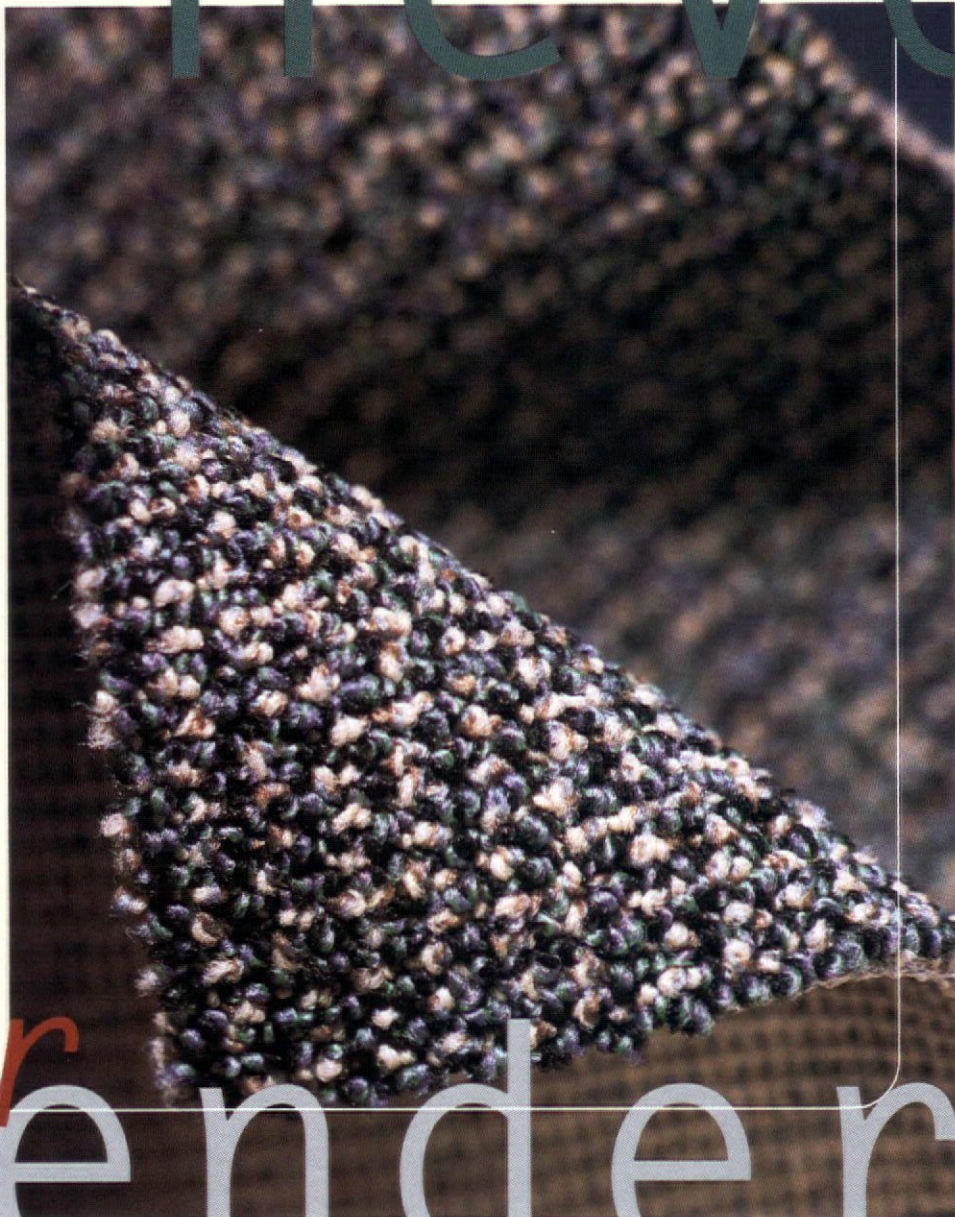
VISA LIGHTING

Visa Lighting's St. Germain wall sconce offers a shadow pattern that creates three-dimensional depth. Contemporary, traditional and custom styles are available. Tempered, sandblasted glass panels are standard, but optional acrylic panels can be specified. Incandescent or compact fluorescent lamping options are offered.

Circle No. 246



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All Systems Go

5, 4, 3, 2, 1...

Panel Concepts
blasts-off a tiptop
furniture system
called TopLine

By Holly L. Richmond

Panel Concepts' TopLine furniture system adds up to more than the sum of its parts. With unlimited space planning flexibility for private and group spaces and refinements like waterfall drawer pulls, it is an attempt to use design to create utility and aesthetics at every stage in its life cycle, from manufacture to packaging to operations.

Need a good pep talk? You're likely to hear how Panel Concepts likes to "shoot for the moon" because that's exactly what it did in creating TopLine, its latest series of office furniture systems, launched at NeoCon 95. With more than two decades of experience behind it and a commitment to provide practical, yet innovative solutions for today's changing workplace, the company is not afraid to take a pragmatic look at what is right and not so right about furniture systems. "By studying other systems and talking with engineers, end-users and everyone in between, we are able to make sound decisions about all-important details," says Van Jacobson, president of Panel Concepts, "not intangible elements, but the often hidden ones."

Panel Concepts prides itself on encouraging customers to take a closer look, to scrutinize the fine points when striving toward their goals. No stone was left unturned when developing TopLine—especially in the case of the manufacturer's own attempts at designing furniture systems. Information provided by the failure of two earlier systems, which existed solely at prototype phase and were never marketed, proved invaluable. A core group of five product designers and engineers made numerous assessments of the prototype systems, as well as what would constitute a "perfect" system, and came up with a design that is intended to be more functionally capable and cost effective than its predecessors.

TopLine is thus a no-holds-barred effort to fill a market gap by offering a higher standard of office furniture focusing not only on the product itself, but customer service, delivery and installation as well. John Musch, director, marketing communications, notes, "By enhancing the design process at every stage in the development, we've given peripheral elements like durability and packaging the capacity to lower the cost to buyers and increase profits for dealers. This gives TopLine comprehensive appeal to an upscale market."

While attention to detail is critical, no furniture system can



be understood without taking a step back to examine the big picture. At this scale, TopLine appears to offer enough style for the executive environment, performance features for active managers, and an extensive array of components for multi-tasking staff and support personnel. What's deliberately less visible is TopLine's innovative connection system, which features an interlocking panel design constructed of recyclable, lightweight aluminum. Its custom-designed camlock ensures that TopLine panels go together only one way—obviously the right way—for faster, easier installation with a solid connection that blocks light and sound transmission. The connection also creates pressure points that serve as indexes for self-leveling.

The ingenuity of the camlock design has energized the entire project, according to David Blackburn, Panel Concept's vice president, operations. "We experimented with numerous connection pieces because we wanted to make sure we were stepping sure-footedly before manufacturing the entire system," he says. "We got the green light, and have been in limited production for a year with phenomenal response. Now TopLine is set to take-off into full production."

The product won approval from a market sector often overlooked in the furniture systems arena, namely product designers, engineers and architects. Musch remarks that TopLine has set its sights on providing an aesthetic allure to the design community by incorporating appealing elements such as waterfall drawer pulls with accent

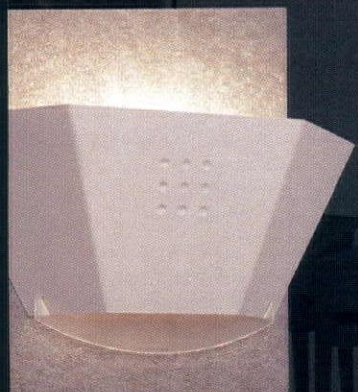
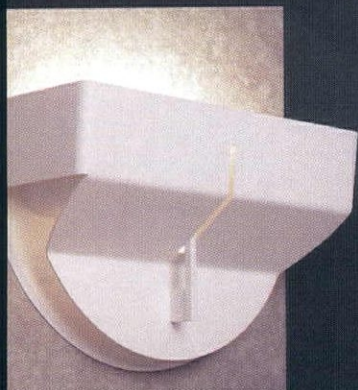
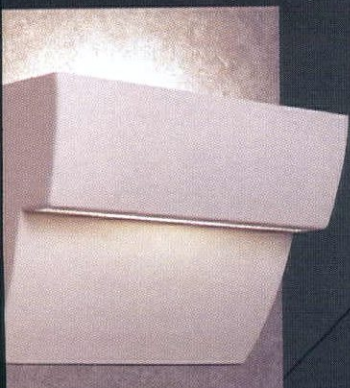
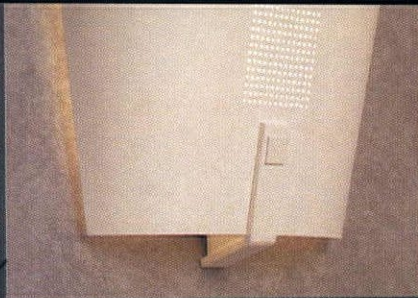
color options and soft radius corners on pedestals to enhance the work surface support legs. Other features include aluminum top and corner caps that can be specified in wood grain laminate, multiple-height glass in vision panels, and articulated keyboard trays with cushioned wrist rests. More than 50 Formica laminates, including six wood grains, allow every TopLine work surface to be finished in style.

Getting an office up and running is what TopLine is really about, of course, despite the handsome view from the top. Today's power requirements are addressed with TopLine's powered panels in a standard 8-wire, 4-circuit electrical system or the maximum capacity for an optional 10-wire, 6-circuit system, and raceway panels can be specified non-powered for a practical way to plan for future needs while keeping initial costs under control. Q-link modules keep voice and data wiring organized and grommets in two sizes free the work surface of power cord clutter.

Though the technical features sound as if they could bedeck a high-tech spacecraft, Blackburn asserts that the system is simple to use. "It's a bulls-eye product," he declares. "We are excited about additions to TopLine in years to come that will continue to enhance the product."

Which furniture systems will carry us far into the next millennium may be difficult if not impossible to predict. Nevertheless, Panel Concepts appears to have hitched its star to an intriguing TopLine. ☺

Circle No. 226



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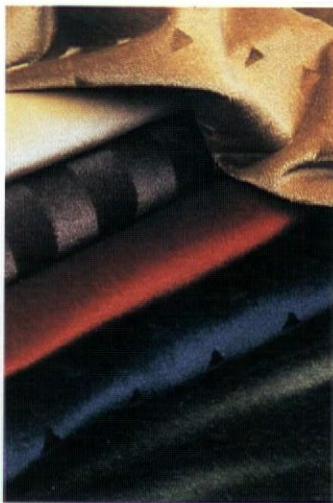
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Mequon, WI 53092

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Circle 19 on reader service card

The fabrics in the Colloquium Collection by Jack Lenor Larsen (below) are as varied as they are rich in color, texture and style.

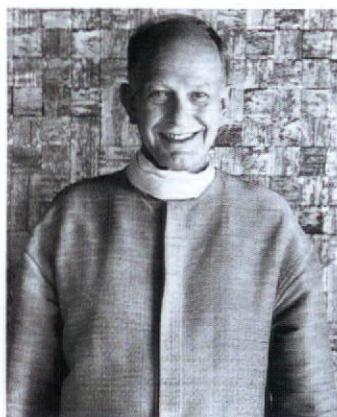
Vernisage, Cinema and Loge Cloth mohairs (near right) are appropriate for heavy contract use, while the Quadrille linen damasks Matrix, Fairways, True Grit and Herald Square and the complementary antique linen velour Intermission (right, middle) are best suited to lighter contract applications. Lindos, Swan Song and City Blocks casement fabrics (far right), constructed by Thai silk weavers with linen yarns for resistance to sunlight, are strictly for residential use.



Speak Easy

Colloquium joins the list of Jack Lenor Larsen fabric collections that speak for themselves about beauty, quality and innovation

By Jennifer Thiele Busch



Heaven knows how many talented and widely recognized textile designers are on the scene today who turn out such beautiful and genuinely useful fabrics that commercial and residential interior designers are seldom left wanting for anything—except a glimpse of the next inspired collection. Then there is Jack Lenor Larsen, a master revered by all the rest and a generous mentor and teacher to many in the modern textile industry that he. Boris Kroll and Florence Knoll are generally credited with founding to accompany modern architecture and interior design.

Of the three, only Larsen remains active in the textile industry, literally searching the world for new ideas and techniques as he has always done. Under his creative guidance, his firm continues to turn out one innovative and unusually attractive collection after another. Colloquium continues the Larsen tradition with a range of fabrics that speak eloquently about the limitless possibilities of textile design.

Dubbed “a weaver’s dialog,” Colloquium found its inspiration in uncommon combinations of fiber uses and construction techniques. “We can start with anything,” says Larsen of the creative process that drives his collections. “This time we started with the fibers, and experimented with where we could take them.”

For example, a fascinating series of gauze-like fabrics, Swan Song, City Blocks and Lindos, are the first linens created by Thai silk weavers with whom Larsen has been working for a quarter of a century. “We’d never been able to do sheer window cloths with them because of the susceptibility of silk to sunlight,” explains Larsen.

Now, by using wet-spun line linen yarns, the weavers have achieved richly crafted silhouettes resistant to sunlight.

The entire collection comprises 23 patterns of linens, silks, mohair, cottons and cotton velvets for uses ranging from commercial to residential window coverings, wallcoverings and seating upholstery. “All of our collections are geared towards residential and contract use,” asserts vice president of design and marketing Gerry Cerf. “We don’t like to pigeon-hole our fabrics. People come to us for textiles with innovative design, high quality and high style, and they want to use them the way they want to use them.”

Unlike many fabric companies that pay close heed to performance standards for contract textiles—and to their credit, savvy textile designers have been mastering the durability issues without sacrificing style—the design process at Jack Lenor Larsen has less to do with performance goals and more to do with enduring aesthetics. “So many people talk of testing,” notes Larsen. “The fact that a fabric doesn’t have holes in it doesn’t automatically mean that it looks good years down the road.”

Matching Larsen fabrics to appropriate settings is an important consideration all the same. “In general, our contract fabrics are used in places like executive offices,” Cerf explains, “where durability is not as big of an issue.” Yet contract uses are naturally limited by an individual fabric’s ability to perform in more demanding environments, and Colloquium offers numerous choices for contract applications.

The Quadrille damask linens, a group of tailored, coordinating patterns, and the complemen-

tary antique linen velour Intermission are ideal for light contract use. Among the casements in the collection, both Fielding, a previously existing cut velvet that has added new colors here, and Billows, with silky ribbons set against a transparent gauze, meet necessary flammability code requirements. Tempest, a classic panned cotton velvet, features high soil-resistance. Vernisage, Loge Cloth and Cinema, a group of panned mohair plushes, are so inherently durable that they are ideal for such heavy contract uses as auditorium seating.

“I would consider using the mohairs for task seating,” states Larsen. “They are comfortable, resistant to stain and add something that feels good to large general office space.” Jack Lenor Larsen fabrics specified in the general office area? Though Cerf concedes that the company’s textiles are far more likely to show up in high profile, high budget areas, the new plushes in the Colloquium Collection offer the style and quality for which Larsen is renowned at a lower price point than ever before, making them attractive for a wider range of contract applications.

With Colloquium, Jack Lenor Larsen has also taken uncharacteristic liberties with color. “We’re using more color in this collection than we’ve used in a decade,” he observes. “The color palette is varied, rich, delicious. It is also mellow and friendly—not too bright.”

It was not a deliberate goal, Larsen insists. “The colors just evolved,” he says. So has an entire industry, thanks, in part, to more than a little help from friends such as he. ☞

Circle No. 227

"Shifting InterPlan to the Coliseum was an excellent strategic move. The scale is appropriate, location is great, and their facility people seem eager to help...our customers will approve!"

— Julie Blanton,
Manager, Industry Events, Herman Miller

"The move to the New York Coliseum is favorable from Haworth's perspective. In addition to the cost advantages that we can achieve as an exhibitor, the location of the facility is preferable to the design community."

— Kevin Schuitema,
Manager, Marketing Communications, Haworth

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Vicente Soto (below) deftly combines the properties of wood and metal in the stacking chairs called Delana, Cerina and Elena (right top, middle, bottom), produced under license in the United States by Westin-Nielsen.

Invitation to the Dance

Strength and grace are uncommonly combined in three stacking chairs called Delana, Cerina and Elena, from Westin-Nielsen

By Roger Yee



Modern design did not die in Spain when General Francisco Franco concluded the Civil War by installing himself as dictator on April 1, 1939. The General had little sympathy for the avant-garde represented by such Bauhaus architects as Mies van der Rohe and Walter Gropius, yet his regime did tolerate the Rationalism of Le Corbusier and his followers. Modernism did survive—bereft of such leaders as the artist Joan Miró and the architects Josep Lluís Sert and Antoni Bonet—so that it could come back to life during the 1960s in the schools of Barcelona. Interestingly, furniture has been the greatest source of international recognition for Spanish design since then, building on the Art Nouveau tradition of Antonio Gaudí and a respect for details and artisanship. The introduction of three unusually graceful stacking chairs, Delana, Cerina and Elena, designed by industrial designer Vicente Soto for Paco Capdell in Valencia and manufactured under license in the United States by Westin-Nielsen, should further stimulate the market for design from Spain.

Making these three designs as lithe as dancers is Soto's choreography of wood and metal for form and structure, displaying wood's sculpted beauty whenever possible and relying on metal's higher strength-to-weight ratio as needed to support seat and back shells. The connections between wood and metal—typically metal fasteners threaded into wood parts to take metal fasteners from metal parts—are deceptively understated. As William J. Nielsen, president of Westin-Nielsen, indicates, "The grace of these chairs belies their strength. We've had to do very little to modify their design or engineering to meet ANSI-BIFMA x5.1 1985 standards."

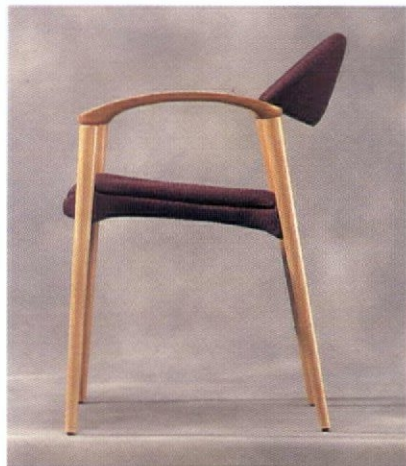
In eyeing Soto's work for Paco Capdell for the first time at Orgatec 1992 in Cologne, Germany, Nielsen was drawn to the styling and comfort of the three models. However, what won him over was the quality of their engineering. "While traveling in Europe," Nielsen recalls, "I saw Soto's chairs in the cafés at Picadilly Circus in London. Though they were light weight

and attractive in appearance, they were getting plenty of heavy use."

Reliability is not a matter to be taken lightly in dealing with Spanish furniture. Although low cost was one of the major reasons why international buyers were attracted to the exuberant and eclectic designs of Spanish furniture in the late 1980s, shoddy construction quickly caused many an overseas relationship to sour. Too often the chair that caught the attention of the crowd at the furniture fair came out of its shipping carton with loose joinery, flawed welds or sloppy upholstery details. Fortunately, Nielsen maintains, no such problems trouble Paco Capdell.

The manufacture of Delana, Cerina and Elena in America is based on the shipment of parts in varying degrees of completion from Paco Capdell to Westin-Nielsen for final shaping, assembly, upholstery and finishing. Each model uses similar if not identical components. All hardwood arms and legs are precisely contoured and fitted thanks to computer-numeric-controlled (CNC) machinery. Metal tubular legs and seat support frames are exactly welded and finished. High-density foam is glued to molded plywood seats and backs before being covered by seamless upholstery fabric.

To satisfy the demands of health care institutions, any seat or back can be easily reupholstered by removing four screws joining the pan to its support frame. Elsewhere, rugged joinery consists of metal fasteners (wood to metal), wood dowels (wood to wood) or metal welds (metal rod seat and back support frames). Whether the model in question is Delana, which joins wood front legs to metal back legs with wood arms, Cerina, featuring wood arms and legs, or Elena, characterized by continuous wood arm/front leg assemblies and metal back legs, Westin-Nielsen expects it to



withstand years of use by commercial and institutional users in their offices, conference centers or dining rooms.

But a good design is more than the sum of its ANSI-BIFMA tests. Indeed, the striking image of strength and grace in these chairs readily evoke the body of a dancer—one that happens to be named Delana, Cerina or Elena. ☞

Circle No. 225



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Circle 21 on reader service card



Touch the Sky

Though their feet never leave the ground, airline personnel go aloft daily at Boeing Customer Services Training Center, Tukwila, Wash., designed by Callison Architecture

By Roger Yee

Airborne in Seattle: On the grounds of the former Longacres, a thoroughbred race track in Tukwila, Wash., 10 miles south of Seattle, Boeing has created the 600,000-sq. ft. Customer Services Training Center (above) to train pilots and maintenance crews of the airlines that buy its airplanes. The two-story reception area (opposite) greets the busloads of students who arrive daily, and forms the hub of the circulation system that takes them through the facility. Overhead hovers a 1/10th scale model of the Boeing 747.

Incredible as they are as state-of-the-art technological marvels, the full-flight simulators visible through the glass immediately behind Bob Glasser in the ETOPS Room at the Boeing Customer Services Training Center in Tukwila, Wash., don't draw his attention right away. These \$15-million, computer-driven machines for pilot training that simulate actual airplane cockpit instrumentation, controls, motion, positioning ("attitude" in aviation jargon) and audio-visual environment are only one aspect of the vast, 600,000-sq. ft., three-story building that Glasser has known since 1990 as its project administrator. Suddenly, the simulator for Boeing's new 777, the world's largest and most advanced twin-engine passenger airplane, starts pitching and rolling violently—and that catches his eye. As the requirements support specialist in flight operations engineering for the customer services division of Boeing Commercial Airplane Group (BCAG) wryly remarks, "They're really putting those pilots through their paces."

It's a day in the life of a remarkable facility designed by Callison Architecture to train airline pilots and maintenance crews before and after their employers take delivery of Boeing airplanes. More importantly, the building that Boeing simply calls the

"CTC" serves as a visible symbol of the importance of customers to the world's premier builder of commercial airplanes. Like the 777, whose development has run parallel, the CTC is dedicated to giving the customer what he wants.

This would be difficult enough under the best of circumstances given the sophisticated technology in Boeing's products. Since the student population of up to 800 airline personnel per month comes from virtually the entire globe, the facility has also had to arrange its form and function in the most self-evident manner possible. Virtually every move by the students and the 1,100 Boeing instructors and support staff who serve them is anticipated in the \$108-million structure.

In fact, what Boeing and Callison have accomplished can be seen as a thoughtful exercise in user-friendly, high-technology design. Boeing's previous training center taught flight operations and maintenance training in two adjacent buildings joined by a pedestrian bridge. Uniting these activities and others under a single roof made for more effective training as well as updated accommodations and equipment.

Boeing started its search for a better way by issuing a surprisingly open-ended request for proposal (RFP) to local and national design firms. Though the design-build RFP



747-400

BOEING





A machine with a soul is the impression many airline personnel have of Boeing's CTC, as expressed by the reception area (top, left). The typical terraced classroom (top, right) for 18-36 students, which uses computer-based training (CBT) to increase skills and save time, carefully monitors its lighting, HVAC and acoustics. There are amenities, too, such as corridor wall paneling and signage (above, left) and cafeteria (above, right), which convey the drama of aviation history and the beauty of the site's wetlands.

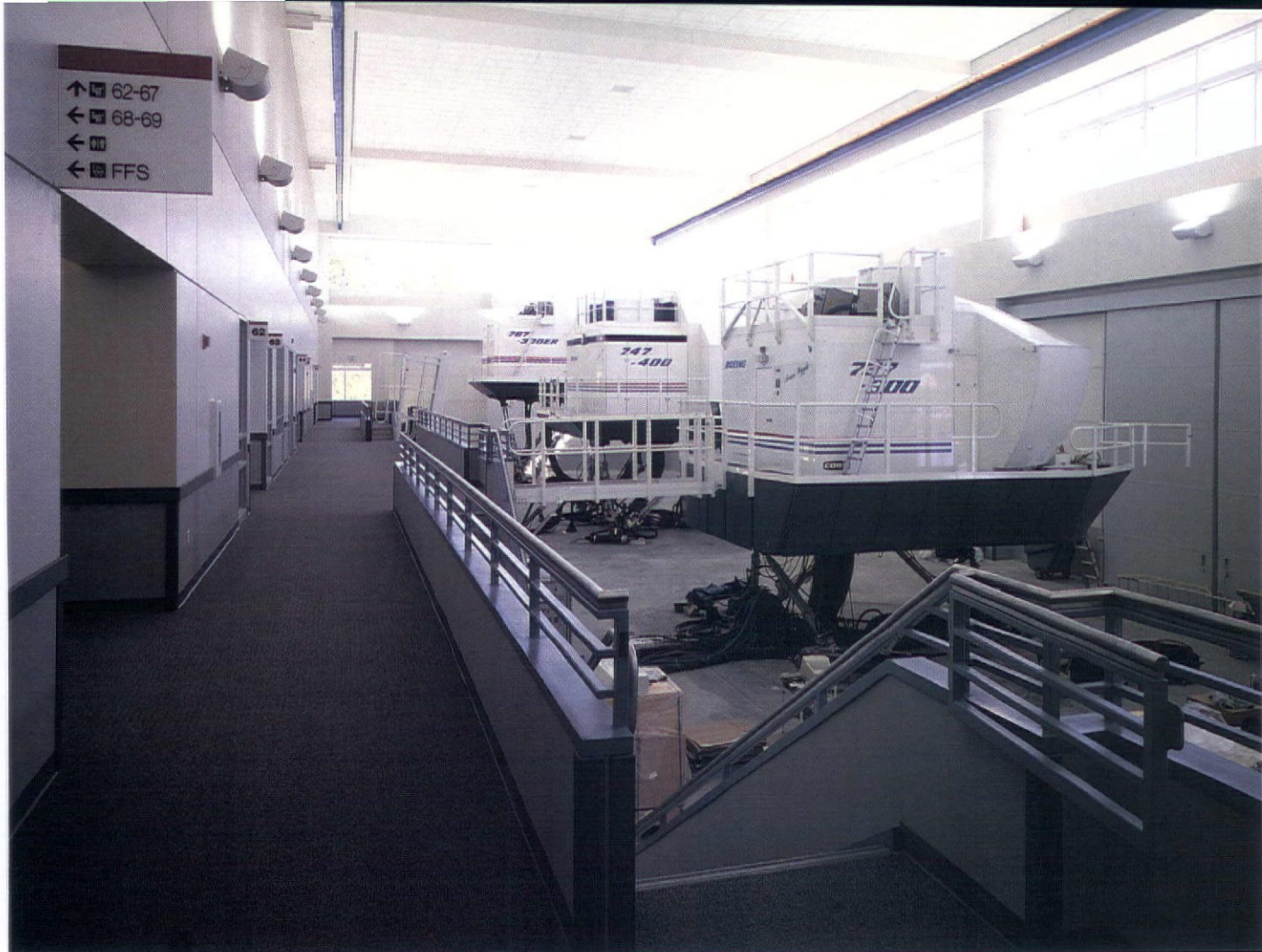
specified neither a detailed building program nor a specific site, a number of factors gave the CTC project a distinct sense of urgency. First, senior Boeing officers, including Frank Schronzt, chairman and CEO of the Boeing Company, Gordon Bethune, then vice president and general manager of the customer services division of BCAG (he is now chairman of Continental Airlines), and James J. Nelson, director of facilities for BCAG, distinctly called for a world-class facility to demonstrate Boeing's responsiveness to customers' needs. Furthermore, Boeing was confronting such unresolved issues as configuring classrooms for computer-based training, lowering costs and simplifying procedures for maintenance and remodeling, and anticipating obsolescence with more flexible construction. Finally, the company set a May 1995 date for delivering the first 777s to United Airlines—a deadline that ultimately set the CTC project in motion.

How should a world-class training facility be produced? A tradition of engineering-driven research and development dating back to the company's founding by William Boeing in 1916 had already been challenged when customers were polled about the features they wanted in the new 777 before the design was developed. Accordingly, the company looked beyond its own internal resources for the CTC by examining leading airline training centers first-hand and log-

ging hours of interviews with customers to identify what they wanted most. "We went where our customers recommended," recalls Glasser. "That took us to Northwest, SAS, Delta and British Airways. Our goal was to find out what was right and wrong, and to look at the aesthetic issues."

Project team members who made the second round of tours, including representatives from Callison, the design firm chosen by Boeing in part due to its similar focus on customer service, made a provocative discovery. "Everyone realized that there was not a special science to building training centers," says James Rothwell, AIA, principal-in-charge of the CTC project at Callison. "We saw ourselves being at the edge of a technical breakthrough. We knew we could do it better."

A "customer requirements document," Boeing's equivalent of a building program, was then drafted over a six-month period by the heads of 15 key Boeing departments. Ronald Parypa, site manager for CTC, Glasser, Nelson and the consulting firms providing design-build services before being submitted to senior management for approval. Part of the initiation rites for Callison's professionals was to spend three to four consecutive days experiencing the same orientation students undergo for simulator training. The program—intense if shorter than the six to eight weeks spent by



pilots and eight to 10 weeks needed by maintenance crews—strongly impressed the architects with the need for a good learning environment.

Of course, an effective space plan for the CTC's core functions, namely classrooms,

and transformed the grounds into a heavily planted campus featuring a 30-acre park, a 3.5-acre lake, two small ponds, a tertiary storm-water treatment system and a chilled water system for HVAC using recycled effluent to replace cooling towers.

An intriguing discovery about the science of training centers

full-flight and fixed-base simulators, plus such ancillary activities as faculty offices, a conference center, mechanical and electrical engineering shops, a video studio for all visual training materials, a computer-based library, a cafeteria and a loading dock, would hinge on the selection of a satisfactory site. "When we looked at possible locations in the south end of Seattle, none worked out," Glasser reports. "Then Longacres became available from the family that owned it."

Longacres, a popular thoroughbred race track in Tukwila, a jurisdiction of the City of Renton close to Seattle-Tacoma International Airport and 10 miles south of downtown Seattle, continued operating until November 1992. Afterwards, the track yielded to Boeing and the CTC project team to construct the first of what will eventually be 15 structures encompassing some 3 million square feet on the 214-acre wetlands. Treading on the land as lightly as possible, Boeing heeded environmentalists' concerns

and transformed the grounds into a heavily planted campus featuring a 30-acre park, a 3.5-acre lake, two small ponds, a tertiary storm-water treatment system and a chilled water system for HVAC using recycled effluent to replace cooling towers.

Eager to orient students to the CTC as quickly as possible, Callison proposed dividing the facility into three vertical zones in three wings. Students would be received in the ground floor reception area, where such ancillary spaces as the cafeteria and conference center would also be located, and proceed to the second floor, where all training would occur. Instructors would descend from offices on the third floor to classrooms and flight simulators below. In plan, the CTC would resemble a "three-prop" shape, with each wing of the building holding one of the three core functions.

BCAG liked the concept. However, Skidmore, Owings & Merrill, the architecture firm retained as the master planner of the site, rejected the "propeller" as incompatible with the overall scheme for the campus, so the "Y" evolved into a "T." At the intersection of the wings in both plans was what Callison calls a "lantern," a soaring atrium that BCAG approved as a highly visible reminder that

Full-flight simulators at Boeing's CTC (above) take airline pilots aloft in astonishingly realistic flight deck environments enhanced by working instrumentation and controls, physical motion and audio-visual programs that allow them to experience take off and landing between most of the world's airports under a variety of natural conditions. Students prepare for this final stage of training at CTC with CBT and fixed-base simulation.



Mementos of a stay at the CTC can be purchased at the gift shop (above), where students can find flight jackets and other apparel, coffee mugs, model airplanes and other merchandise bearing the Boeing insignia. Retail fixtures have been designed by Callison Architecture to evoke aircraft parts. Work by the firm for clients in offices, retailing and hotels has served it well at the CTC, which incorporates aspects of all three facility types.

the CTC is more than a teaching machine.

"We saw the lantern as a focus for the building and a landmark for the students," Rothwell explains. "It would also be read as an elegant statement of Boeing's esteem for its customers." The focus of this spare but inspirational space—the first glimpse of the CTC seen by busloads of airline personnel arriving daily—would be a cylindrical bay in which a 1080-pound, 1/10th scale model of the 747 would be suspended under a domed ceiling in the "okay" attitude at 12° and banking that an airplane assumes in a successful take-off.

For all the symbolism, the CTC is an educational facility first and foremost. Much of its learning takes place through

innovative, computer-based training (CBT) using over 300 computers instead of actual airplanes—saving airlines some 20-30% in time—so considerable attention has been paid to the design of the environment surrounding the CTC's 42 classrooms and computer-based library. Consequently, the CTC's sophisticated HVAC system exchanges building air up to six times an hour while it monitors temperature and humidity; daylight and views flood the entire periphery; electric lighting is indirect and shadowless; and noise is controlled through soundproofing for all classrooms and an oversized duct system with low-velocity air flow.

Change is acknowledged as a fact of life in this technological setting. The seven huge full-flight simulators are installed for easy removal through massive exterior doors immediately adjacent to each unit, while the 10 somewhat smaller fixed-base simulators are positioned to be readily slid down and out through a dedicated shaftway. (Future capacity exists for three more full-flight and eight more fixed-base simulators.) Wiring can be quickly reconfigured in the classrooms beneath terraced access floors or in the mostly open plan offices where

cable trays race around building cores to feed to "super power poles" that link up to 24 work stations.

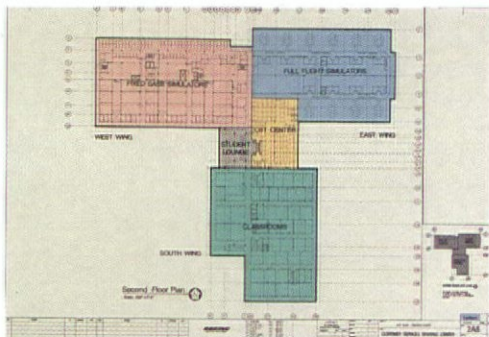
Yet the CTC is also a machine with a soul. As intended by Boeing and Callison, the facility makes its students' days and nights (simulators run 24 hours a day) more convenient and enjoyable in numerous ways. There are numerous conference rooms and lounges for meetings (two briefing rooms per simulator, for example, allow ingoing and outgoing students to convene simultaneously no matter how their schedules overlap), wide corridors so pilots can walk abreast as they prefer, a cafeteria whose vistas of the wetlands make it a favorite gathering place and even a popular gift shop for students to purchase mementos of their stay.

Aesthetics makes its unobtrusive but telling appearance here too, primarily through highly skilled use of cost-effective materials. Vast scale and proportion figure importantly, to be sure. However, the CTC's detailing stands out, including wall panels of brushed steel, fabric and bold, colorful posters prepared by Boeing itself, color coding that designates red areas for students and blue areas for Boeing personnel, built-in furniture that mimics aerodynamic shapes, and signage that recalls airport graphics.

At the end of a long discussion, Bob Glasser turns to observe the 777 full-flight simulator again, and sees that the motion of the machine has steadied to a gentle rocking. He glances at his watch. "Almost time for lunch," he notes. "If the flight stays like this, the pilots could actually be hungry." He's not exaggerating much. The CTC is designed for flight from the ground up. ☺

Project Summary: Boeing Customer Services Training Center

Location: Tukwila, WA. **Total floor area:** 600,000 sq. ft. **No. of floors:** 3. **Average floor size:** 200,000 sq. ft. **Total staff size:** 800+. **Cost/sq. ft.:** \$180. **Wallcovering:** Armstrong. **Paint:** Sherwin Williams. **Laminate:** Micarta, Formica, Nevamar. **Dry wall:** U.S. Gypsum. **Vinyl flooring:** VPI. **Carpet/carpet tile:** Lees. **Carpet fiber:** DuPont. **Ceiling:** Armstrong. **Door hardware:** Stanley. **Glass:** Viraccon. **Wall system and window frames:** H.H. Robertson. **Work stations:** Steelcase. **Work station seating:** Steelcase. **Lounge seating:** Cassina. **Cafeteria, dining, auditorium seating:** Vecta. **Files:** Steelcase. **Shelving:** Steelcase. **Architectural wood-working and cabinetmaking:** Hartwood. **Signage:** Trademarks. **Elevators and escalators:** Fujitec. **Client:** Boeing Commercial Airplane Group. **Architect:** Callison Architecture. **Structural engineer:** Skilling Ward Magusson Berkshire. **Mechanical engineer:** McKinstry Co. **Electrical engineer:** Holmes Electric. **General contractor:** Hoffman Construction Co. **Construction manager:** Boeing. **Lighting designer:** Wood Harbinger. **Acoustician:** Towne Richards & Chaudiere. **Furniture dealer:** Bank & Office Interiors. **Photographer:** Fred Licht, Ann Hopping.



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WEIGHTMAN

Satisfaction Guaranteed!

In matching form to function at The Weightman Group, KPA Design Group has helped sharpen the Philadelphia advertising agency's already sharp edge

By Holly L. Richmond

KPA's approach in the reception lobby of the Weightman Group is to use the details of the existing space, like 21-ft. high coffered ceilings and Doric columns (below), to balance novel yet cost-effective design elements, including an angular stainless steel form "blade," and a wafer board wall (opposite). Each feature serves as a link between the two open spaces at either side of the area, and makes a lasting first impression on visitors to the Philadelphia advertising agency.

Re-engineering has infiltrated the 1990s work place as an answer to society's escalating expectations of quality service in little time at reasonable cost, and some say it's simply the fad du jour. "Not so," emphatically states John Goodchild, CEO of The Weightman Group, a Philadelphia advertising agency where departmental re-engineering was the driving force behind the company's relocation and the solution to its clients' needs. With the help of KPA Design Group, the agency selected the Roman-Doric John Wanamaker building,

circa 1911, as the new location for its 80 employees. It seemed the perfect place for a 56,800-sq. ft. build-out on the historically registered ninth floor that embodies the agency's 45-year history with Center City.

And to think it all started on a starship...well, almost. Goodchild and his top executives had attended a manufacturing exercise directed at service business leaders called The Flying Starship Factory, where they analyzed the process of pleasing clients by assembling origami starships and asking themselves how to build quality starships most efficiently. "The 'factory' was set up with a cutting department, a folding department and this department and that, and we ended up with terrible starships that customers would never buy," Goodchild chuckles. So he and his staff re-engineered their factory into contiguous groups. "Lo and behold," Goodchild confesses, "we turned out real nice starships."

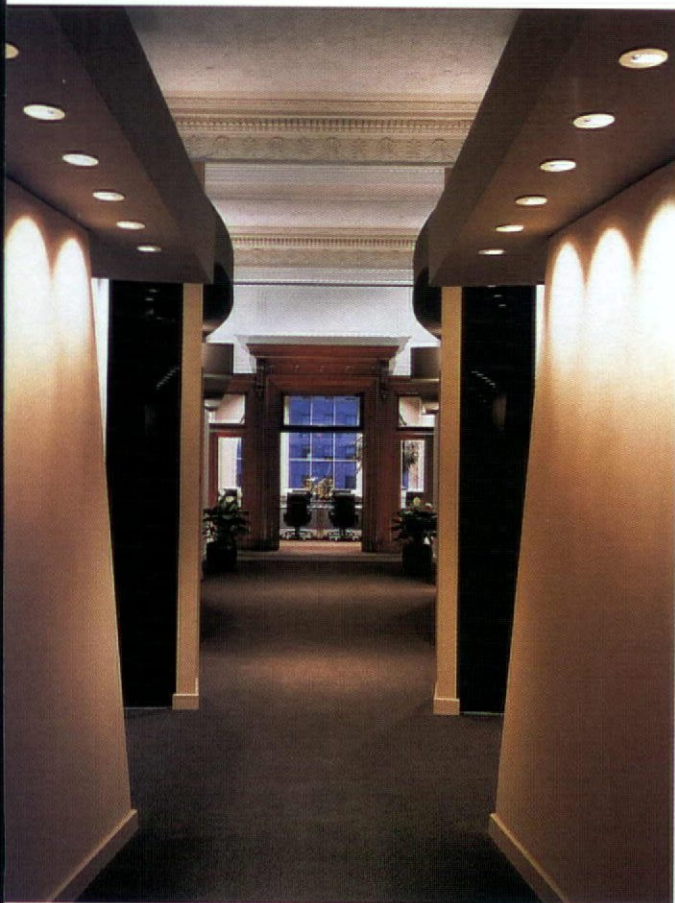
Traditional departments having been lofted into outer space with the shoddy starships, Weightman is now divided into multidisciplinary, self-directed client teams that pursue a business strategy called brand planning. This gives everyone involved a greater understanding of such clients as Alpo Petfood, Mannington and Tasty Baking Company, their customers and competitors, and thus the insight to develop unique and motivating advertising. Weightman is so sure that the system works that it guarantees complete satisfaction no matter how a client defines it, or the agency will forego profit on that client's business.

What does it take to produce a 100% guaranteed ad? An edge—and that is exactly what KPA has given them. John Cummiskey, AIA, senior vice president at KPA, says, "Weightman had particular ideas about what needed to be done, namely, creating an environment that reflects its history as well as Philadelphia's, and at the same time says, 'We're an innovative agency on the cutting edge.'"

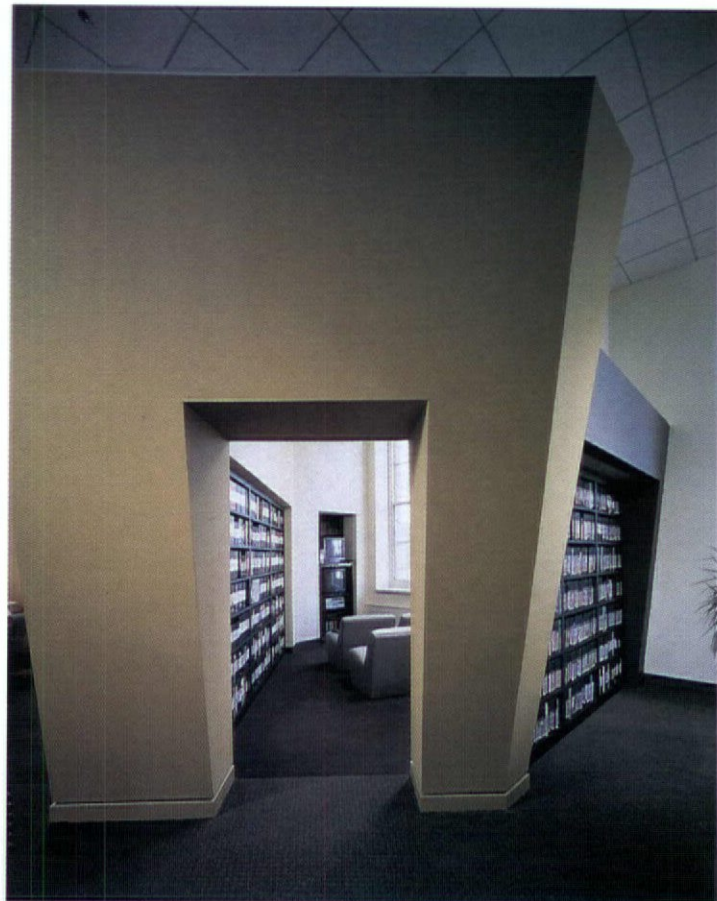
How to hold the "edge" became the interior design theme for the entire office, and is especially apparent in the reception lobby. Upon exiting the elevators, a visitor immediately confronts a freestanding monolithic wall of finished wafer board cut in a serrated style behind the reception desk. Opposite the desk, a floating, brightly painted canopy lends intimacy to the towering space of 21-ft.-high elevations, Doric columns and coffered ceilings, restored and replicated with the guidance of an historic consultant. An angular stainless steel form, "the blade," slices through one side of the canopy to connect with the wafer board wall at the other, creating an archway leading to the "gallery walk." Finally, the back wall comprises expansive windows and glass doors opening into a public atrium where employees can relax and eat lunch. The "edge" remains razor-sharp at Weightman.

The floor layout dedicates approximately 40,000 sq. ft. to four team spaces, executive offices, and conference rooms, all connected through the reception area to an adjacent 16,000 sq. ft. for additional work station-defined staff functions. "With the canopy and other unifying design details like color and pattern," notes Gary Lowe, principal architect for KPA, "we create a link that celebrates the progression through the space. Everything is integrated."





The "conference room village" (above, left) is a corridor with several small meeting rooms off each side that appear to defy normal perspective with scalloped walls and recessed lighting. At the end of the corridor in the central conference room, a client can view one of thousands of tapes from the video library (above, right). Before a client presentation, employee brainstorming takes place in an informal team meeting area (opposite, top), evidence of the move into multidisciplinary, self-directed client teams.



A tour through Weightman's past and present begins by way of the "gallery walk," a corridor that displays examples of the agency's work for visiting clients on ornamental presentation rails. The walls are intersecting planes that taper towards the middle and widen at the ends to set the stage for entrance into the skylit central conference room. Ceiling heights through the corridor vary between 8-20 ft., and the configuration encourages people to look up and notice that details such as portholes and other cleverly placed design elements do not disappear above eye level. "As you proceed through the gallery walk, you are tempted to turn around and look back and up because the progression is so interesting," remarks Pierre Trombert, project designer for KPA.

Another facet of the design scheme has been to introduce a sense of modernity in well-preserved parts of the historic shell rather than overwhelm them. A particular

replicated support columns, window and door frames to match the originals."

Furthermore, because the high windows are a great source of natural light, KPA has kept interior walls to a minimum. Each of the four creative groups, named Green, Gold, Purple and Red, are deployed in a color-matched, geometrically detailed team area. With approximately 10 professionals per team, these areas include personal work stations as well as meeting areas with tackboards, markerboards and other props that add inspiration to the creative process. After all, determining what Fido's master or mistress really wants to see on his can of Alpo has enormous consequences!

Melissa Wadsworth, Weightman's vice president public relations, is impressed with the way managerial and architectural re-engineering has improved the agency's effectiveness by facilitating communication. "We never worry about finding a place for groups to meet," she claims. "Everyone interacts well, and the office is comfortable and nice looking. Our previous space could have belonged to an accounting firm or law office. It became too conservative for us and for our clients."

While the overall decor is contemporary, Weightman has encouraged employees to "have at it" in their personal work areas. Two professionals who have not been the least bit shy about taking up the suggestion include Goodchild, whose office is decidedly traditional, bedecked with brass accented leather furniture, and Bill Lunsford, creative director,

A blade that slices harmlessly through the reception lobby

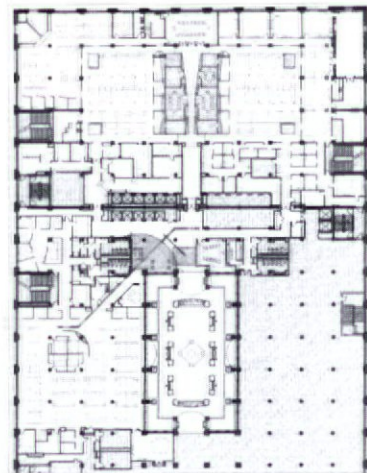
challenge for KPA can be observed in the conference room, where enormous windows are encased in intricate woodwork. Though new glass was installed, the shape of the windows could not be altered. "Part of the deal, as per the historic guidelines, was 'the millwork stays,'" recalls Cummiskey. "We



have made re-engineering look a lot more rewarding than folding origami starships. ☺

Project Summary: The Weightman Group

Location: Philadelphia, PA. **Total floor area:** 56,800 sq. ft. **No. of floors:** 1. **Total staff size:** 80. **Cost/sq. ft.:** \$34. **Wallcovering:** DesignTex, Maharam, Knoll. **Paint:** Benjamin Moore, Finnaran & Haley. **Laminate:** Abet Laminati. **Dry wall:** U.S. Gypsum. **Marble flooring:** Landis Marble. **Carpet/carpet tile:** Mannington. **Ceiling:** USG Interiors. **Lighting:** Lutron. **Doors:** custom. **Door hardware:** Best. **Glass:** Falconer Glass Industries, Saint Gobain Architectural Glass. **Curved wall:** Wheeling Corrugating Co. **Work stations:** Knoll. **Work station seating:** Haworth. **Lounge seating:** Bernhardt. **Other seating:** Haworth, Kron. **Upholstery:** Haworth, Jack Lenor Larsen. **Conference tables:** Knoll. **Projection and presentation room blackout and diffusing:** Microshade. **Other tables:** Brayton International. **Architectural woodworking and cabinetmaking:** A & V Woodwork, Boyertown Planning Mill. **Client:** The Weightman Group. **Architect:** KPA Design Group. **Structural engineer:** O'Donnell & Naccarato. **Mechanical and electrical engineer:** H.F. Lenz Co. **Historic consultant:** John Milner Assoc. **General contractor:** Clemens Construction Co. **Lighting designer:** Grenald Waldron Assoc. **Acoustician:** Pierce-Phelps. **Furniture dealer:** Corporate Facilities Inc. **Photographer:** Tom Crane Photography.



The detailed millwork on window and door frames in the central conference room (below) of the Weightman Group is original, and facilitates a comfortable mix of the Wanamaker Building's circa 1911 detailing with the room's contemporary furniture and audio/video capabilities.

who has indulged his passion for red velvet couches and a Dalmatian-spotted chair. "We took the project seriously," says Trombert. "But the client's people did not take themselves too seriously, so we had fun specifying the interior elements."

The only space left untouched that maintains its historic flavor, appropriately adjacent to Goodchild's conservative office, is the Wanamaker Boardroom or Princeton Room, an exact replica of the faculty room at Princeton University where the Continental Congress sat in 1773. Almost 150 years later, on November 18, 1915, John Wanamaker dedicated the room to business training. Today, Weightman uses it for formal meetings.

Armed with built-in growth capabilities, sophisticated equipment and state-of-the-art video and research libraries, Weightman is prepared to handle any burst of creative genius for years to come. KPA itself has gotten into the act by developing a projection system so that the agency can display a client's name and logo on an expansive corrugated wall leading into an area often used for large meetings and business entertaining. "The corrugation gives the image an interesting distortion," Lowe says admiringly, "and with its size and positioning, there's no missing it."

The detail is certainly in line with today's in-your-face advertising trend. Even if a client has not yet re-engineered its own operations in response to the bigger, better, cheaper, faster mentality, it should be glad to see that its agency has. If anything, Weightman and KPA

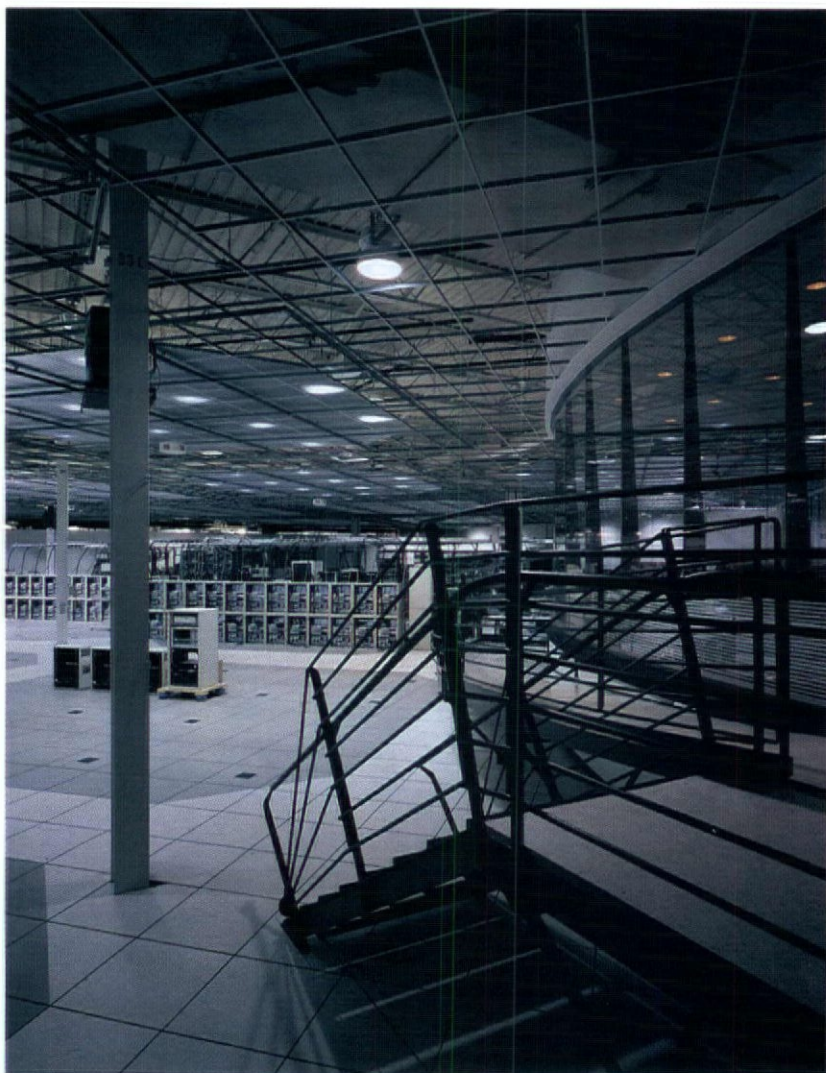


The Final Frontier

Motorola Customer Center for Systems Integration, Land Mobile Products Sector is a mouthful, but of what? With the help of Holabird & Root, even a tech-no-literate gets the gist from Schaumburg, Ill.

By Holly L. Richmond

With Motorola's 24 modular sites lacking communications systems and engineers, the testing floor (right) appears capacious and uncluttered. But fill it with high-tech equipment and interested clientele, and it looks like the flight deck on Apollo 9. Walkways with white floor tile keep non-techies on the right path. The entry lobby and reception hall (opposite) introduce the industrial vocabulary of the facility. The octagonal floor pattern leads visitors to the rotunda, a methodical transition to the raised testing floor.



Motorola by the Chicago-based architecture, engineering and interior design firm Holabird & Root.

Given the high-tech, big-buck nature of the beast (clients spend \$5-90 million), it's rare that a system's ultimate users ever experience it pre-installation. Bearing this in mind, a group of 10 facility managers, customer coordinators and engineers at Motorola recently envisioned a novel approach to their company's sales and marketing strategies that combines manufacturing, marketing and distribution within a 36,500-sq. ft. space. With help from Holabird & Root, they have developed a facility that engineers deem a laboratory, clients view as a shopping emporium, and Motorola considers the last stop—the final frontier—before a system is distributed.

Cellular and personal communications systems trace their roots to Motorola's pioneering efforts in two-way, land-mobile radio technology in the 1930s. The first customers were police and other public safety agencies, followed by the military in

The Motorola Customer Center for Systems Integration in Schaumburg, Ill., makes it possible for everyone from UPS delivery people to Starsky & Hutch, who communicate via land mobile products like two-way radios, to receive and dispatch messages critical to their business. But how does a trucking company or police force know what new communication system will best meet its needs, and how does a multi-faceted company like Motorola market its products to these geographically expansive industries? Clearly without static, of course. For a more detailed answer, you may want to step inside a unique facility designed for

World War II. Today, Motorola serves utility, transportation, and a variety of commercial and industrial markets as well as government clients, offering integrated wireless communication systems, including dispatch, telephone interconnect, short messaging and data capabilities. Though market penetration may seem small, less than 1% of the world's population, Motorola estimates the number of worldwide subscribers to these systems will grow from 70 million in 1990 to more than 300 million in the year 2000 and 900 million in 2010, with industry equipment revenues reaching the \$200 billion mark.





As customers enter the testing facility (above), they proceed to their systems' modular test sites, which are marked by overhead banners. The 24 sites are rotated at 45° to maximize the number of system layouts and usable floor space. If the visitor is a perspective customer, he or she will accompany a Motorola executive up the ramp to the glass-enclosed conference center.

Mike Colby, Motorola's systems integration manager, is convinced the Customer Center will more than keep up with industry growth, perhaps acting as a springboard for more interdepartmental endeavors. "This facility is a special use item," he states. "It embodies a new philosophy for us and has a life of its own which is entirely customer driven. It's a show-off space."

It's not that customers of Motorola's communications system were previously overlooked. Rather, the development, testing, and distribution process was fragmented. Colby explains that when a sale was made, the equipment was shipped to a service area where it was assembled and tested, then delivered to the customer's location. However, as systems become more technically sophisticated, Motorola recognizes a need for engineers to be in close contact with the end product in order to monitor the performance of the entire system rather than just its individual components.

Don't get your wires crossed in Schaumburg

Determining the role of the Customer Center was a walk in the park compared to Holabird & Root's job—more like a walk on the moon—to renovate factory space into a state-of-the-art customer reception and systems test facility. "The space mixes industry and customers, which are typically kept separate," explains Tod Desmarais, principal architect for Holabird & Root. "So we designed ways to make smooth transitions in all areas, from the parking lot to reception, then into the actual testing sites."

The resulting interior scheme is decidedly high-tech. It begins in the building's entry lobby, where an industrial vocabulary is

introduced through a metal canopy, glass doors and an angled, oxidized metal wall that intersects the lobby and extends past a glass entry leading visitors into the reception hall. A bank of monitors showing promotional videos on Motorola products is recessed in this wall, facing a wall of fabric and wood finishes that reflects a more traditional corporate character.

Regarding the lobby's milieu, Michael Lamberty, senior facilities engineer for Motorola, points out that customers should not feel they are in Motorola's corporate offices. "The Center embraces a professional atmosphere, but it's not too businesslike," he says. "There are no professional offices here except the facility administrator's office and two hoteling stations, so we took the design to another level. It's kind of 'out there.'"

On a voyage "out there" and on the way to the systems test area, visitors proceed up a gently sloping ramp in the reception hall to the pivotal design element, the rotunda. Covered by a glass-faceted ceiling, the rotunda brings a dynamic quality to the space as it rotates the existing column grid and initiates a skewed axis to the raised floor of the testing area. The 45° rotated orientation of the 24-sq. ft. modular test sites maximizes the number of systems layouts and optimizes the floor's usable space. Desmarais notes that working in accordance with the 45° angle of the raised floor and setting the electrical grid at the same angle as opposed to perpendicular allowed Motorola to incorporate more power and data capabilities than had been originally planned. (The underfloor power grid runs on 6 ft. x 6 ft. modules at 150 watts/sq. ft.)

With 1,000 customers visiting last year to view 458 systems, and approximately 80 engineers working at 24 test sites among vast amounts of high-tech wiring and equipment, it seems possible that Motorola could get its wires crossed, or worse, its frequencies scrambled. To avoid confusion and make a distinct separation between manufacturing and pedestrian areas, Holabird & Root has clearly defined visitor space in white floor tile. (Since the facility is also a working environment, safety glasses must be worn by everyone. Even customers as skilled in protection as the Danish National Police don plastic goggles!)

Not everything is out in the open. Motorola executives who are not on the test floor often make audiovisual presentations to customers in the glass-enclosed raised conference center off of the rotunda. A glass window wall divided by metal fins frames the dramatic backdrop of the latest communications systems, and the steel-beam ceiling is perfect for hanging banners with customers' names on them, as well as directional signage. "The finishes and furniture in the conference center are dynamic, stainless steel and oxidized metal, and don't weigh the space down," notes Patricia Sticha, director of interior design for Holabird & Root. "It was



important to carry through the industrial aesthetic, and the gridded, fabric-wrapped panel wall accomplishes this by serving as a visual anchor to the testing floor."

Testing time for a communications system ranges from two weeks to two months, depending on its complexity and the customer's time constraints. Colby notes that response to the Center has been outstanding thus far, with visitors commenting on the benefits of having all components of a system in one location. This enables them to see how each piece of equipment works in relation to others, and how the system will function installed at their facility.

As smaller, more functional products like the Visar portable two-way radio and digital technology like the channel-splitting Astro are being developed, new customers as well as existing subscribers will undoubtedly be browsing the testing sites for the latest in land mobile products. "The Center is terrific for systems display and is an effective marketing tool in the pre-sale stage," Colby proudly asserts. "We think it's abundantly clear that customers should choose Motorola over the competition."

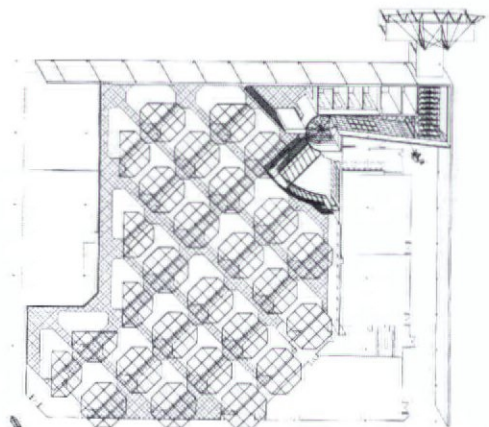
In today's highly competitive communications industry, a customer's choice may not be as unequivocal as Colby would hope. What should be crystal clear, however, is the message to the courier delivering that special birthday gift, and hopefully the transmission of numerous heroic reports among our men and women in blue. Oh yes, that includes the Danes in their uniforms too.

Over and out. ☺

Project Summary: Customers Center for Systems Integration, Motorola

Location: Schaumburg, IL. **Total floor area:** 36,500 sq. ft. **No. of floors:** 1. **Cost/sq. ft.:** \$50. **Wallcovering:** Bernhardt Textiles, DesignTex, Deepa Textiles. **Paint:** Benjamin Moore. **Laminate:** Westinghouse Micarta. **Dry wall:** U.S. Gypsum. **Vinyl flooring:** VPI. **Carpet/carpet tile:** Interface. **Carpet fiber manufacturer:** Monsanto. **Ceiling:** Armstrong. **Lighting:** Holophane. **Doors:** Perkinson Co. **Door hardware:** Schlage. **Glass:** McHenry County Glass. **Window frames:** Northwest Structural Steel. **Railings:** Northwest Structural Steel. **Professional desks:** Haworth. **Professional seating:** Haworth. **Lounge seating:** Vitra, Herman Miller. **Library and conference seating:** Haworth, Herman Miller. **Upholstery:** Haworth, Bernhardt Textiles. **Conference tables:** Herman Miller. **Training tables:** Howe. **Other tables:** Herman Miller. **Files:** Haworth. **Architectural wood-working/cabinetmaking:** Herner Geisler Woodworking. **Steel:** Northwest Structural Steel. **Metal:** Lundstead Metal. **Access flooring:** C-Tec Grand Rapids. **Client:** Motorola Land Mobile Products Sector. **Architect:** Holabird & Root. **Structural engineer:** Holabird & Root. **Mechanical and electrical engineer:** Holabird & Root. **General contractor and construction manager:** Rodolph V. Schuh Co. **Furniture dealer:** Kayhan International, Thomas Interiors. **Photographer:** Hedrich-Blessing, Jon Miller.

The glass wall in the main conference center (above, left) gives customers a clear view of the latest communications systems, while the room's interior furnishings express an industrial aesthetic with neutral colors, stainless steel and oxidized metal. A conference room adjacent to the lobby (above, right) provides a more intimate setting for presentations or luncheons.



Legal Gains

How to keep a growing corporate law firm from feeling its size was the challenge New York's Howard, Darby & Levin put before Richard Nash Gould Architects

By Roger Yee

A large firm without many people: Howard, Darby & Levin is a corporate law firm in New York striving to maintain a sense of community as it grows. Thus, the interior stairs (opposite) allow attorneys on three floors to stay in touch. Modern detailing characterizes the space, but the attorneys' interests beyond the law result in historic prints and working models of machines old and new being scattered in reception areas (right) and elsewhere.

A trail of visible evidence alerts the astute visitor to Howard, Darby & Levin that this is not your average, everyday, midtown Manhattan corporate law firm. To reach the attorneys on the second of three floors designed by Richard Nash Gould Architects at 1330 Avenue of the Americas, for example, you walk through the library. Practice groups such as tax, litigation and regulatory work are mixed together rather than separated as elsewhere. Almost all of the approximately 40 partners, 10 associates and other employees pass each other daily along the broad, north-south corridors that are the only circulation paths other than through functional rooms. And eye-catching events



on the sidewalks below can be observed from windows as close as the second floor.

"We're definitely a corporate law firm," admits Philip K. Howard, one of the founding partners of Howard, Darby & Levin (HD&L). "But we're a large firm without many people." Certainly the firm has been large enough to represent clients such as Computer Associates International in its recent, \$1.78-billion acquisition of Legent Corporation, the largest software deal ever, or Metropolitan Life in its dispute with RJR Nabisco over the 1988 history-making \$24.9-billion leveraged buyout by Kohlberg Kravis Roberts.

However, Howard is genuinely ambivalent about the firm's steady growth since 1984. "Growth is important to us, but it hasn't necessarily been desirable," he comments. "It was inevitable that we should grow to provide opportunities for our younger lawyers." That Howard would write

the current best seller, *The Death of Common Sense*, to decry how government rules and regulations are restricting the lives of Americans helps to suggest why HD&L prefers to practice corporate law in its own, collegial and accessible way, and to develop an appropriate office to sustain it.

Life in the office began in an almost improvisational manner for HD&L in part because the founders emphasized the sharing of people, information and other resources over the rigid hierarchies of traditional practice. "We started by believing in shared legal assistants rather than dedicated ones," Howard says. "There were no specifically assigned assistants for anyone until we grew larger. Even now, an assistant who's not busy is free to help someone else. We like to keep arrangements as fluid as possible."

As the firm's art and architecture committee, Howard and partner Scott Smith





Visual ties to the neighborhood give this conference room (top) and others at Howard, Darby & Levin a convincing sense of place. The relocation of an air induction unit left the glass unobstructed. In interior spaces such as the reception area on the third floor (above), furnishings specified and in many instances designed by Richard Nash Gould Architects reinforce the continuity of form and scale expressed by the architecture.

kept this collegial spirit in mind when a move from 10 East 53rd Street became unavoidable a few years ago. "We had a community that fosters good ideas," Howard notes, "and our hope was to encourage creative cross pollination wherever we went." Hoping to find "something interesting where we could create an office with character," the attorneys, accompanied by Richard Gould, AIA, principal of Richard Nash Gould Architects, found themselves inspecting one anonymous space after another.

Then came the provocative if oddly configured second, third and fourth floors of 1330 Avenue of the Americas, the former home of American Broadcasting Companies and the new headquarters of International Telephone and Telegraph. Having designed and remodeled HD&L's previous facility, Gould saw considerable potential in the space—despite a floor plate riddled with irregularly spaced columns, a service core including eleva-

tors, toilets and fire stairs that was positioned at an awkward right angle to the main core, and floor-based HVAC induction units that obscured what would otherwise be spectacular outside views of pedestrian and vehicular activity from the building's picture windows. The higher ceiling of the second floor made it the equivalent of a *piano nobile* for Gould, who was convinced he could create drama in the space.

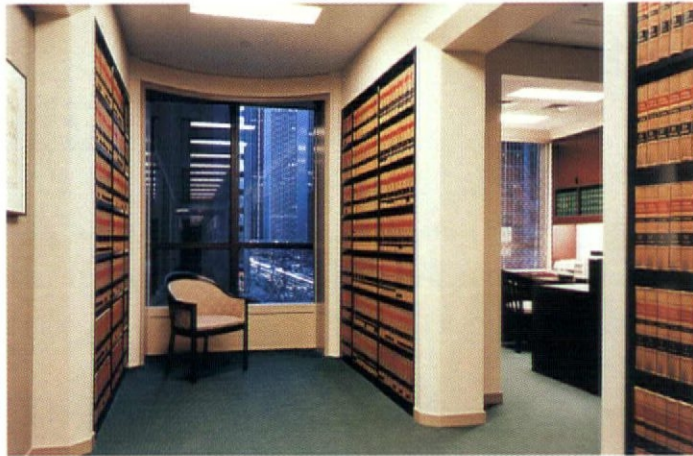
His client felt the same way. "The building agent had escorted us up to the sixth floor and we kept asking him to take us another level down," Howard remembers. "We weren't planning to be close to the ground, but the windows just above the street had wonderful views that made the space a part of city life. I imagine the building agent thought we were crazy."

Crazy like a fox, perhaps. Gould saw that the key to creating a strong composition for HD&L using the building's ungainly floor plate might be to create a bold, straightforward circulation pattern with one broad corridor per floor (rather than the maze of hallways that make other tenants' spaces so disorienting), framed by partitions pierced with windows to flood the interiors with natural light and views. To make a harmonious composition of the resulting spaces, he would establish a visual vocabulary using custom-designed details to differentiate the ceilings, walls, floors and openings. He would also relocate the toilets to the main building core for greater efficiency.

Of course, Gould's arrangement of space (private window wall and interior offices for partners and associates, window wall conference rooms, semi-enclosed interior offices for legal assistants, and interior spaces for reception, library, support functions and storage) does not represent a major break with legal tradition. What makes it outstanding is the graceful way it accommodates the needs of HD&L under the arbitrary conditions imposed by the base building. The focus of the facility is on such interior spaces as the corridor, the conference floor reception area—and particularly the library.

Ignoring the library at HD&L can be nearly impossible. The lively "commons" where individuals can exchange ideas aloud even as they consult books is the very opposite of the traditional cloister—and exactly what the attorneys wanted. Since the facility links the corridor to the elevators, almost everyone passes through it at some time during the day.

Yet other surprises abound in the detailing, much of which Gould and his colleagues have developed expressly for HD&L. "Custom details often come about when you find you can create a door frame or a ceiling panel at a competitive price that is better than what's on the market," Gould describes. "The idea is to use simple, basic materials to upgrade the design and make key elements look better. Even if people can't identify the sources of your details, they perceive that the environment is special."



Many of Gould's details can be easily spotted in just such situations. Metal door and window frames, for example, have custom profiles designed with stepped chamfers that suggest greater depth. Ceiling and wall panels are built up with fiber board painted to look like plaster or wood. Oversized lighting fixtures are downsized to fit the proportions of the space.

Other details are more subtle, however. Library shelves rest directly on beams to avoid costly reinforcement. Interior stairs fit compactly within the existing structural

tile flooring: Wynburn. Carpet/carpet tile: Karastan. Carpet fiber: DuPont. Ceiling: Armstrong. Lighting: custom by VCL, Lightolier. Doors: custom by GHM. Door hardware: Schlage, Rixon. Wall system: custom by GHM. Window treatment: Bali. Railings: Railco. Work stations: custom by L. Vaughn. Work station seating: Knoll. Lounge seating: custom by North Jersey Mica, Beaver. Side chairs: custom by Beaver. Conference tables: custom by L. Vaughn, North Jersey Mica. Other tables: custom by L. Vaughn, North Jersey Mica. Files: Storwal. Architectural woodworking and cabinetmaking: L.

Law libraries are generally not the "commons" that Howard, Darby & Levin prefers (above, left), where attorneys come to read—and exchange information in a space through which all employees must pass to and from the elevators—as part of the firm's belief in cross-pollination. Another distinctive feature is the shelving (above, right) lining the main corridor, off which can be seen a lawyer's office, carefully keyed to columns and mullions.

Who says that a law library full of lawyers should be quiet?

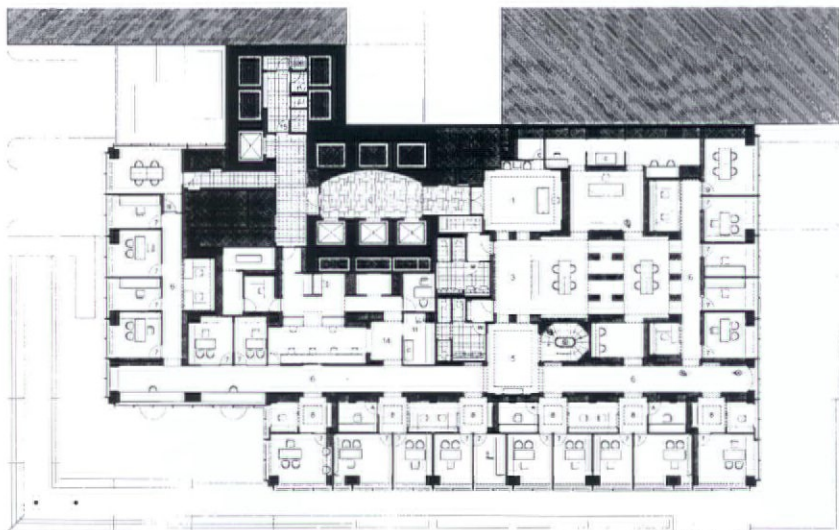
bay with only the loss of a filler beam. Numerous pieces of furniture have been designed to be sturdier and less costly than commercially available pieces that they at least superficially resemble.

(The only detail where Gould has had little involvement is the art collection. HD&L acquires historic prints and working models of machines and vehicles old and new that it scatters throughout the premises. "We like them because they reflect human endeavor of all sorts rather than art for art's sake," Howard comments.)

Do busy attorneys really notice all these refinements? Apparently, Howard and his colleagues haven't missed a thing. "Richard Gould is a brilliant architect," Howard says. "In designing our office, he has shown us how to create the texture of architecture by combining function and personality. Fancy law offices can keep their boxes of marble. We have rooms with a genuine sense of place."

It could just be that Mies van der Rohe was right: God *is* probably in the details. If not, a corporate law firm that happens to be a "large firm without many people" should suffice. ☞

Vaughn. Signage: Ken Godat. Plumbing fixtures: American Standard. Client: Howard, Darby & Levin. Architect: Richard Nash Gould Architects, Richard Nash Gould, principal; David Hendershot, project architect; Theresa Atkin, Jack Fetterman, Michele Kirschstein, Katia Mossim, Oana Rad, Barry McCormick, project team. Structural engineer: Office of Irwin G. Cantor. Mechanical and electrical engineer: M.A. Rubiano Consultants. General contractor: Lehr Construction Corporation. Lighting designer: Richard Nash Gould Architects. Furniture dealer: Lane Office Furniture. Photographer: Jeff Goldberg, Esto.



Project Summary: Howard Darby & Levin

Location: New York, NY. Total floor area: 38,500 sq. ft. (net). No. of floors: 3. Average floor area: 13,000 sq. ft. Paint: Benjamin Moore. Laminate: Formica, Wilsonart. Dry wall: U.S. Gypsum. Limestone flooring: Lanzilotta. Ceramic

Grand Centro

There's more than a welcome aboard and *bon voyage* awaiting guests at New York's Cafe Centro, an Art Deco delight designed by Frederick Brush Design for Restaurant Associates

By Linda Burnett



What you see is what you get: Inspired by the Art Deco flavor of the '30s in Paris and New York, Café Centro offers itself as a place for food and fun.

The kitchen (above) is designed as the central stage with the chefs as the main characters.

Faux-Lalique fixtures are recessed to further the ceiling's sense of height. The main dining area (opposite) is divided into smaller units for more intimate seating while retaining a sense of activity. Where's your table, Maurice Chevalier?

Travel aboard luxurious ocean liners like the Normandie, crack express trains like the Twentieth Century Limited and silvery dirigibles like the Hindenburg was often reflected in the popular culture of Art Deco in New York and Paris in the decade before World War II. The Thirties were eager for distraction and ignorant bliss with night-clubs, modernism and the machine aesthetic. Now interior designer Frederick Brush of Frederick Brush Design Associates and client Restaurant Associates, led by president and CEO Nick Valenti, have recreated that aura of travel with all the frou-frou and fun in an updated Art Deco theme that brings Café Centro in midtown Manhattan alive with the music of chatter and chefs.

Located on the ground level of the Met Life Building (the former Pan Am Building), Café Centro is one of the newest tenants serving food and beverages to the many New Yorkers who crunch numbers, negotiate deals and

trade stocks and bonds within the building and surrounding areas. To describe pedestrian traffic here as brisk misses the point. The blocks surrounding 42nd and 45th Streets and Lexington and Vanderbilt Avenues are best known for a train station through which the entire world seems to pass, namely Grand Central, designed by Warren & Wetmore, Reed & Stem in 1913. And with the thousands of commuters who pass through the station daily, Café Centro couldn't have been better located.

The story of the 10,932-sq. ft., \$5-million brasserie reads like a classic 1990s marketing primer. When the owners of Met Life approached Restaurant Associates, known for some of New York's largest restaurants, such as the American Festival Café at Rockefeller Center, they sought an upscale restaurant to take a space previously

occupied by a ticket office of the now defunct Pan American Airways. Restaurant Associates already operated budget-conscious Cucina & Company and high-end Tropica in the Met Life Building, where it has been a tenant for over 30 years.

Café Centro would serve the middle market, not too expensive yet certainly not cheap, for an executive lunch, power dinner or just meeting a colleague. Met Life could thus serve all levels of business already inhabiting the two million-sq. ft. office tower while drawing in additional customers. "The addition of Café Centro fills a void in the middle price range," says Jim Finnerty, director of design and construction for Restaurant Associates, "so there is no reason to leave the building."

From that point on, it was up to Valenti and Brush to develop the concept. Since Brush had worked with Restaurant Associates for about 20 years on projects such as Tropica, he was





carefully studied and executed details, sculpting faux-Lalique glass chandeliers himself as well as designing the chairs, floors and a full-sized, gas-fired fireplace that is awaiting the permission of the New York City Fire Marshall to burn wood. A Lempika-inspired grand mural that Brush painted himself spans the entrance wall, greeting customers with its depiction of a cocktail party to which anybody would wish to be invited, starting in cosmopolitan New York on one end and finishing off in chi-chi Paris on the other.

Is this Brush's version of an American in Paris or Paris in America? "The U.S. and France were most similar at this time—cities of lights," Brush comments. "A friendship existed between the two cultures." In his opinion, the Café embraces the radiance of Art Deco and the simplicity of early 19th-century Biedermeier with curvaceous furniture, glass and simple light wood.

No *chef d'oeuvre* comes without its challenges, of course. The greatest obstacle

given few demands. His client's basic goal was to see the restaurant take on the ambiance of a '30s brasserie serving French and American food at affordable prices with quality service, featuring a kitchen that would show itself off as the dining room's centerpiece and a Beer Bar.

was the fact that the building sits atop a railroad track. "Not only was plumbing a problem, but there was no air shaft available for the kitchen exhaust," Finnerty recalls. "Engineers said, 'You can't build a restaurant here.'" An elaborate and costly exhaust system called a Rotoclone was then designed and installed to clean the air and release it one floor up. "We ended up building around the Rotoclone, which is like a giant washing machine," Finnerty comments. "It involved tremendous duct work and took up a lot of room."

All the world's a stage—kitchen included

"The client was looking for something exotic to make the customers say 'Oooh, it's fantastic,'" says Brush. So off to Paris—*pourquoi pas?*—went Valenti and Brush to experience the truth in elegant dining. In the City of Lights, the designer fell in love with a sprawling brasserie known as La Coupole. "I was impressed by the size, mass of people, hustle and bustle," recalls Brush. "It had great activity."

Potential customers craving the quintessential French café's intimacy, with perhaps an intellectual or two on hand to offer existentialist points of view, would do a double-take at Café Centro. For Brush, it was the party-like gregariousness of La Coupole that he wanted to emulate. "I like the clinging clatter of plates and people talking," he explains. "It's exciting."

The next step was deciding on how to execute the theme. "I didn't want to scream Art Deco," asserts Brush, "but rather to walk in and say first it's French and then it's Deco." He decided to evoke the era through

The second greatest obstacle was that the underfloor, which doubles as the ceiling for the railroad, has a natural pitch. "It was impossible to level the floor completely," notes Brush. "Other options would make the floor higher, and then it wouldn't have been handicap accessible." The finished floor was negotiated so that the 4- to 5-in. slope is hardly noticeable. The Beer Bar, for example, was raised three feet to be compatible with Café Centro's level. Other optical illusions were employed in the ceiling, such as the chandeliers raised into recessed boxes to give the ceiling the feeling of additional height.

After three years of planning, design and construction, Café Centro stands as a feast for the eyes. An open kitchen juts out in the center to display executive chef Philippe Feret and a double line of chefs facing each other through shapely glass, and a pastry station located off to the right showcases

Frederick Brush painted the Tamara Lempika-inspired mural located at the entrance to Café Centro (above), where patrons wait to be seated at the bar. Traffic is brisk because the restaurant is located in the MetLife Building, adjacent to Grand Central Station, one of the busiest neighborhoods in midtown Manhattan.

Stephan Weber's dessert talents. Friezes sculpted and coated with a zinc-like metallic paint by Brush himself adorn the columns with cows, fish and poultry. The fireplace warms the left wing, while the front doors open up the dining area in the summer for additional patio seating. Patrons can take in this lively scene from 175 seats in the main dining room and 45 for private dining.

The black and chrome of the 100-seat Beer Bar conjures a different mood as it offers its typically younger clientele a casual menu highlighted by 10 beers on draft and 40 beers from around the world. Everything about it, including the ashtrays and china from shipping companies active during the '20s and '30s that are showcased along a wall, allude to a cruise ship experience, the result of a fruitful collaboration between Roberto Magris and Frederick Brush Design. "The room has taken on its own character and has become an in spot to hang out and drink though it originally wasn't meant to be," says Brush. "It's not just a holding area for the restaurant."

Fastidious New Yorkers appear to have accepted Café Centro as one of their own. Main courses priced from \$12.75 for a roasted chicken to \$22.50 for a *prix-fixe* dinner haven't hurt. What Jane Preiman of *New York Newsday* calls "the flashiest grand café in town right now," as "approachable as an oversized sweater," is attracting customers for moderately priced French food that "usually, you must travel to Paris to find."

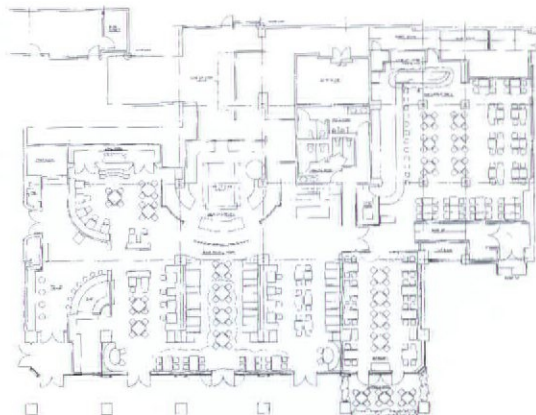
Two important hints for lunch-time visitors: First, make a reservation or go hungry. Then, don't be afraid to send back a pastry choice that isn't to your liking and order another. At Café Centro, like other fine restaurants that want their customers back again and again, you can have your dessert and eat it too. ☺

Project Summary: Café Centro & Beer Bar

Location: New York, NY. **Total floor area:** 10,932 sq. ft. **No. of floors:** 1. **Total capacity:** 306. **Cost/sq. ft.:** \$458. **Paint:** Sherwin Williams. **Veneer:** Blumenthal. **Molding:** Winston Crown Moldings. **Carpet:** custom by Edward Molina Designs. **Recessed fixtures:** Lightolier. **Door hardware:** Metalworks. **Fabric:** Clarence House. **Foot and bar railings:** Metalworks, Capitol and

friezes: custom designed by FBDA, fabricated by Sirmos. **Beveled glass:** Osius Glass Studio. **Dining chairs:** custom designed by FBDA, fabricated by Centrac. **Upholstery:** Robert Allen, Metropolitan Adobe, Naugahyde, Kravet. **Table bases:** custom bases by Central. **Table tops:** Chairmasters. **Lighting:** designed by FBDA, fabricated by Sirmos. **Kitchen equipment:** Toronto Kitchen Equipment. **Plumbing fixtures:** Kohler. **Signage:** Morgan Sign Co. **Client:** Restaurant Associates. **Interior designer:** Frederick Brush Design Associates, Frederick Brush, principal. **Beer bar design and fabrication:** Roberto Magris. **Structural engineer:** Construction by Design, Steve Capri. **Mechanical and electrical engineer:** Robins Engineering. **Photographer:** Roy Wright.

The shapely lines of glass encasing the kitchen (above) imbue the restaurant with curves that consciously recall those of a luxurious cruise ship. The impression is intensified through the use of new and old materials that draw inspiration from period sources. Frederick Brush designed and fabricated many elements himself.



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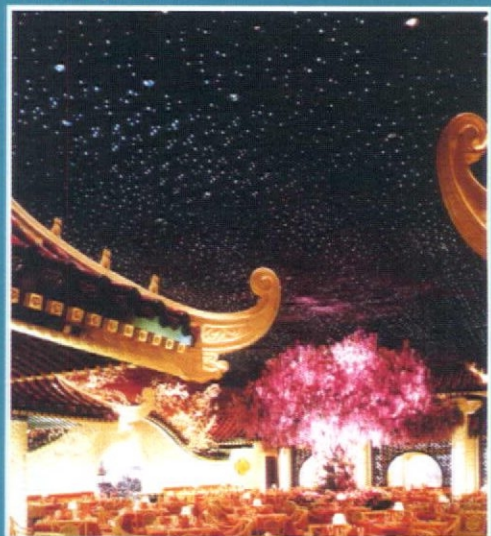
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Everybody Wins?

Gaming, today's politically correct term for gambling, is more hip than ever, and the only sin for players, casino owners, and architects seems to be dreaming too small

By Holly L. Richmond

Atlantis, Paradise Island (below), the costliest development project ever attempted in The Bahamas, opened December 1994 with something no other casino resort can claim—a 3.2 million-gallon saltwater habitat, the world's largest outdoor, open-water aquarium. For land-dwellers' enjoyment, the 1,150-room hotel, casino and conference center designed by Wimberly Allison Tong & Goo boasts 12 restaurants, a championship golf course, Vegas-style revues and comedy clubs.

“Come on, everybody,” Elvis sang in the 1964 film *Viva Las Vegas*. Three decades later, almost everybody is doing just that. Americans are flocking to the flashing lights of Atlantic City, casino resorts in the Caribbean, riverboats and of course, Las Vegas. The high-stakes world of Bugsy Siegel, Howard Hughes and Hilton is reinventing and subsequently redesigning itself, becoming a middle-American, family resort business where Mom and Dad no longer leave the kids at home.

But is a hyperventilating, 24-hour-a-day Disneyesque experience where gaming (the industry's euphemistic term for gambling) is clearly the main attraction suitable family entertainment for the 1990s? Or will casino developers sink billions into these multifaceted properties only to realize 10 years down the road that the concept isn't an ace? The answers will shape the fate of players, casino owners, state and local governments and society at large—including architects and interior designers—for years to come.

Why would this novel and seemingly brilliant economic combination of casino and theme park possibly flounder? Because gaming is serious business, and as they say, never mix business and pleasure. Some industry professionals are concerned that players may find themed environments, complete with New Orleans river boats, pirates attacking treasure-laden galleons and amusement park rides, a distraction from their task at hand.

The two don't mix in the eyes of Andrew Hacker, a respected professor of political science at Queens College. Hacker can still vividly recall the grim determination and lack of enjoyment he saw on gamblers' faces in Atlantic City, where he recently lectured. “There is a sense of quiet desperation,” he observes. “These people are dreaming about hitting the jackpot, where the dollar signs mean early retirement and a secure future for their family. It's not fun or gone about light-heartedly.”

Guess what's become the all-American pastime—ahead of baseball?

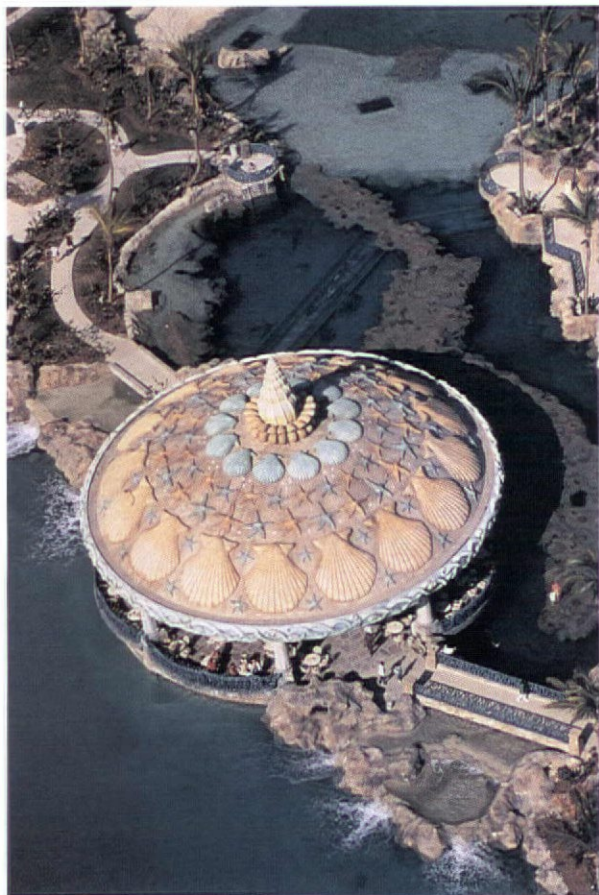
Not only is gaming a serious business for players, but for owners, managers, architects and interior designers as well. The casino entertainment industry has experienced an unprecedented surge in revenue growth in the past five years that outpaces nearly all other U.S. industry groups. In fact, casino gaming is the new American pastime, bigger than baseball, logging 92 million visits in 1993 as reported by the *New York Times*.

Since 1990, casino revenues have doubled and now exceed \$16.5 billion by industry estimates. Growth is driven by the expansion of traditional, land-based casino destinations and the continued development of riverboat and Indian reservation casinos. At this time, casinos are operating in 26 states with 13 more ready to cash in, pending legislation, on the industry's ability to support some 295,500 jobs, generate annual tax revenues of \$1.4 billion (1994) and spark capital investment that equals \$1.4 billion of ongoing development in Las Vegas alone in 1995.

Never has government been such a devoted bookmaker, taking in \$25 billion a year on the lotteries alone. The amount Americans spent on all forms of legal wagering last year—\$330 billion—set an historic precedent of its own, enough to spur state and local government interest in gaming.

But is it the sole factor driving people from movie theaters and other forms of entertainment into casinos? Lionel Tiger, Charles Darwin professor of anthropology at Rutgers University, agrees with Hacker on the sociological yearning of gamers to “win big” and ease themselves of financial obligations. However, he also believes there is an innate psychological connection to gaming that is part of human evolution.

“As hunters and gatherers, we were concerned with beating the odds in regard to finding food and waters,” Tiger explains. “Now we are interested in beating the odds at the slot machine. With few odds to play in our daily lives—fixed salaries and grocery stores do not create many uncertain situations—gambling in casinos makes perfect sense. Unfortunately, the house is designed to win. For that reason I see gambling as a way of exploiting human weakness.”



Where the action is—and why there's still no end in sight

"Gambling is bigger than baseball, more powerful than a platoon of Schwarzeneggers, Spielbergs and Oprahs," quips *The New York Times Magazine*. Casino revenues have doubled since 1990 and now exceed \$16.5 billion (below), with growth outpacing nearly all other U.S. industry groups due to the expansion of land-based casinos and continued development of riverboat and Indian reservation destinations. Source: State gaming control boards and Harrah's 1995 Survey.

The organization of Gambler's Anonymous is a case in point that gaming certainly has a destructive side. Nonetheless, the casino industry argues that most people can keep their spending under control. It points out that the development of casinos can make a positive impact on society, especially in economically stagnant cities and among numerous Native American Indian tribes.

Examples seem to be flourishing in many places. Charles Silverman, AIA, president of Yates-Silverman Architects in Las Vegas, points to Atlantic City as an area that survives exclusively on gaming and where 12 properties are currently under expansion, and to the Mashantucket Pequot Indian tribe, which cleared over \$400 million in profits last year from Foxwoods Casino in Ledyard, Conn. "Gambling is a two-edged sword," he concedes. "It may not be the most likable

five to 10 years, predicts the 1995 Harrah's Casino Entertainment Outlook report. Currently some 115 tribes in 23 states are actively pursuing casino projects.

"Our location makes us a success, since we are the only casino in the New England area," says Duane Hedberg, assistant director of operations at Foxwoods. "Fortunately the Pequots are benefiting from this. Many members of the tribe work here, and they have a solid, friendly relationship with Foxwoods' managers. I'm sure this positive situation is true for other tribes across the country."

Of course, Las Vegas is still where it's at for itchy-fingered thrill seekers, as well as developers, architects and interior designers. Here 40 major casinos offer 80,000 guest rooms that keep close to a 90% occupancy rate. Silverman will soon raise those totals with his firm's latest project, a venture between MGM and Prima Donna Resorts called New York, New York. The project comprises 100,000 sq. ft. of gaming, 2,000 guest rooms and seven restaurants in an interior resembling Central Park—all surrounded by an exterior that recreates the New York skyline complete with reproductions of the Statue of Liberty and the Brooklyn Bridge.

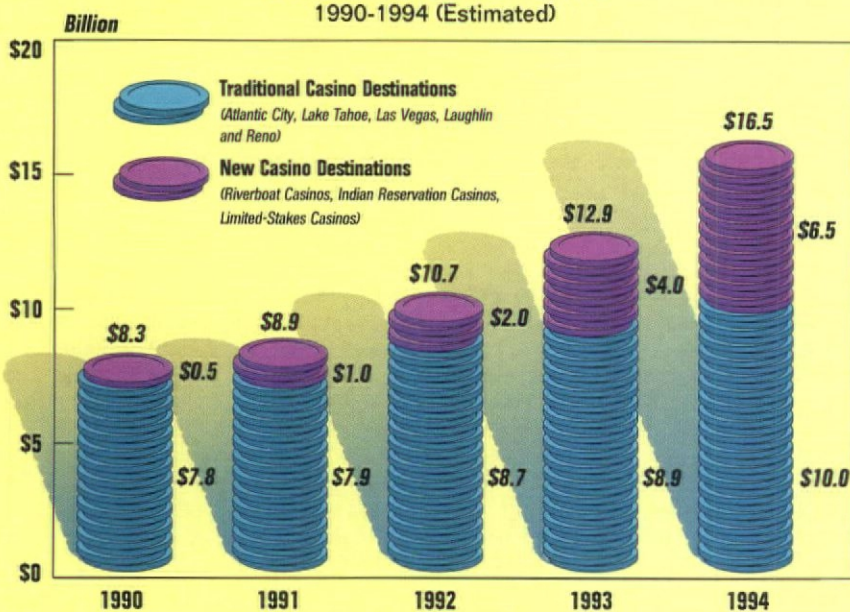
Aside from Las Vegas, casino resorts are springing up like dandelions throughout the Caribbean. For now, no one is interested in keeping proliferation, and thus competition, in check. One such resort is Atlantis, Sun International's \$125-million renovation project on Paradise Island, Bahamas, which boasts a living, 3.2 million-gallon saltwater habitat, the world's largest, open-air aquarium. "The competition is surging like never before in casino renovations and new builds," reports Paul Doocey, senior writer for industry periodical *International Gaming and Wagering Business*. "I think a good question is whether or not owners will ask architects to start cutting corners on these lavish designs so they will continue to make a profit."

They won't be asking D. James Carry, AIA, principal at Wilson & Associates in Dallas, very soon. Carry does not believe second-rate or run-of-the-mill design is a viable method of controlling costs. In the past six years he has seen an influx of creative design in the casino market because owners and managers realize that the environment makes a difference in the class of clientele they attract. "The gamer who is happy in a dark casino with mirrors on the walls is quite different from one who visits the theme resorts," he believes, "where the environment is more indoor-outdoor and makes use of windows and natural light."

A close-up look at 1990s casino players and the casinos they like

The demographic profile of casino players does not differ much from the U.S. population, according to Harrah's/NPD Group Inc. and the U.S. Census. Average casino players, male or

U.S. Casino Revenue 1990-1994 (Estimated)



Source: State gaming control boards and Harrah's Casinos estimates, courtesy of Harrah's.

In the United States, casinos are operating or are approved in 26 states and 13 other states are expected to introduce casino legislation (opposite). But Americans don't hold the only chips. Nearly all Canadian provinces offer casino entertainment, Europeans are increasingly trying their hand and Mexico is considering opening casinos in numerous vacation destinations and border cities. Source: Harrah's industry distribution report, January 1995.

form of entertainment, but it created 40,000 jobs in Atlantic City, a place where a movie theater doesn't even exist. And the Pequots in New England now have the most profitable casino in the world."

Though Native Americans may be prospering mightily from casino gaming, a great debate is raging among them in which the older generation wants no part of gaming, while the younger one praises the economic benefits for frequently poverty-stricken tribes. With Foxwoods as an example, where the Pequots pay the state 25% of the slot machines' revenues—a minimum of \$100 million a year—it's hard to argue against the dollars that keep its 305 members more than financially fit. Now offered in 17 states, Native American-owned gaming will most likely be available in 25 to 30 states within the next

female, are 47 years old and have a median household income of \$41,000. Some 46% are white collar workers and 45% received no college education. By contrast, the median age for the U.S. population is 46, but with a significantly lower household income of \$30,400. About 39% are white collar workers and 51% have no college education.

Gaming has certainly become more democratic over time. "The gamer has shifted to the middle-American category, and with his moderate income he is spending less than the typical player used to," remarks Larry Lewin, senior vice president, casino operations, at Atlantis, Bahamas. "However, it really depends on what casino he visits. A three-star, four-star, or five-star casino defines whether the player is in the class of a Chevy, Cadillac or Rolls Royce." (For the record, Lewin says Atlantis is a Cadillac.)

Since the casino experience is becoming a family affair, the facility and its staff are increasingly wearing numerous hats to provide services. These often include 24-hour-a-day security to guard against robberies, emergency staff for sickness, on-site day care and even a staff trained to deal with tropical storm situations—at least in the Caribbean. Plus there must be an abundant choice of restaurants, shops and outdoor recreational activities.

But architects and interior designers should make no mistake about where the design priorities are. The gamer, the person with the cash in hand, knows exactly what he wants to see. For this VIP, high-limit slot machines should be typically located near the entrance, followed by additional slot machines and gaming tables, where blackjack areas are plentiful, since blackjack is the most popular game among players.

A theme resort's design carries through every inch of the plans, from casino layouts and circulation routes to shops, restaurants, guest rooms and the outdoor entertainment areas, in an effort to surround gamers in a world of total fantasy that is easier to enter than exit. Notes David Weisberg, AIA, director of Hirsch/Bedner Associates, Santa Monica, Calif., "As players walk through the space, the amenities give them a chance to catch their breath from the gaming. While the circulation patterns are clearly marked, they keep gamers close to the action, often making it a bit difficult to find the door out—but that's the point." Windows and clocks are often conspicuously absent to keep the action going, producing an environment that may appear immersed in a perpetual if dazzling night.

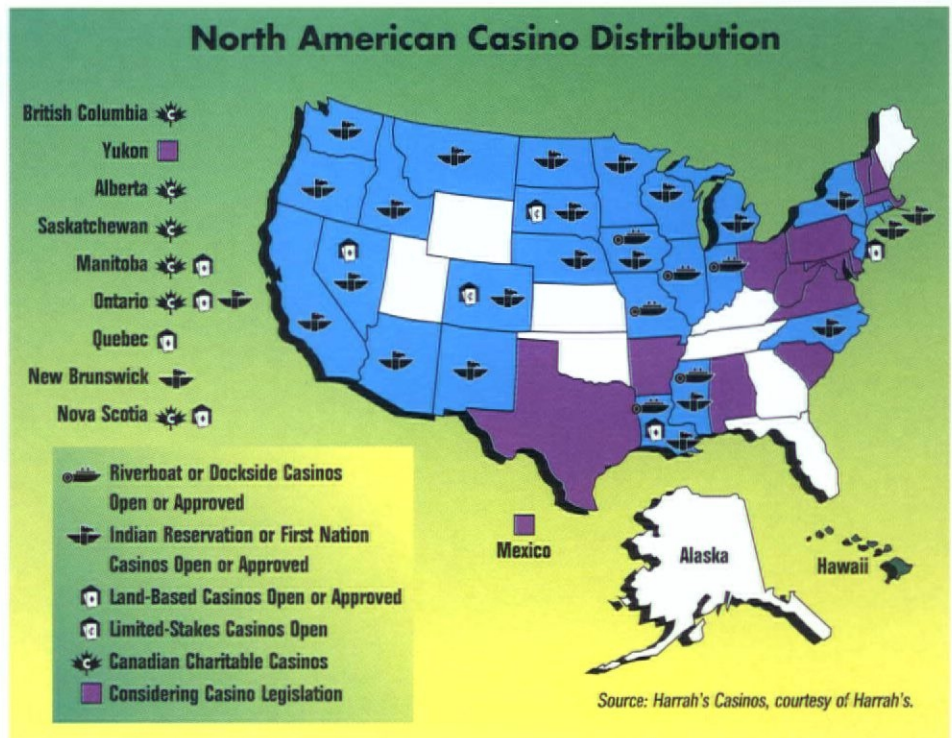
Is the fantasy truly necessary? It's no secret that many architects and interior designers feel distinctly uncomfortable about the blatant use of fantasy in casino design. However, the industry argues that guests must be transported from their normal, day-to-day life into an intensely pleasurable state of being to fully enjoy the gaming experience, and the interiors commissioned by casino owners and operators knowingly exploit

form, lighting, texture, sound and scent to make guests feel happy—and spend money. "People don't normally part with large sums of money every day," argues Larry Seitz, principal of L.E. Seitz Associates, Coral Gables, Fla. "You have to persuade them that it's okay to have a good time now and then. That's what a good casino does."

Despite the smiling faces of the guests (in the publicity photographs if not always in the casinos), casinos cannot afford to overlook such operational concerns as security, safety, universal access and maintenance. The reality is that a casino designer will have to accommodate visual surveillance by casino personnel in such roles as casino hosts, security guards and pit bosses or by surveillance cameras, ample points of egress in case of emergency, ramps, elevators and game table heights for handicapped patrons, and fire-resistant and durable materials. Discretion, of course, is key.

Gaming Congress predicts that riverboat gaming will be available in more than 10 states, with the number of boats approaching 100, within the next two years. But some industry observers wonder when enough will be enough.

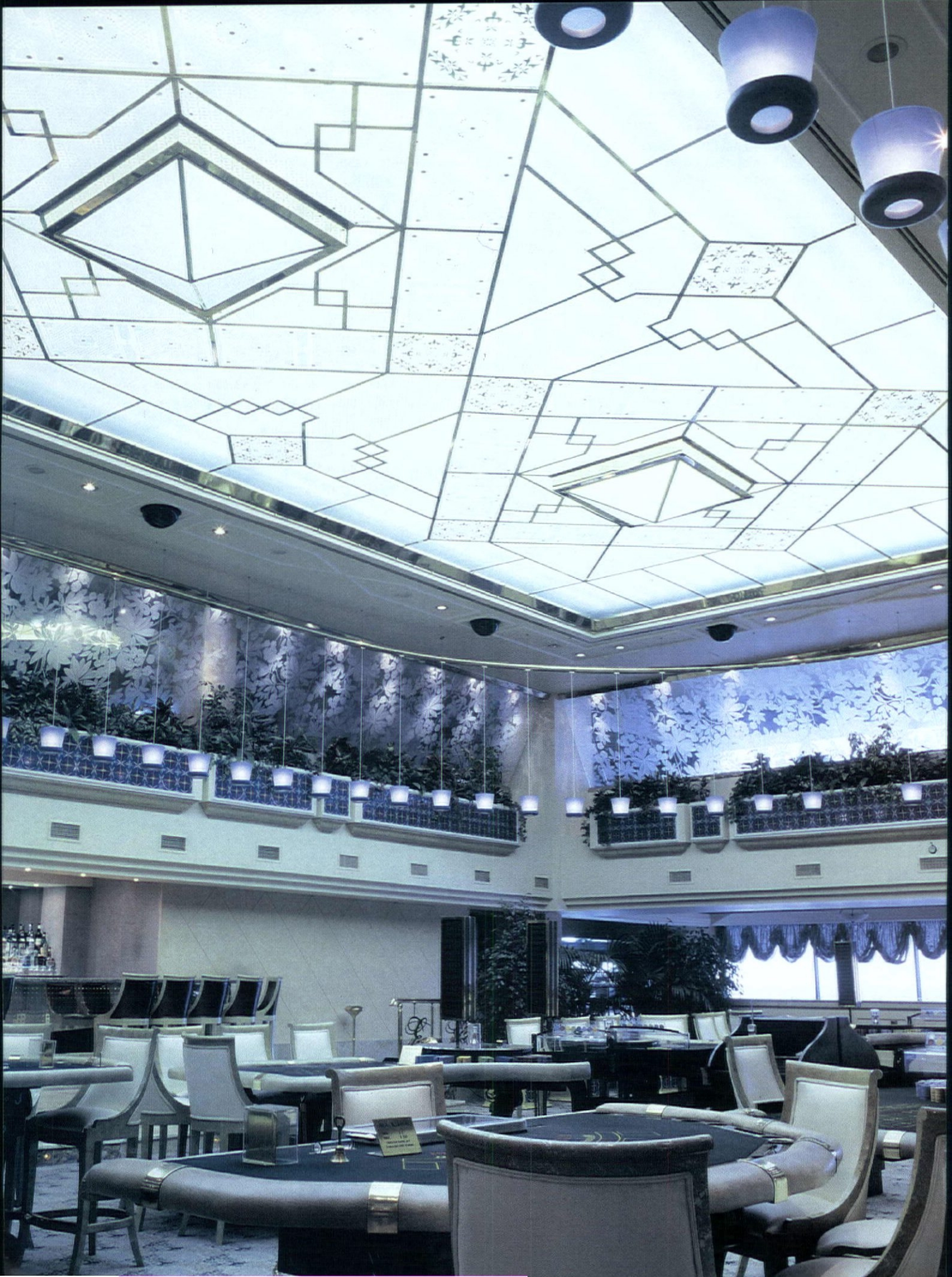
If a hectic work schedule is keeping players away from casinos, the perfect solution awaits at Schiphol Airport in Amsterdam. On March 31, 1995, Holland Casinos opened the first complete casino in a major international airport: 300 sq. m. with three blackjack tables, one American roulette table, and 75 slot machines. C.J. Van Derplas, director of general affairs for Schiphol, explains that the casino is only available to passengers, not the general public, and most stay between one and two hours awaiting a flight. "So far we are averaging 500 visits a day," he happily relays, "and everyone is asking, 'Why didn't we think of this sooner?'"



A future that envisions more gaming venues than ever

For the next 10 years, players can safely bet a bundle on the continued growth of the casino entertainment industry. Increasing competition will make the long-range forecast a much riskier wager, however. Consider riverboat gaming, for example, the fastest growing segment in the gaming industry with a typical floating casino drawing a net monthly wager of \$6 million. Though it is offered in only five states at present, indicators such as strong consumer demand, larger capacity of new riverboats, and more customer-friendly legislation regarding format (dockside vs. cruising) and wagering restrictions all suggest high revenues ahead. The Riverboat

Whether or not gaming is a suitable form of entertainment is a matter personal preference as far as public opinion surveys indicate, so real estate developers, architects and interior designers will surely keep responding to what the populace is demanding by designing and remodeling casinos. The odds are good that casinos will thrive in the resort environment, and gaming's popularity will be an asset to the hospitality industry as a whole. And while the five miles of neon exclamation points on the Las Vegas strip are slowly trading in their sparkle and spandex for more family-style apparel, its aficionados needn't fear. There seems to be plenty of capacity at the tables for glitz, glamour, middle America, Siegfried und Roy—or even an Elvis impersonator or two. ☺



Gambling in Byzantium

Young Turks and old alike—not to mention visitors from around the world—enjoy gambling with sophistication at the Emperyal Casino in Istanbul, designed by DiLeonardo International Inc.

By Jennifer Thiele Busch

Generous plantings, large windows overlooking the Sea of Marmara, a light color palette, a dramatic overhead skylight and plenty of pumped-in fresh air create a bright, airy atmosphere at Istanbul's Emperyal Casino (opposite), in sharp contrast to the dark, smokey casinos typically found in U.S. gambling havens. Unlike Las Vegas-style casinos that mix slot machines and game tables, the Emperyal follows the European preference for slot machines and game tables on separate floors, connected here by a dramatic staircase (right).

Las Vegas, Atlantic City and Monte Carlo conjure immediate images of high rollers gambling till dawn in stylish casinos. But Istanbul—considered for centuries to be the capital of the civilized world, first as Byzantium from 657 B.C. to 330 A.D., then as Constantinople from 330 to 1453, and as the capital of the Ottoman Turkish Empire from 1453 to 1922—is better known for its great culture and history. Nevertheless, in the shadows of Topkapi Palace, Sancta Sophia and the Hippodrome stands a vibrant cosmopolitan culture with all the aspects and attractions of modern life, including casino gambling. Catering to these less lofty interests in Istanbul is the Emperyal Casino, designed by DiLeonardo International Inc. of Warwick, R.I.

Gambling is popular throughout Europe just as it is here in the United States, though the venues are typically characterized by more sophisticated and elegant architecture and interior design than our glitzy and sometimes garish casinos. Upscale gambling facilities are certainly the norm in Turkey, where all casinos, which are regulated by the government's division of tourism, are required by law to be located in



first class, four- and five-star hotels to attract a certain quality of customers.

Istanbul, a city of 11 million that remains at the cultural and spiritual heart of the Turkish people—despite the fact that the political center of the country has moved to the capital city of Ankara—is still Turkey's number one tourist destination. (Forty-three percent of all American travel to Turkey is to Istanbul.) Casinos located in this eclectic city with distinct European and Asian sectors divided by the Bosphorus attract a mix of Turks and foreigners alike who are inclined to patronize the more affluent parts of the city.



The Emperyal represents a blend of Las Vegas excitement and European sophistication. The slot machine area (above) has all the bells and whistles typically found in the United States, but is brighter and less glitzy. The restaurant is visible on the gaming floor as it is elsewhere in European casinos because it helps keep patrons inside (opposite, top left).

Turkish developer Emperyal Otelcilik Turizm commissioned DiLeonardo International Inc. of Warwick, R.I., to design a free-standing casino adjacent to the Polat Renaissance Hotel near the Sea of Marmara on the more popular European side of Istanbul. According to principal Dan DiLeonardo, the project was the result of the hospitality design firm's extensive marketing efforts abroad and represented its first opportunity to work in Turkey. Though the casino would be closely tied to the hotel, it would have its own identity to attract walk-in traffic as well as hotel guests.

Murat Topal of Emperyal Otelcilik Turizm insisted that the Emperyal Casino

casino as more European in attitude. "In Europe, gaming tables, where people generally play for higher stakes, are separated from slot machines, which generate a lot of coin-popping excitement," notes DiLeonardo. "In the U.S. casinos, the slots and the gaming tables are mixed together. This client wanted us to maintain the division."

Since truly "high rollers" are rare even among affluent patrons, the two-story, 1,200-sq. m. Emperyal Casino would also offer an exclusive VIP lounge and VIP gaming tables. Inclusion of an appropriately upscale restaurant on the gaming floor with access for all customers was also mandatory. "In the U.S., dining areas and gaming areas are totally unrelated," adds DiLeonardo. "In Europe they are somehow tied together, and that was also the case with this project."

The main challenge to the designers became how to consistently blend these distinct spaces together while maintaining their subtle separation. "The traffic flow, the positioning of the tables and walls, the design accessories used all had to advance that goal," states DiLeonardo. Meanwhile, to capitalize on the Emperyal Casino's seaside resort location, a wall of windows would offer panoramic views of the Sea of Marmara and would help establish a bright, open, airy atmosphere on the gaming floors.

Players enter on the second floor of the casino, which houses slot machines and baccarat, plus the more isolated VIP areas on a balcony overlooking the lower level. Though the slot machine area was designed with all the bells and whistles, action and excitement of a Las Vegas casino it specifically avoids the darkness of those typically found in

A surprisingly wholesome alternative to smoke-filled rooms

be elegant and upscale in the typical European style. However, he also wanted the space to possess the excitement—and capture the revenues—of the Las Vegas-style casinos he had experienced on scouting trips to the United States. "He really wanted an interesting blend," explains DiLeonardo. "The design solution had to convey the charm and sophistication of a Euro-style casino within a very contemporary and upbeat environment."

Besides the more demure decor, there would be a number of functional and organizational issues that would classify the

America. A light and neutral color palette and peach-colored neon cove lighting that bounces off a reflective metal ceiling brighten the space. Angled, one-way glass establishes visibility from the VIP area down to the first floor while restricting opposite views up into the VIP area from below.

A grand staircase descends to the first floor, which houses the remaining game tables, beyond which a bar signals the transition to the restaurant at the back of the floor. "The restaurant keeps patrons in the casino," explains DiLeonardo. "And numerous bars and lounges make the place even more con-



ductive to that aim." In addition, fresh air is continuously pumped in and circulated throughout the casino to create a more comfortable and less smokey atmosphere.

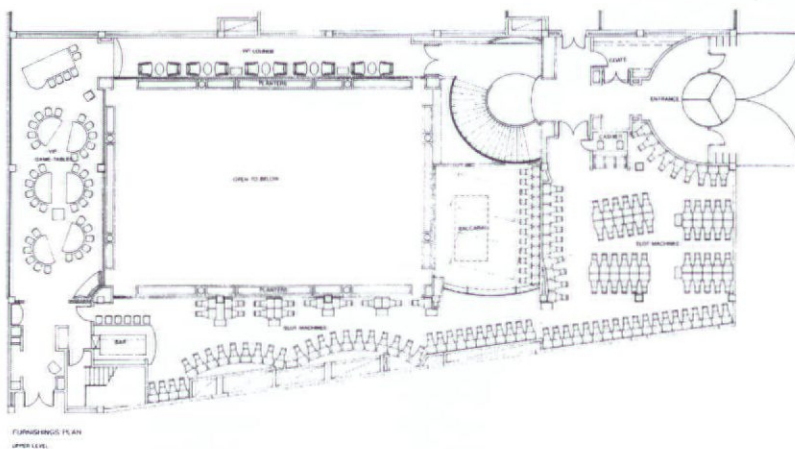
There is also much to please the eye. Handmade jeweled tiles cover wall-mounted planters ringing the balcony. Moresque patterned Italian glass mosaics cover walls in circulation areas and numerous water fountains are located throughout the space. Overhead, a carved and etched glass, backlit skylight crowns the double-height gaming area. In combination with the large windows and the clean, fresh hues in tiles, marble, carpeting and upholstery fabrics, the entire space takes on an atrium-like atmosphere. "This is not the typical dark casino that Americans are accustomed to," says DiLeonardo. "This is fresh and upbeat."

Despite its location in the centuries-old city of Istanbul, the Emperyal Casino's only reference to traditional Turkish interiors are the stylized Islamic shapes and etchings in the skylight. "Istanbul is a resort area, a tourist destination and a business center," says DiLeonardo. "It is a dynamic city, but it is also a city that is struggling to keep up with the 21st century." The contemporary design of the Emperyal Casino has done its part to contribute, by leaving behind what is past or passing, in favor of what is to come. ☺

Project Summary: Emperyal Casino

Location: Istanbul, Turkey. **Total floor area:** 1,200 sq. m. **No. of floors:** 2. **Total cost:** \$3 million. **Wallcoverings:** Architex. **Carpet:** Hugh Nelson Inc. **Ceiling:** Winfield Design Associates. **Glass mosaic:** Colorco Ltd. **Lighting:** Creative Light Source, Arteluce. **Jeweled tiles:** Coral Bourgeois. **Etched glass:** Creative Light Source. **Window treatments:** Rodolph, Houles. **Upholstery:** Edleman Ltd., Atlanta Architectural Textiles, International Fabrics. **Architect/interior designer:** DiLeonardo International Inc.; Ken Bavaro, project architect; Tom Limone, project designer; Bob Macaruso, Bob Bliss, design team. **Client:** Emperyal Otelcilik Turizm; Omer and Murat Topal. **General contractor:** Polat Turizm. **Lighting consultant:** DiLeonardo International. **Photographer:** Yavna Onar.

By law, Turkish casinos are only associated with first-class hotels, but the Emperyal Casino has a distinctly separate entrance from the adjacent Polat Renaissance Hotel to attract walk-in traffic as well as hotel guests (above, right). Patrons enter on the upper level (below), where the slot machine area and the VIP lounge and game tables have views down below.



Biloxi Cruise

The patrons don't sail anywhere when they board the Grand Casino Biloxi river barge in Biloxi, Miss., designed by L.E. Seitz Associates, but they're transported to a world of make-believe nevertheless

By Julie D. Taylor



No Tom and Huck here: Grand Casino Biloxi offers its distinct view of turn-of-the-century life on the Mississippi in the 1990s. The romantic Sisters restaurant (opposite) provides high-end dining featuring gourmet Southern cuisine within an atmosphere replete with hanging vines, *trompe l'oeil* sky and wistful caryatids. The bacarat pit (above) evokes images of Monte Carlo with its gleaming brass palm trees. Although Monte Carlo looks nothing like this, it matches the guests' expectations.

Neil Simon had the "Biloxi Blues," yet he wasn't alone—that is, until Grand Casinos came to this Mississippi town. Grand Casino Biloxi, a river-barge-based casino set in the Gulf of Mexico and lined by white sand beaches, has helped the once economically depressed area attract tourists once again. "The area used to be where wealthy families built summer homes," explains Larry Seitz, IIDA, whose Coral Gables, Fla.-based firm, L.E. Seitz Associates, specializes in hospitality design. "Biloxi went into such disrepair

that it could only survive on tourism three months of the year." Seitz's client, Grand Casinos Inc., seized the opportunity to bring a thriving economic entity to town to host tourists and locals year-round.

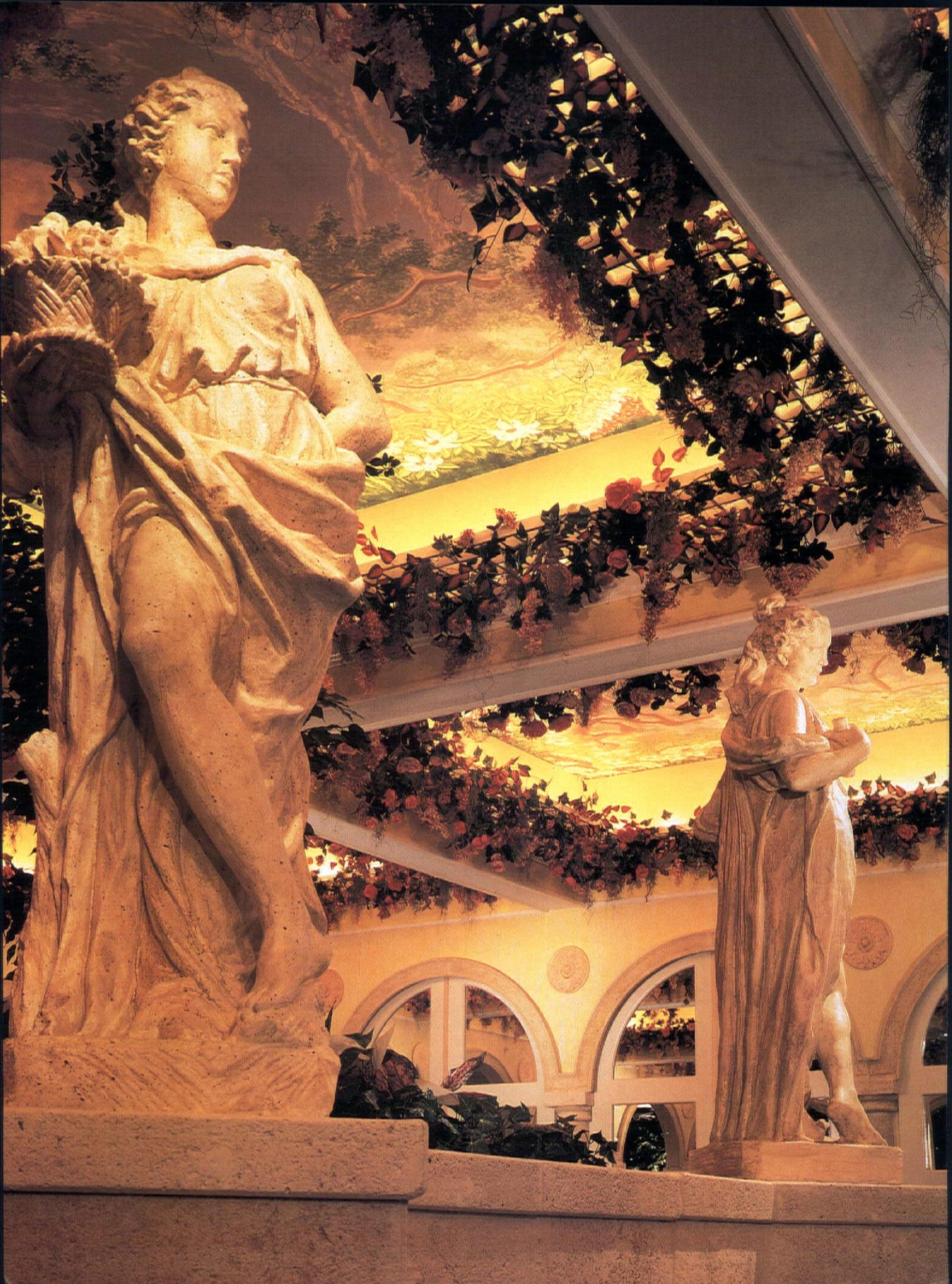
The five-year-old casino development and management firm specializes in "emerging gaming," meaning casino locales outside the main gaming hubs of Las Vegas and Atlantic City. Grand Casinos has made such a successful specialty of this niche that it was named number one in *Fortune's* list of "America's 100 Fastest Growing Companies," with its 414% annual growth rate. Lyle Berman, CEO of Grand Casinos (and a high-stakes tournament poker player himself) says, "We like to say we're first and foremost in the entertainment business, not the gambling business."

Indeed, the word gambling is rarely used, having been replaced by the more genteel "gaming." But the real word here is business. "More than \$300 billion per year is wagered legally," says Bill Thompson, professor of gaming at the University of Nevada, Las Vegas. "More than \$27 billion remains in the hands of entrepreneurs." Grand Casinos' share of that amounts to net revenues of \$285.8 million.

Berman appreciates the role of design in his business. "We put a great deal of importance on design," he explains, "because people want to feel good about where they're being entertained." When Berman signed on Seitz and his team, it was for the Grand Casino Gulfport first, followed by the Grand Casino Biloxi roughly 12 miles away.

"We had a few months of operation at Gulfport to observe, so we could better refine the plans for Biloxi," notes Seitz. The proximity of the properties has actually been a boon to Grand Casinos, since the two are intended to be complementary. Biloxi provides the more upscale and elegant experience through its turn-of-the-century, San Francisco-inspired design. "The two operations together offer a variety of experiences and economic mixes to appeal to the total marketplace," says Seitz.

A sure bet in casino design is the element of fantasy. "We call it 'altered states' design," says Seitz, explaining the goal of taking guests out of their normal, day-to-day lives and into a joyful, heightened experience. "We want people to walk in and feel excited and welcomed," he continues. He likens casino design to that of a stage set and even of a cathedral in the way light and space are used to guide the eye and the spirit, as well as fin-





Are you hungry? L.B.'s Grill-Steak & Stuff (above) accommodates diners at Grand Casino Biloxi somewhere in between Roxy's, a diner-like setting for the younger crowd, and Sisters, a high-end establishment with a lush, romantic interior. Of course, the main course is the casino itself (opposite). Its high-key color, richly patterned flooring and glittering chandeliers help sustain an "altered states" environment constituting the gaming experience—and encourage people to have a good time.

ishes that range from sparkling gold leaf to work-a-day latex, depending on the visibility of the detail. Nothing is accidental. "We direct people through the space like a retail-store plan," Seitz points out, "so they can experience its entirety."

Upon arriving at Grand Casino Biloxi, guests are greeted personally at the welcome desk. This immediate sense of belonging and ease is parlayed into each area of the casino, which sports a vast variety of dining and entertainment choices to indulge its patrons. "We achieve a variety of formality within the same place," says Seitz, "which really stretches the designer to make all that happen at once."

Each of the three 60,000-sq. ft. levels caters to separate functions. Guests enter via ramp to the middle level, which houses a few bars and the main casino offering 5¢ to \$1 reel-and-video slot machines, video poker, blackjack, baccarat, roulette, craps, Pai Gow poker, Caribbean Stud poker and high-limit

What—no familiar black-box interiors for Biloxi?

table games. The visual impact of this array is dramatic. Berman observes that the first reaction of visitors is, "Wow, this looks just like Las Vegas," although most have never been to a casino before. Likewise, the brass palm trees in the baccarat pit evoke Monte Carlo.

Although Seitz quickly notes the differences, he says this is just the hoped-for reaction. "The design captures the sophistication of what they *think* Monte Carlo is," he indicates. Through the design, patrons are transported to an environment of high-key color, richly patterned flooring and glittering chandeliers that help sustain the "altered states" design that Seitz specializes in creating. "Part of altered states is romance," he explains. "We appeal to all the senses with lighting, texture, sound and scent."

Keeping the magic of the space while dealing with security and durability, is a delicate balance. "I designed my first casino 30 years ago," says Seitz. "As you go along, you develop new technologies." When choosing materials, the designer notes that safety and regulations are major factors.

For example, Grand Casinos doesn't stop at making sure its game tables will accommodate wheelchair-bound patrons. It also provides lower blackjack tables for dealers in wheelchairs. Game table tops are constricted by regulation, but the kinds of bases and finishes may vary to accommodate the design scheme. Felt tops may be custom colored for particular situations, but designers must always keep in mind the colors that will be printed on top, how the color reflects on the player's face and the needs of security cameras to "read" the game area. Not only color, of course, but layout must be devised to suit the surveillance system cameras.

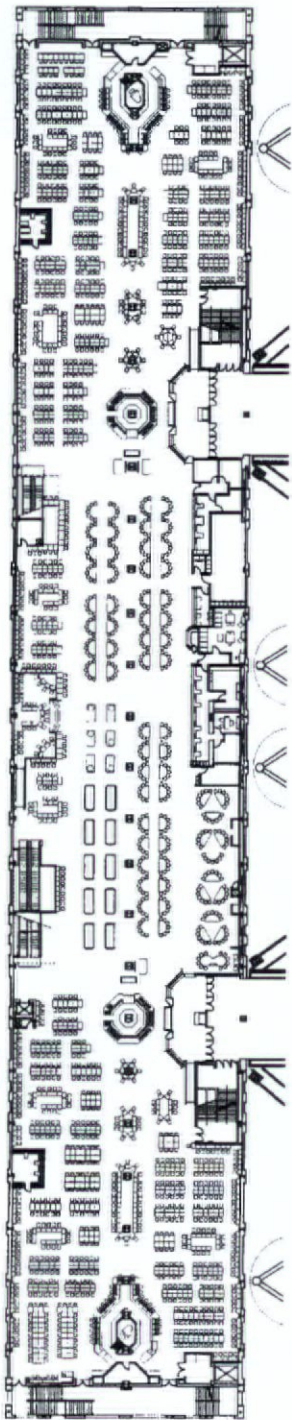
Security is a top concern in any high-population entertainment facility, yet especially where there are drinking and betting activities. "There's a matter of morality in gaming," explains Seitz, who notes that the old days of playing more than you can afford are discouraged by casino operators. "It's detrimental to run a business like that," says the designer. The black-box casino has given way to light, joyful spaces, such as Grand Casino Biloxi, where the second-floor electronic game area is situated next to a broad window wall that overlooks the gulf. The casino is kept fresh with an HVAC system that replaces the air every four minutes.

The lower level perhaps best denotes the recent changes in gaming—the transformation from booze-and-cigarette-soaked distractions to full family activities. Grand Casinos uses Kids Quest franchised day-care centers in its properties for children six weeks old to 12 years. "Parents want to go places with their children," stresses Berman, who also points out the lively arcade for teenagers. Administration areas are also housed on this lower level.

The top level offers four dining establishments, or as Seitz describes, "Everything from 'sliders' (small hamburgers) to filet mignon." The Market Place Buffet accommodates 450 seats in a highly detailed space that gives the feeling of an open-air market. Five cooking stations add to the interactive food experience, and small quantities are continually produced to maintain freshness. The 80-seat Roxy's Diner caters to the younger crowd, while the 100-seat L.B.'s Grill-Steak & Stuff accommodates diners somewhere in between Roxy's and the beautiful Sisters restaurant. Sisters provides a more elegant dining alternative in its 180-seat space. Beneath a dramatic *trompe l'oeil* sky rising above vine-entwined trellises supported by neo-classical caryatids, the featured cuisine is gourmet Cajun.

Although each restaurant has its own distinct personality, the owners and designers





The elaborate powder room (above) at Grand Casino Biloxi is one of the more popular attractions for its over-the-top yet fun design. Elaborately decorated with floral wallcovering, gilded mirrors, in-laid floors, animated chandeliers, complimentary perfumes, original art and real birds in gilded cages, this showplace keeps both women and men talking—and coming back.



keep in mind that there will be vast changes every few years. Anything from color palette, furnishings, finishes and even the name of the restaurant will change to maintain excitement among the long-term clientele. The space is designed with this flexibility in mind, though basic layout and capital equipment will remain the same.

Gaming is never far away, of course, with nickel-to-dollar slots in the lobby and a private poker room. However, possibly the most talked-about entertainment is the women's powder room. Elaborately decorated with floral wallcovering, gilded mirrors, in-laid floors, animated chandeliers, complimentary perfumes, original art and real birds in gilded cages, this showplace is closed for normal functions five minutes each hour to accommodate tours, inviting both sexes! "When we opened, all the television coverage was about the ladies' bathroom," remembers Seitz.

The three-level structure is built upon a series of four barges fastened together: "In every respect to the customer, this is a land-based casino," says Berman, "but you have to maintain your product like a boat." The right analogy for this project might be a speedboat, since it took just seven months from conception to completion. Crews worked around the clock so that Grand Casino would be the first to open in Biloxi, thereby setting the standard and creating loyalty among the patron pool.

Fourteen casinos are now in the area vying for the same dollar. "Mr. and Mrs. Middle America are our customers," says Berman, who is intent on giving them a wide variety of experiences so that they return 25 to 30 times a year. "The biggest change in the industry, as gaming has been legalized in more communi-

ties," he continues, "is that it has become a form of weekly, monthly entertainment, on par with going out to dinner or to the movies." Grand Casinos is not content to attract only those within a 150-mile radius (the limit of a day-trip customer), but has just opened an adjacent hotel and theater complex to accommodate the overnight crowd.

Likewise, Berman and Seitz are continuing to work on more projects together. "As casino designers, we are judged by whether the property is successful," says Seitz, whose other hotel, casino, resort, restaurant, club and airport clients are too numerous to name. "If the property is a success,

you're a hero." The success of Grand Casino Biloxi is highlighted by the full-page photograph of Berman for the *Fortune* article, in which he is flanked by show-girl staffers in the middle of the shimmering casino. With this kind of track record, you could say that L.E. Seitz Associates Inc., has turned the Biloxi blues into corporate gold. ☛

Julie D. Taylor is founder and principal of Beverly Hills, Calif.-based McIntire/Taylor, a public relations, marketing and communications firm specializing in architecture, design, furnishings and art.

Project Summary: Grand Casino Biloxi

Location: Biloxi, MS. **Total floor area:** 180,000 sq. ft. **No. of floors:** 3. **Average floor size:** 60,000 sq. ft. **Wallcovering:** Blautex Textiles, Seabrook. **Paint:** Duroplex. **Carpet/carpet tile:** Durkan. **Ceiling:** Mitsubishi Kasel America. **Chandeliers:** La Spec. **Glass:** Art Network. **Seating:** Shelby Williams. **Dining tables:** Shelby Williams. **Interior landscape:** Design Concepts. **Architectural woodwork and cabinetmaking:** Southern Cabinets & Woodworking. **Client:** Grand Casinos Inc. **Architect:** Cunningham Hamilton Quiter. **Interior designer:** L.E. Seitz Associates Inc. **Structural engineer:** Reigstad & Assoc. **Mechanical and electrical engineer:** Lee Grosser Assoc. **Mooring design:** Capozzoli & Assoc. **Barge:** Service Marine. **General contractor:** Roy Anderson Corp. **Kitchen planner:** Premier Restaurant Equipment Co. **Lighting designer:** Design Lighting Consultants. **Commissioned art:** Andy Warner Artworks, R.C. Bailey. **Furniture dealer:** Brown & Mitchell. **Photographer:** Mark Roskams.

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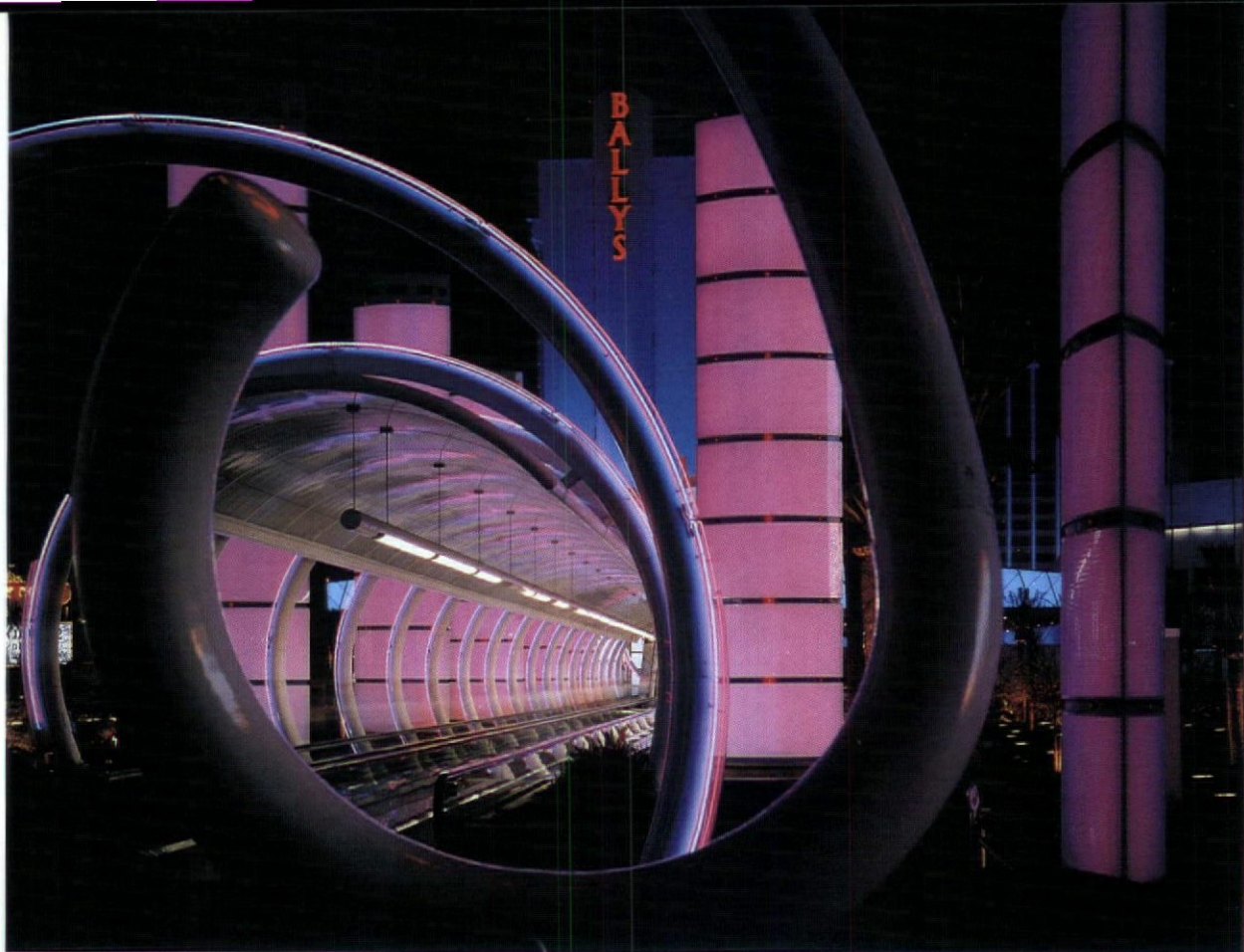
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Lions, Tigers and Bears, Oh My

Bally's new entrance, designed by Friedmutter and Associates and Communication Arts, distinguishes itself in Las Vegas with a whatchamacallit attraction

By Linda Burnett

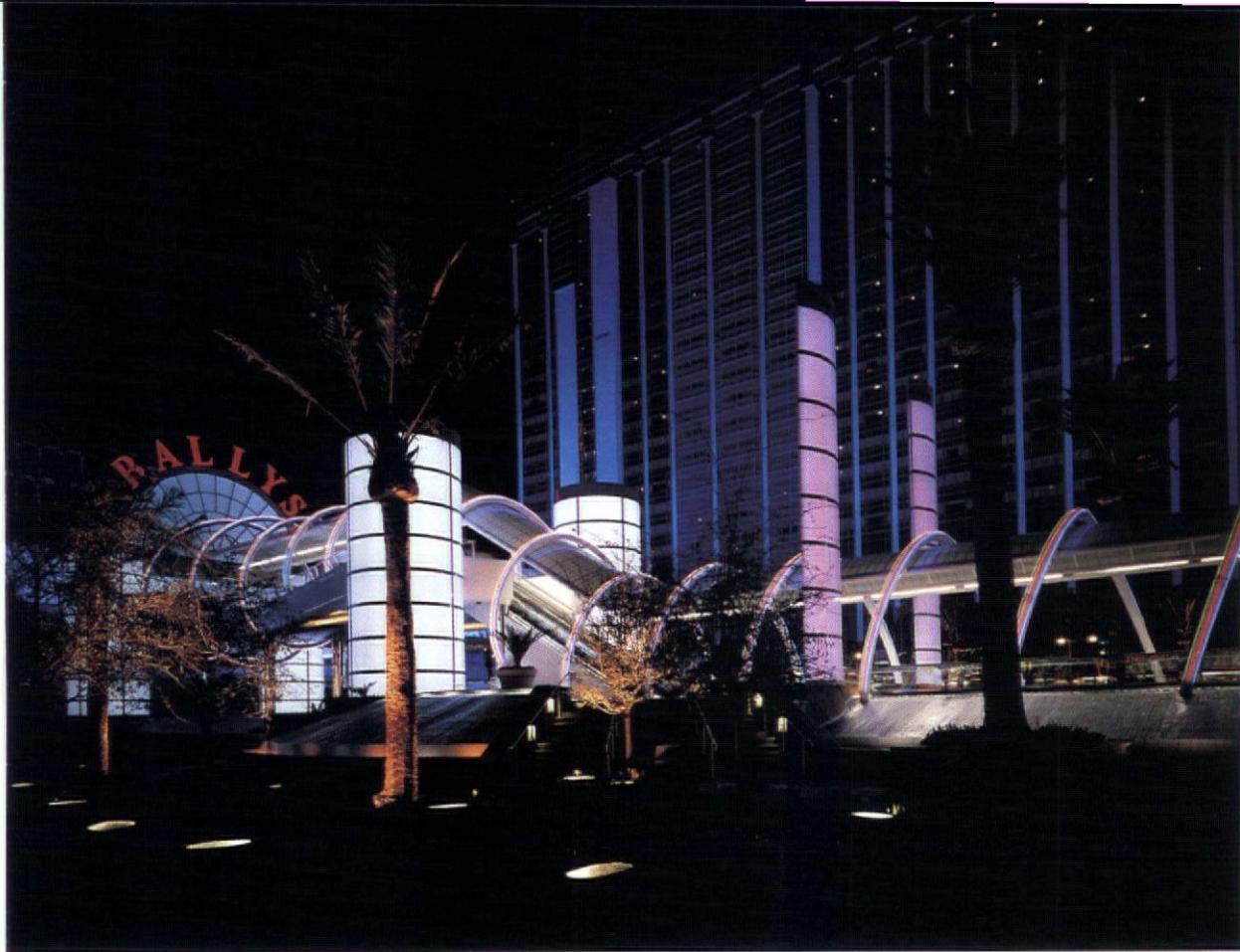
Come one, come all: More than 14 miles of electrical piping was used for Bally's entrance, as seen at the opening (above) and from afar (opposite), to attract customers and lure them onto a moving walkway that deposits them at the mouth of the casino. The imagery has been effective in drawing people into Bally's, which has increased its customer count to 10,000 people a day, despite its deep setback from the street.

No tepees or lion heads! When Bally's Casino and Hotel commissioned Friedmutter and Associates architects and Communication Arts to design an entrance, it rejected the typical Las Vegas signage in favor of something that would literally pick people up from the sidewalk and transport them to the casino so they can spend, spend, spend. Bally's markets to the upper-middle-class gambler who wants an adult experience, as opposed to thematic hotels that appeal to vacationing families. "Bally's is more sophisticated than other casinos so the thematic approach of lion heads wouldn't work," says Richard Foy, design principal at Communication Arts. "They wanted a design that would reflect their style while bringing in customers."

"Our main objective with the new entrance was to increase customer count," states Paul Contesse, senior vice president and head of operations at Bally's. "Business was very bad. Now an average of 10,000 people walk into Bally's per day on the people mover."

A people mover? Indeed. Each casino's signage along Las Vegas Boulevard competes in attracting customers with something glitzy, goofier and more gargantuan than the next. But Bally's had the misfortune of being at 3545 Las Vegas Boulevard South. Set 600 ft. back from the main Las Vegas strip and separated from visitors by a six-acre asphalt parking lot, Bally's received barely any passersby. "We paid for our customers to come in with conventions and the like," points out Dean Harold, senior vice president of marketing at Bally's. "Part of the objective is to get free business, people who walk in on their own and ask for nothing in return."

Brad Friedmutter, a past vice president of Bally's whose architectural firm specializes in casinos, assembled a team to create a design that would fit the budget of \$14 million and a timetable of 13 months, finishing right before the July 4th weekend of 1994. The result: a tube of pulsing light, spirals, color and space that draws the eye into a vortex and then moves the customer along to the casino. Foy



compares it to the red tongue of a frog voraciously catching a moth—and kindly depositing it in a vast stomach of gaming activity.

The people mover is a 1,160 ft. two-way moving sidewalk rising from the Boulevard to Bally's moving at 120 ft. per minute, that addresses issues such as watershed impact and flood preparation with a tunnel built underneath the ramp to service the mechanics without uprooting a fountain or tree in the surrounding plaza. Several other dramatic designs were rejected that would overshadow the casino. "Many designs are overzealous and become the focal point," says Foy. "People gather and then disperse. They say, 'Okay, I saw it. Now I can leave.' Bally's wanted an attraction that would lead to something else, not an end-all, be-all to the curiosity."

In other words, the design would embrace pedestrians—not knock them over their heads. "We talked about a hug rather than a fist," Foy explains. The budget, though seemingly ample, was also a constraint that eliminated such flashy features as wave machines. "We needed to keep costs at a reasonable level," adds Friedmutter.

Foy doesn't hesitate to discuss the emotional impact of the design. Its pointed ovals between 3-6 ft. in depth are illuminated by a light that attracts people and compels them to follow what their eyes see. According to Foy, a vacuum cleaner and male reproductive organs are references that emerged from the "ser-

endipity of design," though he claims the coincidences were unintentional. Friedmutter agrees, saying, "Everyone knows that water, light, a moving walkway, visual shows and landscaping appeal to people."

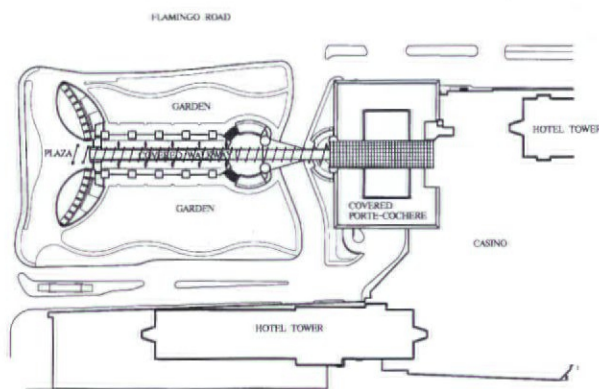
To accommodate Bally's executive committee, which approved every design element, the design team constructed full-size mock-ups of each section. The final design

The construction has increased slot machine use by 20%—and Bally's didn't stop there. A monorail now connects MGM and Bally's, joining two of the most popular streets in Las Vegas, Flannigan and Tropicana Boulevards. Harold foresees the customer count reaching 25,000 a day. "It will be like New York's Grand Central Station," he notes.

With the project ending on time and budget, the addition of the monorail and a \$12-million internal mall renovation, Bally's doesn't need pyramids, talking animals or giant cowboys. By all accounts, the new design is doing its job. "People can't describe the structure, but when you ask them if they were inside they inevitably say yes," claims Foy. "It's a basic form of behavior—lure, attract, welcome and capture."

It's as basic as the attraction between the king and queen of hearts in a full house. ♠

Project Summary: Bally's Hotel and Casino Entrance



includes 15 miles of neon lights designed by John Levy that change color from blue to red to green in 256 patterned variations controlled by a computer at 15-minute intervals. The spiral arch encasing the people mover is constructed of 10-inch diameter steel pipe bent in a slinky formation. This is the first time the manufacturer has bent steel piping larger than 8-inches in diameter. Friedmutter comments, "The apparatus is equipped with lasers that reach up to the casino's roof."

Location: Las Vegas, NV. **Total footage:** 1,160 ft. **Client:** Bally's Casino Resort. **Architect:** Friedmutter & Assoc. **Structural engineer:** Martin & Peltyn. **Specialty structural engineer:** Entertainment Engineering. **Mechanical engineer:** AE Assoc. **Electrical engineer:** ABF Consulting Engineers. **Landscape architect:** Campbell & Campbell. **Lighting:** John Levy, IALD. **Contractor:** Perini Building Co. **Waterscapes:** J. Harlan Glenn & Assoc. **Environmental graphics:** Communication Arts. **Civil engineer:** Martin & Martin Inc. **Photographer:** Biagio Guerra.

Does Your Job Pay?

Better, faster and cheaper design services will not reward the designers who make them possible unless firms take steps to revamp compensation

By Marjanne Pearson, Nancy Cameron Egan and Paul Wesley Nakazawa

Are you paid what you're worth? With a few notable exceptions, design firm services are being assessed as a commodity to be purchased at the lowest possible price. This current situation has been met with considerable angst and denial by practitioners, whose estimation of economic self-worth is being contradicted by the marketplace. As a mature industry in an aging society, the profession is not expected to raise compensation levels appreciably in real terms for the foreseeable future—barring the short-term rise to reflect post-recession wage adjustments or a substantive reorganization in scope and delivery of services as well as the manner in which design firms conduct their businesses.

Against this background, individual firms are grappling with the need to attract, develop and retain motivated professional talent, as well as provide principals with incentives to improve their performance as leaders, managers and entrepreneurs. How bad is it? The statistics are not encouraging.

While the proportion of design firm revenue devoted to compensation has remained fairly stable despite the upheaval in many market sectors during the last few years, the real change can be seen in the ratio of compensation. In comparably structured, non-design service businesses, the ratio of compensation between the highest and the lowest paid individuals ranges from 8:1 to 10:1. In typical design firms, the ratios are currently between 4:1 and 5:1, with the highest-paid principals at \$75,000-125,000 base salary and the lowest paid professional at \$20,000-25,000.

The organizational pyramid is being flattened to the point where the majority of principals function as project managers or practice-area managers. Consequently, the salaries of principals and senior non-principal project managers are beginning to converge. The restructuring is being driven from two directions. On one side, improvements in technology have given individual designers and managers greater autonomy and control. On the other, clients are demanding more direct involvement from senior talent assigned to their projects.

However, despite the increased participation of principals, high-level designers and managers—all supported by the latest technology—clients have not been willing to pay

Design is a mature business with no significant differences in base salary levels across the nation

significantly higher fees. Inflation-adjusted market rates for professional services and principal-level salaries have actually declined over the past decade, while the direct costs for highly skilled professional staff have increased proportionately. Productivity has improved, but overhead rates are higher and profit margins continue to be squeezed.

The key to higher income—and it's not experience

Firms of all sizes and nearly every practice specialty from airports to zoos have felt the pressure to revamp compensation strategies to reflect the changed environment. Yet for most design firms, the supply and demand of available talent have been the prime determinants in negotiating base salaries. Historically, salaries for key staff (project managers, project designers and job captains or project architects) in major metropolitan areas of the West Coast and the Northeast have been higher than in other parts of the United States. However, because design is a mature business with firms across the country practicing similarly and often competing in the same region-

al and national markets, there is no longer a significant difference in base salary levels—less than 20%, as a matter of fact.

As a result, an architectural project manager with 10 or more years of experience will, regardless of firm size or location, earn a "standard" base salary in the range of \$45,000-70,000 per year. It is important to note that the real key to higher income for a project manager is not years of experience. What really counts is the proven ability to manage complexity in terms of scope of services, programmatic requirements, number of projects, special client relationships and the like.

The highest base salaries in design firms are earned by a limited number of positions.

- The president, CEO or managing director of a firm, the individual who is responsible for overall strategic vision as well as bottom line profitability, will typically earn a base salary of \$75,000-125,000 per year.

- The classic "closer/doer," an individual who is actively involved in the development of new rather than repeat business and is responsible to the firm and the client for successful delivery of the work, will typically earn a base salary of \$60,000-95,000 per year. This is \$10,000-25,000 more than a project manager of equivalent responsibility who manages repeat business.

- A practice-area manager who is responsible for directing a specific service such as design or technology, a discipline such as architecture, engineering or interior design, or business unit such as branch office, division or studio, will typically earn a base salary in the same range as a closer/doer.

In a typical design firm, there might be one closer/doer for every 10 to 15 professional employees, and one practice-area manager for every 20 to 25 professional employees. In smaller firms, a principal/owner would cover both functional responsibilities. Working with this traditional, market-based model leaves firm management little room for negotiation as it struggles to balance client demands for quality at the lowest possible cost with employee requirements for a competitive compensation package and encouragement to pursue innovation, self-motivation and entrepreneurship. Fortunately, we are now beginning to see significant departures from traditional models.

Merit-based compensation: Realistic and attainable goals?

Industry leaders have developed a variety of programs to address the ongoing need to attract and retain the best talent available to them. The evolving merit-based models tie individual contribution and compensation to the firm's overall performance. Two basic approaches prevail.

- In one model, the firm pays salaries in the highest market ranges, and awards automatic bonuses to all employees each year based on a multiple of salary. The firm also has an incentive compensation program available on a discretionary basis to truly exceptional performers. The model assumes that the firm has developed management programs to ensure that all employees meet or exceed expectations for above-average performance.

- In another model, the firm pays salaries in the lowest market ranges, which would be augmented by significant profit distributions and contributions to qualified pension/profit-sharing plans. In this model, the additional compensation earned by a high achiever can equal or exceed base salary, which puts the individual's total compensation at a level significantly higher than market range. This model rewards results as much as—if not more than—skills and ability, encouraging highly self-motivated, entrepreneurial individuals to stay with the firm.

The merit-based model is far more demanding of both the individual and the firm. By linking employee compensation more closely to performance, firm management must (1) develop strategies for effective marketing of its services, (2) manage its operations profitably and (3) understand and articulate the factors that constitute success so that an individual employee can set and achieve realistic goals.

Why motivation is not the same as effective performance

A firm can develop a compensation system intended to reinforce its values, culture and performance standards. At the same time, management must also commit to developing an evaluation system that enables employees to understand how they are doing in a measurable, consistent fashion. In a profession marked by a collegiality that often stands in the way of hard truths, a fair and unemotional evaluation may be one of the most difficult aspects of a merit-based program.

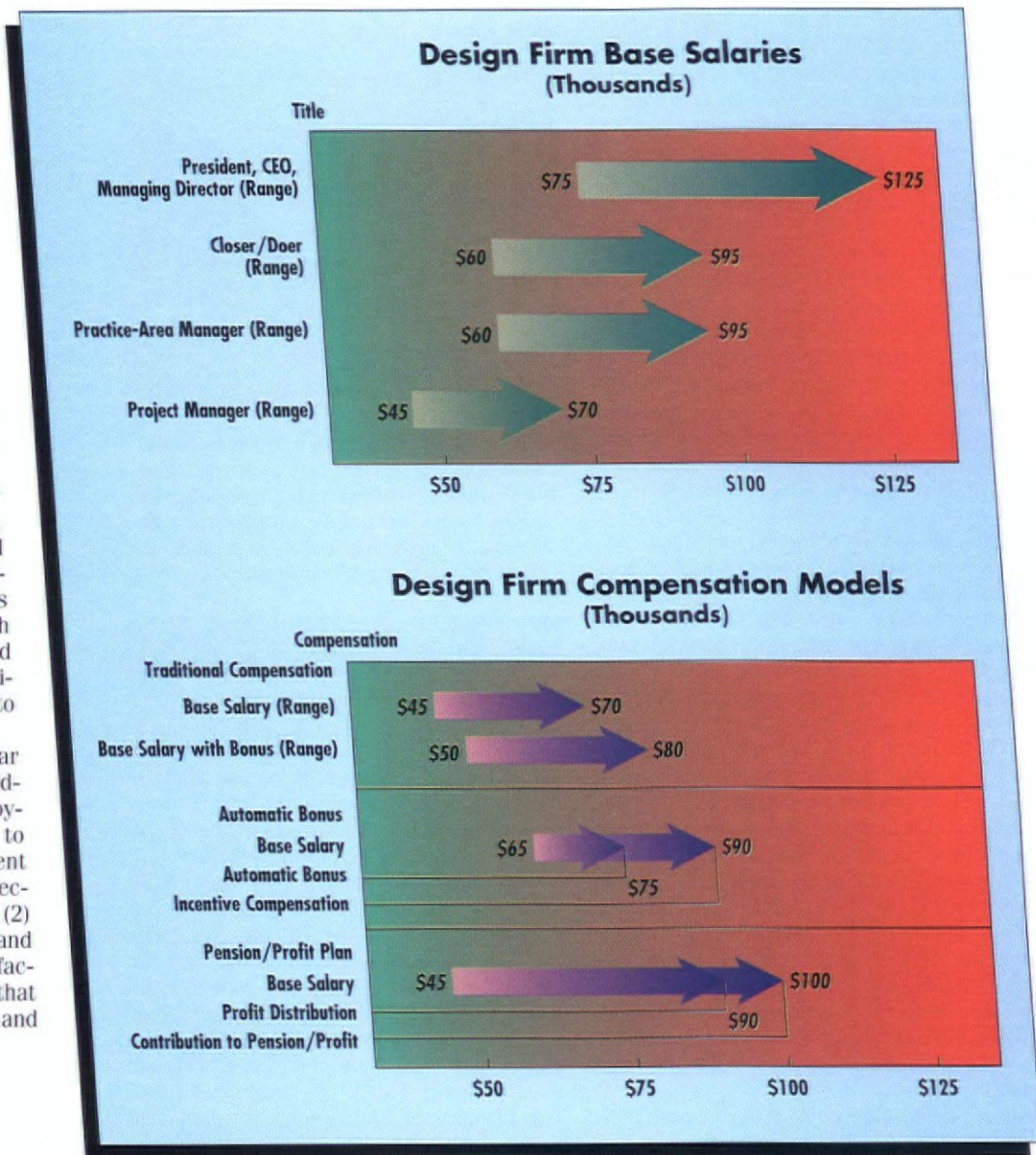
Congeniality and goodwill are important human qualities. In the face of tough clients

and narrowing profits, however, firms can ill afford to base their reward system on intangibles. Performance judgments must be tied to the effectiveness of the design professional in meeting well-defined client, firm and individual goals.

The "management-by-objectives" model of performance evaluation that has been tied to market-based compensation is evolving to a "customer-focused" model in which individual performance is tied to

Paying tomorrow's successful employees

As in all other aspects of the design profession, a handful of firms are pushing the edges of the envelope in performance measurement and compensation strategies. The authors encourage all design firm principals to take a comprehensive look at their business strategies and achievements to evaluate how well they are responding to the new demands of the market. Tomorrow's



overall business strategies and performance, and compensation incentives are tied to team/group and company achievements. With merit-based programs, employees have an increased understanding and appreciation of how their actions contribute to the success of the firm, and their contribution is recognized through key motivators that include internal rewards, such as a sense of accomplishment or opportunity for growth, as well as external ones, such as incentive compensation.

row's success stories will be written by firms able to develop strategies that reflect their values and goals—plus reward all key contributors. ☺

Marjanne Pearson, Nancy Cameron Egan, and Paul Wesley Nakazawa are nationally recognized management advisors who have created a professional alliance. With offices in San Francisco, New York City and Boston, they specialize in development and realization strategies for talent-driven organizations.

CAD for Breakfast

Is the design profession advancing faster than CAD technology, or has CAD gotten architects and interior designers by the collar?

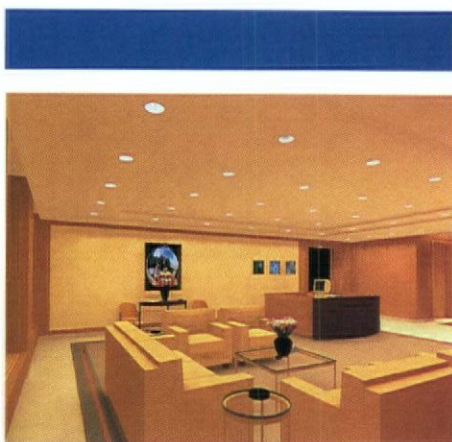
By Linda Burnett

Will there come a day when design studios staffed by architects and interior designers toiling at computer-aided design (CAD)-equipped drafting tables are replaced by computer terminals programmed to be creative as well as competent? Just press the button HOTEL, enter all vital program statistics, site characteristics, marketing themes and presto, a hotel. According to leading architects, interior designers and CAD experts, nothing can replace the human touch and the work that can be done with a pencil, marker and sheet of tracing paper.

So breathe a sigh of relief, but only for a moment. Designers and architects may not be threatened by job-stealing computers just yet. But without basic skills in three-dimensional drafting and rendering, they may increasingly find themselves unable to compete in the market, a phenomenon already being faced by smaller firms. "Developers are getting used to seeing photorealistic models of their projects," says Greg Carpenter, associate principal at Callison Architects in Seattle. "If they're spending millions on a building you can bet they are going to demand it." Adds Jim Duda, who manages CAD at Leo Daly, "Smaller firms without this kind of capacity will suffer and cannot afford to be without it."

What just a few years ago meant one or two computer workstations shared by four people now has been converted into desk top units for individual use. Computers are continually being equipped with faster processing power, higher color resolution and an increased capacity to handle complex software programs. A company expecting to expand with just one computer and CAD package can expect to spend as little as \$15,000—a steep discount from the hardware and software packages available a decade ago.

The objective of CAD software has been two-fold: to draft and to render the object or space within three dimensions so that the architect, interior designer and client can see how a building will fit together and appear before it is built. While the drafting function of CAD parallels its pre-computer counterpart, handling project changes and coordinating building systems with far greater ease than ever before, the rendering function offers some options that are quite unprecedented. Photographing a site and retouching its image to eliminate all existing structures and then dropping a picture of the intended building into the space has become routinely possible with CAD. Similarly, the simulation of sunlight in situations that acknowledge time, date, lon-



HOK designed the New York office space for Société Générale (above), an international banking institution based in Paris, on drawVision®, HOK's proprietary CAD package. The project included a 3,500-sq. ft. data center and a 225-post trading floor, executive offices, dining room and training center.

gitude and latitude has become a common CAD operation, as has the scanning of the characteristics of building materials to add veracity to a rendering. As for the ability to travel through the virtual space of a yet-to-be-constructed facility for purposes of study or client presentation, the power to harness CAD in this visual *tour de force* is now affordable for many small to mid-size firms.

Saving time and money has developed into a compelling incentive to use CAD not only because the plummeting cost of computing raises productivity but because CAD is evolving into a more effective way to work. "Previously, a mock up of a piping system in plastic could cost \$100,000," says Bruce Bartolf, director of information systems at Gensler and Associates in Los Angeles. "The information we have has increased by a third and CAD allows us to do a third more work in the same amount of time."

CAD as a design tool: All gains and no losses?

Even as work is being completed faster with advanced information technology, scale models cannot be completely eliminated. "Clients still want to hold a model and take it apart," Bartolf reports. Mark Herman, senior designer and associate at Hellmuth, Obata & Kassabaum (HOK) in St. Louis, considers mod-

els as important to the designer as to the client, and cites an absence of models as a downside to the reliance on computers. "With a computer rendition," he points out, "we don't have the ability to interact with the design as we can with a model. Fifty people walking by a model every day are forced to think about it. We sacrifice this interaction."

Ironically, the computer may be the solution to the problem. HOK is attempting to bridge the gap between computer rendering and model construction with a laser cutter that precisely cuts shapes according to the computer rendering. "From our desks," Herman reports, "the laser can be activated to cut pieces and construct models in the time it takes to draw it."

For some, the use of 3-D imaging has changed the types of designs being produced. "We would build square buildings, sometimes a circle," says Herman. "With the computer it doesn't have to be a square. You can look at a trapezoid in many different ways." Some manufacturers still prefer the bias of traditional drafting towards orthogonal forms, which lend themselves to standard, off-the-shelf products.

Is this eternal love affair with 90° angles likely to change over time? Some practitioners seem to think so. "We design better with the computer," insists Herman, "because there are more ways to look at things, especially jobs that need to be completed in a smaller time frame. Computers give more time to design. You can come up with 50 more designs."

There are numerous paths to CAD itself, of course. The most popular forms of CAD being used today, such as AutoCAD and Bentley, have developed in tandem with software created by such design firms as Skidmore, Owings & Merrill and HOK for their own needs. HOK's drawVision® is serviced by a staff of computer programmers that adjusts the programs according to the specific needs of the designers on a project.

The state of the art: Is CAD ready for improvement?

How can CAD be improved? Integration seems to be the most popular theme for improvement. "We must work in a collaborative electronic environment," says Bartolf. "We need to be able to interchange information."

Many industry experts predict CAD systems integration will occur on multiple levels. Paul Tieholz, director of the Center for Integrated Facility Engineering at Stanford University, notes that today's process is fragmented so that people can't exchange informa-

tion properly—such as HVAC designers who rely on one form of software while architects depend on another. “Each is working in a different environment,” Tieholz comments. “In the future, information will have to be integrated. This is beginning to happen with companies that design and build.” He predicts that the modern role of the architect will be to collaborate project data as much as to design spaces.

David Morton, information services manager at Callison Architects, agrees that integrating CAD with other, non-CAD applications has more than theoretical justifications. “Now you either must retype the budget or schedule or cut and paste it into a CAD application,” he complains, “because Excel doesn’t work with CAD.” Lack of integration among the desktop processors leads to lost time and increased frustration among users.

Software companies themselves agree on integration as a worthy goal similar to what IBM and Mac users want. “We’re working on communicating among different types of CAD,” says Jean-Baptiste Monnier, vice president of marketing at Bentley. “We’re trying to create similarity among systems. People don’t want to be stuck. They want their software to communicate with that of the subcontractors too.”

When various people work on a project from multiple locations and systems, CAD users observe, quirks pop up along the way and data get lost in the transaction from disc to modem. As in other industries, liability for occurrences like these is a legal matter that could drastically alter the use of CAD. “Supposing we ship off a CAD drawing to another project member not from our company,” Bartolf suggests. “He accidentally moves a

column 18 inches. In construction they realize a column is going through the escalator. Whose fault is it? It’s a million dollar problem.”

Uniting client and designer

Does advanced computer technology such as CAD create a rift between the designer and the client as some critics say? Evidence thus far does not support this view. One example is Callison On Line, Callison Architects’ home page on the Internet for team members and clients to electronically meet and exchange ideas from different parts of the world. The system keeps everyone up to date in minutes.

If presentations still include hand drawn plans, most clients are educated about CAD—and some even expect to receive the project on disc or line rather than on paper. “Clients know it saves time during the project and they can file the disc when the work is completed,” says John Kolb, project manager at ISI. “Since I’ve been at ISI, I can’t remember not designing a plan on a computer.” Certain clients go so far as to request a specific form of CAD. “No one told us which pencil to use,” says Bartolf, “but the type of CAD used affects the outcome.”

The pencil has its champions nevertheless. Peter Wang, an architect with Gensler, vehemently stands by his tracing paper as the fastest method for crystallizing a design and coming up with a concept. “With a pencil whatever I think of I can draw,” he declares. “With CAD, it takes a longer time and must already be precise so you end up focusing on the computer itself.” Wang believes CAD is most efficiently used as a production tool. After he

designs a project on paper, he transfers it to CAD and proceeds to the construction phase.

Wang is not alone in his belief. Tamara Adams, an interior designer with Leo A. Daly—where about 85% of designers use CAD—thinks that schematic design flows better if she produces sketches with pencil and paper and then enters the data into a CAD document. “CAD speeds the process when you have a rigid design, and it improves the accuracy of contract documents,” she says. “But for me it is less of a design tool and more of an administrative tool for projects.”

Not surprisingly, some designers, especially those trained in architecture school on CAD, like to design and experiment directly on the computer. Kolb was educated on CAD and feels as comfortable with the medium as others do with paper. All the same, he finds CAD most useful in revisions instead of the erasing and redrawing of hand drawn plans. “CAD has become so useful for saving time that you become a slave to it,” he says.

Perhaps the division between those who use CAD and those who don’t is a generational differentiation that persists for the most obvious reason. It’s not necessarily a source of problems. Kolb has discovered that problems within the office can often be avoided because employees who aren’t educated in CAD have already reached the management level and don’t do much production work, whereas new hires must be familiar with CAD.

In spite of the evolutionary changes in the wings, it seems highly unlikely that CAD will replace designers. It’s only as smart or artistic as the education and artistry of its users. Are you listening out there in the studio? ☺

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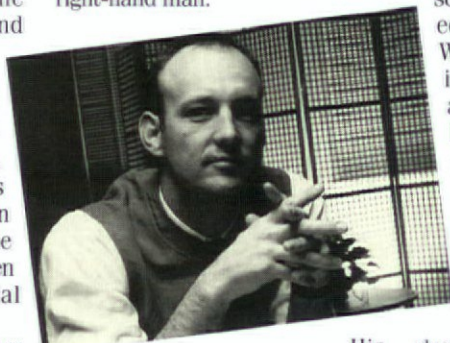
Bonjour, America

Richard Holbrook

If only Americans appreciated design as much as Parisians crave *paté fois gras*. Industrial designer Richard Holbrook notes that Americans care more about their cars than their chairs. Accordingly, this graduate of Art Center College of Design in Pasadena began as a designer with Peugeot in Coventry, U.K., and Paris before focusing on furnishings in the U.S.

"In America we pay lip service to the arts, but Europeans have a different perspective," says Holbrook of his experience in Europe, where he met his German wife. "Americans want historically referential design. They aren't as comfortable with newer, modern designs as are Europeans."

Holbrook takes design pretty seriously. His ergonomic insight is sharpened via his mother's work-related injuries and his wife's studies in occupational therapy. His involvement in each project has made him cut staff from nine in Pasadena to just himself and a right-hand man.



Holbrook

His clientele—including Herman Miller, Tropitone and Casablanca—reflects his dedication.

A self-proclaimed control freak, Holbrook cites his computer as best friend and worst enemy in developing such projects as Herman Miller's Ambi™ chair. He considers the furniture maker his holy grail. "Herman Miller gives the designer the reins without the typical hands-on management," he says. How did the two meet? Luck, he claims—and persistence. ("I called hundreds of times.")

When not horseback riding with his wife, Holbrook tends to his chairs—riding them hard, no doubt. Does a lump of sugar help, Richard?

Grand piano plan

Fritz Johnson

What does a discarded concert grand piano lid share with a beach house? Both are components of architect Fritz Johnson's grand plan. In 1993 he orchestrated a meeting between artist Jim Zivic and photographer Warner Wada to transform the piano lid into a table with a hand-forged steel support. From there, a prototype was born, the Prairie Table, and with it the idea behind Johnson and Zivic's Burning Relic Design, a furniture company in Manhattan's Soho district.

"I enjoy this work, though most of my projects involve building renovations," says Johnson, who is also president of New York-based CSS Architects, which rehabilitates commercial and residential spaces. "I appreciate the idiosyncrasies in both because each is its own can of worms."

Johnson gets his artistic aptitude from his father ("a letter carrier by profession, but a wood sculptor by obsession") and his education from Yale and U of Washington. His latest venture is a line of leather floor tiles on a hexagonal grid for Edelman Leathers. He plans to take this concept to ceramic and vinyl tile to expand his practice.

Johnson lives in New York, but covets an escape. "I'm fixated on getting a piece of property on the Southeastern coast and building my dream house," he says. "I know exactly what I want. It's all part of my grand scheme." If transforming a piano top into a successful furniture company is any indication of his ability to make things happen, a beach haven is assuredly only a downbeat away.

Beam me up, Gaia

David Pearson

What do you do after being educated as an architect at U of London and U Cal Berkeley to rebuild inner cities and create new towns, when you find yourself trying to save the largest project of them all—planet Earth? David Pearson, RIBA, director of the eco- and



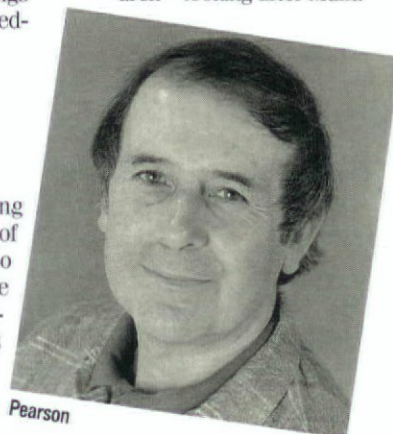
Johnson

healthy-design consultancy Gaia (Greek earth goddess) Environments in London, and a founding member of Gaia International, a global group of architects who collaborate on eco-design projects, has chosen to consult, travel, lecture and write about architecture and the earth as a living organism. His latest book, *Earth to Spirit: In Search of Natural Architecture*, visits architecture that emphasizes the beauty and freedom of nature—and creates a sense of physical and spiritual well being. Writing it was a revelation for him.

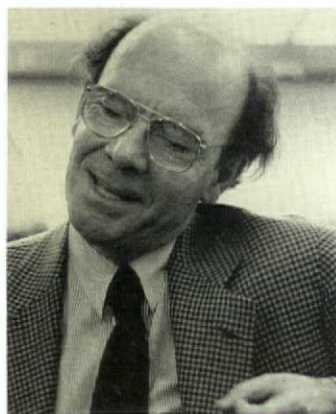
"All over the world I found universal themes on building in harmony with nature," he marvels. "Cultures everywhere have forged spiritual links to earth, sky and water, creating spiritual homes as much as physical ones. The West has simply lost touch."

Despite the slow progress of his crusade, he's not discouraged. "People are taking back the power they've ceded to big government and big business," he says. "When they realize what's happening to the built environment, they'll act."

Off hours, Pearson and his wife Joss leave London for a cottage in the Cotswolds. "We do a lot of walking, sketching and photographing in the countryside," he says. A couple of Gaia's children—looking after Mum.



Pearson



Bellini

As unlike anything else

Mario Bellini

To Italian architect Mario Bellini, his first memorable work was a play house he built in his grandmother's garden at eight. "It had real doors and windows," he recalls proudly. At 60, he remains close to those roots. Besides sailing, he enjoys gardening at his seaside villa.

Bellini's architecture is now decidedly more serious, however, with designs that include the Italian Pavilion of Science and Technology at Expo '85, Tsukuba, Japan (1985); a convention center at Villa Erba, Italy (1990); and Schmidtbank headquarters, Limbach-Oberfrohna, Germany (1993). The key to his success may be designing in context. "I like challenges," he reflects. "I do my best work when I struggle with the practical realities of a project."

After graduating in architecture from Milan Polytechnic in 1959, Bellini designed products for clients like Olivetti, Rosenthal and Yamaha, and furniture for Vitra and Cassina. "Chair design is challenging," he says. "You confront a solid symbol of Western culture." Only in the last 10 years has he focused his Milan atelier on architecture, noting, "I've reached a satisfactory level in the profession."

Satisfactory, indeed. Bellini has received numerous honors, including a permanent display of his work at New York's MOMA. His ease in interviews may reflect the fact that he also spent six years as editor of *Domus*. "In the end," he notes, "it is a project like anything else." Or unlike anything else, if Mario Bellini is involved.