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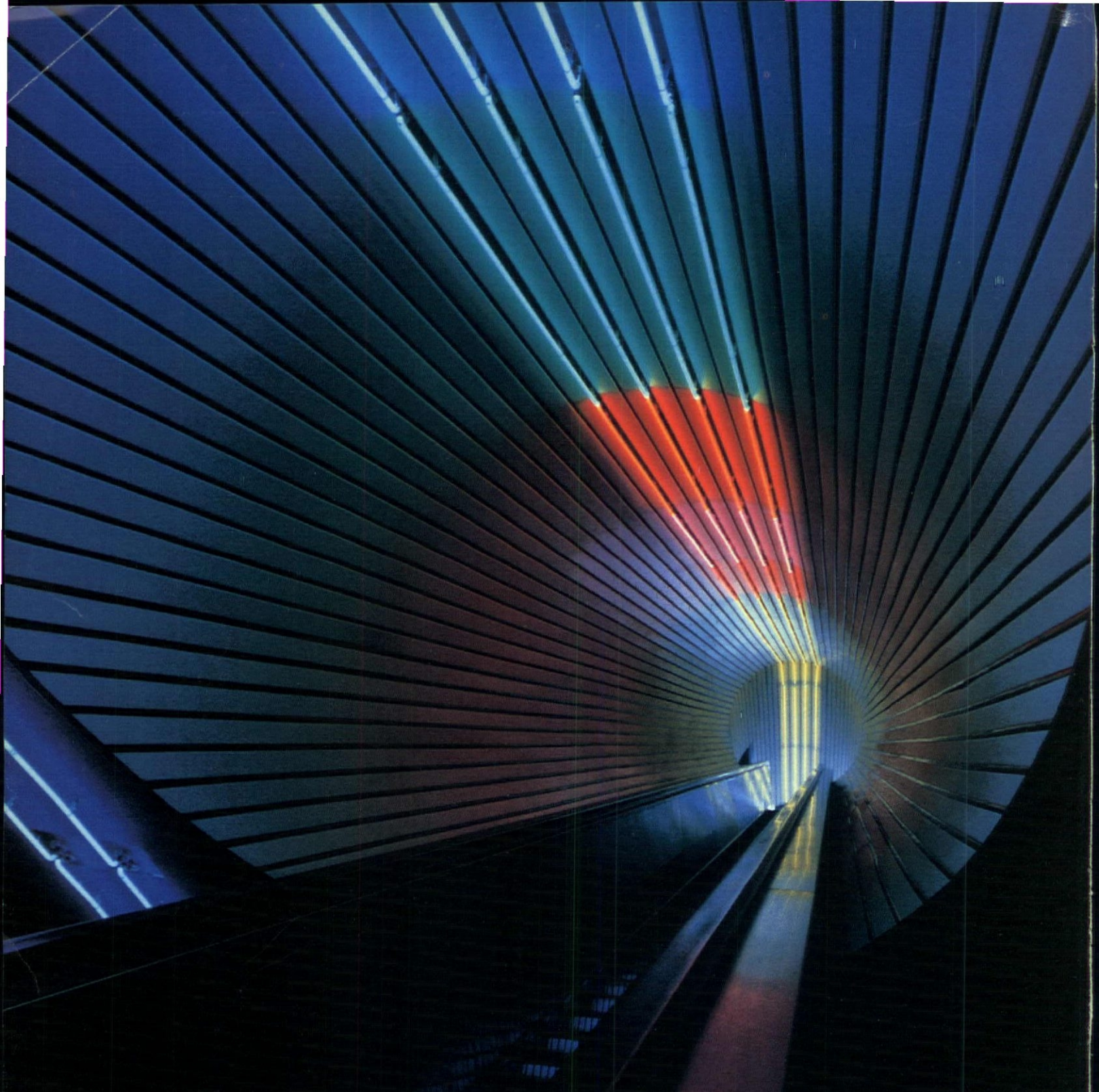

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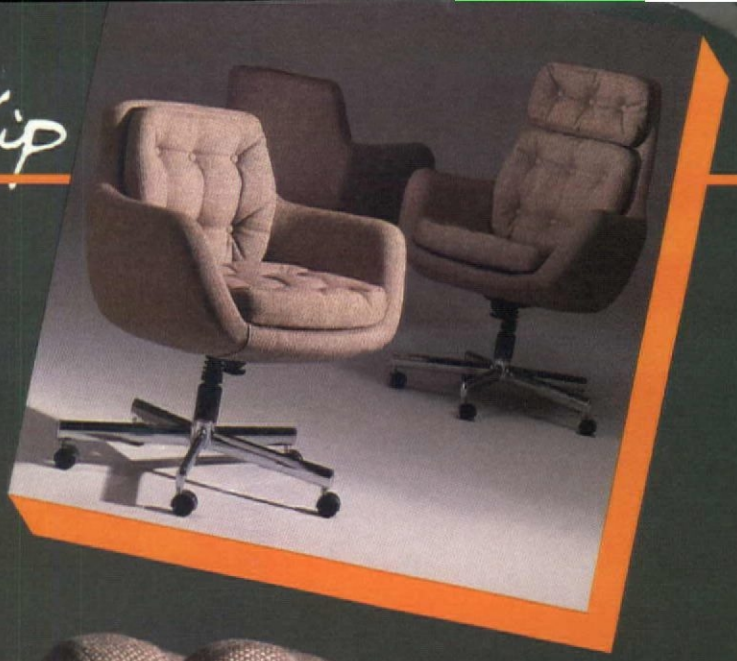

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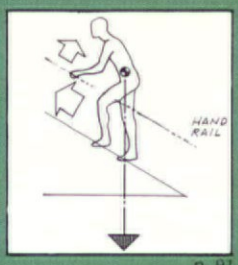

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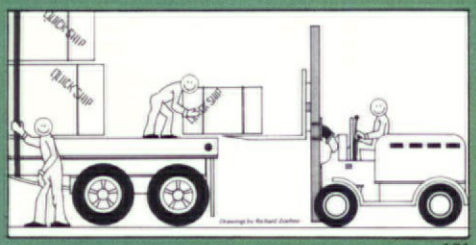

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5,000 Commercial
Building Owners & Executives

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September: WHO'S WHO IN CONTRACT/Northeast—CONTRACT presents its seventh census of contract specifiers, architects and designers. Computer Support Furniture Mini-Directory, a premiere in CONTRACT—Listing of contract manufacturers and details on their computer-support products. Designer's Saturday Preview—Product introductions and program details, along with map and guide to this annual prestige showroom event in New York. NOPA Preview—Advance coverage of exhibitors, program, and products at the National Office Products Association (NOPA) show, Chicago. Orgatechnik Preview—early look at Cologne Furniture Fair.

October: Executive Buyer Edition/Banks—CONTRACT presents an overview of trend-setting bank installations. Bank Furniture & Furnishings Review—includes executive, traditional, and reproduction furniture. Plus Specifier's Fabric Market Report, Desk Accessories, and Mail Room Focus.
International Hotel/Motel & Restaurant Show Preview—advance coverage of products and program at this New York trade show.

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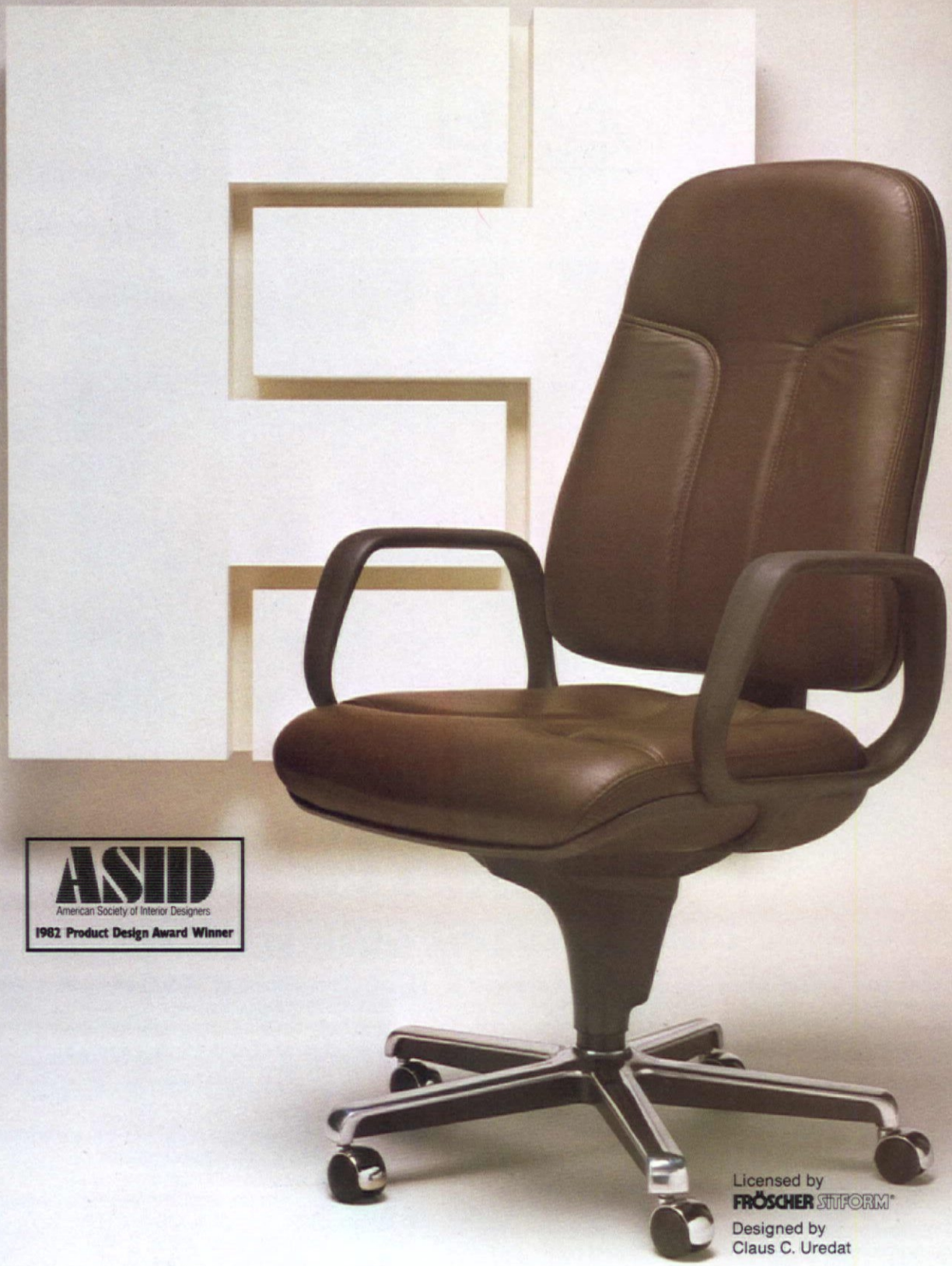

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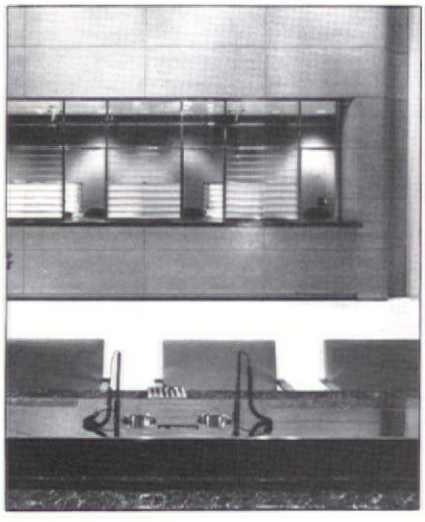
Driehaus Research cited for multi-floor office in AIA Chicago Chapter interior awards

Chicago—Driehaus Research Associates Inc. was selected from 72 entries as an AIA Interior Architecture Honor Award winner for its multi-floor, post-modern office space here. Honolulu House, Marshall, Mich., received a Special Award for Technical Achievement in restoration. The third-annual awards were presented here recently by the Chicago Chapter, AIA.

Award-winning Driehaus Research office space was designed with notched portals.



Standard Bank's first floor is public space.

Citations of Merit were made for St. Peter's United Church of Christ, Skokie, Ill.; and Vanderbilt Apartment, Naples, Fla. Also cited were the following local projects: Boston Consulting Group Inc., Standard Chartered Bank, Kanter & Eisenberg, Michael Reese Hospital and Medical Center Administrative Services Center, and the John Blood Residence.

A "residential" atmosphere in a green color scheme sets the Driehaus project apart from the remainder of competition entries. The Landahl Group Inc., an architectural firm here, designed the interior using Tiffany art glass and the client's poster collection. Regressed, notched portals add interest to the space and recall the "sawtooth" face of the building.

Honolulu House, home of the Marshall, Mich., Historical Society, was built in 1861 with wall and ceiling murals on plaster comprising the interior. The Office of Wilbert R. Hasbrouck, Historic Resources, devised a restoration plan which retained 90 percent of the original surface and duplicated the remainder exactly.

The Office of Wilbert R. Hasbrouck, Historic Resources, was again cited for architectural excellence in the St. Peter's Church restoration. A program combining installation of a new organ with renovation resulted in a well-planned contemporary mix with original characteristics.

Flexible office layout around a two-story atrium was the goal of ISD Incorporated for Boston Consulting Group. Movable desks proved the key to design with visual interest provided by recessed office entrances.

Skidmore, Owings, & Merrill designed an 18,500-sq.-ft. interior for Standard Chartered Bank to accommodate teller space, officers' workstations, a vault, computer facilities, executive offices, elevator bank, conference

(Continued on p. 14)

New York landmark renovated for multi-purpose Knoll Design Center

New York—Knoll International recently opened its Knoll Design Center, a combination of showroom and office space in a landmark building in the SoHo district here.

Paul Haigh, principal of Haigh Architecture & Design, designed the space which accommodates Knoll's residential/fine furniture collection and showrooms, as well as creative design, product management, and textile group offices. In his updated design, Haigh retained the building's original character and preserved it as an architectural landmark. (Continued on p. 10)

Completely renovated Knoll Soho facade.

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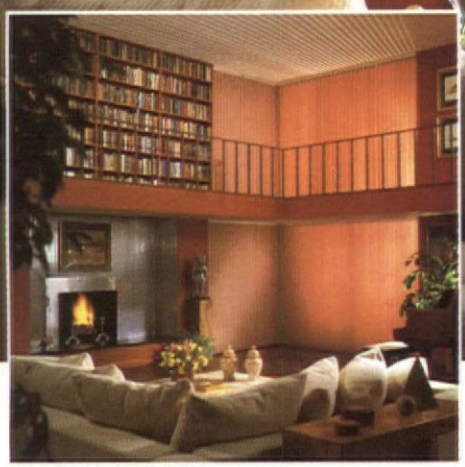

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(Knoll, continued from p. 7)

Located at 105 Wooster Street, the structure site is a landmark-designated neighborhood. Therefore, facade restoration reestablished the historic look with concrete columns, custom-crafted doors, and detailed double-glazed windows. Exterior cleaning restored the brick and sandstone.

Shutters integrate security

Aluminum rolling shutters integrate security into the design and create a neutral plane that sets off the original architecture. "The shutters were a response on two levels," claims Haigh. "They provide a secure, functional deterrent to vandalism while maintaining the effects of the facade."

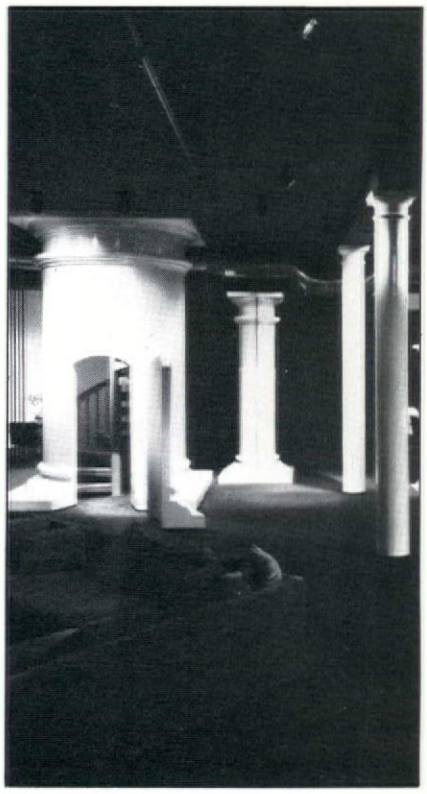
Interior architecture focused on structural elements—arches, columns, beams—with aluminum rolling shutters again utilized. Shutters separate the showroom from a design loft which is used for product evaluations and client presentations. To provide access between the loft and above floors, Haigh designed a staircase enclosed in a white column four times the scale of existing cast iron columns.

The column enclosure is echoed by two other freestanding columns—one made of fabric in twice-scale and one of granite in one-quarter scale. Columns and furnishings stand out against a background of gray colorations. Haigh sandwiched gradations of gray between dark gray floors and ceilings. Color accents include jade paint on stair railings, valves, I-beams, and fabric on Zapf system panels in the reception area. Accent color can be changed for a new showroom look.

A floating mezzanine level suspended from steel rods adds another exciting element. Haigh's reasons for the suspended level were two-fold. "I wanted to articulate space in the showroom while providing additional square footage for display purposes," he says.

Besides the display levels, the structure contains office space on the second and third floors. Industrial elements are repeated here with glass brick enclosing a conference space. The Zapf open plan system and a gray/jade scheme were also implemented.

In designing a space to suit both contract design trade and general consumers, Haigh stressed traffic flow and a storefront appearance. Yet, architecture and design could not compete with merchandise. Haigh says, "By sticking with industrial forms and materials I avoided competition with furnishings. The key was a different style and approach."



Unique series of columns enhances showroom space at Knoll Design Center. Large column encloses a stairway leading to the design loft and office space on above floors. Designer Paul Haigh echoed the stairway column with two freestanding pillars.

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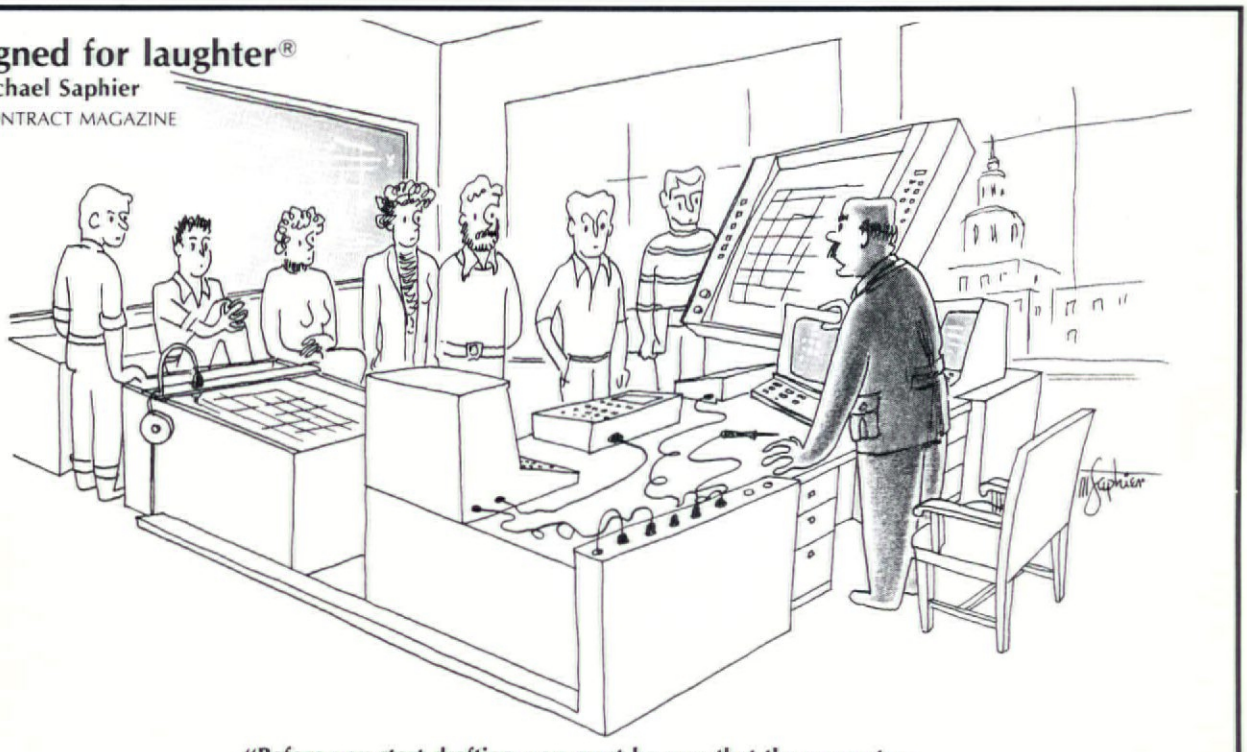

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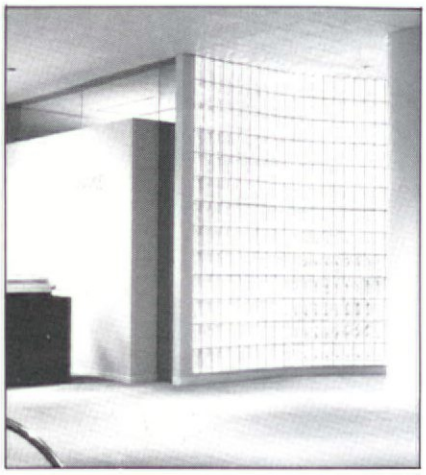
(AIA, continued from p. 7)
rooms, general office space, and an employee dining room. Elm wood and green serve as a recurring theme. White ash burl, jade marble, and stainless steel add excitement to the public areas.

A central service core is the basis for the surrounding hierarchical rings planned for Kanter & Eisenberg law offices by Marvin Ullman, AIA, Architects Ltd. Zones of offices, library space, and conference facilities encircle the center area with serpentine glass block creating a spatial effect.

Hancock Design Associates Inc. converted a warehouse into work space and ancillary facilities for 450 employees at the Administrative Services Center Michael Reese Hospital and Medical Center. A mezzanine helped section off private office and conference space, while the remainder is landscaped with open office systems.

Judges for the awards included Nicola Balderi, ASID, Hellmuth Obata & Kassabaum, P.C.; Neville Lewis, ASID, Neville Lewis Associates Inc.; Mark McPherson, AIA, M. Arthur Gensler and Associates; and Kenneth R. Mullin, AIA, Metz Train & Youngren of Colorado Inc.

An exhibit of the winning projects can be seen here at the ArchiCenter, 330 S. Dearborn, from August 18-September 18.



Boston Consulting Group reception area (top, left) has sleek look of glass and wood. Glass block curves through offices of Kanter & Eisenberg (top, right). A converted warehouse is now office space at Michael Reese Hospital and Medical Center (above).

Alabama passes first title act for designers

Mobile, Ala.—The State of Alabama recently passed the first title act for interior designers in the United States, giving the state legal power to enforce proper use of the title, "interior designer" as a professional description. To date, Alabama remains the only state with such legal protection for interior designers, according to Roberta Eckert, ASID, president. ASID Alabama chapter.

Says Eckert, "This title registration act does not preclude anyone from offering interior design services. It only precludes someone from being called an interior designer if he is not registered with the state, does not have a degree in interior design, and has not passed a qualifying examination. It separates the person with a 'flair' for design from the trained professional."

The law, based on a studied definition of the term "interior designer," requires professionals to register within one year of the law's passing and to renew registrations yearly. The state will publish a list of registered interior designers. Registration is voluntary and would be reciprocal with any other state where qualification matches that required in Alabama, once other states pass similar acts.

How interior designers can help save energy is conference focus

Washington, D.C.—Energy-saving techniques that are controlled by interior designer were topics of note at the recent Energy Power '82 conference here. ASID members from the Northeast and Mid-Atlantic regions met with ASID's Industry Foundation Steering Committee and manufacturers of energy-efficient products to evaluate how design professionals can increase energy-savings at installations.

Exhibits of these products offered examples of energy-saving design strategies discussed in meetings and workshops.

In addition, conferees focussed on increasing job opportunities for interior design students.

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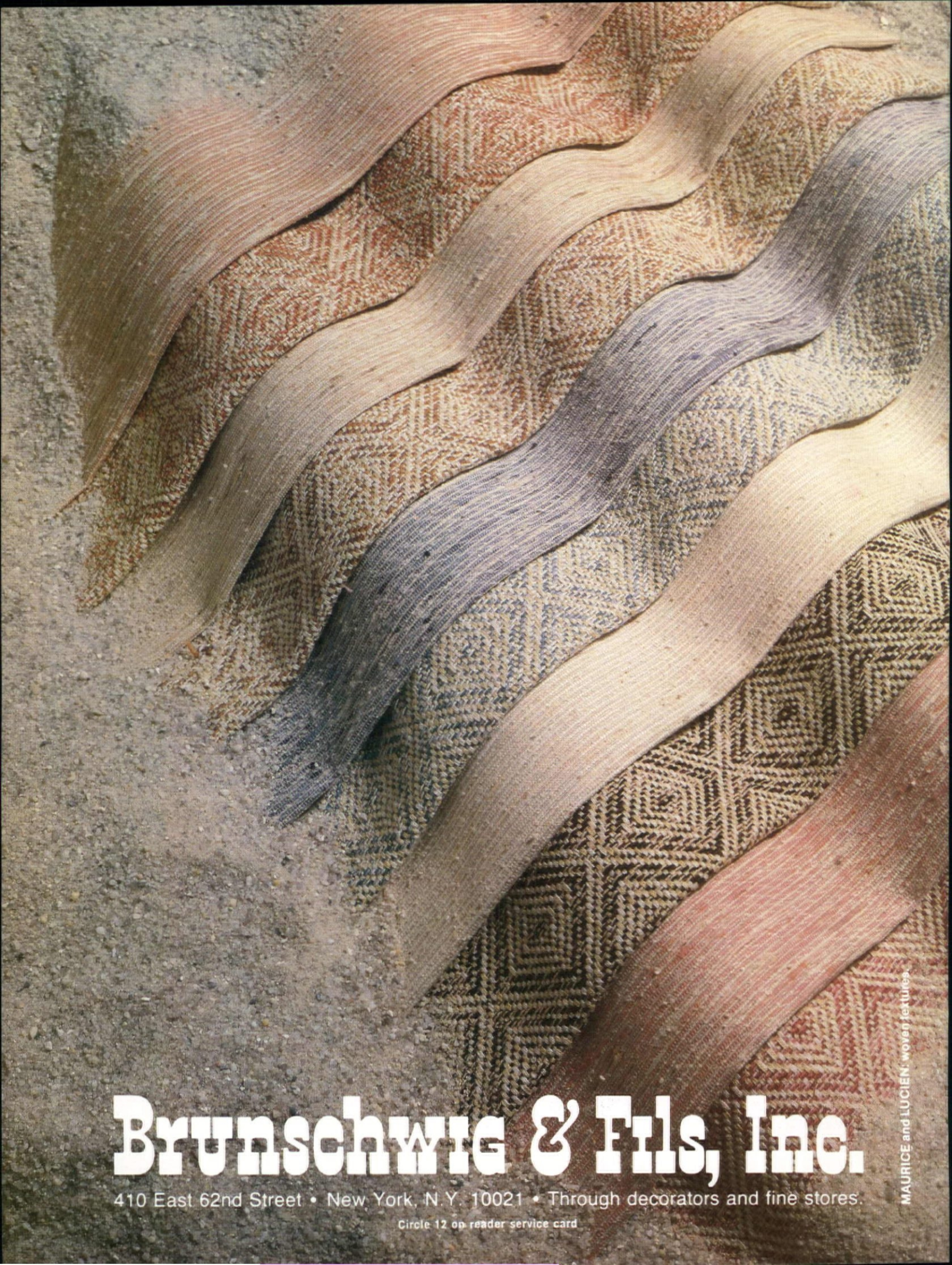

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Tough acrylic is forced deep into the pores of the oak to make an exceptionally hard surface that will endure, even in high-traffic commercial installations. And the stain goes all the way through the wood, so the color won't wear off.

Hartco is completely factory-finished so it's fast and easy to install. And easy to keep beautiful. All it takes is vacuuming, spraying with our exclusive Spray Shield and buffing.

Cambridge color

Chesapeake color

And it's the only impregnated oak available with a foam back to add comfort underfoot, deaden sound, insulate and to act as a superior moisture barrier.

Please telephone our Technical Service Manager at 615 569 8526 for complete information about Hartco Flooring. Or write Tibbals Flooring Company, in Oneida, TN 37841. Or refer to Sweet's No. 9.22/Ti.

Solid Oak Parquet Flooring

Hartco

TIBBALS FLOORING COMPANY, ONEIDA, TN 37841

Circle 13 on reader service card

AIA Scholarships total $168,500 for '81-'82

Washington, D.C.—Scholarships totaling $168,500 were awarded by the American Institute of Architects (AIA) during 1981-'82. Awards were presented to 154 undergraduate and graduate students at 68 accredited U.S. architecture schools and to four architectural interns in the field.

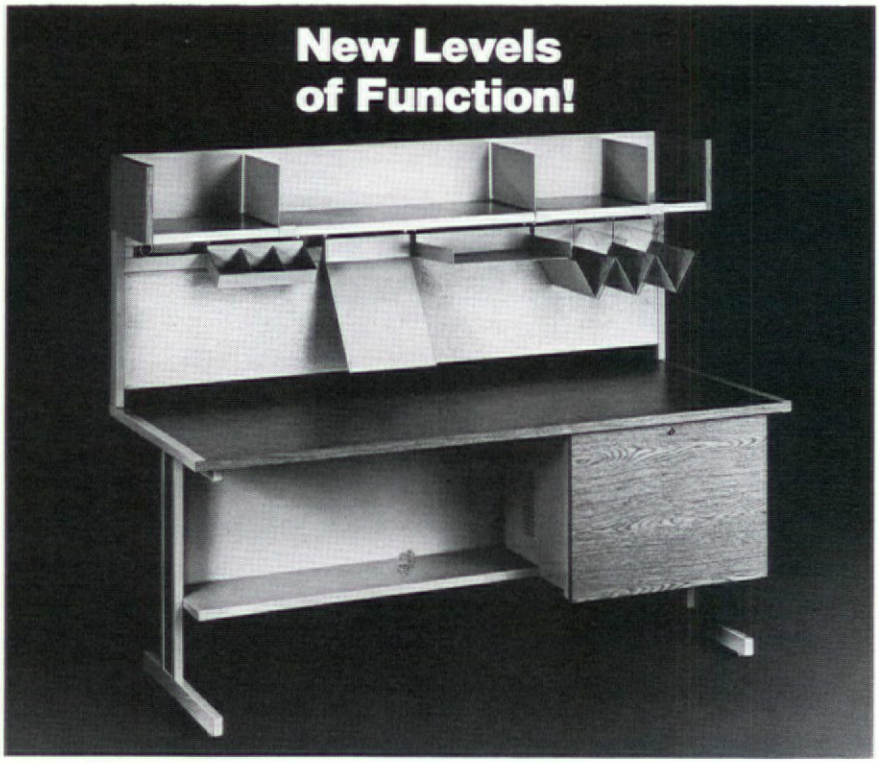
The AIA/AIA Foundation Scholarship Program annually assists promising students in accredited first professional degree programs in the U.S. and Canada. Awards are based on committee evaluation of applicants' academic records, financial need, and recommendations of school deans or department heads. Awards are also contingent upon a student's proposed program for further study or research.

CONTRACT reprises July tear-out carpet tile chart

CONTRACT's July issue Open Plan Specifiers Guide included an incorrect list of carpet tile sources on page 127. As a service to our readers, we have published a corrected source list here. Please cut out the following chart and substitute it for the version that ran in the July issue.

Carpet Tiles

Armstrong World
Bigelow-Sanford
Commercial Carpet
Collins & Aikman
Carpets International USA
Contract Distributors Corp.
Carson Pirie Scott
Ben Elfman & Sons
Eurotex
Harmil Carpet
Harmony Carpet
Heller Group
Heuga USA
Interface Flooring Systems
Lees Carpet
Milliken Carpet
Stratton Carpet



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Contemporary Specialized Office Furniture

Now! Brand new accessories to the Communication Station line bring a concept totally new to freestanding computer support furniture. Paper Management and Security Storage which features: ■ An upper level shelf unit that adds 40% more useful horizontal surface. ■ See through—pass through—*OR* add a Tackable Panel. ■ Attachments that organize computer and word processing paper. ■ A Security Storage Compartment (with lock) that holds floppy disc tubs—tape reel racks—disc drives or CPU's. Plus a lot more. Write for the details. Sold by office products dealers everywhere.

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Communication Station is a registered trademark of the Tiffany Stand and Furniture Company

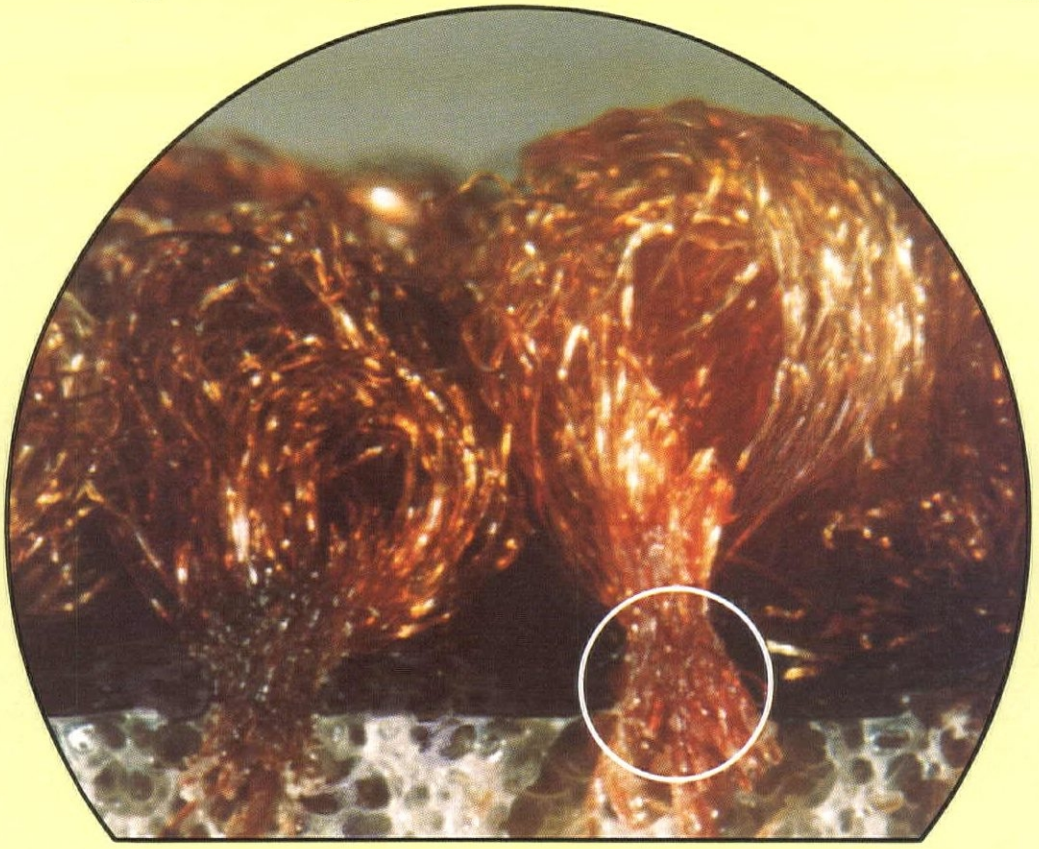
Two tenants join Dallas Design District

Dallas—Two major tenants have signed leases in the first building slated for the Dallas Design District. Walter Lee Culp and E.C. Dicken will lease a majority of space at 1505 Oak Lawn, directly opposite the Dallas Decorative Center.

E.C. Dicken, one of the original tenants in the Dallas Decorative Center, and Walter Lee Culp, currently located at Oak Lawn Plaza, will expand show-

(Continued on p. 20)

Now There's A Reason To Specify Carpet Backing.



VORACEL* urethane backing penetrates the fiber bundles and wicks up into the individual fibers, locking them into the backing. That produces a totally integrated carpet with high tuft lock and exceptional wearability.

Traditionally, specifiers have attempted to ensure long carpet life by considering fiber, style and face weight. Few specifiers considered the carpet backing. With good reason. Most conventional backings did little to improve carpet life.

Now there's a reason to *specify* the backing when you specify the carpet. Because now you can get a carpet backing that actually helps improve carpet life.

All you have to do is specify VORACEL urethane carpet backing, from Dow Chemical U.S.A.

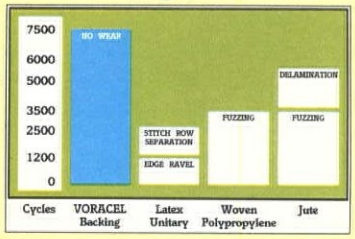
VORACEL backing helps prolong carpet life and appearance.

VORACEL urethane backing penetrates deeply into the base of fiber bundles, locking the individual fibers into the backing, forming a totally integrated carpet.

The result is vastly superior tuft lock. Which effectively eliminates carpet delamination and fiber pilling or fuzzing. And makes edge ravel and fraying virtually nonexistent.

VORACEL*
Brand Urethane Carpet Backing

Tests prove VORACEL backing superior to other backings.



In the standard roll stool test, a weighted chair was rolled for 7,500 cycles over carpet samples with four different backings.

After the carpet with other backings had shown significant wear, carpet with VORACEL backing withstood 30% more testing. And still didn't show any perceptible sign of wear.

If you'd like a copy of actual test results and more information about VORACEL backing, write Dow Chemical U.S.A., Organic Chemicals Department, Midland, Michigan 48640. Or call toll-free (800) 248-9160.

If you would like to learn about Dow's new installation support program, call the VORACEL Information Center toll-free at (800) 847-4212—in New York, (212) 847-6675.

Or, if you would like to discuss the specifics of carpet with VORACEL backing in either unitary or cushion form, contact any of the carpet mills listed below.

Before you specify carpeting, consider VORACEL backing. Because, without it, even the best fiber in the world may not be enough.

Berven of California (209) 268-0771 ● Custom Coating Inc. (404) 227-3778 ● Galaxy Carpet Mills (312) 593-0555
Shaw Industries (404) 278-3812 ● Wunda Weve Carpets (803) 298-9116

DOW CHEMICAL U.S.A.
*Trademark of The Dow Chemical Company

Circle 57 on reader service card

38 specifiers attend carpet course

Seattle—Courses in carpet fiber construction, dye characteristics and methods, and installation and maintenance were attended by 38 commercial specifiers located in the Northwest. Sponsored by the commercial flooring division, E.C. Miller Co., and held at Lenora Square, courses ran for nine weeks and covered many aspects of commercial flooring development.

Course instructor Dennis Mashek explains that classes were based on specifier need for more information on carpet features, benefits, and options. Enthusiastic response has prompted E.C. Miller to plan additional classes for fall.

Northwestern commercial specifiers attend classes on carpet development and use sponsored by E.C. Miller Co. Classes were held at Lenora Square, Seattle.

(Continued from p. 18)

room space significantly with the move. The building is being remodeled to the specifications of the two firms which will relocate when construction is completed in time for the January, 1983 Home Furnishings Market. Space for a third showroom is also included in plans for adaptation to future needs.

"We are particularly gratified that these firms recognize the potential of the new Design District," comments Paul Lentz, vice president and director of leasing, Dallas Market Center, district developers. "They will form a strong nucleus for the district as it evolves over the next four years."

Approximately 25 industrial buildings will be converted to showroom space to create the district. It will span more than 400,000 sq. ft. in an eight-block area along Oak Lawn between Stemmons Freeway and Industrial Blvd.

The 41,000-sq.-ft. former warehouse will undergo extensive interior and exterior remodeling. A 9,000-sq.-ft. portion will provide generous parking.

Circle 16 on reader service card

"The sparkle of metal brings a new world elegance to contemporary interiors." **Valerian S. Rybar,** Interior Designer

Valerian Rybar creates a glowing vision of a world of surface contrasts. Shiny, alive, a sparkling statement of yesterday, today and tomorrow. The window blinds are Levolor mirror bright Verticals. Naturally. Their shimmering beauty is right at home in Mr. Rybar's concept. Levolor Verticals come in aluminum in a stunning choice of over 100 colors, metallic finishes, and exclusive prints. Plus designer weave fabrics. For more information write to: Levolor Lorentzen, Inc., 1280 Wall Street West, Lyndhurst, New Jersey 07071.

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Circle 17 on reader service card

steelcase

Introducing Design 9.™

It adds the rich, fresh look of wood to open office planning.

This new concept blends the modular efficiency of our Series 9000 systems furniture with the look and feel of fine wood.

Aesthetically, it provides a richer, more inviting environment that helps people feel like they're worth more. Which, in turn, is reflected in how they work.

Functionally, Design 9 adapts to the varying dimensions of people and equipment, yet offers all the important features and benefits for which our systems furniture is known.

New Arrondi™ seating (foreground), with its flowing lines and rich wood tones, can be used as a striking accent piece, or serve as the finishing touch for Design 9 or Steelcase Designs in Wood series.

Design 9 and Arrondi. See them at our regional offices, or contact your Steelcase representative. For world-wide product and sales information, write Steelcase Inc., P.O. Box 1967, Grand Rapids, MI 49501. Or, call free 800-447-4700. In Illinois, 800-322-4400.

Circle 18 on reader service card

Steinfeld honored by University of Tennessee

***Knoxville**–Manfred Steinfeld, chairman, Shelby Williams Industries, was honored recently by the University of Tennessee for his donation of seating furniture to the school's College of Home Economics. Shown (from l. to r.) are Kurt Keller, senior vice president, national sales, Shelby Williams; Home Economics dean Nancy Belck; Manfred Steinfeld, shown holding plaque; Walter Herndon, vice chancellor of the University of Tennessee; and Paul Steinfeld, president, Shelby Williams.*

IBD examines architect's role in real estate

Cambridge, Mass.—Interface between architects, designers, real estate developers, and lending institutions was discussed at a recent meeting of the New England Chapter of IBD. Titled "Getting Involved in Real Estate Development," programs stressed the importance of design, function, and location of projects to the success of real estate development.

Noted Schuyler G. Larrabee, AIA, vice president, ADD Inc., panel participant, "Better-designed structures will survive economic downturns that tend to affect real estate." In describing the process of "investment architecture," a primary topic of discussion, he pointed out that successful dvelopments require a team effort from the start. "Goals of these efforts should be to achieve the best use of a piece of land," he said, in elaborating on the conference theme.

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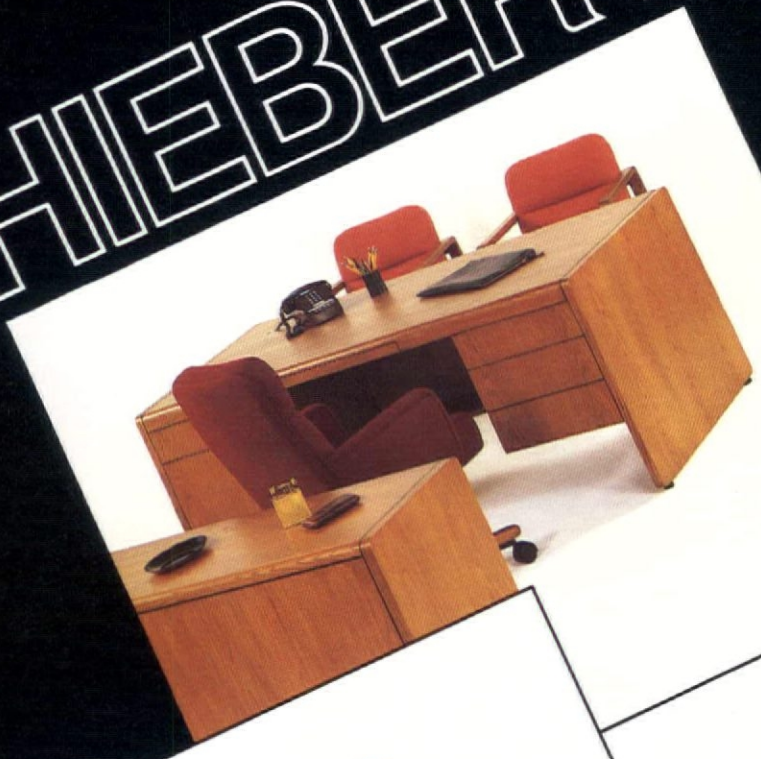

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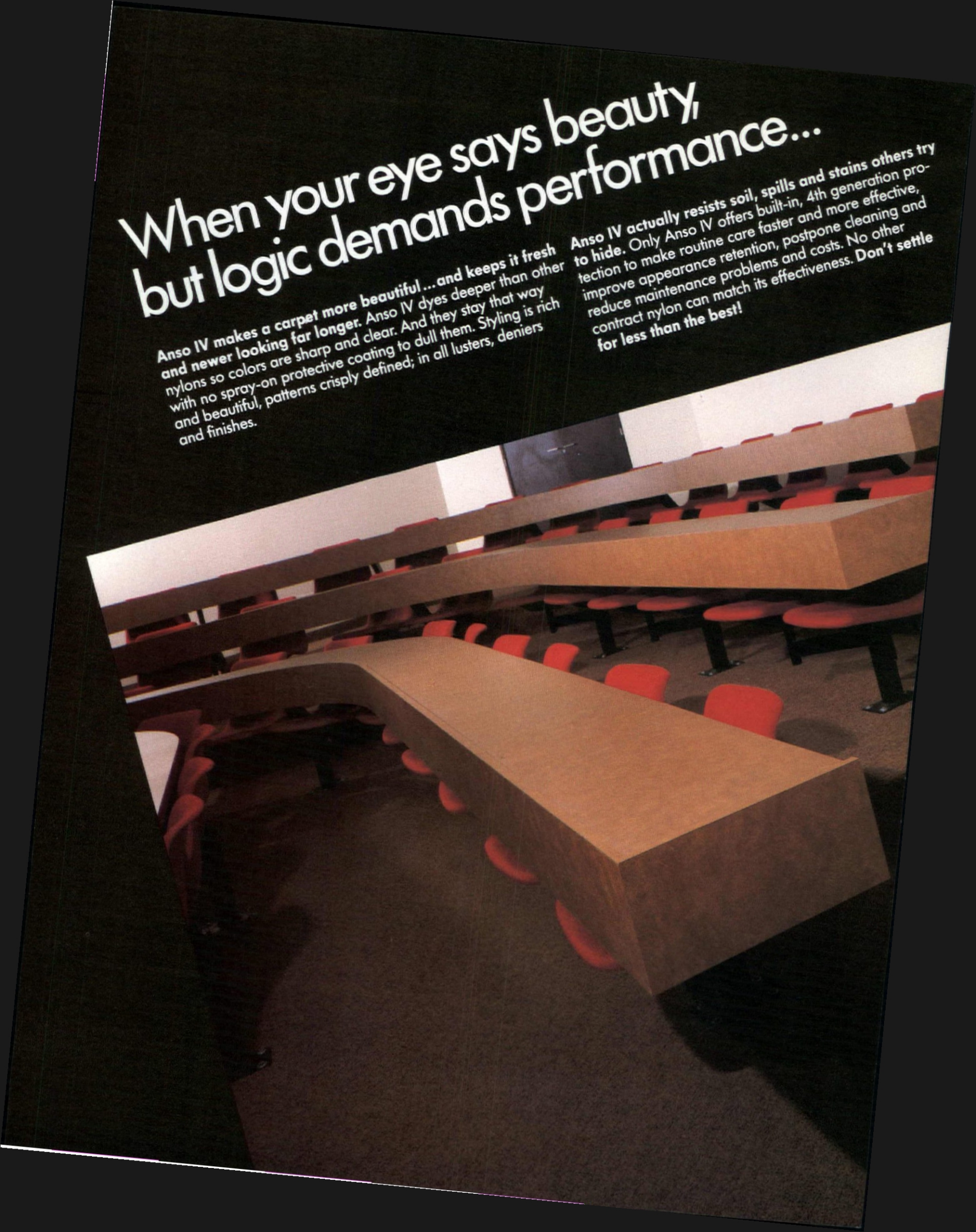
When your eye says beauty, but logic demands performance...

Anso IV makes a carpet more beautiful ... and keeps it fresh and newer looking far longer. Anso IV dyes deeper than other nylons so colors are sharp and clear. And they stay that way with no spray-on protective coating to dull them. Styling is rich and beautiful, patterns crisply defined; in all lusters, deniers and finishes.

Anso IV actually resists soil, spills and stains others try to hide. Only Anso IV offers built-in, 4th generation protection to make routine care faster and more effective, improve appearance retention, postpone cleaning and reduce maintenance problems and costs. No other contract nylon can match its effectiveness. **Don't settle for less than the best!**



Project: University of Minnesota-Duluth
Carpet Mill: Bigelow-Sanford
Fabric: Pebblepoint
Color: Coffee
Designer: Bill Moser
Architectural Resources
Dealer: Commers Interiors

Project: Bankers Trust Company Headquarters, New York
Carpet Mill: Gulistan
Fabric: New Generation IV
Color: Cedar
Designer: Designer Group
Bankers Trust Company

Anso® IV
ALLIED CORP. NYLON

The 4th generation nylon that made all other carpet fibers obsolete.

ALLIED Corporation
1411 Broadway, New York, NY 10018

Circle 21 on reader service card

Government asks private industry to help cut procurement costs

Washington, D.C.—Representatives from 150 trade associations whose member industries provide government with products costing more than $3 billion annually, were asked to join with the General Service Administration (GSA) to help cut procurement budgets. GSA recently published proposed revisions to the government's Multiple Awards Schedule (MAS) procurement program, following a year of discussions with suppliers and government purchasers.

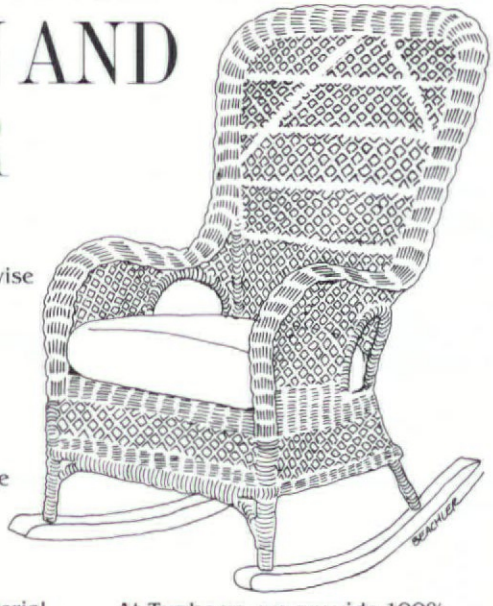
Says GSA administrator Gerald P. Carmen, "With a national budget exceeding $7 billion, it is essential that private industry join with government in devising cost-effective business practices. These efforts will go a long way toward balancing the budget."

Objectives of the proposed revisions include developing better pricing arrangements such as discounts from commercial price lists, more consideration for government's large volume purchases, and bottom line assurance that customer agencies can purchase at prices that are better than those offered by any other source under similar circumstances.

Also of note are requirements that potential suppliers provide GSA with pricing information that reflects discount arrangements made with prospective contractors. Another stipulation states that if the government's negotiation objective cannot be met, the proposed supplier will not receive the contract.

The MAS program covers a range of products and services including paper, office supplies and equipment, data processing hardware/software, and teleprocessing services.

INTRODUCING THE TYPHOON DIFFERENCE IN RATTAN AND WICKER



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At Typhoon, we provide 100% immediate service and support. We're the dealer-oriented people you'll come to rely upon again and again.

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Circle 22 on reader service card

ASID & Wall-Pride co-sponsor program on fabric, wallcovering

Van Nuys, Calif.—A day-long seminar on multiple uses for fabrics and wallcoverings as well as installation problems encountered when working with these materials was co-sponsored recently by Wall-Pride and ASID. Called "Explorations in Design," programs offered regional interior design students opportunities to broaden their exposure to applied design and bridge the gap between classroom knowledge and professional experience.

Stu Teitelbaum, director of marketing, Wall-Pride, addresses students at first annual "Explorations in Design" seminar.

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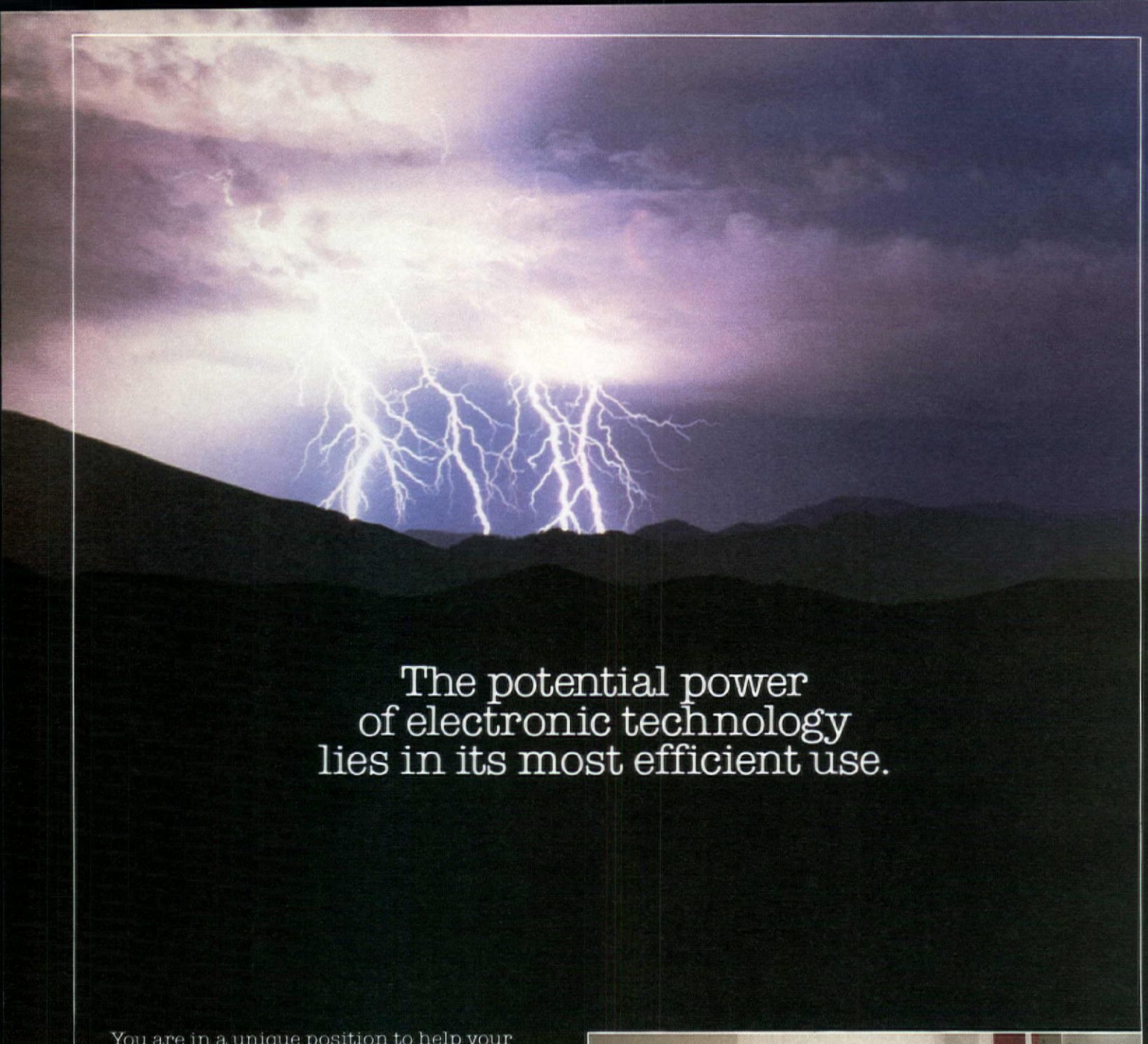

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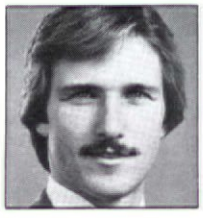
CONTRACT QUOTES

NEW TREND NEEDED FOR INTERIOR DESIGN COLORS



Bob Zeilinski
Vice President
Cannell-Heumann & Assoc.
Los Angeles—

"Our current pastel color trend has gone a little too far. Conservative furniture looks awkward in pastel colorations. Color is often a matter of applying it correctly. Designers may set color trends year by year, but clients lean toward classics that won't date design. Grays, now perfected to the right tones, are a fairly safe bet."

NATURAL MATERIALS ARE MORE OFTEN SPECIFIED

Irving M. Rosen
Vice President
Pace Collection
New York—

"Greater use of natural materials, especially leathers, is common now, not just in seating, but as parts of desks, cabinets, and files. I see this as increased sensitivity to the human factor. Furnishings, function, and comfort considered from a human point of view is now the trend."

PLASTICS PLAY DOMINANT ROLE IN OFFICE INTERIORS

Tory Watson
Executive V.P.
Business Accessories
Buffalo, NY—

"In the early '70s designers had a hard time accepting plastics. Italians brought high-gloss, high-grade plastics to the market as a functional material in interiors. Now, plastics have gained market acceptance as a predominant part of office spaces. Education about plastic and its uses has become very important. Vivid and updated colors are also more important than ever to keep pace in the contract business."

OFFICE DESIGN KEYED TO EMPLOYEE TURNOVER

Jack Habich
V.P. Sales,
Central Div.
ill Incorporated
Chicago—

"When the recession is over, people will begin to use their office environments as a way of measuring whether they should stay with a firm or look for another job. Workers in general are more educated and want their offices to reflect their level of skill. People buy quality cars, in part, to show the world how important they are. Office design, too, is a measure of status."

BROAD COLOR SCALE NEEDED FOR OPEN PLAN

Jim Wells
V.P. Sales, U.S.A.
Storwal Int'l. Inc.
Toronto—

"When integrating components with open plan workstations, designers require a wide chromatic scale with which to work. As a result, visitors to NEOCON saw broad color ranges at showrooms housing products that coordinate with systems furniture. Colors most desired seem to remain warm and cool grays, warm browns, and neutrals. Fabrics are beginning to move in the direction of pastels in both panel and upholstery applications. Dark tones seem to work best in coordinated hardware. Primaries have served well as accent colors."

FABRIC DESIGN PLEASES MALE & FEMALE CUSTOMERS

Joe Perry
CEO
Cohama Specifier
New York—

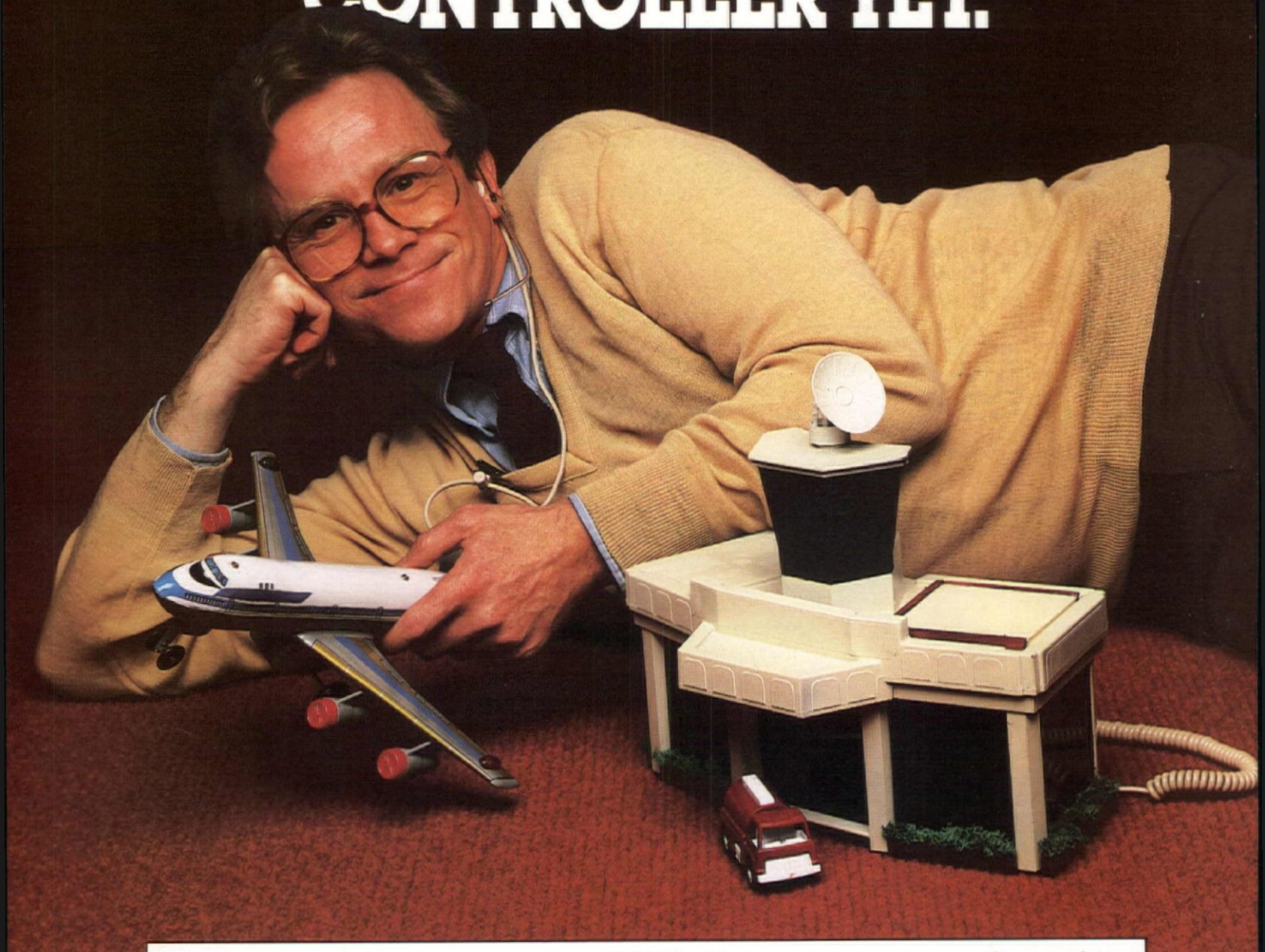
"Grid patterns are very important throughout the textile market these days. I believe a major reason for this trend is that grid patterns combine well with floral designs to create pleasing environments for men and women alike. Particularly in hospitality markets where design caters to both sexes in creating transient living space, the grid pattern is taking hold. Grid colors in that market will be deep tones, such as navy, hunter green, and terra cotta, as fabrics in these shades hide dirt and are easily maintained."

TELECOMMUNICATION KEYS TERMINAL SHARING

B. Sergesketter
V.P. Marketing
Ill. Bell Telephone
Chicago—

"When telecommunication is common in the office, more salespeople will be able to complete their work at home. By 1990, leading-edge companies and other firms will find that only 15 percent of staff will be in the office at one time. The sales office of the future will need more large conference rooms plus personal space for salespeople. But, there will also be the need for individual space with 15 to 20 shared telecommunication terminals per 100 salespeople."

INTRODUCING SUPERBA-LOK. THE TOUGHEST TRAFFIC CONTROLLER YET.



At last. A top-flight, vee-lok commercial carpet that stands up to the tracks of time. Not only did Superba-lok endure the grueling traffic of Atlanta International Airport, but it passed the test with flying colors. And there's an abundance of good reasons why.

Ounce for ounce, there is more fiber on the wear surface of Superba-lok than comparable, tufted contract carpets. This plush polypropylene face vastly improves the value, appearance and performance of the carpet as a whole. Superba-lok also boasts a proprietary Uni-lok backing which defies delamination and the wear and tear of heavy commercial traffic. Why, even the cruelest conditions can't unravel the fibers of Superba-lok because it bears the strongest tuft bind of any contract carpet ever! The sum of these important parts add up to one superior product with unparalleled wearability. Just perfect for taming your shrewdest traffic problem.

From Atlanta's airport to the offices of architects, without pilling, without fuzzing, without compromising quality or good looks, Superba-lok shines through as the toughest traffic controller to land on the market yet. Ask your GFI, Allen or NSC representative for details on how you can step up to Superba-lok.

gfi nsc

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Saddle Brook, NJ 07662

Circle 25 on reader service card

Software™

The new open plan system for the electronic office.

Panel Concepts brings new Software™ to the electronic office with designs that are gentle to the eye, pleasing to the touch, functional to the task.

The new Software™ system combines the look of gently rounded wood with step-down work surfaces designed to put the keyboard at the fingertips, the terminal at see level.

Muted colors and soft textured panels interact with state-of-the-art electronics. Now power and communications are within easy reach with Panel Concepts IMPAC Midline raceway.

Comfortable work surfaces, convenient vertical storage and steel drawer units, and a matching printer stand make the system complete. Organized for maximum productivity.

The Software™ system from Panel Concepts. It brings function and comfort to the automated office.

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panel concepts, inc.
A SUBSIDIARY COMPANY OF STANDARD-PACIFIC CORP

Circle 26 on reader service card

Mat reduces static build-up

CleatStat mat from Rubbermaid instantly drains static electricity charges to a ground through the mat's ground cord. A one-megohm resistor built into the ground cord protects computer operators from accidental shock due to external electrical faults. Cleats hold mat in place on carpet. Varied shapes and sizes are available.
Circle No. 223.

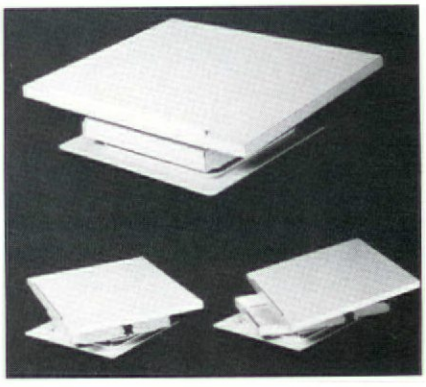
Durable finish resists stains

Ready-to-assemble furniture from Modar Inc. now has been expanded to include computer and printer stands. Finished with Melatex™, products resist stains and scratches. Components are 1 1/8-in. solid core material to hold heavy equipment. **Circle No. 264.**

Varied coordinated work surfaces suit computer-related functions

Work modules from Berco Industries adjust to two heights and allow varied configurations. Flat vinyl T-edge provides easy ganging. Standard plastic laminate surfaces are available. Bar pedestals come in four decorative chrome finishes. Raised shelving serves as storage. **Circle No. 216.**

Rotate, tilt equipment with turntable aid



Multi-Mode Turntable rotates 360 degrees on steel ball-bearing swivel with tilt and depth adjustments providing optimum work conditions for operator. From Marvel Metal Products, unit fits company's furniture line or other existing components. Product measures 16- by 19-in. plus 4 3/4 in. above table height when not tilted.
Circle No. 265.

Speed high-quality design drawing with CAD/CAM plotter unit

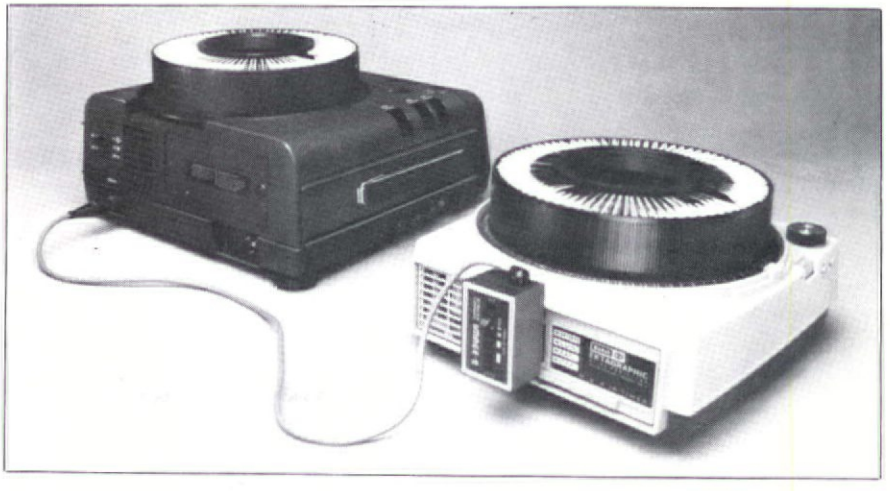
Drafting Pen Plotter from Auto-trol Technology Corp. provides fast, high-quality drawings for CAD/CAM applications. Plotter is available on the Sperry Univac 16-bit and the DEC 32-bit VAX 11/780 systems. Unit will plot on sheet vellum or mylar in sizes up to 24- by 36-in. Pen types of wet ink, roller ball, or fiber tip may be selected in eight colors. Standard features include simple command operation; automated pen changing and capping; and automated parameters for velocity, acceleration, and pen force. **Circle No. 218.**

Disk cabinet eliminates storage clutter

Document cabinets from TAB Products Co. accommodate disks on tray rollouts, wire racks, and shelves. Trays provide easy access for up to two computer disk packs each. Wire racks hold up to 20 vertically stored packs. All-steel construction and welded shelving provide durability. Fire-retardant doors come in 13 colors. Doors retract for full access to storage or lock horizontally to form work surfaces. Individual lock or ganglocks are optional. **Circle No. 266.**

Two-projector slide dissolve system adapts with single connection for media presentations

Two-projector dissolve system for sound slide programs is built into Singer's Caramate 3200 projector and is compatible with any silent projector. Caramate 3260 features self-contained cassette sound and accepts a single-wire connection. This unit eliminates need for separate audio machines and dissolve programmers. The system is equipped with a variable speed timer controlled by separate track-cueing capability. Presentations for design or sales can now be extended to 160 slide lengths with audio cues spaced to meet program requirements. **Circle No. 221.**



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Emilio Ambasz and
Giancarlo Piretti for
OPENArK®

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Vertebra®

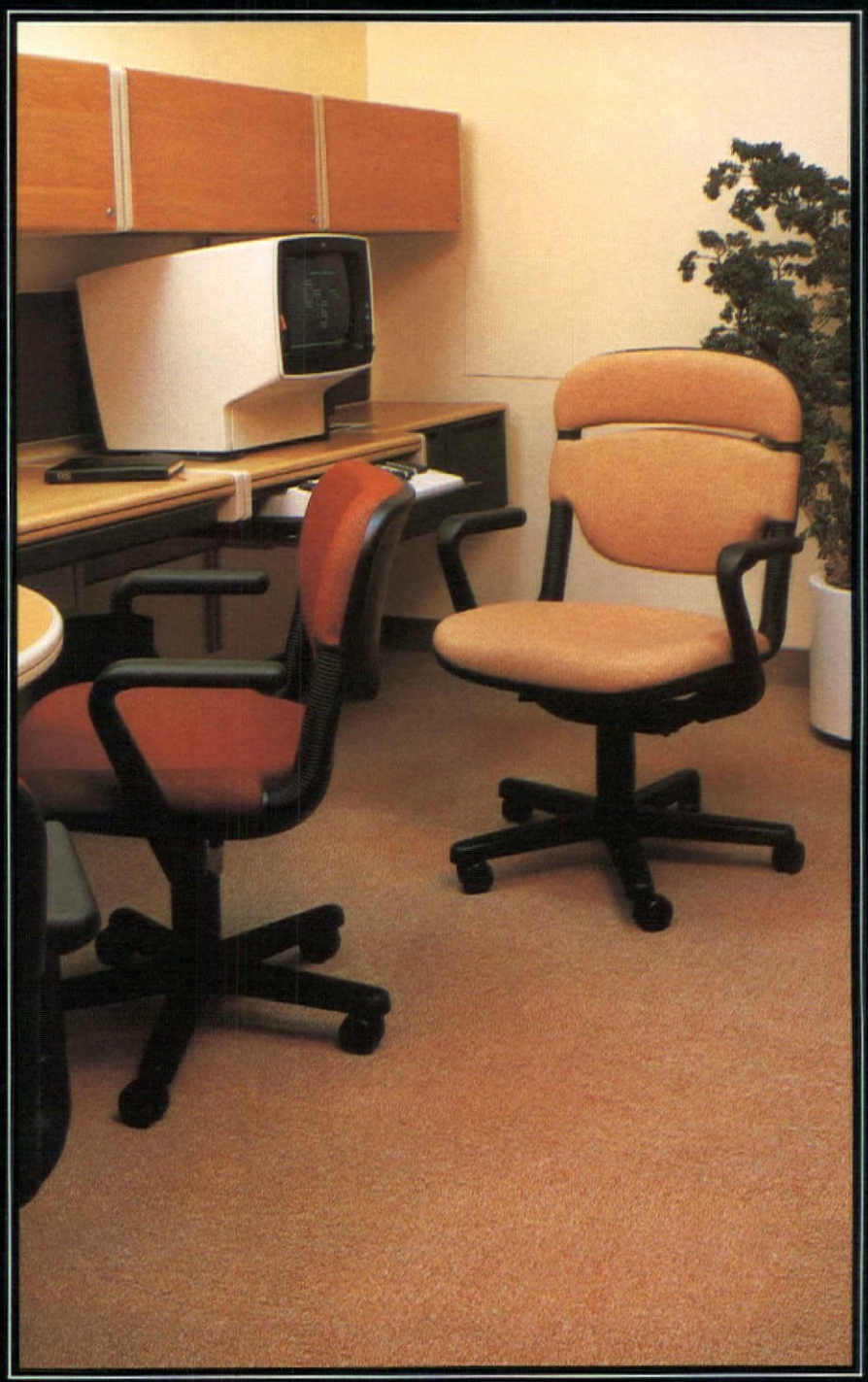
The most advanced seating system

A seating system for the times

The system that started a revolution, Vertebra seating, simplifies selection in a market complicated by gadgetry and a profusion of designs. By *automatically* responding to the user's needs, it provides constant comfort and support to lessen fatigue and promote a sense of well-being.

Ergonomically designed, Vertebra seating's contours evenly distribute weight to improve circulation and relax muscles. And it does so without the need to monitor and manipulate controls.

The Vertebra seating system is available in a full range of models... Executive, Managerial and Operational pedestal chairs and stools, tandem seating and Institutional stacking chairs. Contact Krueger or showrooms for more information.



Vertebra seating being tested for corporate use. Standard Oil Company (Indiana), Chicago.
Designer: Perkins and Will

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WITH ALUCOBOND® MATERIAL, YOU CAN SHOW AND TELL AND TELL.

When you design with ALUCOBOND® material, the result is a building you'll be proud to show off and eager to talk about. Because Consolidated Aluminum's ALUCOBOND material has benefits worth repeating.

MEETING EVEN MILE-HIGH EXPECTATIONS.

When architect James Grant looked at ALUCOBOND material, he was attracted by its remarkable versatility. And he got to know it inside and out by using the material on both the interior and exterior surfaces of his One Denver Place.

Look at the results. In its basic form, ALUCOBOND material is amazingly flat and virtually eliminates the oil-canning problems that have troubled architects and designers for so long. Yet it can wrap around curves in sinuously graceful lines and accommodate mitered corners handsomely.

This marvelous paradox results from the ease with which ALUCOBOND material can be formed. The material's formability gave the architect of One Denver Place design freedom in conforming to the building's contours.

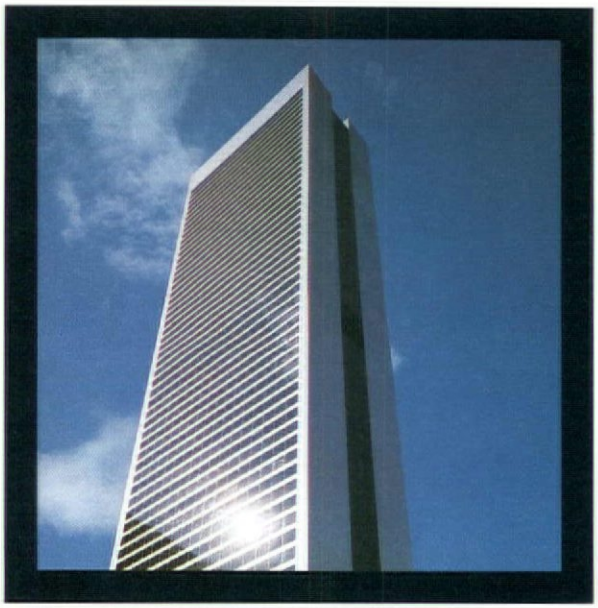
FLEXIBLE, LIGHT, AND TIGHT WITH YOUR MONEY.

ALUCOBOND material's light weight and application flexibility combine for economical construction. Because each of these characteristics helps to reduce the number of man-hours needed to fabricate, deliver and apply the composite.

So significant is the light weight advantage of ALUCOBOND material that the builders of One Denver Place needed very little in the way of materials handling equipment. and erected the shell at a rate of one floor per day.

Also, there is little waste of material or man-hours at the job site. Because ALUCOBOND material can be fabricated to the exact specifications of your job.

But most important of all, the surface of the material is aluminum and provides any building with the non-corrosive, cosmetic, and value advantages that make aluminum the first choice in building panels.



NOW, SOME COLD HARD FACTS.

ALUCOBOND material is made of two thin sheets of aluminum with a thermoplastic core that has an exceptional bond strength.

It can withstand environmental temperature changes of −55 degrees to +175 degrees F. Its performance on the tunnel test for flame spread, smoke density and fuel contribution was practically flawless and its strength to weight ratio is impressive.

Best of all, you don't have to sacrifice choice for quality. ALUCOBOND material comes in six standard painted colors and an unlimited spectrum of custom colors plus four handsome anodized finishes. Thicknesses of three, four and six millimeters are available in widths of four and five feet and lengths of up to twenty-eight feet.

ALUCOBOND material has a list of benefits as long as the list of satisfied architects, contractors and building owners who have used it.

To find out more about this material, made exclusively by Consolidated Aluminum, or to get the name of your distributor, call National Sales and Marketing Manager Carla Lane at (314) 851-2346.

Then put ALUCOBOND material to work on your next project. And you'll have a great deal to show and tell too.

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One Denver Place, Denver, Colorado. Architects: K.T.M. and Associates, Denver, Colorado; Abugov and Sunderland, Calgary, Canada. Distributor/Fabricator: RPS Architectural Systems, Sun Valley, California.

Circle 29 on reader service card

Designers are saying . . .

"The best new idea in window fashions in years."

softlight shades by del mar

Not a metal blind but a beautiful woven and pleated fabric.

From versatile neutrals to a rainbow of colors . . . from softly transparent sheers to private opaques, Del Mar Softlight Shades create the crisp, clean look of metal blinds with the warm touch of fabric. So simply elegant they perfectly complement traditional as well as modern interiors . . . and fill them with soft filtered light. So practical they can reflect up to 87% of the sun's heat and glare . . . and insulate against winter chill. All these features in a design so compact that Softlights virtually disappear when not in use. A truly revolutionary new innovation in window fashions; Softlight Shades are fast becoming the choice product among leading designers. Ask for them by name.

Circle 30 on reader service card

Carpet pattern bank offers broad range of custom options to hospitality designers

Milliken's new carpet Pattern Bank enables designers to choose from a wide variety of carpet options and select high-performance flooring that meets needs of commercial settings. Specifically designed for the hospitality market, the Pattern Bank is organized according to construction type, esthetics, and price point. Five product lines and a special custom program are available.

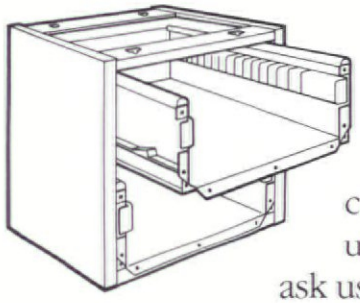
Carpets are made from soil- and stain-resistant Anso IV continuous filament yarn. All are protected by MilliGuard which significantly reduces carpet maintenance costs.

The five styles—Tactics, Symposium, Custom Designer, Design Forum, and Gradiant—are offered in up to 11 patterns. In addition, CustoMax, a versatile "specials" program, features standard Milliken designs in custom bases and colors. Designers meeting minimum yardage requirements may now custom specify their own colors and patterns.

Milliken provides a Pattern Bank Carpet Source Book to ease selection of programs. Each book contains a 7- by 9-in. sample of each group as well as information on how to use the CustoMax program. **Circle No. 214.**

ANGLE STEEL OFFICE-SYSTEM PEDESTALS:

Some of Our Best Customers have No Use for the Way They Look.



Our drawer-heads, for example, are beautiful. But some of our customers prefer to use their own, and ask us to leave ours off. It's hard on our pride, but we comply.

Other manufacturers, we are told, are not so accommodating. Nor do other manufacturers offer a pedestal as well-made as ours—with or without drawer-heads. We use 20-gauge, cold-rolled steel in the wrappers, 18-gauge in the uprights, and 16-gauge in the spreaders. And we use nothing but Accuride™ slides.

The design itself is accommodating. The slides, for example, snap in place, and can be easily repositioned to change the drawer configuration. This makes it possible for many of our customers to stock a variety of components, and to assemble pedestals to spec as the orders come in.

All in all, we offer a very attractive pedestal. Even if you have your own ideas on how it should look.

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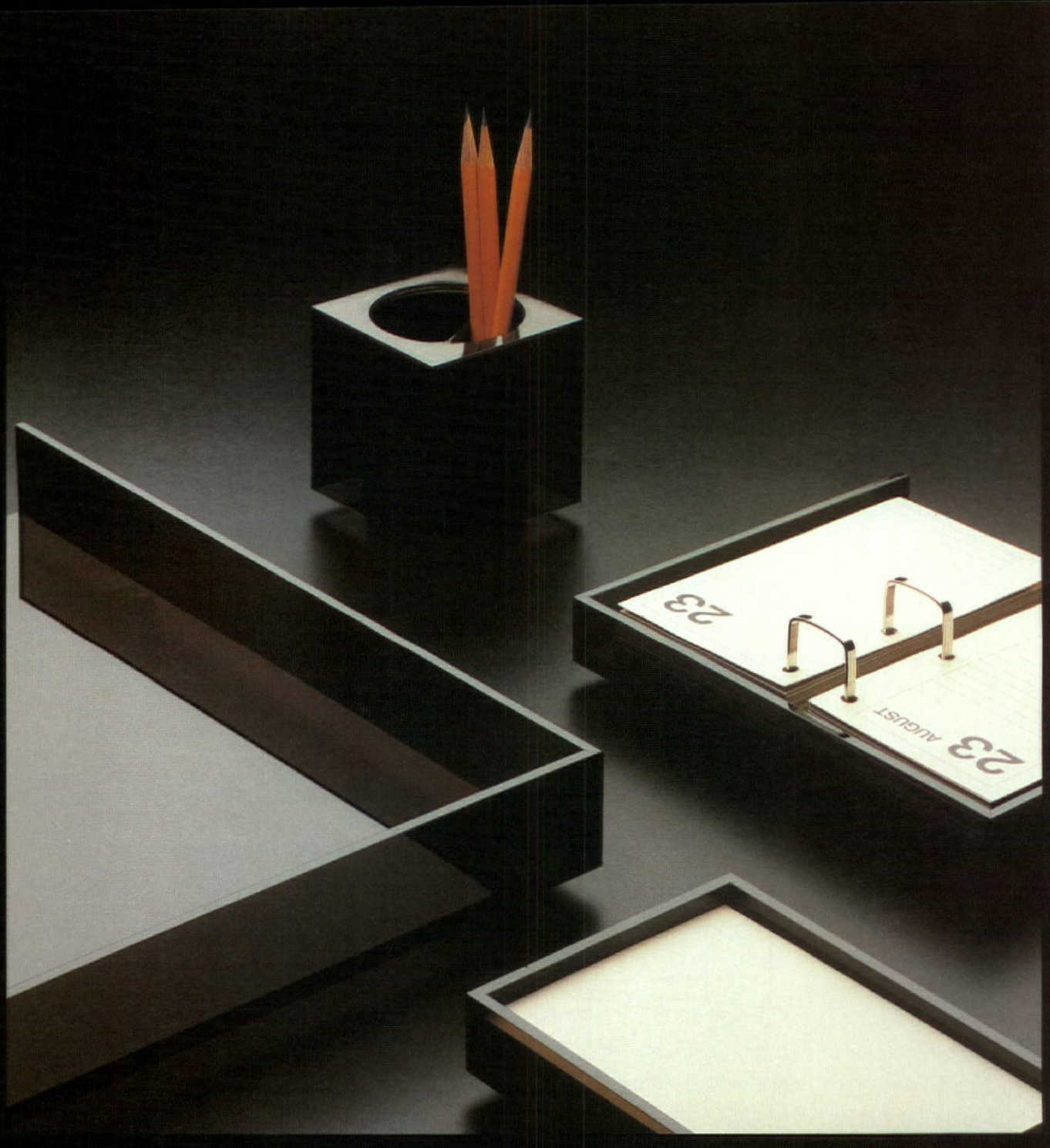

Some things don't have to be explained.

Such as Reflection 2000™ by Eldon.® It may well be the ultimate statement in desk accessory design. You can see how the sheer, flawless lines and rich colors combine to create an impression of elegance that is timeless in its appeal.

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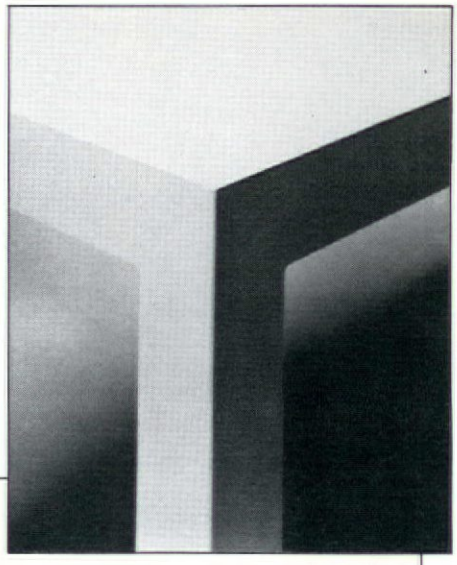
Circle 33 on reader service card

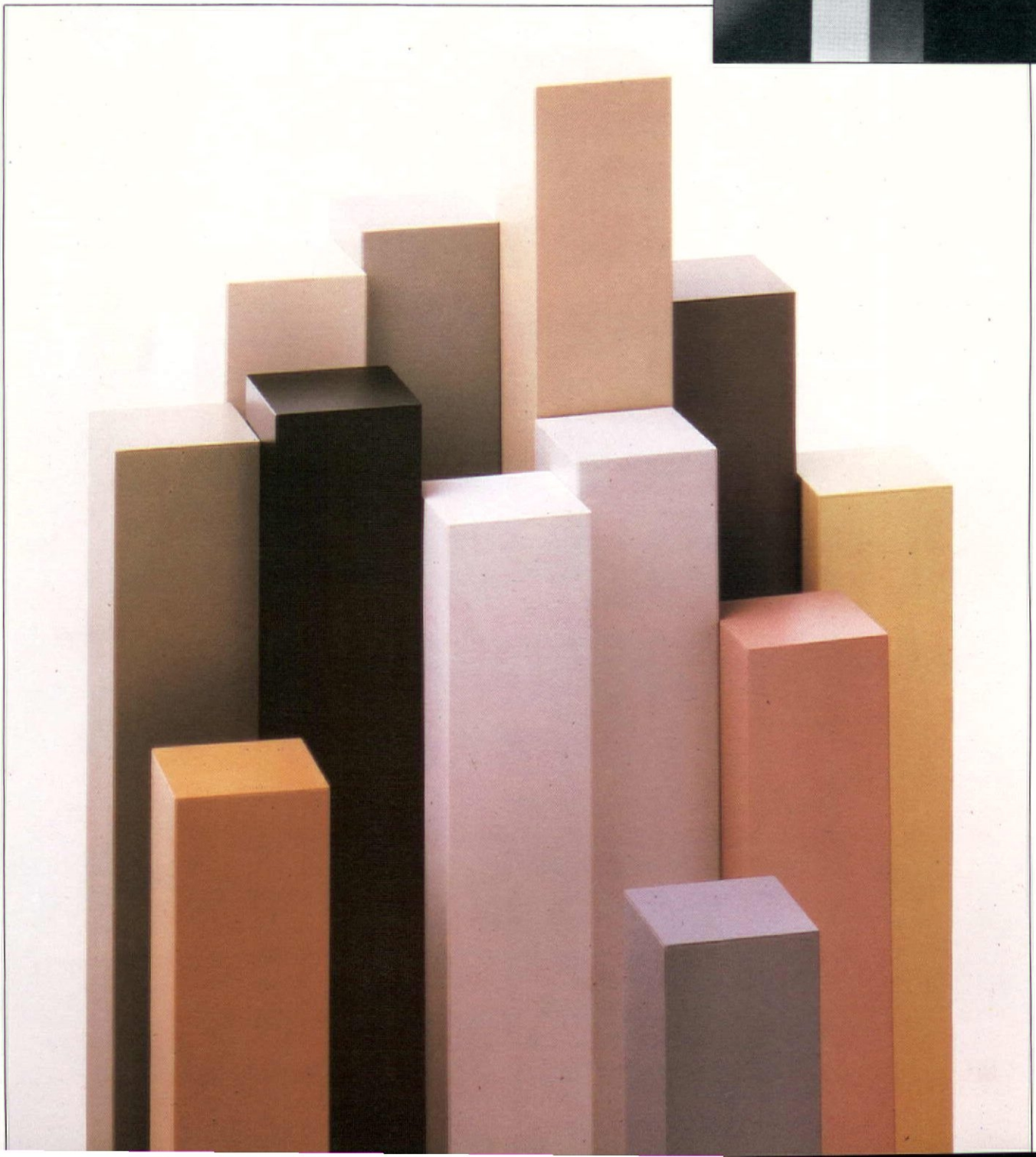
New laminate eliminates black edges with development of solid color core



Colorcore™ laminate from Formica eliminates need to miter or bevel surface edges and do away with black lines through the introduction of solid core color for laminated furnishings. Black edges, usually left by laminate, are eliminated by an integral core of solid color which is also highly-resistant to chips, scratches, and abrasion.

Says Vincent P. Langone, marketing director, Formica, "Development of Colorcore offers specifiers expanded design alternatives. Absence of a dark edge enables creation of dimensional and graphic effects through engraving or machining of the surface."

Based on recommendations given by Formica's Design Advisory Board, laminate is offered in 12 matte finish colors. **Circle No. 200.**



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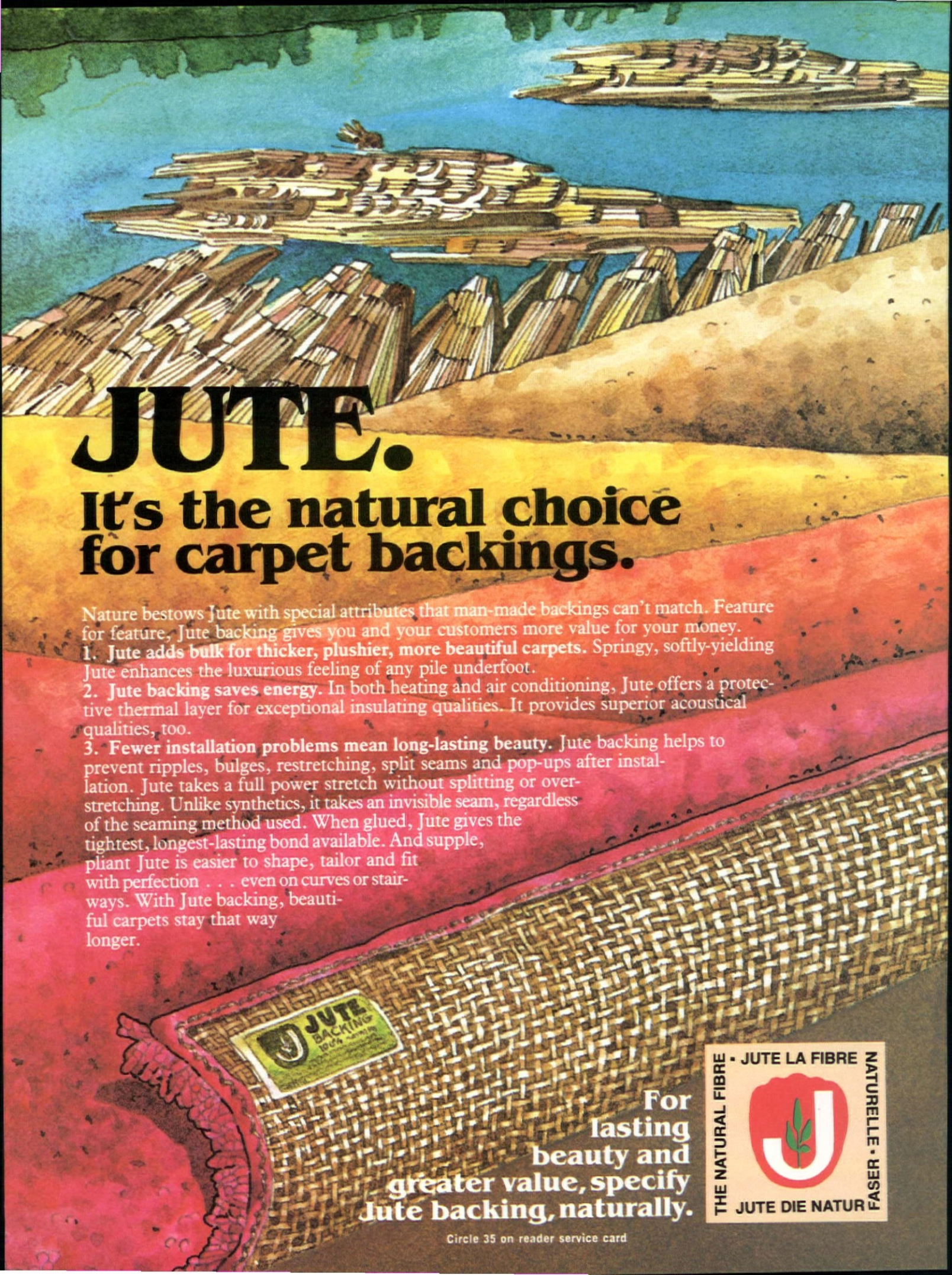
JUTE.
It's the natural choice for carpet backings.
Nature bestows Jute with special attributes that man-made backings can't match. Feature for feature, Jute backing gives you and your customers more value for your money.
1. Jute adds bulk for thicker, plushier, more beautiful carpets. Springy, softly-yielding Jute enhances the luxurious feeling of any pile underfoot.
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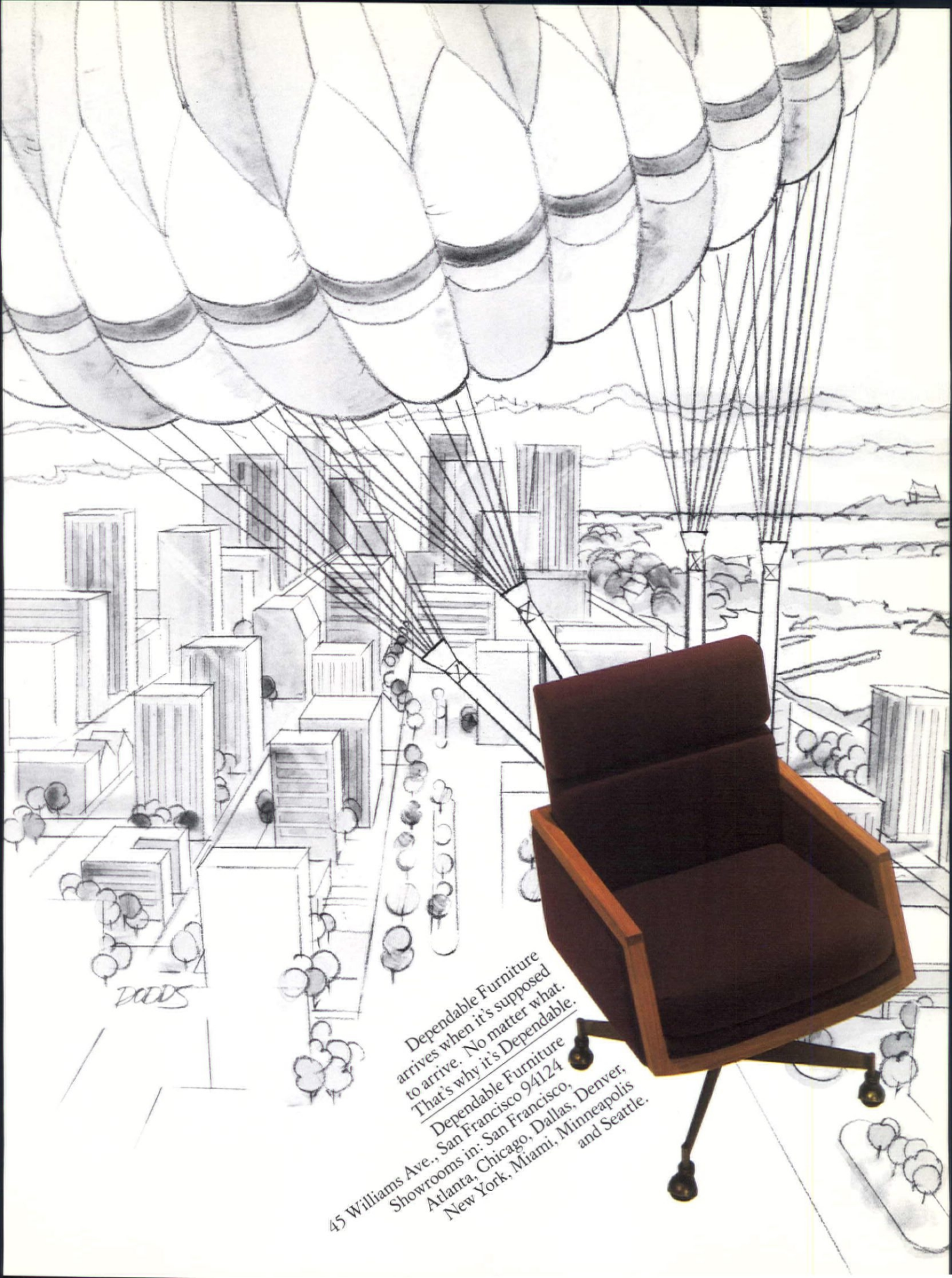

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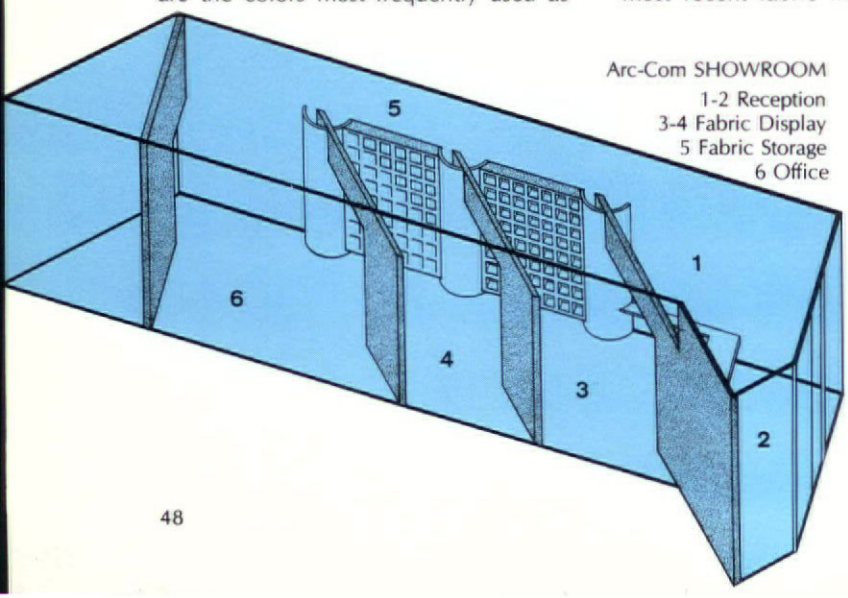
Pastel-colored walls are foils for fabric displays, establish corporate image at Arc-Com showrooms

Chic, updated pastel hues on walls, floors, and ceilings draw attention to brightly-colored fabrics, wallcoverings, and casements at Arc-Com's Los Angeles (shown) and Chicago showrooms. Used in both spaces and slated for specification in subsequent Arc-Com interiors, these colors establish a permanent, identifying color vocabulary intended to set the firm apart from major competitors.

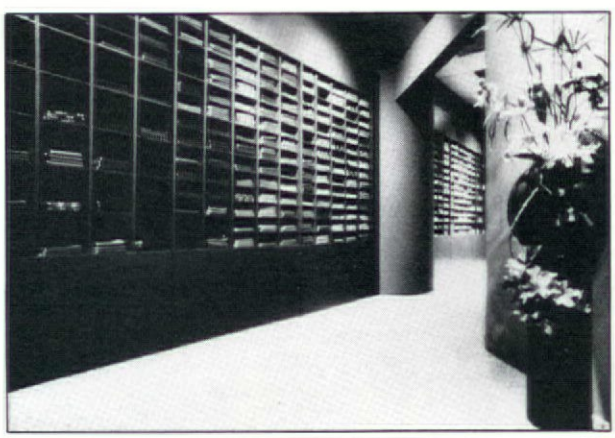
Says Joel Bernstein, L.A. Design, who planned both spaces, "Black and gray are the colors most frequently used as backdrops in fabric showrooms. Although they are excellent background tones, we wanted something a little more unusual. We chose post-modernist colors, such as rose, beige, and blue, since they reflect Arc-Com's role as an innovator in the field of color."

Located in the Pacific Design Center, the showroom is an existing second-floor space. Originally one long and narrow area, planners divided it into an entry vestibule and three bays. Upon entering, vistors see the company's most recent fabric introductions. General fabric collections, casements, and wallcoverings are displayed in the bays for viewing as visitors circulate through the space.

In order to save existing electrical and mechanical elements, planners created partial walls that stop short of ceilings. New incandescent spotlights were added and connected to existing wirings. Existing carpet was also retained because it blended with the color vocabulary that was pre-determined by client and planners to be the new Arc-Com standard.



Arc-Com SHOWROOM
1-2 Reception
3-4 Fabric Display
5 Fabric Storage
6 Office



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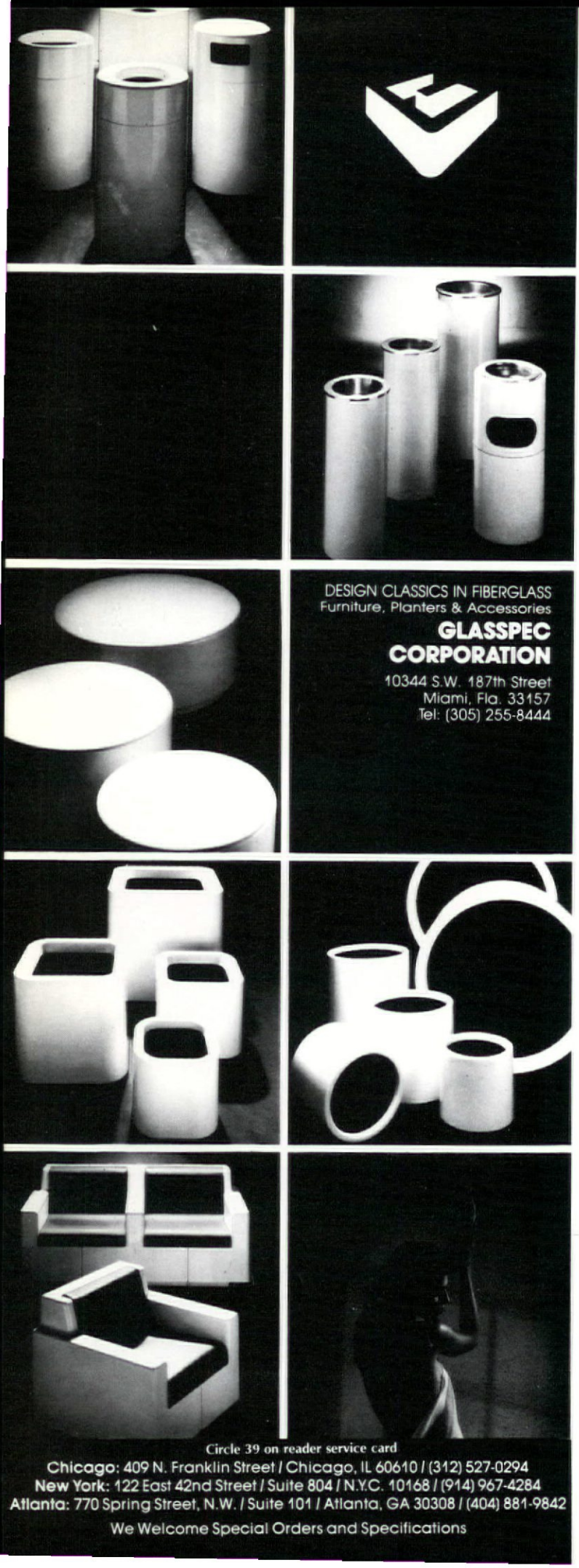
H A Y E S



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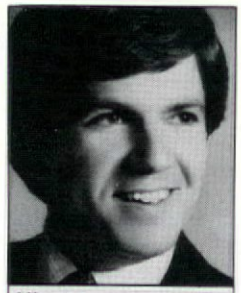
We Welcome Special Orders and Specifications

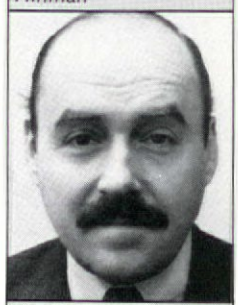
PEOPLE/NEWS

Robert Hinman (shown) was recently appointed Chicago Regional Manager for Knoll International. He will serve a 12-state midwestern region.


Hinman

Robert Van Horn (shown) has rejoined Badische Corp. as the CREATE® contract carpet consultant for the northeast. He worked for Badische in the mid '70s.

Jay F. Fennessy (shown) has been named president of distribution of Nevamar Corp., high-pressure laminate manufacturer.


VanHorn

Robert L. Daniel, Jr. was promoted to the position of Western sales manager for home furnishings, Badische Corp.

Modern Mode named **George Runckle** Western regional manager and **Raissa Sarantschin** manager of Northern California sales.

James Patrick Deely assumes responsibilities of national sales manager, Metcor Mfg.

Kay Abbott joined Haynes Spencer Richards, architects/planners, as interior design director.

Fennessey

James Lembree was appointed to the position of industrial sales manager for Firestone Foam Products div., Firestone Tire & Rubber Company.

New vice president, manufacturing, for General Felt Industries is **James T. Wakeling.** Also promoted were **Peter J. Cohen** and **Robert V. Condon, Jr.** to the positions of vice president, purchasing, and vice president, finance respectively.

Daglian

John Daglian (shown) was appointed to the position of furniture management consultant for Susan James Assoc.'s Staten Island, N.Y., office.

Donghia Furniture named **Karen DeMarco** (shown) national sales manager for the firm's contract furniture division.

DeMarco

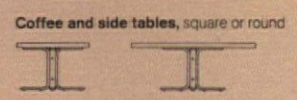
Lynn Schmitt was appointed director, interior design department, for Perkins & Will, Chicago.

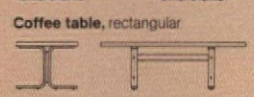
Thonet Inds. appointed **Thomas J. Byrne** to the position of Northeast regional sales manager.

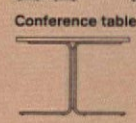
New contract sales representative for J. Josephson Inc. is **Deborah McMahon.** She will cover New England and Washington, D.C., regions.

Lübke

Now available in USA and Canada







Contract seating program 198-298
Design: Manfred Herrmann

Contract seating program 198-298. Frames of flat oval bent steel tubing in brushed chrome are neatly integrated into the super comfortable upholstery. Sledge bases and double wheel casters protect the carpeting. The swivel chairs have variable height and adjustable tilt mechanisms. The program includes a conference table system and a collection of low tables.

Lübke contract and residential furniture is internationally known for its outstanding design and quality. Call or write for information or a visit by Peter Schat, our North American representative, who will quote you prices in US or Canadian Dollars for delivery to major cities. If you come to the Orgatechnik show in Cologne visit us in hall 14, upper floor, row O, booth no. 26.

Lübke

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HAG USA promoted **Barbara J. Shibko** to the position of vice president, sales.

Tony Graef was named general manager, contract div., Monroe Schneider Assoc. Inc., for Northern California. **William McCready** is new commercial specialist for the firm.

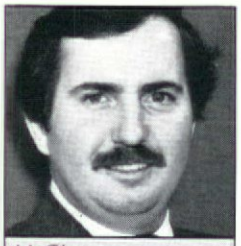
Steelcase commissioned a stainless steel sculpture by **James Rosati** for placement in its new $50 million headquarters now under construction in Grand Rapids. The sculpture will be 22-ft. tall, 10-ft. wide, and weigh nearly 5,000 lbs.

Knoll International recently donated two matched barcelona chairs, designed by Mies van der Rohe, to the High Museum of Art, Atlanta. Chairs were donated in honor of Knoll's new Atlanta showroom located in Peachtree Center.

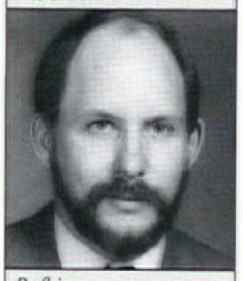
Oneida Silversmiths, manufacturers of flatware for the foodservice industry, has opened a showroom in the Atlanta Merchandise Mart. **Robert J. Reed** of Oneida designed the 1,600-sq.-ft. space.

Customweave Carpets appointed **Mark Chases** to the position of executive vice president.

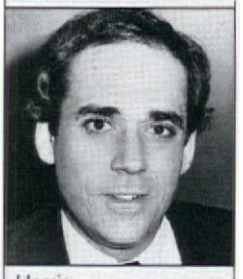
Sonya Backus assumes responsibilities of sales representative for Naugahyde Brand Fabrics. Located in Memphis, she will cover Alabama, Mississippi, the western section of Tennessee, and parts of Arkansas.



McGinn



Bufkin



Harris

David F. McGinn (shown) was promoted to the position of marketing manager, Office Interiors div., Conwed.

AECK Assoc. named **Michael P. Bufkin** (shown) manager, computer services. He is responsible for expanding the firm's computer-aided design capabilities, including time-sharing operations.

Steven M. Harris (shown) was named president and chief executive officer, S. Harris & Co.

Recently returning from a 100-session tour of the U.S. and Canada was **DuPont's Fashion Festival**, a two-hour presentation of style and technical trends in the carpet industry. Group manager was Roger LaMarche.

Honored last year at Harrogate for his contribution to worldwide carpet marketing, **Harold Koch** established his own firm called **International Carpet Import Corporation.** Offices are at 919 Third Ave., New York.

Circle 41 on reader service card

INTRODUCING

SERIES 7000

DAZZLING COMFORT FROM LA-Z-BOY® CONTRACT DESIGNED BY EDWARD VASQUEZ

Light, bright, pleasing to the eye. This is what one first perceives when he views our new Series 7000. It's scaled and proportioned for the open office of today's business environment. Its clean, efficient lines will enhance the decor and help improve the productivity of the office.

What is equally important about our new Series 7000 is what you don't see. More man hours are lost due to back problems and muscle fatigue than any other reason. The major contributor to these problems is improper seating.

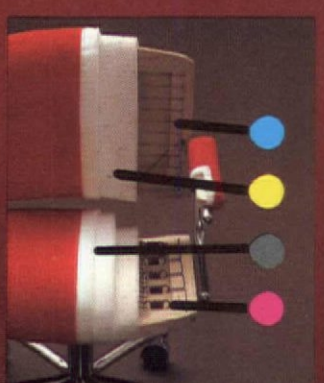
Series 7000 is ergonometrically designed for proper compressed seat height and lumbar support.

Quality is another feature of Series 7000. Each style features a hardwood frame, double-doweled for strength. We've used Perma-Mesh springs by Flex-O-Lators. There are two foam systems; one dense and firm for proper support and a softer foam for greater comfort. In short, Series 7000 is as good as we know how to make a chair. And with La-Z-Boy's fifty years of experience, we know how to make quality chairs.

C92070

A. Back height adjustment for proper lumbar support. B. Seat depth adjustment to fit the individual. C. Seat height adjustment. D. Soft foam edge to prevent circulation loss and fatigue. E. Swivel-tilt tension adjustment. ● Double-doweled hardwood frame. ● Perma-Mesh® springs by Flex-O-Lators. ● Dense foam for proper support. ● Soft foam for comfort.

C92073



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Bigelow: Your partner in design.

Bigelow commercial carpet. Hundreds of in-stock colors. An infinity of custom colors. Countless superb patterns. Splendid textures. All with coordinated companion solids. Design flexibility. Our 150 years of manufacturing expertise combine with your creativity from concept through finished installation. Bigelow commercial carpet: your partner in design. Call us today at 1-803-299-2000.

Shown here, at the Hyatt-Regency in Greenville, S.C., a Bigelow woven commercial carpet of DuPont Antron® III nylon, in a custom color from our Creative Designer Program.

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Madison's new sculptured chair features a slender exposed frame with a radiused sled base. It's a light, contemporary look. Suitable for office or conference seating. See it at your nearest Madison showroom.

Available in walnut (C66E05) and oak (C26E05).

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Classics

DESIGNED BY UMANOFF-HUIN ASSOCIATES

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MADISON

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Quality and Function ...by Design.

The 3355 HB-WC by Gregson.

Timeless beauty and strength bolstered by an all new, comprehensive fabric and color system, affording virtually unlimited design alternatives, is the highlight of the Gregson 3000 Series.

Itś elegant lines are hand sculptured by the finest tailoring techniques in the industry today. The 3355 is available in the widest selection of vinyl, fabric, and leather coverings ever offered by Gregson.

A Tradition in Quality

Gregson Furniture Industries

LIBERTY, NORTH CAROLINA 27298

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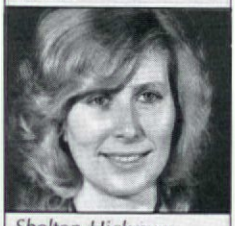
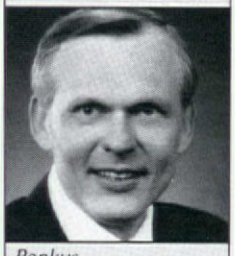
PEOPLE/NEWS

Gilbert

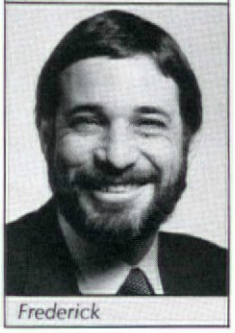


Shelton-Hickman



Pankus

Wilson



Frederick

Nancy Hess Gilbert (shown), associate interior designer, Janet Schirn Interiors, Chicago, was named a finalist in the "Outstanding Young Women of America" awards program in 1981.

Kling Interior Design appointed **Deborah A. Shelton-Hickman** (shown) staff designer. **Lee Rayburn** was named staff architect.

Joseph J. Pankus (shown) was selected president, Enertec Systems Inc. **Ralph F. Gearson** is new national sales manager.

David M. Bougopoulos was appointed national specifications manager, Formica Corp.

Castelli Furniture was appointed exclusive distributor of the Artifort furniture line. Made in Holland, these designs will be available at Castelli showrooms. Some items will be made in New York.

Lynn Wilson (shown), founder and president, Creative Environs, was selected for membership in "200," a national business policy council comprised of the nation's top 200 women business owners.

Seal Furniture & Systems Inc. appointed **Thomas E. Starner** vice president, distribution division.

Martin Frederick (shown) was elected president and chief executive officer, Supreme Equipment & Systems Corp., manufacturer of manual and automated filing equipment.

Athol Manufacturing Corp., Butler, N.C., named **Walt Juodis** executive vice president/chief operating officer, a newly-created title.

Gini L. Pettus Associates has opened an Atlanta office at Piedmont Center. The firm specializes in program development, interior architecture, interior design, graphics, and art consulting. Pettus, principal of the firm, was previously with Thompson, Ventulett, Stainback & Associates, Architects, Inc.

Alan Wilson was named a principal of RMM, Inc., Chicago. He serves as head of facilities management, consulting, and graphics computer operations while continuing as chief financial officer for RMM corporate.

Kimball and **Artec** joined in the opening of a new 4,000-sq.-ft. showroom in the Richmond Commerce Bank Bldg., Houston. **Barbara J. Amelio** heads the showroom.

JG Reveal Desk Express

only a phone call and seven days away ...800 523 6710

Twenty-six desks, credenzas and returns are available on the Reveal Express program. Select rift cut white oak veneer is used throughout. Call JG with your Reveal Desk requirements, and in seven business days your order will be ready to ship.

Literature is available upon request.

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A Division of
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Design all the advantages of THINSENG into your line of swivel/tilt chairs. The ultra-low profile (only 1⅝") makes this mechanism ideal for contemporary designs—or to enhance styling in existing lines.

The new THINSENG swivel/tilt chair control has all the extra features for the '80's. The chrome vanadium steel dual torsion bars, enclosed in a hi-strength steel pan, eliminate protruding components. It is built with the quality you expect from Hoover Universal for rugged, trouble-free service. This THINSENG control has proven its reliability by extensive tests of over ½-million cycles and exceeds all B.I.F.M.A. test requirements. Now there are two THINSENG controls to help you create totally coordinated lines—whether a posture control or swivel/tilt. For complete information contact: Hoover Universal, Inc., Furniture Components Division, Georgetown, Kentucky 40324. Phone: (502) 863-3910.

The THINSENG control brought low profile styling to posture chairs.

NOW The THINSENG control for swivel/tilt chairs!

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"My design requirements ask a lot... Patrick has the answers."

My ideas work best in an environment of other good ideas. So I look for suppliers who can take my concepts one step further. I specify Patrick for contract carpet because they consistently provide me with smart, workable choices. Like Dupont Antron® XL nylon, which resists crushing and abrasion, hides soil and retains its excellent appearance.

Patrick can finish what I start. From start to finish.

Patrick Carpet Mills

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In office furniture, one name stands out: **Paoli.** Paoli's new desk plant is now producing contemporary and traditional desk lines that are profit stand outs on your sales floor — stand outs in your customer's office in the satisfaction, beauty, quality that mean repeat sales. Compare the profitability of Paoli's Contempo and Monticello desks and coordinated chairs with those of Kimball, Alma, Gunlocke. Then, choose Paoli, where the last word in production and finishing equipment is producing America's great new **"in stock"** value line.

Paoli Chair Company, Inc.,
P.O. Box 30, Paoli, IN 47454
See us at NOPA Booth 569

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COMING EVENTS

1982

August 18-22. World Woodworking Expo '82. Georgia World Congress Center, Atlanta.
August 28-September 1. National Institute of Governmental Purchasing Inc. Annual Conference & Products Exposition. Marriott Hotel, New Orleans.
September 9-11. Contract Design in the '80s: Focus on Flexibility. Design Center, Pittsburgh.
September 11-14. International Woodworking Machinery and Furniture Supply Fair. U.S.A. Kentucky Fair & Exposition Center, Louisville, Kentucky.
October 6-10. National Office Products Association (NOPA) Convention/Exhibition. Hyatt Regency Hotel & McCormick Place, Chicago.
October 11-14. Info '82. Ninth International Information Management Exposition & Conference. The Coliseum, New York.
October 14-16. Designer's Saturday. Member Showrooms. New York.
October 16-19. American Home Lighting Institute Annual Convention. Fairmont Hotel, New Orleans.
October 21-22. Professional Services Mgmt. Assn. Annual Meeting. Queen Mary Hotel, Long Beach, Calif.
October 26-29. International Facility Mgmt. Assn. Conference. Hyatt Regency Hotel, Dearborn, Mich.
October 27-31. Marble Institute of America 38th Annual Convention. Callaway Gardens, Ga.
November 7-9. Designing With Systems. Ohio Regional Chapter/IBD Rapids Rally '82. Grand Plaza, Grand Rapids, Mich.
November 7-10. International Hotel/Motel and Restaurant Show. New York Coliseum, New York.
November 8-9. Computer-Aided Space Design & Management Conference co-sponsored by CONTRACT and *Facilities Design & Management*. Halloran House Hotel, New York.
November 9-11. Second Annual International Energy Management & Facilities Improvement Show. Expocenter/Chicago.
November 11-13. Stained Glass International/1982. New York Statler Hotel, New York.
November 13-14. ISID Design Expo/'83. Design Center, Los Angeles.

Foreign Trade Shows 1982

September 17-22. International Milan Furniture Fair. Milan.
September 26-October 1. Interior Decorators and Designers Association DECOREX. Kensington Exhibition Centre, London.
October 6-8. Montreal Office Exhibition. Place Bonaventure, Montreal, Quebec, Canada.
October 16-24. Interior '82. Kortrijk, Belgium.
October 26-31. Orgatechnik. U.S. Pavilion, Cologne, Germany.
October 28-30. Canexus '82. Inn on the Park, Toronto.
November 14-18. DACTEX. National Exhibition Centre, London.
November 24-28. China Business Equipment Exhibition. Foreign Trade Centre, Guangzhou (Canton), China.

1983

January 13-17. International Furniture Exhibition. Exhibition Park at Porte de Versailles, France.
March 3-5. Condes. Dallas Market Center, Dallas.
March 17-19. West Week. Pacific Design Center, Los Angeles.
April 14-17. International Show for K.D. Furniture. Le Bourget, Paris, France.
April 25-27. Lighting World II. New York Hilton, New York.
May 1-5. SaudiBusiness '83, Business Equipment Communications and Computer Exhibition. al-Dhiafa Exhibition Centre, Riyadh, Saudi Arabia.

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A strict regimen of reduced energy consumption, coupled with enhanced visual comfort. An attractive alliance, engineered by Gardco's Focus Ten. H.I.D. sources deliver both reflected ambient and direct lighting (diffused or controlled task beam) from freestanding and ceiling-mounted luminaires. Touches of light from the ring reveal and lower aperture grace the outline of the luminaire. Now quality of light does the work of mere quantity, and curbs the powerful appetite of office lighting. Gardco Lighting, 2661 Alvarado Street, San Leandro, California, 94577. 800/227-0758 (In California 415/357-6900).

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Serving the upholstered furniture industry since 1956 from nine nationwide manufacturing locations.

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A chair
that introduces
technological
innovations
combined with
Girsberger tradition
of quality.

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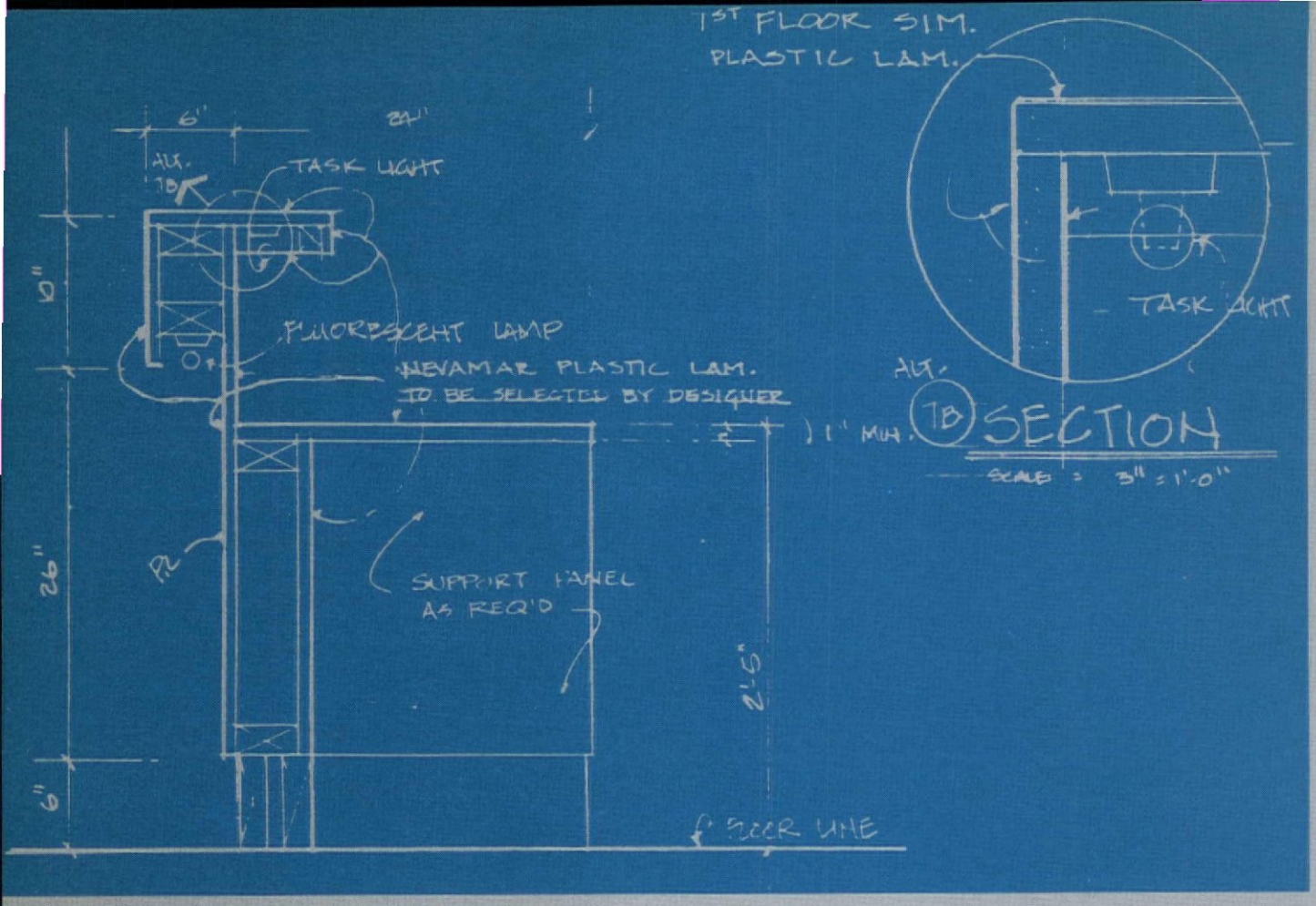
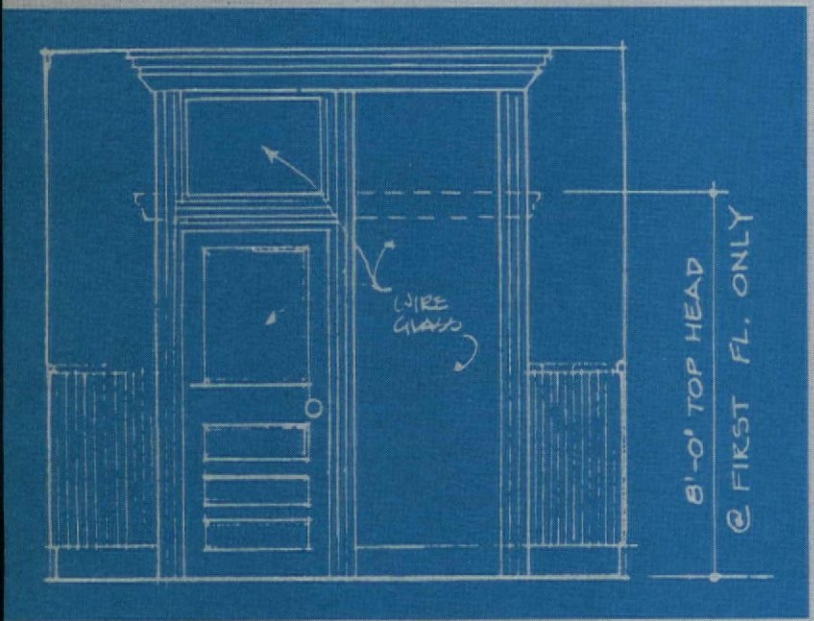
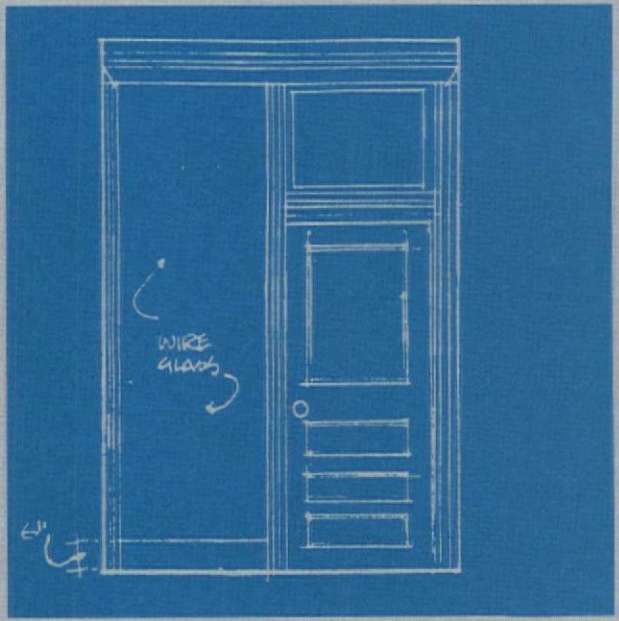
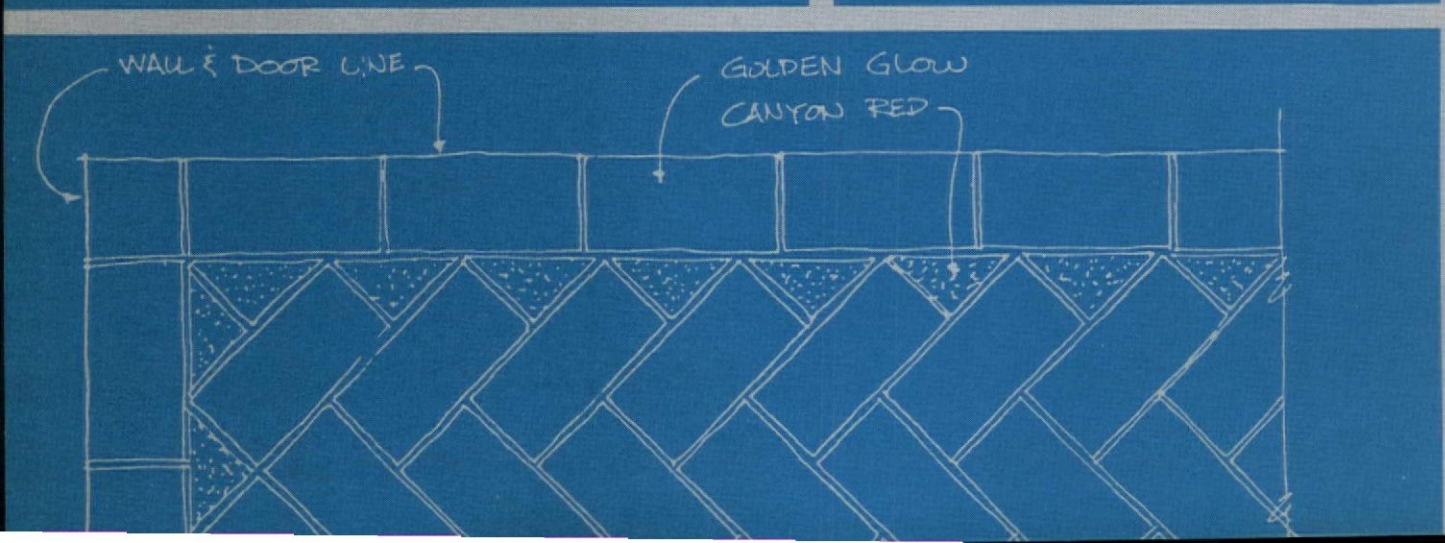

1ST FLOOR SIM.
PLASTIC LAM.
6"
24"
ALT. TB
TASK LIGHT
5"
FLUORESCENT LAMP
NEVAMAR PLASTIC LAM.
TO BE SELECTED BY DESIGNER
11" MIN.
26"
SUPPORT PANEL AS REQ'D
2'-5"
6"
FLOOR LINE
TASK LIGHT
ALT. TB
SECTION
SCALE : 3" = 1'-0"


WIRE GLASS
8'-0" TOP HEAD
@ FIRST FL. ONLY


WIRE GLASS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Contract August 1982

EXECUTIVE BUYER EDITION

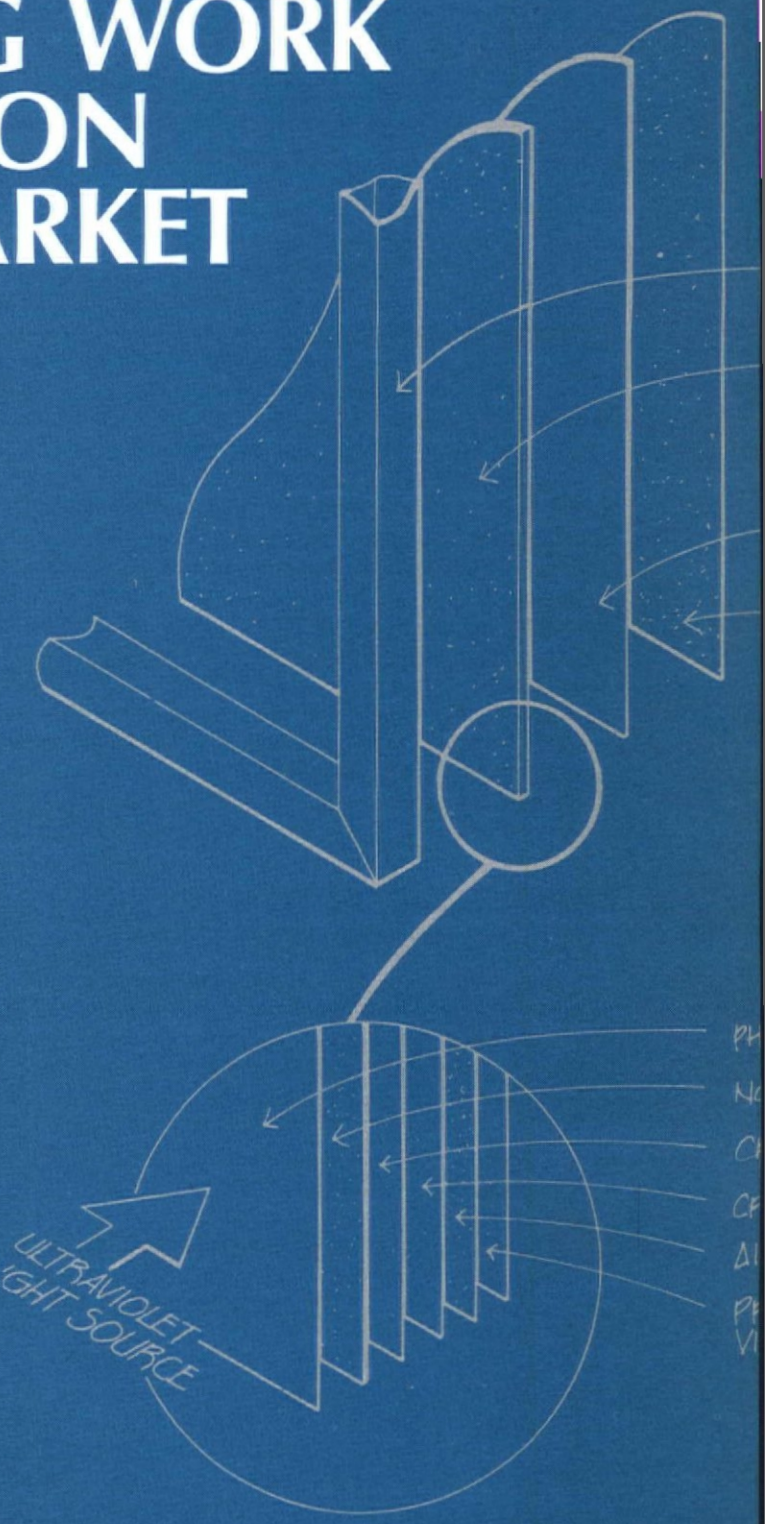
Bonus Circulation
5,000 Commercial
Building Owners & Executives

REMODELING WORK AT $6.5 BILLION IS VIABLE MARKET

New Yorkers have watched with interest the resurrection of the old Biltmore Hotel near Grand Central Station. Contractors methodically have gutted the inside—save for the Palm Court, an historical landmark which is being preserved—and are at the time of this writing installing a new facing on the building, as well as new floors, ceilings, and interiors. Apparently, the economics of remodeling are compelling to developers and builders.

This year, as in years past, the remodeling market is not just "big," it is astronomical. Best estimates point to $6.5 billion by the end of 1982.

Articles in this issue explore that market, as well as other areas closely allied to remodeling. Any market that big is worth the scrutiny of all segments of the contract industry. **The Editors**



SCHOOL REUSE OPENS DOORS TO NEW DESIGN OPPORTUNITIES

By marketing closed schools to commercial developers, one county offers jobs to specifiers, rebuilds own project funds

by **KATHERINE FORMAN**
Assistant Editor

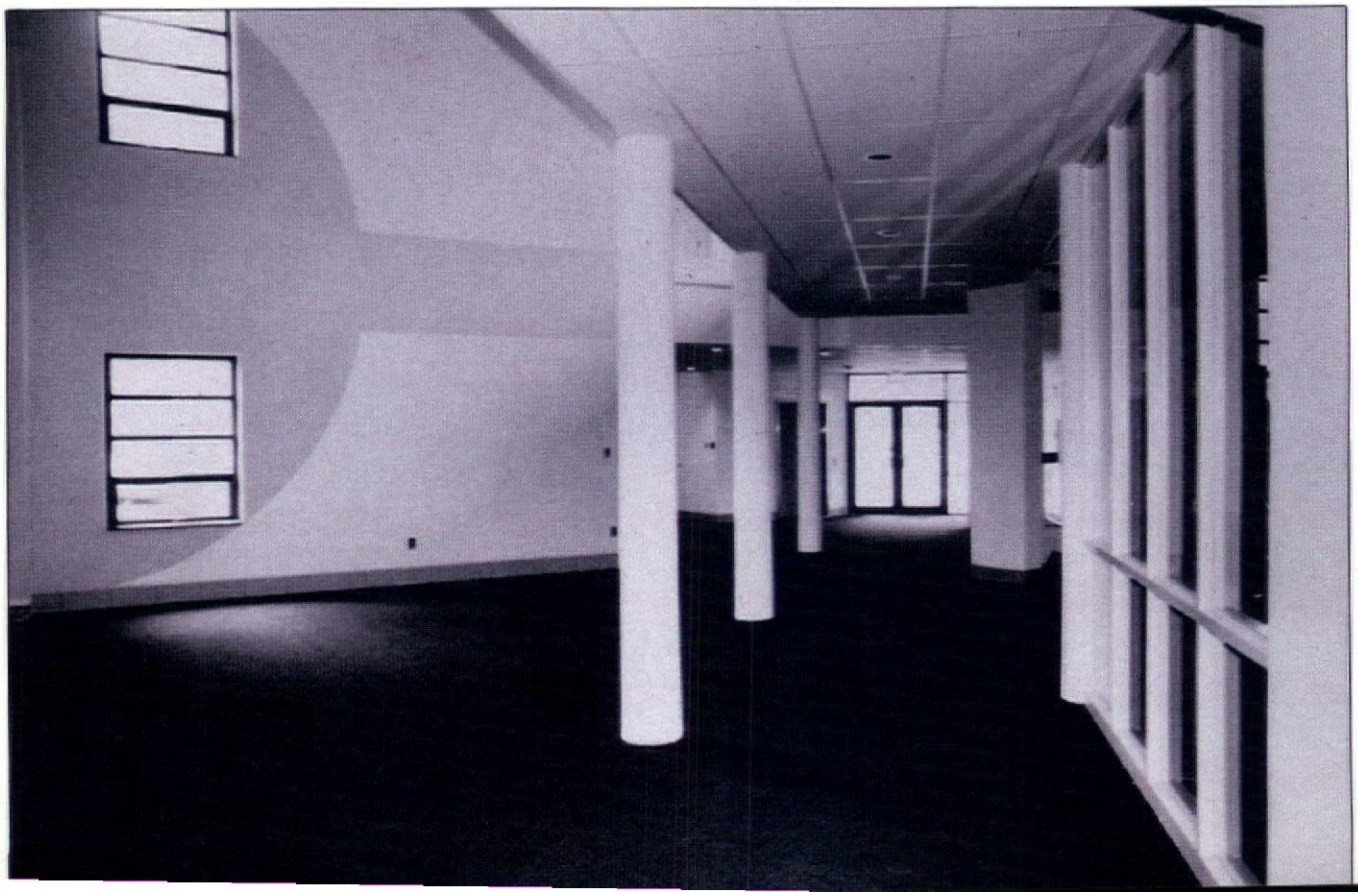
Adaptive reuse of schools—as offices, medical facilities, and light industrial plants—offers specifiers lucrative space planning opportunities, even as government design budgets tighten. Municipalities seeking ways to replenish shrinking coffers now market these sturdy, energy-efficient, and spacious structures to commercial developers, as demographic shifts force school closings across the United States.

In Prince George County, Md., success of such a program led to the establishment of a profitable enterprise fund through which the county can finance developers while funding its own property management operations. It also enables the hiring of independent interior designers and architects with the know-how to convert schools into other county facilities.

Ranging in size from 25,000 to 90,000 sq. ft., suburban schools are suited to a variety of commercial applications. Smaller elementary schools offer both private and main entrances as well as separate plumbing and toilet facilities, making them ideal for reuse as offices. Junior high schools and high schools do not offer these amenities and need a great deal more retrofit work. Yet, their sizes accommodate the needs of clean industrial operations, such as growing computer technology concerns.

By 1985, 45 schools will be closed by the Prince George County Board of Education. So far, the County Department of Public Works has made some disposition of 25. With the help

Very old school buildings were often renovated or added to in the past. Such is the case with the Brentwood Senior Citizens Center (below and right). Since it was built in two stages, officials evaluated both for bonded indebtedness, value to buyer, and cost of renovation. Relatively low remodel cost, small debt, and the program's eligibility for HUD money made it practical for the county to renovate the newer portion immediately. The older section remains untouched.



Must build community support

of trained interior designers and architects, of these, 18 schools were converted to house public service functions. Four other buildings were sold in existing condition to outside developers for reuse as private elderly care clinics, medical dialysis clinics, commercial office parks, and residences.

Subsidies offered to qualifying programs

Before a school can be renovated or marketed by the county, it must be deeded over by the Board of Education. Many schools sit idle until deeded, or, when transferred, remain empty until the county finds a buyer. As a result, vandalism has become a massive problem and often increases the cost of renovation. Occasionally, an old or seriously-damaged building must be razed and the property sold because reuse costs become too high.

However, Housing & Urban Development (HUD) money can be made available when schools are converted into other public service buildings and thus eliminate the need for razing. "Unfortunately," says Debby Fedrizzi, in-house designer, Department of Public Works, "the money is available only if the social program to be housed is considered worthy by the state, not because the county is doing the district a service by finding a use for these buildings. Money is not offered simply for renovation of unneeded schools."

Overcoming legal hurdles

When county schools currently in operation are shut down, all but 11 will be turned over to the Department of Public Works, primarily for sale or lease. Says Lorraine Collins, Department property specialist, "We have nearly run out of county or state needs for these buildings."

Although consolidation of government offices—the main thrust of county-sponsored renovation projects—has aided the region by saving countless dollars in removing programs from leased space, "some facilities must stay within the smaller community to serve the needs of district taxpayers," she continues.

In the meantime, officials have various hurdles to overcome before they can actively seek buyers for operational schools. One obstacle is having enough money to finance developers. Based on a 30 percent down payment, payout extends over a five to eight year period at 65 percent of the prime interest rate offered at the date of contract distribution. At the same time, law requires that the county pay off all bonded indebtedness owed by the school before it accrues profits. This money comes from the county enterprise fund, the same fund from which financing is offered.

New legislation is county crusade

Perhaps more problematic than financing are zoning laws which prevent many schools from being converted into commercial spaces. Continues Collins, "The problem is that schools are located smack in the center of residential communities. They are seen as resident property, focal points of a lifetime of social activity. Residents feel that commercial buildings will bring noise and pollution into their homes. We must convince them that commercial reuse will be a benefit: raise employment, lower taxes, and possibly be less disruptive than the school was."

A number of schools have been held up in a National Assn. for the Advancement of Colored People (NAACP) suit which claims that closings have been declared along racial lines. Open bidding is currently prohibited on 14 disputed schools; properties may only be ruled on individually. Comments property management chief Phil Schwartz, "one 115,000-sq.-ft. junior high school, due to be closed this summer, is tied up in that suit. The developer, who successfully converted an elementary school to an office park and already leased 75

Phair Office Park, formerly O.W. Phair elementary school, is an example of the county marketing program's success. Comprised of 32,000 sq. ft. of building space plus 4.5 acres of land, this property (left and below) was developed into professional offices designed to suit the needs of individual tenants. Corridors were broken down to create new spacial configurations; ceilings, mechanical and electrical systems, and damaged surfaces were retrofitted to provide full-service commercial facilities (right).

percent of the space, can only hope that an appeal will not be made once a ruling is effective and construction plans are under way."

Solutions to most of these problems rely on the passage of new legislation. The Department of Public Works is lobbying to pay off bonded indebtedness on a quarterly basis, thus taking pressure off the enterprise fund. Explains Collins, "If we pay debts quarterly, more money will be available to finance developers on a continuing basis. Present systems which require us to pay in one lump sum, often do not make enough provision for on-going county projects, let alone a comprehensive financing program."

New zoning legislation is being drafted to create a special exception category for schools to be turned into offices, medical facilities, and elderly care centers. Says Schwartz, "These laws would immediately draw developers interested in fast project completion. Presently, we must bring renovations which involve re-zoning before community boards for preliminary hearings. If they object to our plans, getting approval can take a long time."

County officials are optimistic about the renovation program's future. Growing state and community support as well as success of already-completed projects is luring new developers to the area. In addition, soaring land and new construction costs make these unneeded, readily-available buildings appear comparatively cheap to commercial tenants. □

Project Flow Chart: Step-By-Step Guide To Job Completion

Developed by members of the Northern Calif. Chapter IBD, flow chart reflects regional preferences, but has broad nat'l application

The project Flow Chart illustrated on these pages is the culmination of several years' work by members of the Northern California Chapter, Institute of Business Designers. As such, it reflects operating modes most pertinent to that area of the country, but serves as an important project checklist for the space planner and designer anywhere in the States.

This chart illustrates the coordination, interaction, and responsibility between client, designer, manufacturer's representative, dealer, and general contractor over the course of a typical space planning and design project.

Initially under the direction of Pamela Baldwin, FIBD, Baldwin/Clarke Associates Inc., and Ron Coonelly, IBD, Life Design (both of San Francisco) the chart represents the input of a group of designers, manufacturer's representatives, and dealers from Northern California. Several of the chart formulators are listed in the credit section on the following pages.

Outlines fundamental tasks

Only the fundamental tasks that need to be accomplished in each project phase are recorded on the chart. Details are purposely omitted, due to shifting responsibilities that depend on changing relationships between client, designer, in-house designer, dealer, and manufacturer's representative. Thus, the flow chart serves as a checklist and a tool for executing and managing the total project.

Certain assumptions are made to give direction to the flow chart, as well as to provide a reference on the scope of project covered by the chart. First, the designer is assumed to bear total responsibility for the project and to see it through to completion. Second, the client is described as a service-oriented organization relocating to a new high rise office building, taking two floors totalling approximately 40,000 sq. ft. A preliminary assessment of client needs indicates a mix of conventional walled and semi-private open plan offices.

Designers often assist clients in the pre-leasing phase, determining total square footage required, size of floors most suited to client operations, growth and lease options, and analysis of building work letters. This flow chart, however, assumes that this work has been done and the lease executed prior to the designer being retained by the client.

In addition, the flow chart does not make reference to sophisticated computer equipment now being used by some design firms, in CAD or space planning computational work. Computers, the chart's creators point out, help expedite the process but do not eliminate it. All steps outlined on the chart must be followed, whether or not computers are employed.

Each phase in the chart serves as a milestone in the project's progress and relies on the designer's creativity and management skills for proper execution.

Five phases outlined

Phase One of the flow chart, *"Program and Research Analysis,"* takes us from the inital client/designer meeting to the completion of an approved program. The first phase is an information exchange in which the client has awarded the design contract and now provides the design team with

Note: Glossary on next page.

PROGRAM/ RESEARCH ANALYSIS

CLIENT

- Define and explain lease arrangement to designer.
- Develop preliminary time schedule.
- State preferences, if any, for working with specific dealers or general contractors.
- Provide designer with preliminary budget and discuss quality level.
- Assign project manager and approving authority to interface with designer.
- Outline data collection preferences for interior finishes.

DESIGNER

- Orient client on full design process.
- Develop preliminary flow chart.
- Establish procedure for receiving building owner's approval.
- Obtain "as built" drawings from building owner.
- Counsel client on purchase procedures.
- Photograph existing space and take field measurements.
- Set up in-house project team; interview and select consultants.
- Program client requirements, such as:
  - —computer assistance needs.
  - —corporation standards.
  - —organizational chart.
  - —staff projections, current and future.
- Set up in-house project file, billing procedures.
- Research component system.
- Research technical systems leasing (copiers, CRT's, word processors).
- Determine showroom and product accessibility from dealer, assisted by manufacturer's rep.

MANUFACTURER'S REPRESENTATIVE

- Assist designer in counseling client on purchase procedures.
- Assist designer in researching component system.
- Check factory and production time availability if component system has been determined.
- Assist designer in securing showroom and product accessibility (from dealer).

DEALER

CONTRACTOR

- Research own experience in relation to size and scope of project.

CONCEPTUAL DESIGN	DESIGN DEVELOPMENT	CONTRACT DOCUMENTS	CONTRACT ADMINISTRATION
Consult designer on hiring consultants appropriate to scope of project.	Approve recommended furniture system. Order mock-up if required.	Commence negotiating process for construction with general contractor. Complete negotiating process with dealer for purchasing furniture and furnishings. Submit letters of intent to dealers and manufacturer's representatives providing quantities and projected move-in dates. Place orders. Place telecommunications orders.	Issue change orders as necessary. Develop and finalize move logistics. Supervise installation of telecommunications units. Supervise installation of portable furniture, equipment and accessories. Move in.
Analyze results of program. Review inherent building systems. Develop schematics, adjacencies, blocking and stacking plans. Formulate design concepts. Determine scope of code compliance. Obtain and integrate consultants' input. Develop base sheet for drawings. Continue component system research with manufacturer's representative and dealer. Recommend client decision for production of mock-up and obtain cost approval. Review preliminary drawings and conduct in-house code check. Update budget and fee. Present conceptual design and obtain client approval. Review drawings with building owner. Develop preliminary space plans.	Review preliminary space plans with consultants. Develop standards, or reinforce existing standards, for furniture and furnishings, finishes and colors, presentation material and media. Analyze results of detailed component system research and product research. Select furniture system to be utilized. Develop a standard module. Execute space plans. Conduct preliminary code check with authorities. Finalize design. Update budget. Present final design and budget to client for approval. Review mock-up with client. Review final design with building owner. Conduct meeting with client and dealer to discuss contract document phase. Documentation.	Develop working drawings. Develop construction specifications. Develop specifications for systems furniture, portable furniture, furnishings, equipment, and accessories. Continue coordination of drawings with consultants. Review all drawings and specifications with client and general contractor. Obtain client approval. Submit drawings to city for approval. Submit contract documents to building owner. Notify dealer of COM reservations. Review qualified installers with dealer; estimate installation time. Review COM cuttings for approval.	Conduct regular team meetings with client and general contractor. Obtain client approval on change orders. Revise drawings and specifications according to change orders. Oversee subcontractor's work. Educate end-users. Conduct orientation sessions as required. Punch furniture system with dealer. Punch furniture, equipment, and accessories with dealer. Approve finished products, walk through space with client. Obtain client approval. Follow-up
Assist designer in continuing component research with dealer. Assist designer in developing costs for mock-up.	Consult with designer: —in analyzing results of detailed component system research and product design. —in selecting furniture system for utilization. —in developing a standard module. —in providing information on potential problems with system. —in updating budget. Assist client in ordering mock-up.	Guide dealer in assisting specification writer for furniture and furnishings. Assist designer in developing specifications for systems, furniture, portable furniture, furnishings, equipment, and accessories. Assist dealer in fine tuning custom requirements.	Verify ship dates. Conduct demonstration.
	Provide information on potential problems with system. Survey plans and site for delivery and installation. Present credit terms to client and designer. Provide information on potential price increases. Deliver and install mock-up.	Assist specification writer for furniture and furnishings. Reply to client's letters of intent. Request deposits. Fine tune custom requirements. Reserve production time. Verify ship dates.	Set furniture delivery schedule. Verify ship dates. Develop punch list for furnishings, systems furniture, portable furniture, equipment, and accessories. Install furniture system.
Develop preliminary construction budgets. Review methods of submitting shop drawings and approving samples.		Final construction budgets.	Set construction schedule. Commence construction. Develop punch list for construction. Complete construction. Supervise installation of wallcoverings, floor coverings, and window coverings. Quiet time for fine tuning. Inspection.

IBD FLOW CHART

Developed over two-year span by chapter members

a complete profile of all details pertinent to the project.

Details include major considerations such as site, lease agreements, budget, and schedule, as well as detail-oriented data such as staff positions, growth projections, need for flexibility, copy needs, and stationery storage. It is the designer's responsibility to assist the client in areas such as establishing a feel for budget and obtaining all the necessary information. The program must be confirmed in writing and approved by the client. It becomes the reference document required to proceed to Phase Two.

The *"Conceptual Design Phase,"* Phase Two, begins with analysis of the program and takes us through space plan development. It deals with translating statistical information (gathered in the program phase) into graphic format. Block plans and stacking diagrams are generated based on paper/information and traffic flow. Prime locations on the floor, such as views and accessibility, are taken into consideration.

Upon review and approval by the client, design concepts evolve as block plans are translated into preliminary space plans showing primary and secondary circulation patterns, massing of space components, and desired spatial characteristics. Though space plans have a way of continually changing to reflect the changes in the client's business/management, the designer must review plans with the client and obtain approval on the basic concept at this stage.

Focus of this phase remains on meeting functional needs; inter-relationship of various departments, groups, sub-groups and ancillary spaces; and delineation of the type and proportion of spaces assigned to each function.

"Design Development," Phase Three, presents the client with all necessary visual aids—such as plans, photographs, models, renderings, and material samples—along with a detailed design budget within established budget guidelines.

This phase integrates clients' functional needs with esthetic goals. The process usually involves evaluation of various design options and cost implications, and finally arrives at the most appropriate design solution which is then developed. Estimated project costs are detailed at this stage to show the client how they are distributed among items such as furniture, furnishings, furniture systems, art and accessories, construction, and special fabrications. It is imperative that the designer obtain written approval from the client on each phase, before proceeding to other phases.

"The Contract Document Phase," Phase Four, is the key element in getting the project built. The approved design presentation is translated into all the necessary plans and construction drawings required to execute the project on the job site. For the sake of clarity, plans generated use industry-standard graphic symbols and are based on various trades, such as: construction, furniture, ceiling, communications, and electrical.

Engineering drawings become part of

GLOSSARY OF FLOW CHART TERMS

ADJACENCIES: In planning: intra-, inter-department, and support system relationships.

AS BUILT DRAWINGS: Revised working drawings that show actual built conditions, as opposed to what was planned.

BASE SHEET: Original drawings of space reflecting the structural shell.

BLOCKING AND STACKING: Allocation of square footage for staff and departments on one or more floors.

CHANGE ORDER: Changes to contract after bid has been awarded.

COM (COL): Customer's own material (or leather). Fabric that is not stocked by the furniture or panel manufacturer and that must be purchased and shipped by the dealer.

COMPONENT SYSTEM: Furniture that is shipped to site knocked down (KD) and then assembled. Parts (panels, worksurfaces, connectors) can be interchanged from one work module to another. System may have acoustical or electrical capabilities.

CONTRACT DOCUMENTS: Documents governing the execution of the project; specifications and working drawings.

CORPORATE STANDARDS: Space, furniture, furnishings, and graphics that have been developed by client and/or designer.

100% DRAWINGS: The designer's final set of working drawings.

FURNISHINGS: Wall, floor, and window coverings, portable lighting, graphics, fine art, and accessories.

INHERENT BUILDING SYSTEMS: Electrical, plumbing, heating, ventilation, and air conditioning systems that are common throughout the building.

LETTER OF INTENT: Letter sent to manufacturer to reserve production time and/or to guarantee pricing prior to actual placement of order.

MOCK UP: Fabrication of a proposed component for testing, inspection and review.

PORTABLE FURNITURE: Conventional desks, credenzas, and chairs that are shipped ready-to-use.

PRESENTATION MEDIA: The form in which the design proposal is to be presented to the client (audio-visual material, renderings, models, etc.).

PROGRAMMING: Method of determining client's needs for space, placement, and functional requirements of departments.

PROJECT MANAGER: Employee of design firm who supervises design team and is directly responsible for project.

PUNCH LIST: A list of items to be corrected or completed to conform to contract documents.

QUESTIONNAIRE: A tool used by designer in programming to gather information.

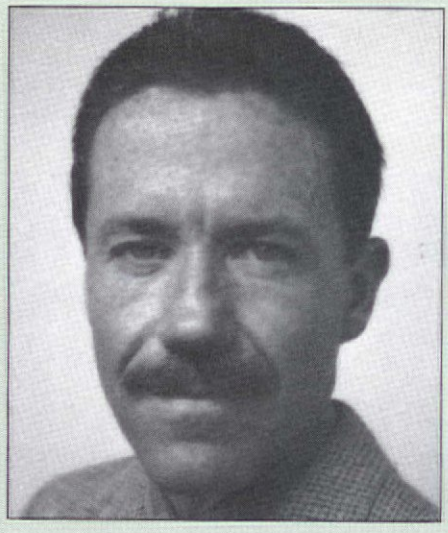
QUIET TIME: Time between installation and move-in.

SCHEMATICS: Conceptual preliminary design drawings.

SPACE PLAN: Designer's drawing of location of walls and furniture to determine proper adjacencies and traffic flow.

STANDARD WORK MODULE: Basic component work module—individual workstation or a group of workstations—to be used throughout plan.

WORKING DRAWINGS: Drawings from which contractor builds the space.



Initiators of flow chart project were Pamela Baldwin, FIBD, Baldwin/Clarke Associates Inc. (r.) and Ron Coonelly, IBD, Life Design, both of San Francisco, together with members listed below and others consisting of designers, manufacturers representatives, and dealers from Northern California.

the complete package. Specifications are written to clarify and cover all aspects of work, including performance, quality, materials, application procedure, and installation to minimize the unexpected and maximize designer's control of the project.

In *"Contract Administration,"* Phase Five, all elements of the program are implemented. Schedules for construction are confirmed and construction starts. Furniture delivery is verified and installation is scheduled. All change orders, due to changes in the layout, request of the client, or field conditions, are written by the designer and approved by the client. Ship dates are verified. Punchlists are written and utilized during various inspections, after construction has been completed and furniture delivered. After the shell of the space has been approved, the furniture system is installed. Electricians and telecommunication technicians connect furniture systems to the building support system as required.

With component furniture systems punched and modifications made, a walk-through is arranged for the client. The installation is approved by the client and all other new portable furniture, equipment, and accessories are delivered. Client prepares to move current files and reuse items and confirms that telecommunications will be operating upon occupancy. Movers are then given a confirmed schedule. After the move has been completed, the designer and dealer conduct orientation for all end-users. □

PROJECT FLOW CHART DEVELOPER CREDITS

Pamela Baldwin, FIBD, designer, Baldwin/Clarke Associates Inc.
Sharon Cadiou, mfr's. rep., DesignTex
Sandy Chandler, designer, Bond and Chandler Design
Julie Clarke, IBD, designer, Baldwin/Clarke Associates Inc.
Jack Coleman, mfr's. rep., Ferguson Hildreth Inc.
Eileen Connery, designer, Bank of America
Ron Connelly, IBD, designer, Life Design
Tom Crowe, dealer, James Hill & Co. Inc.
Andre Friant, dealer, Robert Morry, Inc.
Jane Graham, design student, Academy of Art
Ken Haney, mfr's. rep., Steelcasè
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Cynthia Kent, IBD, designer, Robinson, Mills and Williams
Ken Koehler, mfr's. rep., Gerton Koehler Inc.
Ramesh Misra, IBD, designer, Morgan Associates
Susan Mueller, IBD, designer, Ambiance Sunnyvale, CA.*
Madelyn O'Connell, mfr's. rep., Modern Mode Inc.
Margie Sullivan, dealer, Rucker Fuller

**All others are from San Francisco.*

'80s Design, Historic Preservation Coexist In Architect's Offices

Blend of old and new design motifs lends eclectic look, fosters creativity in Walker Assoc.'s L.A. facility

Contemporary furnishings and colors highlight antique architectural elements found in a 70-year-old structure serving as an interior architecture firm's West Coast office. In renovating its own Los Angeles facility, Walker Associates successfully blended state-of-the-art furniture systems and electrical/mechanical equipment with turn-of-the-century building ornamentation. Now, visiting clients see tangible proof that design and historic preservation not only go hand-in-hand, but contribute to the firm's creative ambience.

Part of an extensive grouping of restorations located in downtown Los Angeles, the 716 South Olive Building offered Walker architects a combination of esthetics and functionalism unique to older buildings. Ceiling heights, for example, range from nearly 11 ft. to 35 ft. with skylights. Exterior masonry is 20- to 24-in.-thick and provides excellent heat and cooling coefficients.

Says firm principal Tim Walker, "A space like this would be almost impossible to build today. Esthetic elements cannot be duplicated, while energy savers—such as thick stone—are far too costly to specify. Besides, there is no way to recapture the romanticism that was built into structures of that era."

Originally designed by Morgan, Walls, & Clement for Pacific Telephone Company in 1911, the structure—which housed switching equipment—was unoccupied for the past 10 years. In 1979, Walker Associates master-leased the building in its existing condition and retained the third floor for its own offices.

Original architecture suits present needs

A four-story structure, the building features a set-back penthouse. Original architects planned stepped ceilings and skylights which utilize third floor roof space directly in front of the penthouse. Comments Walker, "We felt that this architecture would suit our working needs—providing ample natural light by which we can appraise plans and color selections for clients. It also fosters an open, airy atmosphere which we see as essential to creative people."

Consisting of 13,000 sq. ft., the third floor was previously divided into one large room and several ancillary offices. Presently, it houses a 6,000-sq.-ft. design studio, a computer room, and 12 private offices. Also included are two conference rooms, a graphics department, and employee lounge.

Making the building serviceable for design operations and tenant offices alike required thorough retrofit of mechanical and power sytems. Architects retained one power panel—the main lead to the building—then redistributed power via new conduit. New services include a two-power system which enables HVAC zones to be controlled individually. An automatic switching system, which turns power off on weekends and starts power up directly before 9 a.m. Monday morning, adds further energy savings.

Harmonizing old and new themes

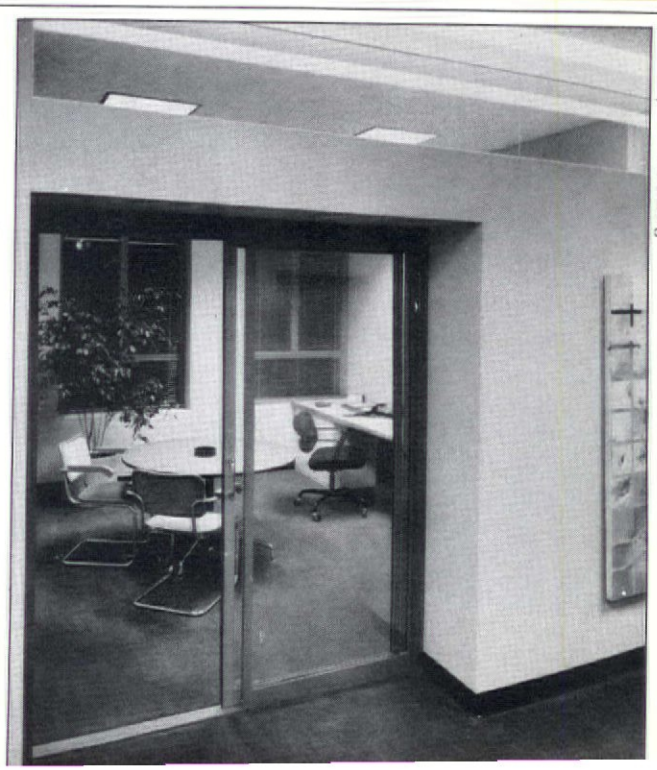
Architects then selected a complete hardware package for ceilings, lighting, air distribution, and surfaces that contrast state-of-the-art design and old-style detail. An extra room was turned into a mock-up studio in which design teams can show clients additional product developments and their integration within an older space.

Says Walker, "The total concept was to sell ourselves as architects and show clients the multitude of contemporary design alternatives that work in a renovated environment."

Color selection was also based on the desire to blend old and new. Soft pinks and blues, found throughout the interior, are reminiscent of stone colors seen on older building masonry. In the employee lounge, a large red Coca-Cola sign, the only dated graphic specified, reflects red found on contemporary chairs. Gray surfaces act as a foil for interplay of bright, cheerful accent colors.

Although the building exterior was left practically untouched, architects did much repair work to save interior ornamentation. Marble stair treads that were discovered when linoleum was removed, were cleaned and refurbished to make way for an elegant cast-iron stairway which leads vis-

Building exterior (opp. page, left) required relatively little refurbishing. Architects steam-cleaned and painted masonry, while following through with minor plaster repair where needed. The only new element found on the building's outside is the awning. Neutral surface finishes are foils for bright accent colors, such as those displayed in graphic (above). They are also a backdrop for an ongoing art program sponsored by the firm. Visiting clients view artwork and select from exhibited pieces, or commission artisans to design pieces to individual specifications. One thrust of office design was to reinforce visibility and open communication among employees. Glass doors were specified for private offices (right) to continue this motif.



Photos by Paul Bielenberg

WALKER ASSOCIATES

Repair work saves antique ornamentation

itors to contemporary offices. A 1930s Otis elevator with exposed cab and nickel-plated grate was salvaged. Now, as visitors ride upstairs, they have complete visual access to newly-designed interiors.

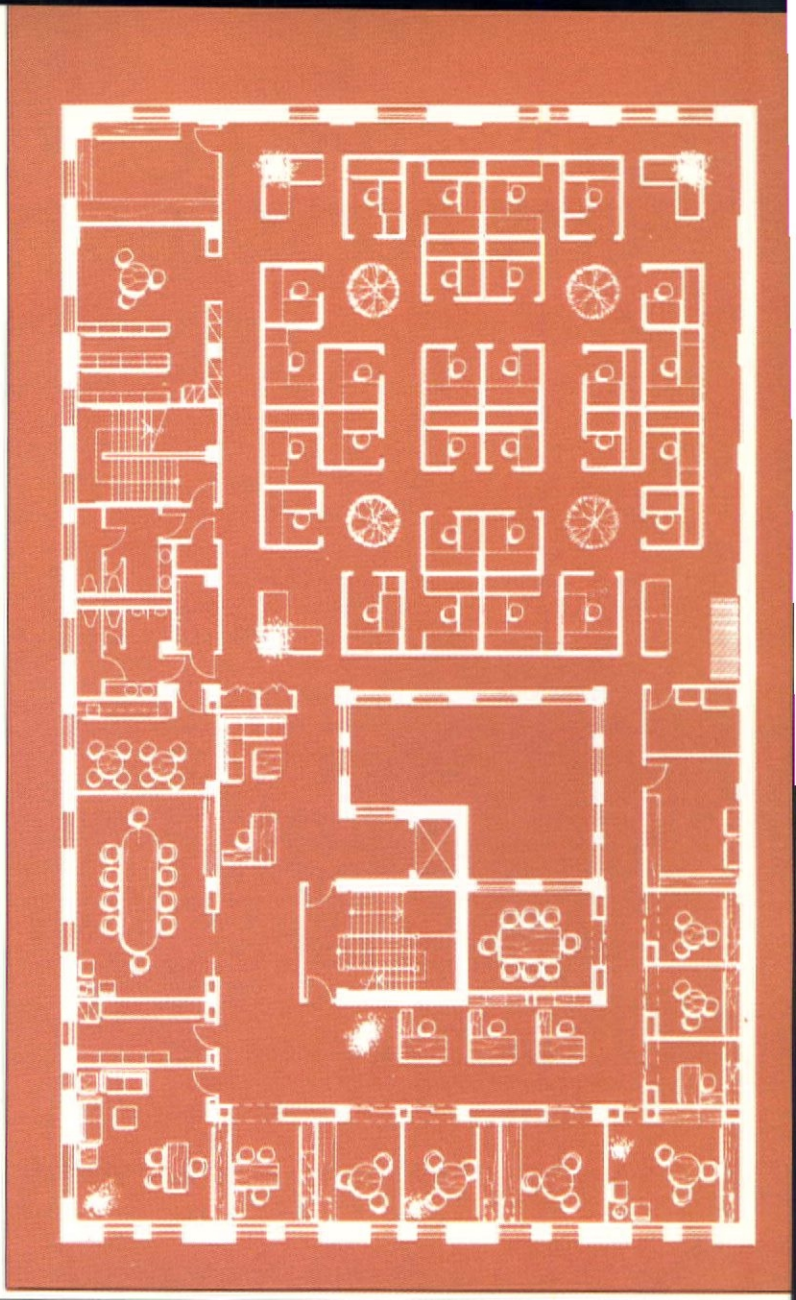
Walker Associates will own the building in six years. Plans to remain in the space require that architects keep the option to change design motifs. Notes Walker, "Right now, the greatest amount of interiors work we do is in the contemporary mode. Therefore, our color and furnishings choices reflect that style. We left all surfaces painted so that if we change the interior we have little to rip out. In the meantime, we find the environment both fun to work in and a successful example of the type of planning we do for clients." □

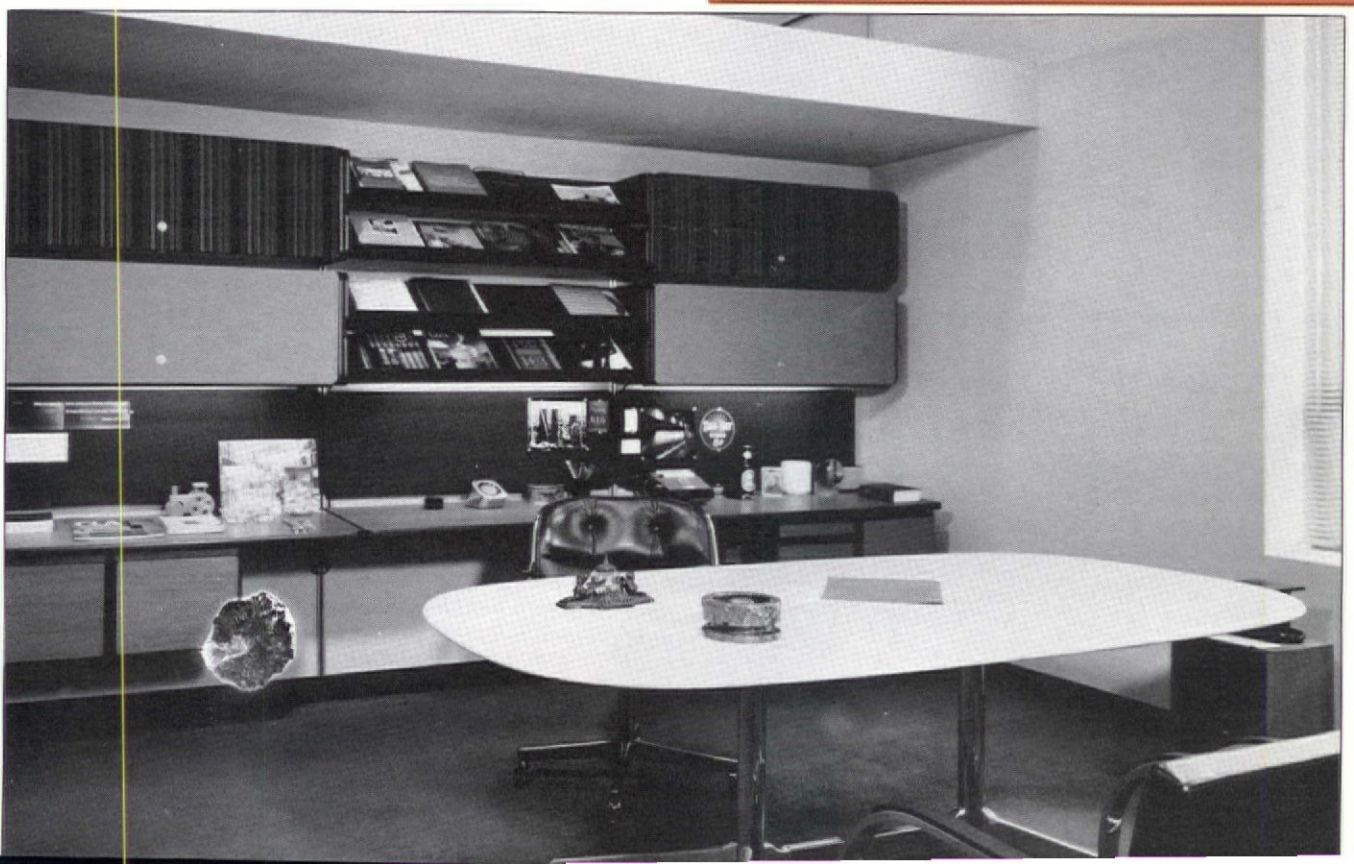
SOURCES

Wall systems—Harter Corp, Herman Miller. **Seating**—Herman Miller, Knoll, Brayton Int'l. **Countertops**—L & B Manufacturing. **Files**—Harper's. **Plants and planters**—Van Herrick's. **Desks**—Knoll. **Tables**—Herman Miller. **Accessories**—Glassform. **Casework**—Laurel Line. **Carpeting**—Bentley Carpet Mills. **Ceiling**—Armstrong/Sanserra. **Lighting**—Lightolier.

Architecture, interior design—Timothy Walker, principal; Paul Jezek, senior designer; Nick Day, job captain; Walker Associates. **Contractor**—Inner Space Constructors **Mechanical engineer**—Bob Young & Assoc. **Electrical engineer**—Michael Garris & Assoc. **Structural engineer**—John Martin & Assoc.

Design studio (opp. page, left) measures 6,000 sq. ft. and houses 45 workstations. Skylights measure 30- to 40-ft. high and create a cheerful ambience in which architects can view plans and color selections for clients. Third floor offices comprise 13,000 sq. ft. Previously one large room which housed phone company switching equipment, it now contains a design studio, computer room, 12 private offices, two conference rooms, a graphics department, and employee lounge. Interior space was retrofitted with state-of-the-art furnishings and equipment which contrasts ornamentation remaining in the 70-year-old structure (below).





REHAB VS. CONSTRUCTION: CITY RECYCLE SAVES $7 MILLION

After study of city hall facilities, Design Collective Incorporated recommended renovation of Davenport, Iowa project

Built at an original cost of $79,997 in 1895, the Davenport, Iowa City Hall would cost an estimated $10 million to duplicate in new construction. Renovation of the structure, however, totaled $2.7 million, saving more than $7 million in building costs while revitalizing an architecturally unique landmark of the city's downtown area.

Design Collective Incorporated (DCI) of Columbus, Oh., assumed responsibility for determining the fate of the existing building according to cost analysis and space considerations. Research revealed total usable floor space of 30,040 sq. ft. on three levels; 1,281 sq. ft. of that space would be gained through renovation, resulting in a four percent increase in efficiency. Studies determined public meeting and conference facilities could be enlarged by 94 percent within the existing structure.

DCI's goals in renovation included:

- Development of flexible offices and increased area for public spaces.
- Provision for safe, efficient office environments with mandatory accessibility to the handicapped.
- Retention of architectural character and original elements of interior design.
- Improvement of central support systems and reduction of energy and maintenance.
- Establishment of a means to stimulate interest in downtown renovation and civic public relations.
- Disclosing the benefits and disadvantages of recycling the existing facility.

Designers work on site

A city hall turret provided an ideal on-site working location for firm principals and designers on the project. That approach lent sensitivity to workers' needs and community feelings about the design. Presentations open to the public afforded interested citizens the opportunity to learn about the renovation.

Community history gave direction to graphic and artistic elements in design while existing architecture guided planning of woodwork, wainscoting, and furniture selection. Space utilization, maintenance, and security factors dictated several changes in layout and planning.

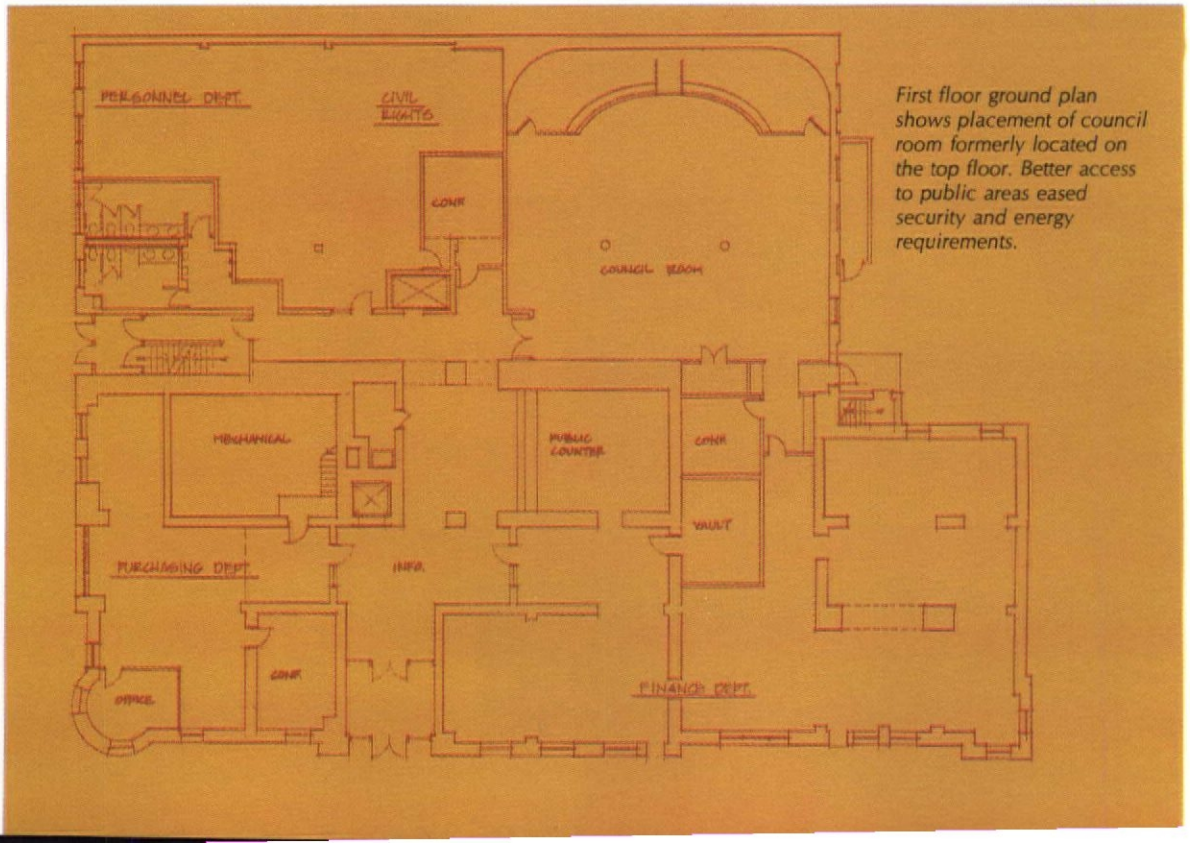
Removal of walls in narrow hallways created new spaces for open plan desks and better circulation. Wherever possible, ceilings were kept at maximum height to retain the original feeling of spaciousness. Recessed, full-height oak doors were reused; wood wainscoting and bases were retained; wood floors and decorative motifs were modeled after original interior work.

Structural and engineering aspects of the job required new HVAC, sprinkler systems, amenities for handicapped, and modern restrooms. Also necessary were a new roof, windows, complete glazing, drop-in ceiling, and new lighting. Acoustical redesign occurred in the council meeting room where a perforated vinyl wallcovering was stretched over frames placed on the crescent-shaped wall behind council members. The covered frames also conceal doors and panels behind the council's desk.

Contemporary colors complement original decor

Originally located on the top floor of the building, the council room was moved to the first floor to reduce energy and security requirements during nighttime meetings. Ceiling fixtures shed light on the meeting areas while other parts of the building have ambient illumination. Ambient fixtures were chosen to soften appearance of the building's interior from outside. Turn-of-the-century styles selected for desktops provide necessary task lighting.

Curved cabinetry provides visibility of city council members (left). Curved wall behind creates a visual backdrop and aids acoustical control. Mayor's office (above) contains antique armoire originally used as a coat closet. A full-length credenza/bookwall is located behind the desk, balancing the armoire. Handwoven rug defines an informal seating area.



First floor ground plan shows placement of council room formerly located on the top floor. Better access to public areas eased security and energy requirements.

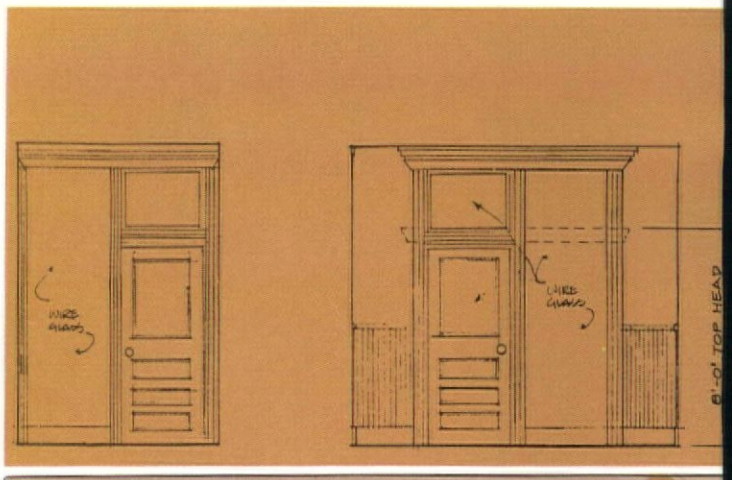
DAVENPORT CITY HALL

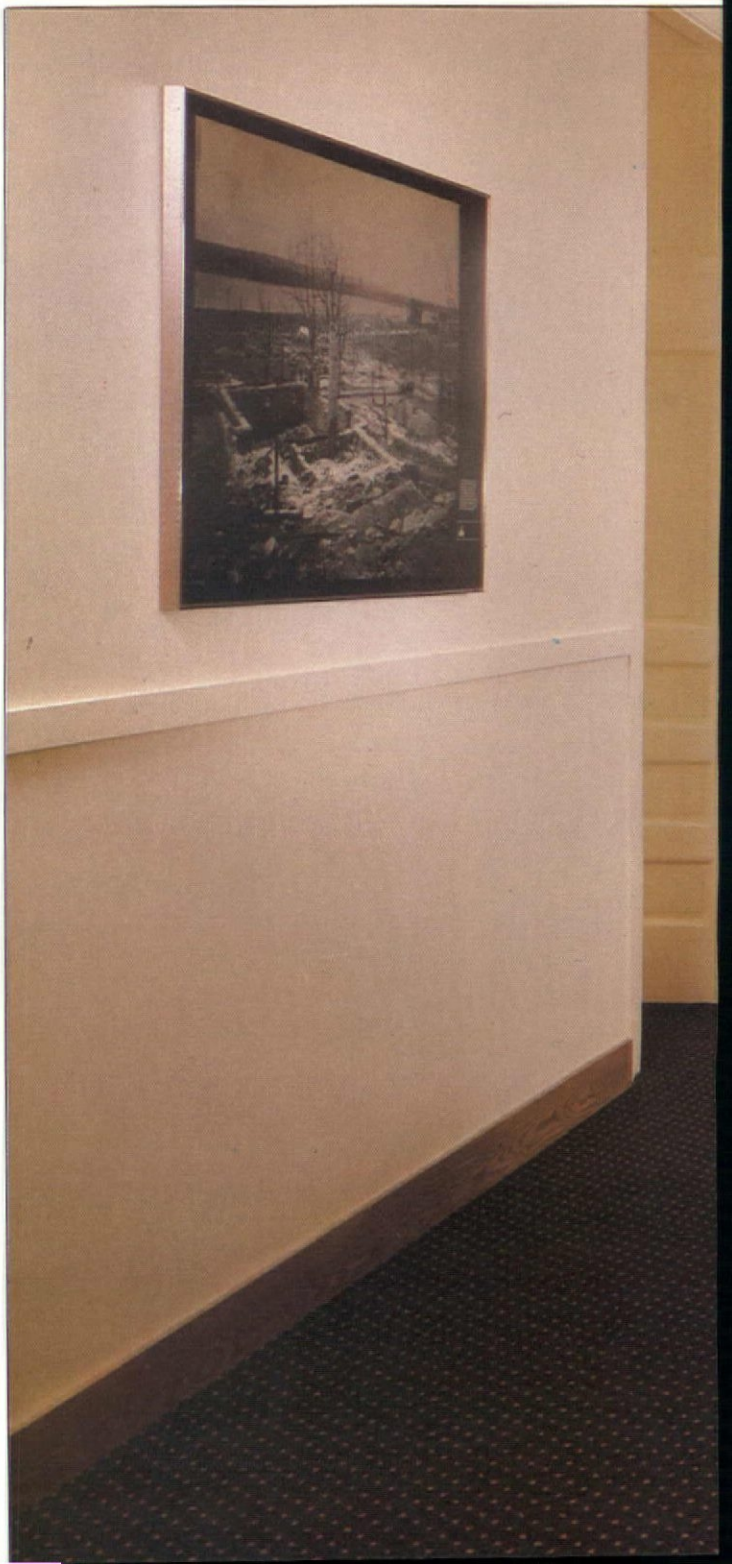
City historian has project role

Natural oak furnishings, patterned carpet, and rust, beige, and green colors provide a contemporary scheme which blends well with original elements of the structure. "We did not want to create a period approach," says David Cooke, FIBD, principal of DCI. "The facility was not to be a museum, rather, a working environment with carpet, ergonomic seating, and modern elements of design." A restored armoire, circa 1900, blends well with the contemporary furniture in the mayoral office. This approach, along with a strong sense of history, led to the project's success.

Community involvement was essential to that success. The cooperation of Davenport's city historian helped in locating historical pictures and documents which were made into graphic elements for city hall. The historian researched society commerce, religion, government, and city architecture of Davenport before the turn-of-the-century, reports Cooke. Artwork was reproduced and handpainted with descriptive legends identifying each graphic.

Recognizing the project's historic preservation value, the National Trust for Historic Preservation recently presented its 1982 award for the city hall renovation. The Davenport structure was one of 18 winners selected from 126 entries. National Trust judges praised the project for "encouraging greater preservation sensitivity." □

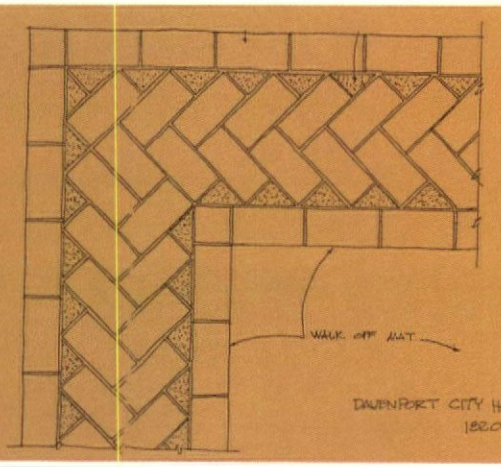


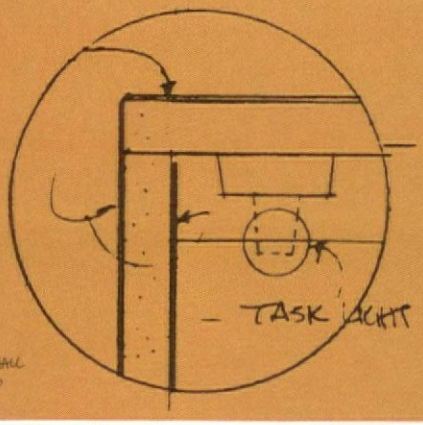


SOURCES

Carpet—Mohawk. **Area rug**—Rosecore. **Paint**—Sherwin Williams. **Wallcovering**—Genon, Singer. **Seating, chairs**—Worden Co., JG Furniture, Jack Cartwright, Hickory, Intrex. **Landscape furniture**—Herman Miller. **Plants**—Kimberly Barnes. **Clock**—Peter Pepper Products. **Lighting**—SPI, Nessen, Waterford, Atelier International. **Art frames**—Nova Galleries. **Conference furniture**—Rudd International. **Accessories**—Art Metal. **Upholstery**—Knoll. **Wall panels**—Insul-Coustic Corp. **Desks**—Kimball. **Flooring**—PermaGrain Products. **Window blinds, shutters**—Levolor, Pinecrest.

Design Team—Design Collective Incorporated; David F. Cooke, FIBD, principal; Robert B. Valentine, FIBD, principal; Rick Focke, IBD; Laura Rolfe, IBD; David Svet.





Original wood door marks entrance to the mayor's reception/secretarial area (far left). Efficient space usage was a key factor in placing workstations in a former corridor (below). Task lighting at desks complements ambient fixtures used throughout the building. New wood trim simulates details of wainscoting in hallways. Recessed file cabinets are located between structural supports. Detailed drawings (from l. to r.) show designer specification for matching door frames and woodwork, vestibule paving patterns, and task light positioning for a public counter.

Sloping ceilings accommodate tall windows, varied heights

RECAPTURED SPACE HEIGHTENS

ABC's TWO-FLOOR REMODEL

Unused space above lowered ceilings proved a major design boon in the remodel of the Century City, Calif., offices of ABC Motion Pictures. New ceilings arc to a 14-ft. window height at the perimeter of the fifth floor, one of the floors remodeled. Additional height was achieved by installing a stairway to the floor above and covering the stairwell wall in mirrors.

Adcock, Stock, Arnold, & Pope Inc., Los Angeles, undertook the project for ABC following design of ABC Television facilities several years ago. ABC owns the building it occupies. Leonard Goldenson, ABC chairman, approved plans and renderings for the 15,000-sq.-ft. space.

Facilities include a reception area, secretarial stations, conference room, offices, and a screening room. Secretarial stations were placed in glass-walled corridors which allow light to penetrate from windows. Energy savings resulted since lights can be turned off during the day. Effective insulation was necessary to meet California's Title 24 requirements to reduce air conditioning loads. Solar reflective treatments permit even greater use of glass.

Energy requirements reduced

Adcock, Stock, *et al.* further reduced energy needs by specifying split-switching in fluorescent fixtures. This device allows two of four light tubes to be running at half the normal wattage.

Recessed lighting was used on the sixth floor since the ceiling rolled downward from the corridor. An unusual lighting treatment illuminates the crystal ABC logo mounted in the reception area. The logo is lit from below to reflect a rainbow of color on the clear glass wall behind it.

Rosewood and stainless steel columns frame that wall which separates the reception area from elevators. Rosewood creates a design theme carried out in a custom reception desk, stairway, and some office furniture. Sleek accents of

Full-height windows brighten this executive office furnished in rosewood and earthen colors by Adcock, Stock, Arnold, & Pope.

Rosewood and stainless steel create sleek scheme

Photos by Leland Lee

mirror and marble contrast neutral handwoven wallhangings, gray carpeting, and greenery.

Royal blue lounge seating curves around the reception area. Subtler tones were specified for other settings. Browns and neutral tones dominate office spaces with similar tones chosen for the conference area. A custom-built table in a sunburst design of wood is matched overhead in the round wood fixture containing recessed lighting. Vivid graphics and a large, neutral tapestry adorn light brown walls in the conference room.

Low-key color necessary

Soft gray-blue tones in the screening room provide low-key color, perfect for viewing in darkness or reduced light. Rosewood and black leather lounge chairs were chosen to ease stress during long screenings.

Workings of the motion picture offices such as screening sessions were vital considerations in planning the space. Computer terminals were also elements that dictated design. Heat from VDTs and high wattage required to run them were estimated in energy load and structural HVAC conditions. "Our staff has full architectural capability within the design firm," says Rich Arnold, principal. "We spent a lot of time working with electrical and HVAC engineers to our specification."

The firm's expertise is valuable in meeting fire and acoustical standards for facilities. In other areas—such as space projections—computers are utilized by the concern. Arnold says in-house capabilities allow Adcock to do "the same amount of dollar volume as a firm with four times the staff."

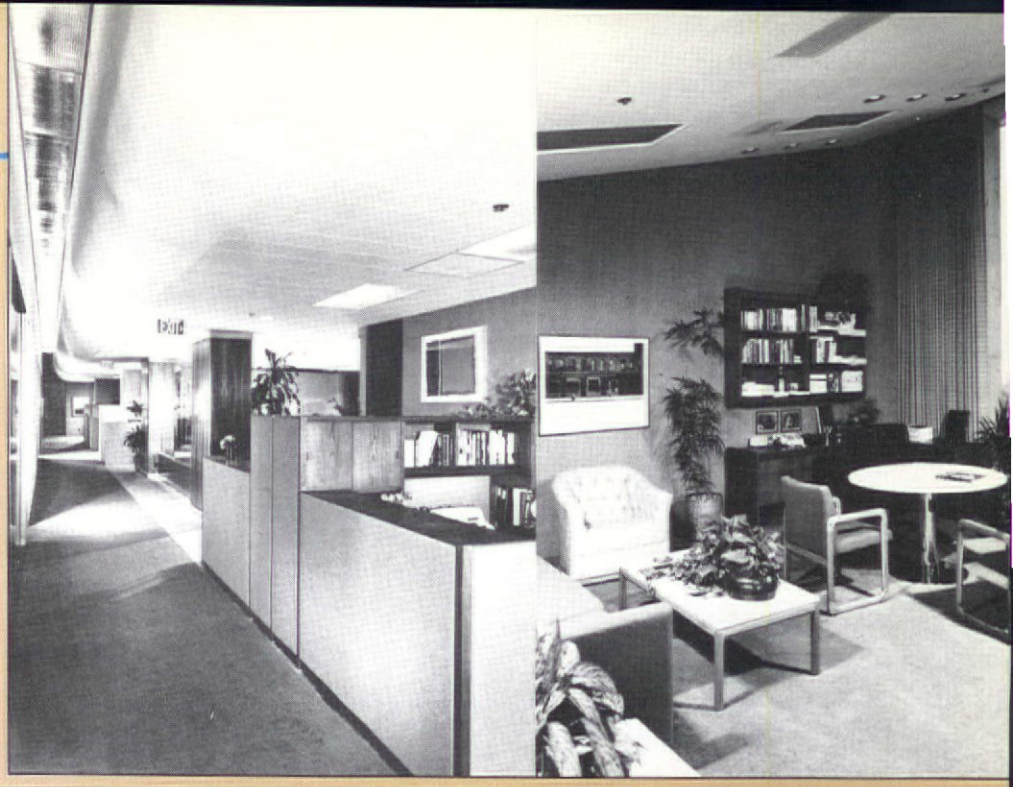
Also crucial to design job success has been Adcock, Stock, Arnold, & Pope's "Certificates of Appreciation" given to contractors on design jobs. Arnold claims the certificate is a morale booster; better work is done when it is acknowledged. The design firm hangs a bronze logo-inscribed plate at installation sites, leaving its mark on every finished space. □

Rosewood and mirror grace stairway (above left) connecting office floors. Dark tones were chosen for viewing room (left). Sloped and curved ceilings (opp. page, above) reveal 14-ft. windows. Sofas and rosewood units wrap reception area (opp. page, below).

SOURCES

Desks—Scandiline, Vecta. **Credenzas**—Scandiline, Modular Designs. **Chairs**—Pindler & Pindler, Condi, Marge Carson, Herman Miller, Hardwood House, Cartwright, Madison. **Upholstery**—Clarence House, International Fabrics, Pierre Deux, Jerry's Upholstery. **Sofas**—Metropolitan, Scandiline, Marge Carson. **Carpet**—Couristan, Berven, Stratton, Emser International, Decorative Carpets. **Floorcovering**—North Hollywood Marble, Hirsch Floorcoverings. **Custom cabinetry, millwork**—Artistic Woodcrafters. **Wallcovering**—Maharam, Willowtex, Innovations, Schumacher. **Drapery**—Maharam by California Drapery Co. **Bookshelves**—D & J Woodcrafters. **Tables**—Proctor & Sons, Condi. **Reception seating**—Vecta. **Sculpture**—Jim Martin. **Glass**—Topaz Glass Co. **Workstations**—Scandline. **File Cabinets**—All-Steel. **Antiques, doors**—Charles & Charles. **Hardware**—Brian Barlows. **Plants**—Rolling Green. **Motion picture and screen equipment**—Filbert Co.

Design Team—Gene Adcock, A.J. Stock, principals-in charge; George Myers, Susan Kerry, Lynne Pope. **General Contractor**—Stanhope Co. **Painting**—Fauci & Sons.



Awareness Of Behavioral Factors, Post-Occupancy Evaluation, & Fine Tuning Enhance User Spaces

A total understanding of user needs, who users are, and orientation on 'human design' can lead to client satisfaction

by **MARGARET GOGLIA**
Jose Almanza & Assoc.

Fundamental to effective space planning is an understanding of six behavioral influences that can make or break design projects. They are: territory, privacy, personalization, socializing, mobility, and environmental communication.

Each plays a key role in the successful design of space. Such planning and design is cost effective to the client in the long run and works for the user in the short run, as well as on a continuing basis.

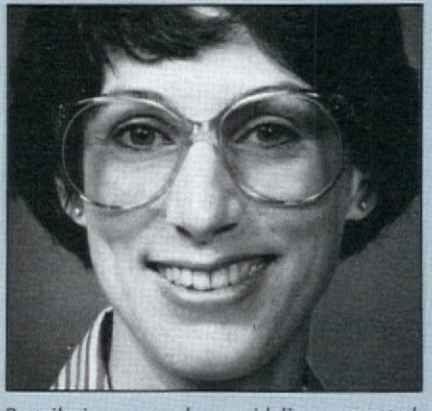
By tailoring space along guidelines suggested by these six influences for each of three different types of users, the designer is able to create spaces that genuinely respond to user needs, making the spaces more cost effective.

This is true even when considering high initial costs for installations. The latter problem is diminished with the productivity and reduction in expense over time that these factors provide.

Fine tuning improves job

Consideration of the six major occupational criteria, as well as post-occupancy evaluation and fine tuning give a project maximum potential for serving the user.

Margaret R. Goglia is assistant professor of architecture at California State Polytechnic University, Pomona, Department of Architecture, School of Environmental Design. A practicing architect at Jose Almanza & Assoc., Architects, Los Angeles, she is a behaviorist deeply involved in the dynamics of design from the user, designer, and client points-of-view.



By tailoring space along guidelines suggested by six user needs, designers can create spaces that genuinely respond to workers, says Margaret Goglia, a practicing architect and behaviorist involved in design dynamics.

In fine tuning stages, the designer and the client agree to a shake-down period for the installation, followed by an evaluation of design after installation. The latter recognizes that it usually is impossible for either the designer or client to foresee *all* eventualities and that post-occupancy design services may be needed.

However, fine tuning can be minimized by designers who take the time to acquaint themselves with the six work tasks/spatial needs of each of three categories of users, described below. At the root of this process is ongoing communication between designer and client.

Users can be thought of as being in three categories: primary, secondary, and tertiary. They are defined in terms of numbers and length of time spent in the space. Patients, nurses, and doctors are primary users in a hospital setting. While maintenance staff, because of their limited use of the facility and small number, would fall into the tertiary category.

Note that while patients, nurses, and doctors may be considered primary users, due to the differing nature of their roles, spatial needs will not be the same.

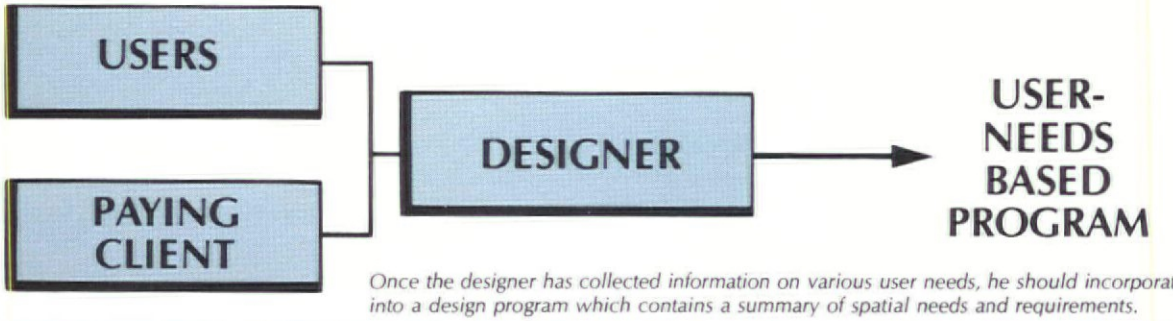
By classifying users into one of the three groups, designers can begin to examine each group's needs a little more closely. Such classification is also helpful in assigning priorities to various competing requirements.

If the designer can define the six categories of user needs for each type of user group, the designed spaces will respond much more effectively to user demand. Thus, in the long run, the spaces become more cost-effective for clients.

Each user group has the six needs outlined below in varying degrees, in different situations.

TERRITORY

Territory is defined as the need to claim a space and call it one's own. On the television program, "WKRP in Cincinnati," the character Less Nessman has a strong need to define his territory in what might be called an open office situation. He has gone to the extreme of putting tape on the floor to define imaginary walls. Before entering his "enclosed" office, he opens an imaginary door. Less extreme, but nonetheless real needs exist in most work situations. People want an identifiable "home



Once the designer has collected information on various user needs, he should incorporate data into a design program which contains a summary of spatial needs and requirements.

base" that is theirs. Such identifiable territories could be a locker, a desk, or an office.

The phenomenon of territoriality extends not only to individuals, but to groups. Card players who claim the same table each day during lunch in the employee cafeteria are laying claim as a group to a territory, even if it is limited to the lunch hour. Other staff members may feel intimidated at the prospect of occupying that table, because it is the bridgeplayer group's "turf."

PRIVACY

Privacy does not mean being alone, when defined in the context of a business environment. Rather, it means the ability to control social interaction. It can be thought of as being like a faucet that can be turned on and off.

In a hospital environment, a patient has very little privacy. The patient has no control over who enters the room to see him or her, or when medical personnel arrive and depart. An administrative assistant with a private office, however, can control social interaction by telling the switchboard to hold all calls or by leaving the door closed.

PERSONALIZATION

Personalization is the ability to make something one's own—that is, to personalize it. If two people are assigned to workstations that are exactly the same at the time of installation, the workstations will be different in six months. Even if the employer forbids the display of personal objects, the workstations will still be different. Contents of the storage drawers, for example, will differ, the location of the approved trash receptacle will vary, and somewhere there will be a non-regulation plant or a family portrait on display.

It is much easier when both the designer and client recognize the need to personalize and plan for it from the start.

The need to personalize often is linked with the need for territory. One way that people claim territory is to personalize their spaces.

SOCIALIZING

Socializing is accomplished in different ways. Spaces are needed that allow people to get together on a one-to-one basis for personal exchanges. They also are needed for small group interaction, as well as for conferences and business meetings. The need to gather in large groups for lectures or conventions must be addressed as well. A fourth level of socializing is to do so "vicariously." That is, the space should enable people to sit back and people-watch. Each need is different and requires different spatial qualities. Thus, the same space will not serve a conference gathering and a one-to-one meeting equally.

MOBILITY

Mobility simply is defined as the ability to get from point A to point B. It can be thought of as circulation space, or, more importantly, as the ability to move about in space to change one's environment. The move from A to B is a useless one if A and B are the same. Encompassed in the need for mobility is the need for variety.

An ability to get up and away, even if it is only to leave a workstation and go to the coffee room, is most important to the user.

ENVIRONMENTAL COMMUNICATION

The need to receive information and messages from the physical environment is called Environmental Communication. Some information is fairly clear, such as the "EXIT" sign at the fire stair.

A company logo that is part of the carpet design also is a form of communication. But there are other forms of communication in designed spaces that speak eloquently. For example, a teak conference table in the executive conference area is a form of communication, because it helps build an image of contemporary people, working in a contemporary environment.

Absence of ash trays is another message communicated to those using the space. Use of reflective panels in a sixth floor elevator lobby may create a high-tech design image, but it also may not provide enough directional and orientation cues for persons unfamiliar with that floor. Possibilities are endless and worthy of study.

How does the designer/specifier get the kind of information outlined in the six need areas above? A combination of observing and asking questions is the most effective and immediate way to accomplish that end. John Zeisel has written a very good book called *Inquiry By Design* in which he provides specific methods for observation and interviewing. Corwin Bennett's book, *Spaces For People,* may also be of interest, as it deals with similar issues.

Once the designer has collected information on various user needs, it should be incorporated into a design program which contains a summary of spatial needs and requirements for a

Three user types share six needs

particular project. Frequently, the program becomes little more than a listing of assigned numbers of square feet per person, a maximum budget figure, and building code requirements. To be totally effective, the program should include a description of user needs, identifying them as belonging to individuals, groups, and members of an organization.

When the client and designer have agreed upon a user-needs-based program and a set of design objectives, the designer's task is simplified. While some argue that such an approach to design stifles creativity, the truth is that it serves to define more clearly what criteria are needed for an acceptable design. Far from limiting creativity, it enhances it and then limits "off-the-mark" design proposals that are turned down by the client.

An even worse situation could be a design based on incorrect assumptions about users. Such a design may very well be rejected by the users, with a loss in productivity, dissatisfied employees, and a dissatisfied client.

Completion of the total cycle is marked by a post-occupancy evaluation. About six months after installation, when users have become totally immersed in the space, a study should be made. It is tantamount to a shake-down cruise of a new navy ship, when all the bugs are corrected. Post-occupancy evaluation is the time when minor adjustments can be made without disturbing the pattern of operations, since the pattern itself is still new.

Such evaluation can be an additional design service that is paid for by the client. Or, it can be an informal observation session for the designer's own edification. In either case, the designer must be prepared to learn from his mistakes, as well as his successes.

Clients, likewise, must be willing to recognize that the service rendered by the designer was based on information available at the time design decisions had to be made. Any errors probably are normal, human errors, not those to be avenged with legal action.

Once the program is complete, it is vital that the client know and understand its contents and, consequently, design objectives. Before design begins, the client should be certain to approve the program and the final design before installation. □

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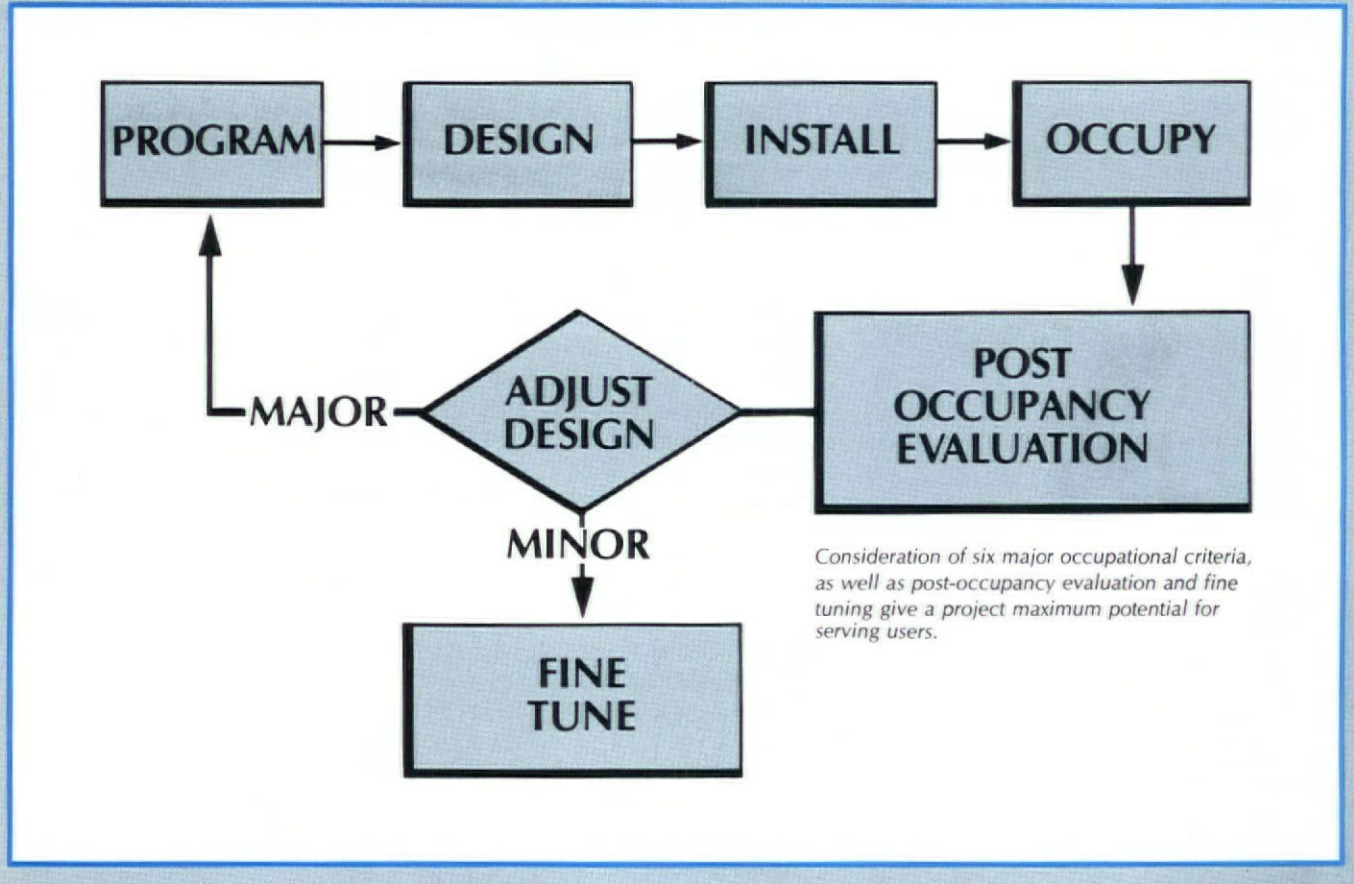


Consideration of six major occupational criteria, as well as post-occupancy evaluation and fine tuning give a project maximum potential for serving users.

Study of Human Motor Ability Yields Space Planning Solutions

By taking a 'motions inventory' of user activity, planners obtain criteria for effective stair design evaluation

This article examines design criteria for stairs, ramps, and corridors, involving linear motion (standing and walking) activities of workers and is intended as a follow-up to a study of human seating requirements published in the September '81 issue of CONTRACT.

by **FRANK E. PETEROY**

The space designer's knowledge of human motor ability influences selection and layout of equipment, space, and materials; choice and location of control devices; and organization of procedures and systems.

How well the human body performs depends on the fundamental elements of biomechanics, speed, and force involved in a given task. Together, these elements describe a 'comfort zone' for activity and preferably represent a population range of five to 95 percent—with the exception of the disabled and elderly.

The 'zone' concept recognizes an essential fact: dimensional limits described by motor abilities are not finite. Rather, humans are best characterized by their variability in height, reach, performance, and discomfort level. How well the human body performs motor activities determines criteria for effective design evaluation.

First step: take motions inventory

Task classification itself involves the analysis of five basic motor activities used in physical action: positioning, repetitive, continuous, serial, and static. In each of the five actions, various body segments perform movements in sequence.

In designing space such as corridors, stairs, ramps, and winders, space planners should consider taking a motions inventory for user activity in those environments. This involves evaluating the size and classification of task types. In addition, mechanical advantage required of a task, versus body forces necessary to accomplish it, must be assessed to correctly spec and furnish a given area.

For example, in a standing/rest activity, cushioned, resilient flooring is necessary to reduce fatigue. However, standing in linear motion (whether on a level surface or on an incline) requires greater consideration for life-safety in terms of materials, assist devices, ramp and stair use, body clearances and traffic flow—particularly in exit passageways.

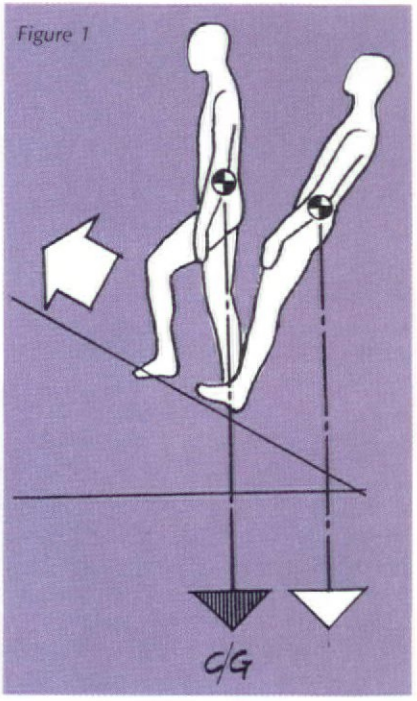
Linear motion between two levels such as ramps and stairs should give a feeling of safety and be accomplished with minimum strain.

A non-task activity, or movement on an incline, should consider:

- *Comfort*—the prime objective being to maintain a balanced position of shifting body segments during ascent and descent.
- *Life-safety*—establish design criteria necessary to accommodate the greatest range of population.
- *Energy expense*—accounts for design and human choice of speed as it affects energy efficiency—especially in ascending. Ramps and stairs assist in fundamental movement between two levels, and can be considered 'prosthetic devices.'

Linear motion on a ramp requires that body segments maintain a comfortable angle of adjustment over the center of gravity. To accomplish this, it is necessary for body segments to lean forward over the supporting base (the feet), placing the weight of the body segments on the center line of each foot as each step is taken (Figure 1). Initial adjustment to angle of incline is made at the ankles, with stronger adjustments occurring at the hips, as the incline angle increases.

Figure 1



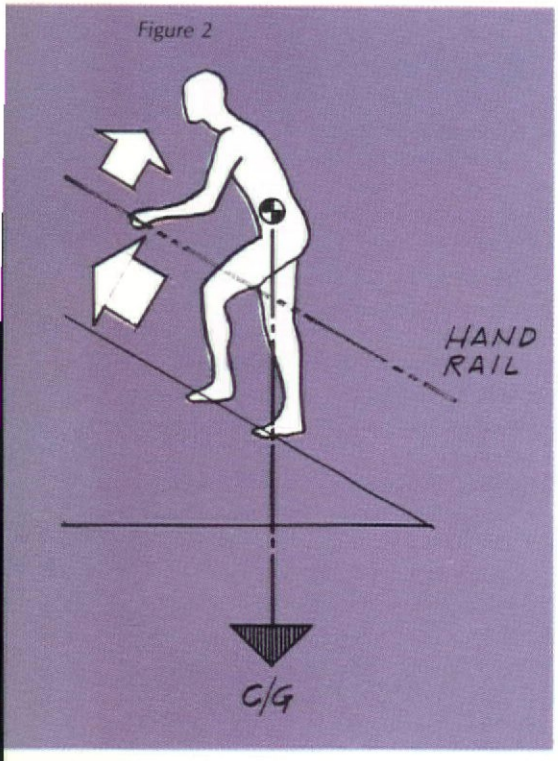
In the forward lean, there is stress on the back muscles which resist the pull of gravity. This stress is alleviated by providing a handrail, so that the hand can support part of the upper torso weight (Figure 2, next page).

In the downward motion, comfort balance is maintained by arching body segments backward at the waist over the center of gravity, with the ankles adjusting accordingly and the greatest strain being on the lower back. In downward motion, the body

Frank Peteroy is project manager at Office Design Associates, Shepard Martin, Inc., New York, and a human factors researcher.

Analyze comfort, safety, energy expense

Figure 2



resists the pull of gravity in order to control momentum (Figure 3).

Life safety is more apparent in downward motion on an inclined plane than upward. In upward motion, the body is moving upward and forward—applied force is in the direction of movement.

However, in downward motion, applied force is forward and downward, as well as backward. In addition, gravitational pull forces the body mass downward. That component of force is added to gravity, which, on severe inclines increases the possibility of the foot to slip out and forward. Resistance is provided by the use of textured, non-slip surfaces and/or cross bars, offering a surface for the foot to push against (Figures 4 and 7). In practical applications, state and local laws limit the angle of inclines permissable.

Although energy expense is a consideration, inclined surfaces become more hazardous than stairs after the maximum angle of 20 degrees is reached, and from that point stairs are required. From seven to 20 degrees, step ramps are suggested—the ramp angle limit for most codes is seven degrees/25 minutes (Figure 7).

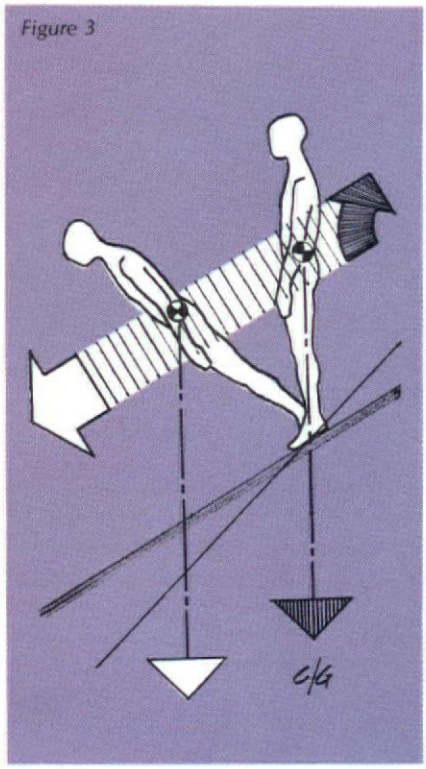
Safety codes frequently include requirement of a handrail for further support. Maximum handrail height ranges from 30 to 34 in. Maximum handrail projection is 3.5 in., while minimum finger clearance is 1 in.

Motion on stairs vs. ramps

Ascending and descending a stair is a unique activity of a body in motion. The center of gravity is kept under control by leaning slightly forward while climbing and remaining quite erect in descending. Using a handrail for support further assists the body in its effort to maintain a balanced position.

When ascending a stair, the center of gravity is shifted forward so that the angle of force from each leg is in a diagonally forward and upward direction. The rear leg pushes the center of gravity over the forward leg, shifting the base of support to that leg. Thus, the forward leg assists the rear leg by pushing downward against the supporting surface, moving the body upward to repeat the movement.

Figure 3



Descending a stair requires restraining the body against the pull of gravity at a controlled rate of speed. As the supporting knee flexes, weight is transferred to the swinging leg which becomes the new base of support, and the cycle is repeated.

Although fewer missteps will occur while ascending a stair, the dimensional combination of tread and riser will affect the movement of foot and leg. A narrow tread and high riser forces the foot to be lifted straight up, rather than diagonally, which is discomforting. A wider tread and lower riser allows the diagonal shift of the leg which conforms to a natural gait.

In descending a stair, the swinging leg positions the ball of the foot on the tread to begin the new base of support. A narrow tread and high riser in combination with a natural gait will place the point of critical contact beyond the nosing—causing a misstep. The effect of natural gait becomes more critical for descending since the force is being applied downward as well as backward and forward, maintaining the center of gravity over the base center line. The gait becomes irregular as the leg must restrain itself and drop the foot onto the narrower tread.

Tread, riser ratio aids safety

Life safety while ascending and descending stairs depends on the tread and riser dimensional combination, handrails, and speed of movement. Studies indicate that most falls occur while rapidly descending and that use of handrails assists in maintaining balance in both attitudes.

The formula established for stair design by Francois Blondel in 1672 is still in use today (although today's "inch" is shorter than that of the 17th century). That formula substantially accommodates the greatest percentage of people. A normal pace of a 24-in. step in a level walk decreases at a regular and predetermined amount for ascending stairs—a decrease of 2 in. for each 1 in. of riser height.

Recent studies suggest that risers between 6.3 and 8.9 in. and treads of 7.7

to 14.2 in. are safer to ascend than most.

In descending, treads of 12.3 in. and risers of 4.6 to 7.2 in. are safer. Treads less than 9 in. deep increase missteps. To accommodate 95 percent of the population, treads should not be less than 11.1 in. with a 1¾ in. overhang. Most building codes restrict the minimum tread width to 9.5 to 10 in. for general public use.

The most accommodating stair proportion, considering gait and energy expense, suggests a range of 4 to 7 in. for risers and 11 to 14 in. for treads.

Steepness is apparently not a significant consideration, but the proportion of stairs and dimensions of treads to risers, has a great effect on accident rates. The New York City Code, however, establishes a maximum angle of descent at 36.8 degrees. When the angle of descent is in the range of 30 degrees, the tread-to-riser formula appears to accommodate most people with little inconvenience.

Energy consumption key

Research suggests that the safest angle which would require the least energy consumption is 30 degrees. The tread-to-riser ratio would be riser/6.8 in. and tread/11.6 in. The ratio suggested is 2R plus T equals 25 in. The safe ratio for stairs used by the general public will vary according to local codes and application. The ratio is expressed in some combination of tread-width to riser-height formula designed to meet specific limits established by law.

Energy demand for ramps and stairs will vary according to the angle of incline. A ramp of less than eight degrees will be more economical in energy use than a stair. The energy requirement of a ramp decreases per meter of rise to 17 degrees, after which energy consumption increases.

Stairs with high risers require more energy expense than those with low risers. A narrow tread/high riser combination allows only the ball of the foot to lift the body, which is more tiring than a deeper tread allowing the full sole of the foot to be used as a base of support. This allows the body to be raised by extension of the knee joint.

Energy is conserved by keeping the center of gravity forward, effectively reducing the resistance arm of the thigh lever and conserving energy. An estimate of what the stress element would be for climbing stairs is that the energy required to climb an average flight of stairs is equal to walking a level distance 15 times the vertical distance of the height of the stair.

Criteria set for winders, spirals

Difficulty in ascending and descending stairs limits the type of stairs for use by the general public to straight stairs and/or curved stairs with restricted application. Winders are not permitted in exitway stairs; curved and spiral stairs, or the use of 'winders' as part of a straight combination of stair segments, are generally limited to ornamental, convenience stairs for the public or private, domestic use within residences. In each case, local and state codes govern.

Figure 4

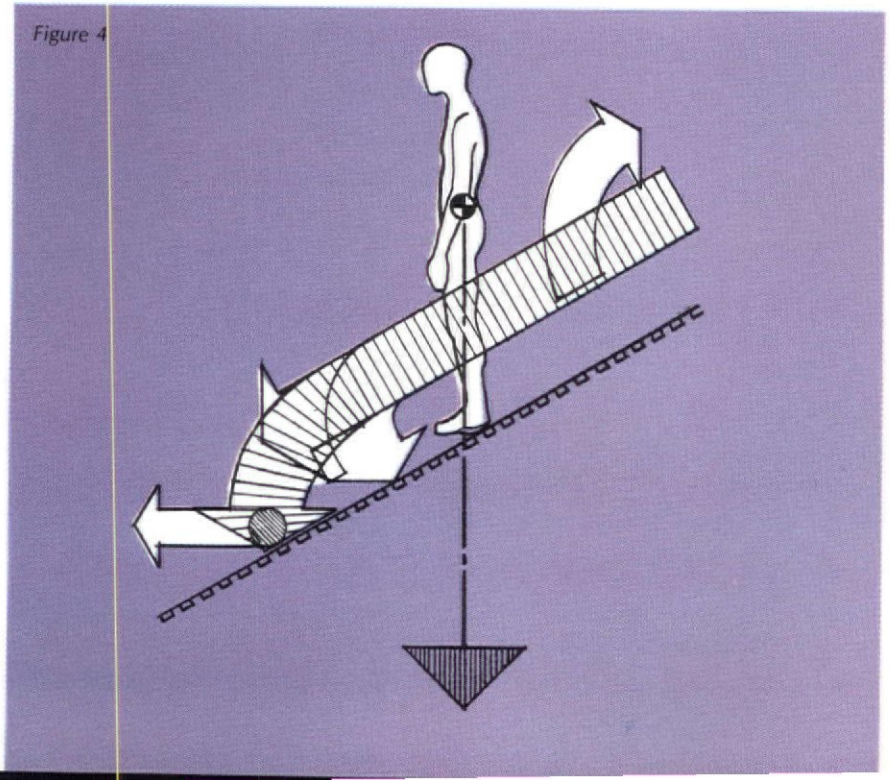
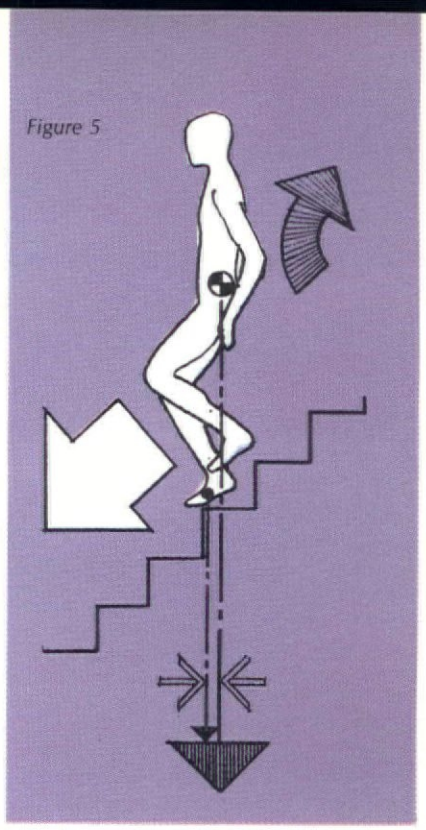


Figure 5



Appropriate stair design combines a safe ratio to both straight and curved stairs. Curved or skewed stairs incorporate wedge-shaped treads which are wider at one end than the other, known as winders.

A spiral stair is, in effect, a complete winding stairway. Winders, curved, or spiral stairs are inherently more dangerous when descending rapidly, therefore, their use is limited.

Restrictions placed on winders ensure that there will be at least a minimum contact surface at the point where the footpath will most likely occur. The design criteria for a winder generally combines the overall minimum stair width and a minimum tread width in a wedge shape. The user path is determinded to be 18 in. from the narrow inside edge. The wedge shape will vary from a minimum of 4 in. at the inside edge to as much as 15 in. at the outside edge. The net result is that the winder, along the user path line, has a minimum of 8 to 10 in. of tread surface. In combination with a straight stair, the winder(s)

ASCENDING

DESCENDING

RISER TO TREAD RATIO				
2R X T=64.8cm(25")		R X T=196.8cm(77.5")		
TREADS		ANGLE OF INCLINE	RISERS	
cm	in.		cm	in.
35.6	14	14° 10′	8.9	3.5
34.3	13.5	16° 50′	10.2	4
33.0	13	19° 20′	11.4	4.5
31.8	12.5	22° 00′	12.7	5
30.5	12	24° 38′	13.0	5.5
29.2	11.5	27° 33′	15.2	6
27.9	11	30° 35′	16.5	6.5
26.7	10.5	33° 41′	17.8	7
25.4	10	36° 52′	19.1	7.5
24.1	9.5	40° 08′	20.3	8
22.9	9	43° 22′	21.6	8.5
21.6	8.5	46° 38′	22.9	9
20.3	8	49° 54′	24.1	9.5
19.1	7.5	54° 10′	25.4	10

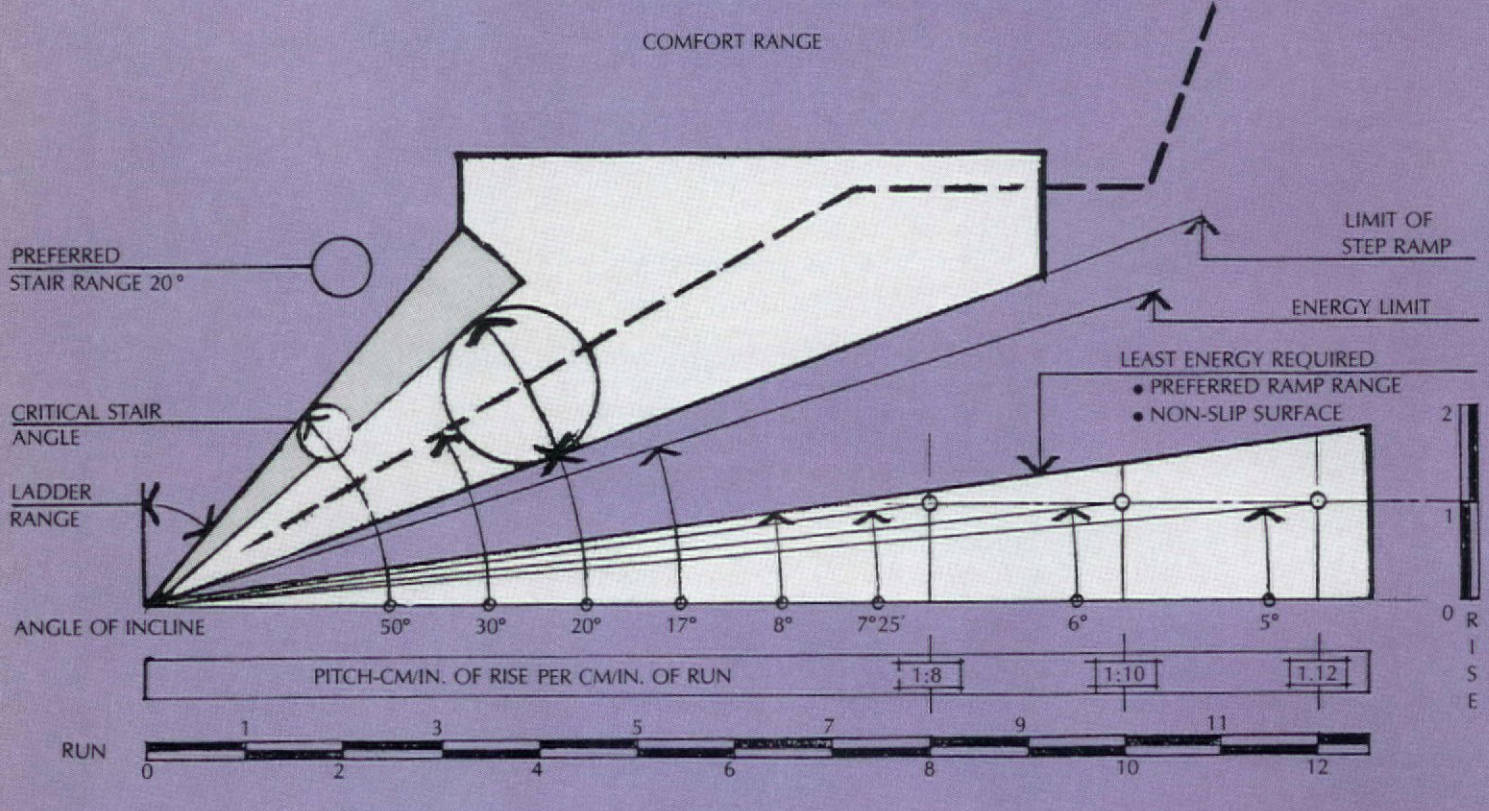
TREADS
19.7-36.2 cm
(7.7-14.2) in.

RISERS
16.2-20.0 cm
(6.3-8.9) in.
(Fitch et al)

TREADS
31.4 cm
(12.3) in.

RISERS
11.7-18.4 cm
(4.6-7.2) in.
(Fitch et al)

MAX. RISER
17.4 cm (6.8) in.
MAX. TREAD
29.2 cm (11.6) in.
PREFERRED
ANGLE - 30°
(Grandjean)



STAIR & RAMP COMFORT RANGE

Figure 7

Five basic motor activities involved

itself will be a logical extension of the straight tread occurring above and below.

Minimum stair width for a spiral is 22 in. for 10 people or less exiting from a mezzanine, according to the Basic Building Code (BOCA). Minimum preferred diameter for a spiral is 52 in. Acceptable rotation varies from 22 to 30 degrees for the wedge angle.

Design for level linear motion

Linear motion of the human body encompasses movement on a pure horizontal line as well as between two levels on ramps and stairs.

Standing, but in horizontal linear motion, is substantially a non-task activity. The degree of accuracy required is general in nature, intended to accommodate a greater percentage of the population. Comfort, life safety, and energy expense vary in importance with each specific movement.

With the body in horizontal linear motion, access to various commonly used devices such as thermostats, grab & push bars, door knobs, handrails, and panic bars, recognizes the range of the arm and hand as falling within a zone generally suitable for most people.

Various heights are intended to meet dynamic dimensions of the human body and its ability to apply force in the most efficient, and comfortable manner.

Most linear activities require that the arm swing out and away from the body to a position suitable for the hand to grasp a device. Turning motions (door knobs) are held to a height below the elbow so that the wrist and forearm muscles may rotate effectively. Pulling and pushing motions are at, or above, the elbow for the best leverage—depending on the user. Thermostats are set at a nominal height for viewing. reaching, setting, and mechanical effectiveness.

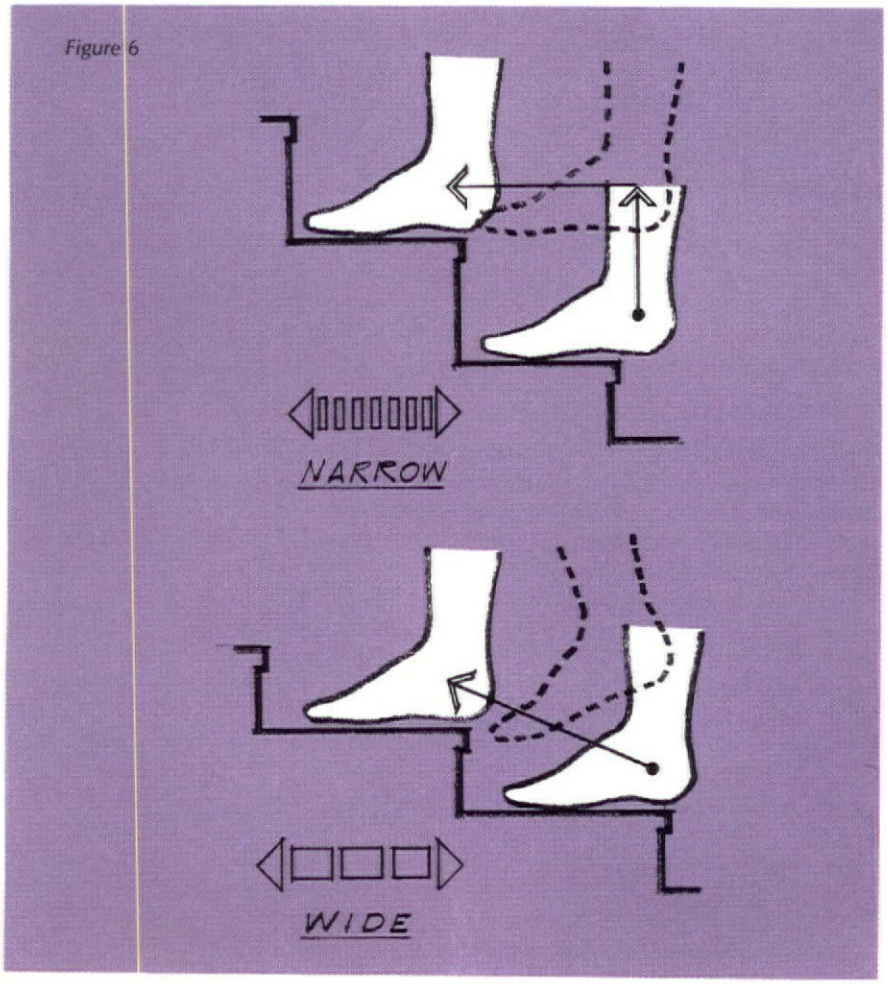


Figure 6

The exception to the use of arm leverage is the position of the 'panic bar.' Comfort is unimportant, while life safety is the prime consideration. Because of its horizontal design and accommodating height, accuracy is guaranteed by the full width of the horizontal bar and speed is maximized. Impact force with minimum energy expense completes the action. Its position has the implied use of the body in linear motion for actuating the mechanism, accommodating a range of people as opposed to a more specific door knob which requires greater accuracy.

Type of occupancy—business, assembly, mercantile, hazardous—establishes legal minimum-allowable dimensions for passageways leading to required exit doors. Generally, the minimum total corridor width is set at 44 in. for storage, business, industrial, and assembly; 60 in. for mercantile and institutional; and 72 in. for schools. The intent of the permitted clearance is to provide safe passage for a range of people under normal conditions.

The human body does not walk in a straight line—its path is serpentine. In horizontal linear motion, the body requires tolerances which will allow comfortable passage during normal activities, and minimum clearances for life-safety under emergency conditions. Obstructions should be fully outside the passage zone, if at all.

Where the passageway is the means to a required exit, obstructions are permissable with restrictions. Width should be measured 'in the clear' between the narrow points produced by the projections. That projection should not exceed five percent of the area of the wall on which it occurs, with a maximum of 18 in. In that case, the width may be reduced to the extent of 2 in. per unit of width.

Shoulder width determines the minimum clearance required for comfortable passage. Preferred minimum clearance for one person is 30 in. For two people—one turned sideways—the minimum is 36 in. Two people may pass within 44 in.; however, 56 in. is the preferred minimum passage for comfort. □

CONTRACT COMPUTER USE SURVEY SHOWS CAD SPACE DESIGN GROWTH

Most architectural/design companies polled are developing software programs for exclusive use, preliminary list of time-sharers here

Varied use of computers in computer-aided design (CAD) or in space planning computation and projections is indicated by responses to CONTRACT's April reader survey. Partial results are published here and typify the responses of over 60 companies which participated in the survey.

Of the participants, those who developed software programs and are interested in time-sharing are listed opposite. Companies fall into one of three categories: manufacturers of open plan systems that have developed software programs available to the design community; service bureaus of computer hardware/software companies offering services to designers, architects, and end-users; and architectural/interior design companies that have developed software programs and are willing to time-share their programs for a fee or sell them outright.

As a service, CONTRACT will provide future exposure to other companies falling into any of the above categories.

Demand for computer conference

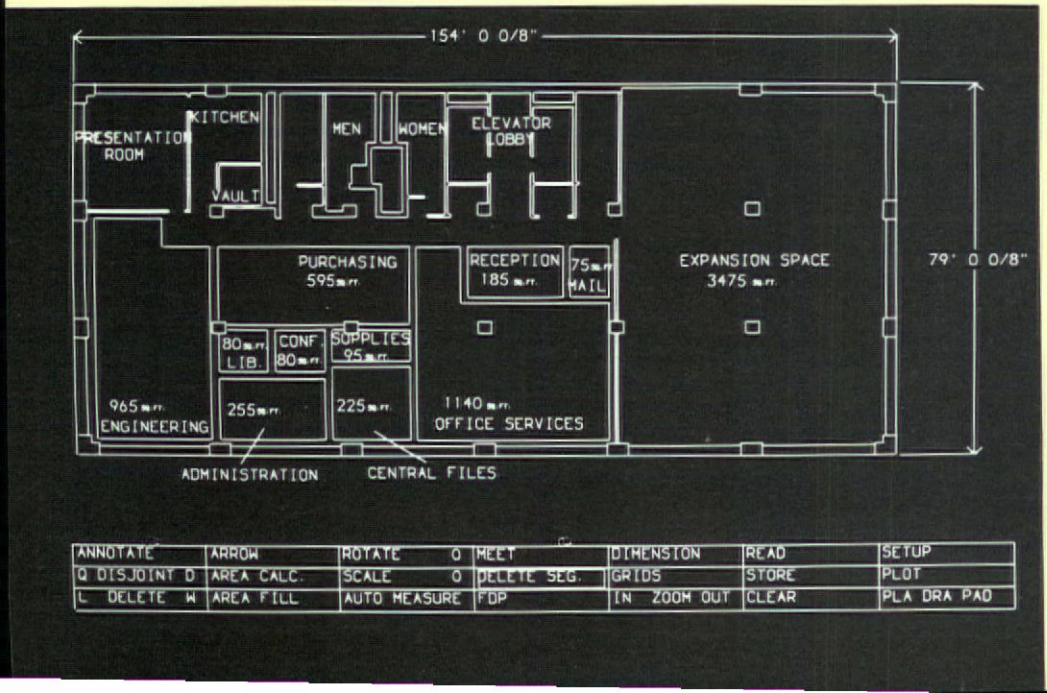
The professional's need to keep informed on recent developments in computer application has spurred the 4th annual Computer-Aided Space Design and Management Conference, co-sponsored by CONTRACT magazine and its sister publication, FACILITIES DESIGN & MANAGEMENT. The conference is scheduled for November 8-9 at the Halloran House Hotel, New York City.

Two days of seminars on CAD will cover a range of subjects, including how to get a start in computers and a discussion of sophisticated tracking techniques. In addition, the conference will provide hands-on experience with computer hardware.

According to Len Corlin, co-publisher/editor, CONTRACT, who will moderate various sessions together with Anne Fallucchi, Editor, FACILITIES, the conference is designed to meet the needs of both entry-level computer users and those seeking more sophisticated applications. Programs have been carefully designed to meet information and 'how-to' needs of both groups.

Registration information for the event is available from Eric Bean, Gralla Publications, 1515 Broadway, New York, NY 10036; 212/869-1300.

Prospective exhibitors should contact Justin LeWand, exhibit sales director, National Expositions Co. Inc., 14 W. 40 St., N.Y. NY 10018; 212/391-9111.



Computer aided design and drafting system (CADD) from Sigma Design is shown in action (above) at Rehler Vaughn Beaty & Koone, Inc., San Antonio, Texas, where same-size staff is able to produce from three-to-four times the work. Typical CADD menu and block space plan is shown at left with 21 functions.

COMPUTER USE SURVEY

CAD TIME-SHARE COMPANIES	DO YOU USE COMPUTERS				IN WHAT CAPACITY		WAYS YOU USE COMPUTERS								HARDWARE/ SOFTWARE		
	Use in space design and/ planning		Plan to use in design/ planning														
	Yes	No	Yes	No	In-house	Service Bureau	Projecting	Computational	Leasing	Stacking	Furniture	Graphics	Pie Chart	Construction	Manufacture hardware	Develop software	Sell either/both
David A. Wolfberg, AIA Principal, AED CADD 9400 S. Dadeland Blvd, Ste. 100 Miami, FL 33156 (305) 666-5474	✓				✓		✓	✓	✓	✓	✓	✓		✓		✓	✓
Roy Rusin, Western Reg. Mgr. Arrigoni Computer Graphics 231 O'Connor Dr. San Jose, CA 95128 (408) 286-2350	✓		✓		✓							✓		✓	✓	✓	✓
R.P. Bilden Marketing Mgr. Everett J. Brown Co. 5500 W. Bradbury Ave. Indianapolis, IN 46241 (317) 244-7881	✓				✓	✓					✓	✓		✓		✓	✓
Gerald Call President Call/Systems Inc. 430 S.W. Morrison #519 Portland, OR 97204 (503) 222-1977	✓				✓		✓	✓							✓	✓	✓
Jerome Charles Conrad Vice Pres. & Gen. Mgr. Fulton & Partners, Inc. The Ohio Building 420 Madison Ave. Toledo, OH 43604 (419) 243-6691	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Michael T. Callori Architect-Partner The Gilchrist Partnership 135 Ft. Lee Rd. Leonia, NJ 07605 (201) 461-8606	✓				✓					✓	✓	✓		✓			✓
Jeff Cross Program Mgr.-Marketing Herman Miller, Inc. 2855 44th St. Grandville, MI 49418 (616) 531-8860																✓	✓
L. Edward Kime, AIA Architect & Owner Kime & Associates Fort Industry Square 152 North Summit St. Toledo, OH 43604 (419) 255-7777	✓				✓		✓			✓					✓	✓	✓
Ron Singh, Owner Ranbir Singh, A.I.A. Architect P.O. Box 161825 Miami, FL 33116 (305) 595-5360					✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
Joanne Carroll Corporate Design Manager Zane Yost & Associates 144 Island Brook Ave. Bridgeport, CT 06606 (203) 384-2201					✓			✓				✓		✓	✓		✓

WIRED PANELS INCREASE PRESSURE FOR STANDARDIZED CODES

Widespread use of electrical wiring in systems panels and space dividers has made contract professionals more concerned with fire and electrical codes affecting the office environment. Because codes vary widely from one jurisdiction to another, greater use of wired panels has raised new questions pertaining to product safety and code language.

Confusion about codes is prevalent. As a result, more pressure is being exerted by the design industry to establish standard, national, uniform codes. The objective—distant as it may appear—is to diminish confusion caused by widely varying local standards.

When determining their own flammability standards, jurisdictions generally refer to guidelines set by the Boston Fire Department, the New York Port of Authority, or the California Bureau of Home Furnishings. Since these guidelines do not concur, it is difficult for industry professionals to determine which products meet individual area standards. Both specifiers and manufacturers hope that the development of one national code adhered to by all cities will simplify installations throughout the country. However, authorities agree that prospects of achieving that goal remain dim.

Systems furniture, which requires approval of both fabric and wiring, seems to have brought this controversial issue to a head. Industry organizations concerned primarily with the incidence of cigarette fire and subsequent ignition of interior finishes, have begun monitoring the effects of possible electrical fires caused by panel wiring or circuitry. Concern with the possibility of electrical fires within panels has increased pressure for a national code to reduce fire hazards overall.

Battling union opposition

Implementation of a uniform code regulating panel wiring is problematic, explains Fred Seeman, an authority on building codes and president, Helikon Furniture. "Unfortunately, each city sets up its own electrical codes which are often designed to protect unions. Unions fight standardization on the national level, because they claim that acceptance of integral open plan wiring means fewer jobs for electricians in the long run.

"Unions are powerful lobbying forces in government, and thus are difficult to challenge," he adds. "Other than standards which require use of carpet tile with flat wire, there are no national electrical codes governing systems furniture."

The Business & Institutional Furniture Manufacturers Association (BIFMA) is now trying to include an article in the National Electrical Code which will provide a common set of guidelines for designing and specifying systems panels. Recently, it made a recommendation to the Boston National Fire Protection Agency concerning procedures for lighting and wiring systems furniture. According to BIFMA executive director Steve Channer, it appears that the addition will be accepted with some modification.

Says Channer, "Although we are consumer-oriented, we must also protect our industry. Now that systems furniture integrates lighting and electrical functions into factory operations, it is essential that we have good, safe, standardized wiring practices for those systems. Our concern addresses both user safety and the need to reduce specifier and manufacturer liability if problems with these systems arise."

User safety is key concern

In order for a panel system to be approved and accepted for use in various jurisdictions, fabrics or finishes must be rated for fire-retardancy. Subsequently, all electrical elements —including conduit, interconnecting cable assembly, through-panel wiring, and lighting—must be tested and approved by an organization such as Underwriters Laboratory. Finally, the panel itself must be laboratory-listed.

Recently, Underwriters Laboratory generated a number of revisions to its proposed standard for wiring of systems panels. Dave McCarthy, principal, Electri-Cable Assemblies, a manufacturer of electri-pak wiring for open plan partitions, reviewed these revisions.

He notes, "A major thrust of new standards for systems wiring should be positive grounding. There should be grounding continuity from one panel to the next. This means that the grounding point on a three-pin plug should always be longer than the current carrier and neutral pin. If the grounding pin is longer, it will detect faults before they enter the system and prevent hazard from fire or shock."

McCarthy believes that more standardized requirements, such as this basic criteria for grounds, would be beneficial to users, specifiers, and manufacturers alike. "The systems furniture industry is relatively new, but is mushrooming at a phenomenal rate. More guidance concerning the safe design and use of these systems is needed. Between the actions of BIFMA and the combined research done by the code bodies and laboratories, there is a strong possibility for a coherent code which does not compromise anyone," he observes."

Architect Steven Papadatos, principal, Steven P. Papadatos & Assoc., New York, agrees. "Right now, it is far too difficult for specifiers to identify which codes they must follow in different cities," he says. If there were one set of standards, which all cities followed to the letter, manufacturers could easily list how closely they adhere to them and make it much easier for designers and architects to get job approval."

The most recent development in the direction of uniform standards is a new fire regulation for decorations, furnishings, and interior finish released by the Boston Fire Department, Fire Prevention Division. As a service to readers, CONTRACT has reprinted these new regulations for review. Copies of the Boston Fire Prevention Code, Article IX, and additional information on the regulations can be obtained by writing Boston Fire Department, Fire Prevention Division, 115 Southampton St., Boston, MA 02118; 617/442-8000.

Industry concern with fire hazards calls for national standards

BOSTON FIRE DEPARTMENT FIRE PREVENTION DIVISION

REGULATIONS CONTROLLING DECORATIONS, FURNISHINGS AND INTERIOR FINISH

1. **AUTHORITY:** The Boston Fire Department regulations controlling decorations, furnishings and interior finish are based on the authority delegated to the Fire Commissioner/Chief of Department by:
   Massachusetts General Laws Chapter 148
   Boston Fire Prevention Code
   Massachusetts Fire Prevention Regulations
   Massachusetts State Building Code

2. **MATERIALS REGULATED:** Regulated decorations, furnishings and interior finish are defined in Boston Fire Prevention Code, Article IX; regulated occupancies are cited in Section 9.02 (a).

3. **SUBMISSION OF MATERIALS AND INFORMATION TO THE FIRE DEPARTMENT**
   The following information is required for all materials submitted for evaluation:
   —The name and address of the proposed installation with specific locations within an occupancy identified.
   —The occupancy use group from the State Building Code.
   —The description of the material submitted and the manufacturer's designation; the application of any topical surface finishes such as flame retardant treatments applied to fabrics shall be identified and Certificates of Flame Retardant Treatments shall be provided.
   —The intended use, e.g. drapery, wallcovering, upholstered furniture.
   —Affidavits of fire testing of materials or products consisting of complete test reports prepared by independent testing laboratories.

4. **GENERAL REQUIREMENTS**
   4.1 Curtains and Draperies are regulated under the Boston Fire Prevention Code. All materials shall be submitted for testing and evaluation by the Fire Department. Sample size is 12 in. by 15 in. or larger. Materials treated to impart resistance to ignition shall be identified and an acceptable Certificate of Flame Proofing shall be submitted.
   4.2 Ceiling finish is regulated for compliance with the State Building Code Section 920.0. Materials and products are evaluated on the basis of fire test reports. Applicable fire test is ASTM E84 (Tunnel test). Samples may be required for visual inspection.
   4.3 Interior Wall Finish is regulated for compliance with the State Building Code, Section 920.0. Materials and products are evaluated on the basis of fire test reports. Applicable fire test is ASTM E84 (Tunnel test).
   Special restrictions apply to use of soft floorcoverings (carpets) on walls, Table 920.
   Note f. Wallcoverings are approved for installation on noncombustible base walls and all existing wallcoverings shall be removed prior to new installations.
   4.4 Upholstered Furniture is regulated under the Boston Fire Prevention Code. Specific requirements are provided in Paragraph 5.1.
   4.5 Floorcoverings are regulated under the Massachusetts Building Code, Section 920.0. Applicable fire test is ASTM E648, Flooring Radiant Panel. Proposed carpet assemblies must be tested as assemblies e.g., carpet and underlayment. Requirements for occupancy use groups are summarized in attached sheets. Floorcoverings are only regulated in corridors, exitways, lobbies and stairs.

5. **SPECIFIC REQUIREMENTS**
   5.1 UPHOLSTERED FURNITURE
   Upholstered furniture can be evaluated as a specific item, that is, a particular chair construction consisting of a covering material, resilient padding or filling and structural features. This evaluation can include full scale fire tests of the finished product supplemented by separate small scale fire tests of the covering material and the padding material. Components of upholstered furniture can also be evaluated by small scale fire tests and rulings of acceptability by the Fire Department can be made without full scale fire tests.
   An "application" for a ruling of acceptability of the finished product shall be evaluated on the basis of the covering material, the padding, other materials of construction and the availability of full scale test results for similar construction. In addition, the use-group occupancy, the building construction and the provision of automatic fire detection and supression systems will be considered.
   Fabric and coated fabric upholstery coverings generally require separate small scale fire test evaluation for a ruling of acceptability. All decorative and functional fabric and coated fabric coverings shall be submitted to the Fire Department for testing in conformance with the Fire Prevention Code. Fabric coverings found by test to conform to the provisions of the code shall be acceptable for use. The performance requirement in the small scale fire test can be adjusted for a particular upholstery construction on the basis of the occupancy, and the provision of automatic fire detection and supression systems.
   Unprotected resilient foam padding of the products identified below has demonstrated acceptable performance characteristics in small scale fire tests of the padding alone and in full scale fire tests of certain upholstered furniture constructions. The use of these products in conjunction with appropriate cover fabrics and other limitations imposed by these regulations can be judged acceptable for particular occupancies and locations upon application. The foam padding products and the respective manufacturers are:
   NAFI Neoprene, Chris Craft Industries, Inc.
   LS200 Neoprene, Toyad Corp.
   KOYLON SLS Neoprene, Uniroyal, Inc.
   KOYLON Neoprene, Unroyal Inc.

(Continued)

Strict uniform technical requirements needed

DENSITE ME III Urethane, General Foam Corp.
ISOTHANE CMHR Urethane, Morristown Foam Co.
PYROTHANE CM Urethane, Scott Paper Company

Other unprotected foam or filling products can be considered upon application. Foam padding which meets or exceeds the flammability requirements of the State of California and is protected by an approved interliner is also acceptable. Interliners shall be approved by the Fire Department on the basis of full scale test data supplied by the manufacturer. As of this date, the Vonar III interliner is the only approved interliner. The Vonar is used in 3/16 inch thickness. It shall be laminated to the foam padding on all surfaces which are covered with decorative or functional fabrics or coated fabrics. Only adhesives recommended by the manufacturer shall be used to laminate the interliner to the foam. It is not necessary to use an interliner if the foam is otherwise protected by the metal, plastic or wood components of upholstered furniture.

Resilient plastic foam cushioning and padding is limited to maximum thickness of four (4) in. The use of foam padding in a thickness in excess of 4 in. can be allowed by special consideration of construction features, occupancy, location and results of full scale fire tests.

ARTICLE IX.
DECORATIONS, FURNISHINGS, AND INTERIOR FINISHES

Section 9.01—Definitions

(a) "Decorations" shall mean items which contain flammable and combustible materials and materials which *readily* undergo thermal degradation, yielding flammable and combustible gasses or vapors or irritating and toxic smoke, and which are used for decorative purposes such as curtains, drapes, upholstery coverings, streamers, banners, coverings over interior finish, and other items identified as subject to this article.

(b) "Furnishings" shall mean items which contain flammable and combustible materials and materials which readily undergo thermal degradation, yielding flammable and combustible gasses or vapors or irritating and toxic smoke, and which are used as articles of furniture including but not limited to upholstered chairs and couches, solid plastic seating, space separating panels, wall- and ceiling-mounted acoustical devices, and articles which are constructed with foamed cellular plastic in the form of finished exterior or upholstery padding. Bedding including matresses may be subject to regulation under this article.

(c) "Interior finishes" means the exposed interior surfaces of buildings including but not limited to fixed or movable walls and partitions, certain wall coverings, columns, ceilings, and certain floor coverings.

Section 9.02—Permit Required

(a) *A permit* shall be obtained for use of decorations, furnishings, and interior finishes in *every* mercantile, business, assembly, institutional, and residential hotel occupancy and in certain residential multi-family dwellings as designated by the Head of the Fire Department.

(b) A permit applicant shall furnish information as to the occupancy and location where such decorations, furnishings, and interior finishes will be used and such other information as the Fire Marshal may require, including sample materials for testing by the Fire Department Chemist.

Section 9.03—General Requirements

(a) Furnishings, decorations, or other objects shall not be so placed as to obstruct the use of an exit, exit access, or exit discharge.

(b) Decorations, including hangings, draperies, and mirrors, shall not be placed over exit doors.

(c) The Head of the Fire Department may prohibit the use of decorations, furnishings, and interior finishes which, on the basis of material analysis, burning, smoke-producing characteristics, or other applicable data, are judged to constitute a fire hazard.

(d) Furnishings or decorations of an explosive or highly flammable character shall not be used.

(e) Decorations, furnishings, and interior finishes composed of cellular and foam plastic materials may be prohibited when their use is determined to constitute a fire hazard by the Head of the Fire Department.

(f) Furnishings, decorations, and interior finishes acceptable for use shall meet the criteria for resistance to ignition, flame spread, heat-release potential, and smoke-producing characteristics for particular occupancies and locations as specified in applicable Fire Prevention Orders issued by the Head of the Fire Department.

(g) Fire Prevention Orders for the control of interior finishes shall be consistent with applicable requirements of the Massachusetts State Building Code.

Section 9.04—Classification

(a) The Fire Department Chemist shall classify decorations, furnishings, and interior finishes as acceptable or not acceptable for use at locations and occupancies for which a permit for the use of decorations, furnishings, or interior finishes is required. The classification determined by the Fire Department Chemist shall be stated in a report to the Fire Marshal which shall include terms and conditions for the maintenance of acceptability or the use of the decorations, furnishings, and interior finishes at a location for which a permit is required.

(b) Classification of decorations, furnishings, and interior finishes shall be of the finished item or material, in the state in which it will be installed or used.

(c) The Fire Department Chemist shall make examinations and tests of decorations, furnishings, and interior finishes in accordance with applicable Fire Prevention Orders. He shall determine the number of tests to be performed on any material under these provisions, the size of the samples of the material to be tested, and the acceptability of the test methods employed.

(d) The Fire Department Chemist may classify as not acceptable any decorations, furnishings, or interior finishes, the materials of which possess characteristics of reactivity which may be excessively dangerous, or characteristics which could produce smoke in such amounts as to obscure means of egress whether or not such characteristics are revealed by the specific examinations or tests made.

(e) The Fire Department Chemist may accept the reports of laboratories or testing agencies which have an established procedure for examinations and testing of the materials involved in decorations, furnishings, and interior finishes. He may require that said laboratories or testing agencies show that they have the necessary facilities and qualified personnel for examinations and tests for the particular materials.

(f) For materials which depend on a fire retardant treatment to meet the required classification tests, the Fire Department Chemist may issue an acceptable classification when he has satisfactory evidence that the service life of the fire retardant treatment exceeds that of the planned service life of the finished item. He may also issue an acceptable classification on the basis of restrictions imposed regarding a requirement that permanence of flame retardant treatment be demonstrated after cleaning or extended duration of use.

QUICK-SHIP DIRECTORY

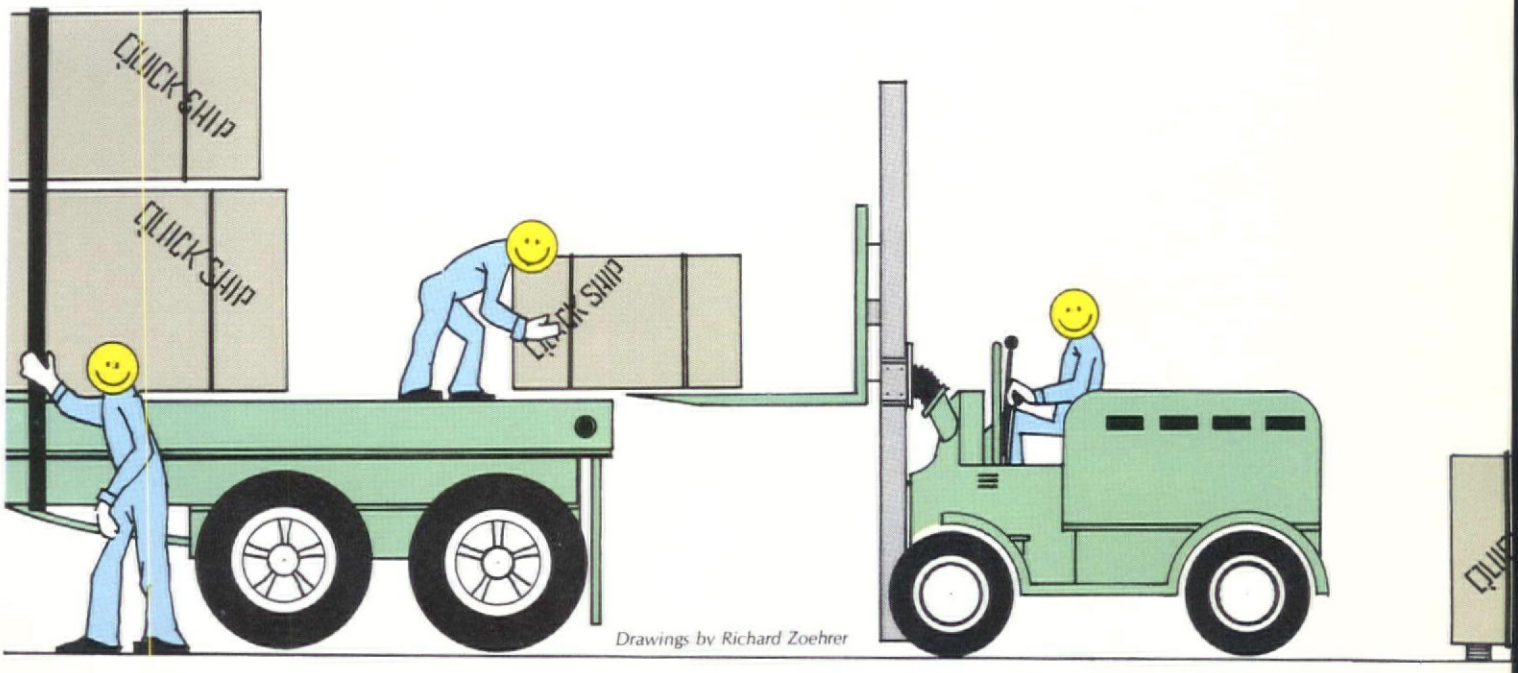
In-stock programs of 134 new firms added to listings

Started several years ago as a quick reference for specifiers in immediate need of furniture and furnishings, CONTRACT's Quick-Ship Directory has become an important addition to designer source libraries. Manufacturers recognize that 15- or 20-week delivery dates generally are unacceptable to clients opting for fast-track installations. As a result, 134 more manufacturers have introduced quick-ship programs since CONTRACT's Quick-Ship Directory was published last year. All are included in these new and expanded listings.

Key legends indicate the type of furniture and furnishings offered by each manufacturer. Telephone numbers are supplied in the alphabetical listings. Your suggestions for improving the service are indeed welcome.

THE EDITORS

See page 112A for Quick Ship Reader Service Card.



Drawings by Richard Zoehrer

QUICK-SHIP DIRECTORY

A

A & B America
Yonkers, NY (914) 423-3580
C, CH, CF 2 weeks/FF
Circle No. 600.

Abstracta Structures
New York, NY (212) 944-2244
CS, OS, SD/3-7 days/WR
Circle No. 601.

Accord, Div. U.S. Furniture
High Point, NC (919) 886-5157
CH, T/1 day/WR, FF
Circle No. 602.

Acme Landscape Group
Brooklyn, NY (212) 384-7800
LP/14 days/FF
Circle No. 603.

Acoustical Partitions
Holyoke, MA (413) 533-3986
LP, OS/3-10 days/FF
Circle No. 605.

Acousti-Forms
Fridley, MN (612) 571-6033
OS/7-10 days/FF
Circle No. 604.

Adirondack Direct
New York, NY (212) 972-1700
CH, D, F, T/7-10 days/FF
Circle No. 606.

Adjustable Steel Products
New York, NY (212) 986-9640
C, SD/7-10 days/FF
Circle No. 607.

Advance Mfg. Co.
Orlando, FL (305) 299-4020
CS/10 days/FF
Circle No. 608.

AGI Industries
High Point, NC (919) 883-6146
CH, CS, T/5 days/FF
Circle No. 609.

Ajusto Equipment
Bowling Green, OH (419) 244-4983
CH/5 days/FF
Circle No. 610.

Albert Salman Assoc.
Buena Park, CA (714) 994-0990
CH/8 days/FF
Circle No. 611.

Algoma Net Co.
Algoma, WI (414) 487-5577
CS/7 days/FF
Circle No. 612.

Alka Structures
Long Island City, NY (212) 784-1040
D, LP, T/14-21 days/FF
Circle No. 613.

Allied Trend System
New York, NY (212) 243-0754
SD, T/7 days/FF
Circle No. 614.

Alma Desk
High Point, NC (919) 885-4101
C, CH, D, F, S, T/10days/WR, FF
Circle No. 615.

All-Steel
Aurora, IL (312) 859-2600
C, CH, D, F, LP, OS, SD, T/7 days/WR, FF
Circle No. 616.

Ambiant Systems
Toronto, Ont. (416) 863-0863
CH, CS, T/21 days/FF
Circle No. 617.

American Booth Creators
Horseheads, NY (607) 739-3621
C/14 days/FF
Circle No. 618.

American Of Martinsville
Martinsville, VA (703) 632-2061
C, CH, T/1 day/FF
Circle No. 619.

American Seating
Grand Rapids, MI (616) 456-0600
CH, CF, OS, T/1-4 weeks/WR, FF
Circle No. 620.

Anderson Desk
Glendale, CA (213) 246-3133
C, CH, D, F, T/5-10 days/WR, FF
Circle No. 621.

Antiquarian Traders
Los Angeles, CA (213) 627-2144
CH, D, F, SD, T/10 days/FF
Circle No. 622.

Architectural Supplements
New York, NY (212) 758-0926
CH, T/5-7 days/FF
Circle No. 623.

Arconas
Mississauga, Ont. (416) 272-0727
CH/5 weeks/FF
Circle No. 624.

Arenson International USA
New York, NY (212) 838-8880
C, CH, D, F, OS/7-10 days/WR
Circle No. 625.

Armstrong Furniture
Thomasville, NC (919) 475-1361
C/4-5 weeks/FF
Circle No. 626.

Artec
Jasper, IN (812) 482-1600
C, D, F, OS/5 days/FF
Circle No. 627.

Artemide
New York, NY (212) 980-0710
CF/14 days/FF
Circle No. 628.

Artifax Display Inds.
Woodmere, NY (516) 295-0195
CF, SD, T/7-14 days/FF
Circle No. 633.

Artopex
Laval, Que. (514) 332-4420
CH, CF, D, LP, OS, T, F/2-3 days/WR
Circle No. 629.

Art Steel
Bronx, NY (212) 796-5000
CH, LP/10 days/WR, FF
Circle No. 630.

Aspects
Sun Valley, CA (213) 768-9000
CF, LP, OS, T/5 days/WR, FF
Circle No. 631.

Atelier International
New York, NY (212) 644-0400
C, CH, D, F, OS, T/2-4 weeks/FF
Circle No. 632.

Auffray & Co.
New York, NY (212) 753-3931
C, CH, CF, D, T/3-4 weeks/FF
Circle No. 634.

Avenger Designs
Oakville, Ont. (416) 845-3338
CH/2 weeks/FF
Circle No. 635.

B

Baker Furn./Contract
Chicago, IL (312) 329-9410
CH, D/5 weeks/FF
Circle No. 636.

Barzilay
Rancito Dominguez, CA (213) 774-3321
C, CH, SD/2-6 weeks/FF
Circle No. 637.

Norman Bates
Anaheim, CA (714) 634-2201
CH, D/10 days/FF
Circle No. 638.

Beaver Furniture
New York, NY (212) 226-1850
CH/14 days/FF
Circle No. 639.

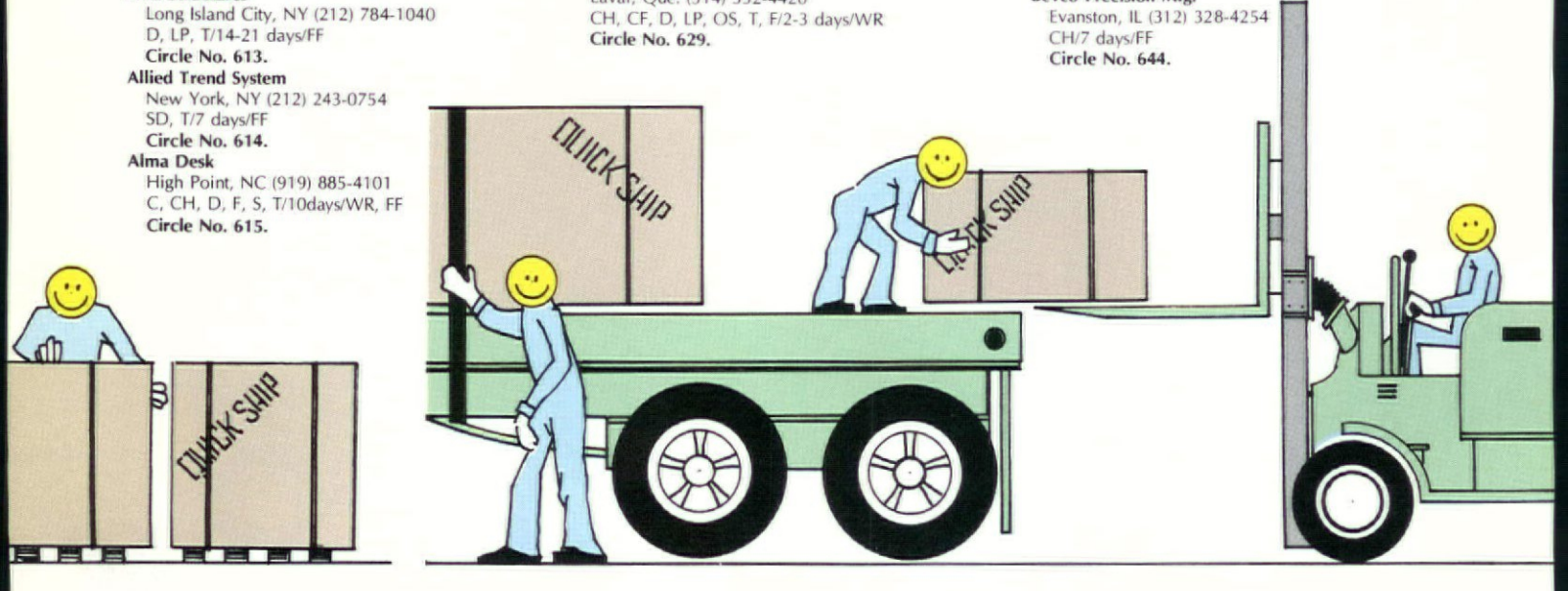
Beelner & Thomas
Monrovia, CA (213) 357-6051
CH, D/5 days/FF
Circle No. 640.

Benedetti
Los Angeles, CA (213) 263-9761
C, CH, D/5-30 days/FF
Circle No. 641.

Berco
St. Louis, MO (314) 772-4700
T/3-4 days/FF
Circle No. 642.

Bevis Custom Tables
Florence, AL (205) 766-6497
CF, LP, T/14-21 days/FF
Circle No. 643.

Bevco Precision Mfg.
Evanston, IL (312) 328-4254
CH/7 days/FF
Circle No. 644.



Beylerian Ltd.
New York, NY (212) 755-6300
CH, CF, T/14 days/FF
Circle No. 645.

Biltrite Furniture
Montreal, Que. (514) 352-7770
C, CH, D, T/7-10 days/WR, FF
Circle No. 646.

H. L. Birum
Lambertville, NJ (609) 397-1750
LP/7 days/FF
Circle No. 647.

A. Blank
New York, NY (212) 269-8884
C, CH, CF, D, F, LP, OS, T/2 weeks/WR, FF
Circle No. 648.

Boling
Siler City, NC (919) 663-2400
CH/1-3 days/WR, FF
Circle No. 649.

John Boos
Effingham, IL (217) 347-7701
CH, CF, CS, D, SDT/10-12 days/WR, FF
Circle No. 650.

Borroughs, Div. Lear Siegler
Kalamazoo, MI (616) 342-0161
SD/ 7 days/WR, FF
Circle No. 651.

Bradston-Hurricane
National City, CA (714) 474-6656
C, CH, CF, T/6 weeks/WR, FF
Circle No. 652.

Brandrud Furn.
Auburn, WA (206) 838-6500
CH, CF, T/10 days/FF
Circle No. 965.

Brazilian Securit
Houston, TX (713) 683-7166
CH, D, SD, F, T/2 days/WR, FF
Circle No. 653.

Bretford Mfg.
Schiller Park, IL (312) 678-2545
CF/1 day/WR
Circle No. 654.

Brewster
Old Saybrook, CT (203) 388-4441
LP/2 days/FF
Circle No. 657.

Brodart
Williamsport, PA (717) 326-2461
CH, F, SD/4 weeks/FF
Circle No. 655.

Brown Jordan
El Monte, CA (213) 443-8971
CS/10-14 days/FF
Circle No. 658.

Brueton Industries
Springfield Gardens NY (212) 527-3000
CH, T, SD/2-3 weeks/FF
Circle No. 656.

CI Designs
Medford, MA (617) 391-7800
CH/2-5 days/FF
Circle No. 659.

Cado/Royal System
S. Plainfield, NJ (201) 561-7080
C, CH, D, SD/4 weeks/WR
Circle No. 660.

Warren Campbell
Dallas, TX (214) 744-3200
CS/2 weeks/FF
Circle No. 661.

Cardinal Corp.
Stanley, WI (715) 644-5531
CH, CF, OS, T/10-20 days/FF
Circle No. 662.

Carolina Seating
High Point, NC (919) 476-6117
CH/3 days/FF
Circle No. 663.

Jack Cartwright, Inc.
High Point, NC (919) 885-6077
CH/10 days/FF
Circle No. 786.

Castelli Furniture
Bohemia, NY (516) 589-0707
CH/15 days/FF
Circle No. 664.

Chairtex
Toronto, Ont. (416) 252-3531
CH, D/5 days/FF
Circle No. 665.

Charlotte Chair
Charlotte, MI (517) 543-4210
CH/1 day/FF
Circle No. 666.

Charvoz-Carsen
Fairfield, NJ (201) 227-6500
CH, CF, T/5-10 days/WR
Circle No. 667.

Check-mate Interior Systems
Bronx, NY (212) 991-3610
LP, OS/4-6 weeks/FF
Circle No. 668.

Chromcraft
SEnatobia, MS (601) 562-8203
CH, D, F, T/5 days/FF
Circle No. 669.

Clarin
Lake Bluff, IL (312) 295-2200
CH, CF, 75-10 days/FF
Circle No. 670.

Closet Maid Shelving
Ocala, FL (904) 732-8734
SD/5 days/WR, FF
Circle No. 966.

Cole Business Furn.
York, PA (717) 854-1545
C, CH, CF, D, F, LP, T/1½ days/FF
Circle No. 671.

Commercial Chair
City of Industry, CA (213) 968-0444
CH/3-4 weeks/WR, FF
Circle No. 672.

Completely Casual
Opa-Locka, FL (305) 685-5171
CS/20 days/FF
Circle No. 673.

Computer Accessory
Dallas, TX (214) 631-5732
CF,/5 days/FF
Circle No. 674.

Computer Furniture Systems
Boston, MA (617) 423-4073
CF/10 days/FF
Circle No. 675.

Computer Roomers
Dallas, TX (214) 357-4671
CF, D, OS, T/1 day-2 weeks/FF
Circle No. 676.

Continental Imports
Philadelphia, PA (215) 482-8000
CH, SD/2-28 days/FF
Circle No. 677.

Conwed
St. Paul, MN (612) 221-1100
LP/1 week/FF
Circle No. 678.

Corry Jamestown
Corry, PA (814) 664-4611 •
C, CH, D/10 days/FF
Circle No. 679.

Craftsman Office Furn.
Los Angeles, CA. (213) 638-6118
C, D, T/10 days/FF
Circle No. 680.

Cramer
Kansas City, KS (913) 621-6700
CH, CF, LP, T/2 days/FF
Circle No. 681.

Crayton Furn.
New York, NY (212) 758-2611
C, CF, D, OS, F/14 days/WR
Circle No. 682.

Creative Dimensions
Nappanee, IN (219) 773-2411
T/5 days/FF
Circle No. 683.

Croydon
Cambridge, Ont. (519) 621-6300
D, OS/2 weeks/FF
Circle No. 684.

Cubicon
St. Louis, MO (314) 535-3020
SD/30 days/FF
Circle No. 685.

Curtis
New York, NY (212) 689-1616
C, CS, D, F, OS, SD, T/WR
Circle No. 686.

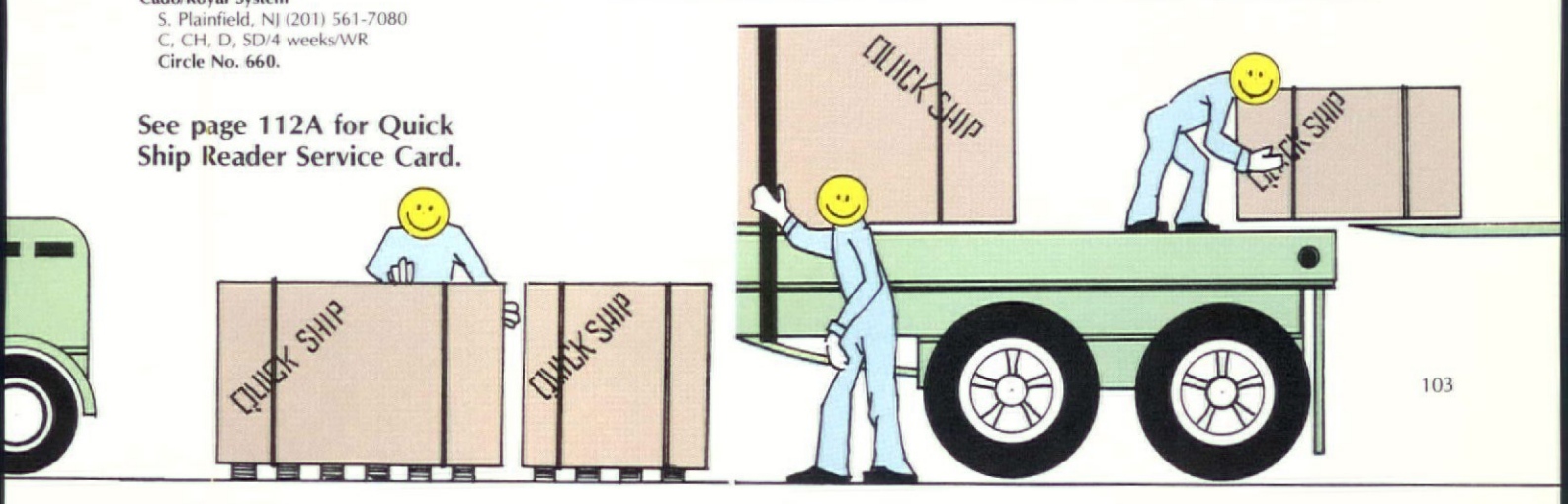
Curtis Products
Cobourg, Ont. (416) 372-2184
CH/10 days/FF
Circle No. 687.

Curvcraft
Philadelphia, PA (215) 467-9400
CH/5 days/FF
Circle No. 967.

LEGEND

C—casegoods	D—desks	SD—shelving/display
CH—chairs	F—files	T—tables
CF—computer furniture	LP—landscape panels	WR—warehouse regionally
CS—casual furniture	OS—open office systems	FF—ship from factory

See page 112A for Quick Ship Reader Service Card.



QUICK-SHIP DIRECTORY

D E

Danwood
Woodinville, WA (206) 485-8524
OS/7 days/FF
Circle No. 689.

Dansanna Int'l.
Montreal, Que. (514) 489-3855
CH, CF, D, LP/1 week/FF
Circle No. 690.

Data-Mate/Maine Mfg.
Nashua, NH (603) 882-5142
CH, CF/4 days/WR, FF
Circle No. 691.

Data Processing Furn.
Houston, TX (713) 461-9386
CF/3 weeks/FF
Circle No. 692.

Datum Filing Systems
Farmingdale, NY (516) 293-4651
CF/3 days/FF
Circle No. 693.

David-Edward
Baltimore, MD (301) 789-0700
CH/10 days/FF
Circle No. 694.

Davis Furniture
High Point, NC (919) 889-2009
CH/4 weeks/FF
Circle No. 695.

Decar Corp.
Addison, IL (312) 543-8050
CH, D, T/1-2 weeks/FF
Circle No. 696.

Delco Associates
Greenwich, CT (800) 243-8528
F/2 weeks/FF
Circle No. 697.

Design Group, Inc.
Lake Oswego, OR (503) 639-9636
C, CH, D, SD/14 days/FF
Circle No. 698.

Design Institute America
New York, NY (212) 472-1360
CS/3 days/WR
Circle No. 699.

Discovery Systems
Carlstadt, NJ (201) 438-7722
C, CF, D, F, OS, SD/FF
Circle No. 700.

Diversified Imports
Lakewood, NJ (201) 363-2333
C, SD/1 day/WR, FF
Circle No. 701.

Domore
Elkhart, IN (219) 293-0621
C, CH, CF, D, LP, OS, SD, T/20 days/FF
Circle No. 702.

Dor-Val Mfg.
St. Laurent, Que. (514) 336-7780
CH, T/as required/FF
Circle No. 703.

Dri-View Mfg.
Louisville, KY (502) 636-5158
CF/1 week/FF
Circle No. 704.

Dunbar
Berne, IN (219) 589-2111
C, CH, CS, D, F, T/6 weeks/FF
Circle No. 705.

DUX
New York, NY (212) 752-3897
C, D, F, OS, SD/30 days/WR
Circle No. 706.

Ebco-Ebenreiter
Sheboygan, WI (414) 458-8731
C/10 days/FF
Circle No. 707.

EMI
Memphis, TN (901) 345-6340
CH, T/1-5 days/WR, FF
Circle No. 708.

Empire State Chair
New York, NY (212) 421-9470
CH
Circle No. 709.

Eppinger
Stamford, CT (203) 329-1984
CH/2-4 weeks/FF
Circle No. 710.

Esselte Pendaflex
Garden City, NY (516) 741-3200
F/5 days/WR
Circle No. 711.

Executive Furniture
Huntingburg, IN (812) 683-3334
D, T/1 day/FF
Circle No. 712.

Executive Office Concepts
Compton, CA (213) 979-2643
C, CH, CF, D, F, OS, T/2-10 days/FF
Circle No. 713.

F

Facit
Greenwich, CT (203) 622-9150
CH, CF/7-10 days/WR
Circle No. 714.

Falcon Products
St. Louis, MO (314) 991-9200
CH, T/2-3 days/WR
Circle No. 715.

Filing Equipment
Ringgold, GA (800) 241-5246
F, OS/10 days/FF
Circle No. 716.

Fine Edge Int'l.
Mississauga, Ont. (416) 624-0686
CH, CF, D, OS, T/FF
Circle No. 718.

Fiori Designs
Little Falls, NJ (201) 256-2666
CF, D, T/6-8 weeks/FF
Circle No. 717.

Fixtures Mfg.
Kansas City, MO (800) 821-3500
CH, CF, T/1 day-3 weeks/FF
Circle No. 719.

Flex-Y-Plan
Erie, PA (814) 838-3583
LP/10 days/WR, FF
Circle No. 720.

Forest Furniture
Morristown, TN (615) 586-7460
C/30 days/FF
Circle No. 721.

Fortress
Los Angeles, CA (213) 273-5800
CH, CF, OS/15 days/FF
Circle No. 722.

Functional Office Furn.
San Rafael, CA (415) 457-4143
CH, CF/2 days-8 weeks/WR
Circle No. 723.

Fupoflex/USA
Livonia, MI (313) 525-4150
CH/2 days/WR
Circle No. 724.

G H

GF Business Equipment
Youngstown, OH (216) 746-7271
C, CH, CF, CS, D, F, LP, OS, T
5 days/WR
Circle No. 725.

Garrett Tubular Prods.
Garrett, IN (219) 357-4161
CH/5 days/FF
Circle No. 726.

Gasser Chair
Youngstown, OH (216) 759-2234
CH/5-30 days/WR, FF
Circle No. 727.

Gatto Furniture
Fort Lauderdale, FL (305) 584-6400
CF/ 3 weeks/ FF
Circle No. 728.

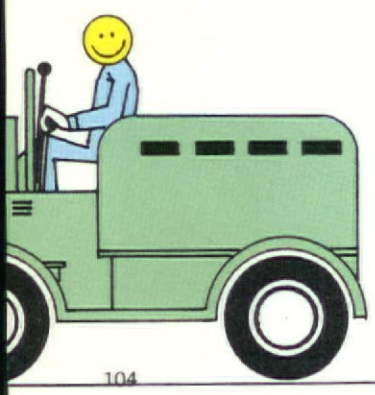
Otto Gerdau Co.
New York, NY (212) 248-1600
C, CH, CS, T/2 weeks/FF
Circle No. 729.

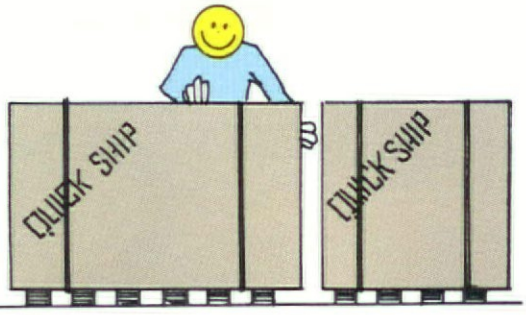
Ginns
Hyattsville, MD (800) 638-0255
C, CH, D, F, T/5 days/WR, FF
Circle No. 730.

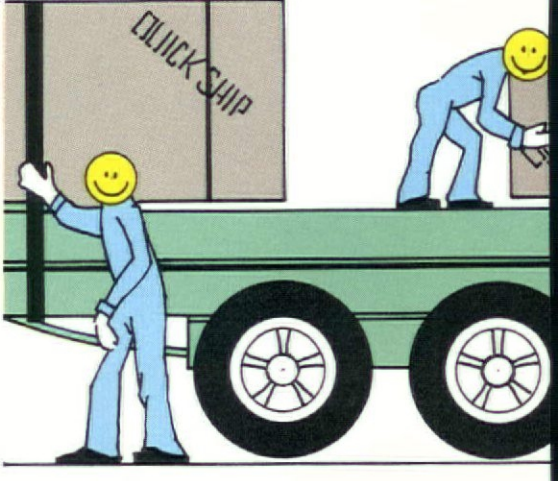
Glassform
Compton, CA (213) 603-8991
C/4-6 weeks/FF
Circle No. 731.

Globe Business Furn.
Hendersonville, TN (615) 822-4968
CH, T/3 days/FF
Circle No. 732.

Golden Oak
Los Angeles, CA (213) 589-9181
C, CH, D, T/3 weeks/FF
Circle No. 733.







Gold Medal
Racine, WI (414) 637-6700
CH, CS, T/2 weeks/WR, FF
Circle No. 734.

Gordon International
New York, NY (212) 532-0075
CH/2 weeks/WR
Circle No. 735.

Gregson Furn.
Liberty, NC (919) 622-2201
CH, CF, CS, OS, T/1-7 days/WR, FF
Circle No. 736.

Great Outdoor Furn. Factory
Sedona, AZ (602) 282-9530
CS/7 days/WR, FF
Circle No. 737.

Griggs International
Belton, TX (817) 939-3761
C, CH, CF, D, F, T/7 days/WR, FF
Circle No. 738.

Group Four
Toronto, Ont. (416) 363-8071
CH, T/10 days/WR, FF
Circle No. 739.

Gunlocke
Wayland, NY (716) 728-5111
C, CH, D, SD/10 days/WR
Circle No. 740.

HAG, USA
Chicago, IL (312) 222-1166
CH, CF/10 days/WR
Circle No. 741.

Hagen International
San Francisco, CA (415) 626-3655
CH, D, T/10 days/FF
Circle No. 742.

F.E. Hale
Herkimer, NY (315) 866-4250
C/1-2 weeks/WR
Circle No. 743.

Hamilton Sorter
Fairheld, OH (800) 543-1605
CF/5 days/FF
Circle No. 744.

Harbor Benedetti
Los Angeles, CA (213) 263-9761
C, CH, D, F, T/4 weeks/FF
Circle No. 641.

Hardwood House
Rochester, NY (716) 254-0600
C, CH, D, T/2 weeks/FF
Circle No. 746.

Harmon/div. Coastcraft
Tacoma, WA (206) 383-5367
CF, D, T/5 days/FF
Circle No. 747.

Harpers
Torrance, CA (213) 320-6400
C, CH, D, F, T/1 day/FF
Circle No. 748.

See page 112A for Quick Ship Reader Service Card.

Harter
Sturgis, MI (616) 651-3201
CH/10 days/FF
Circle No. 749.

Harts Upholstered Prods.
Markham, Ont. (416) 475-0505
CH/3 days/FF
Circle No. 750.

Harvard Interiors
St. Louis, MO (314) 382-5590
CH/3 weeks/WR, FF
Circle No. 751.

Haskell Of Pittsburgh
Verona, PA (800) 245-0666
C, CH, CF, D, F, T/5 days/WR, FF
Circle No. 752.

E.F. Hauserman
Cleveland, OH (216) 883-1400
D, F, OS, SD, T/2-4 weeks/WR
Circle No. 753.

Haworth
Holland, MI (616) 396-RUSH
F, OS, SD, T/10 days/WR, FF
Circle No. 754.

Haws Corp.
Elkart, IN (219) 293-5671
OS/20 days/FF
Circle No. 755.

Hayes Mfg.
Oakland, CA (415) 534-4511
CH/2-3 weeks/FF
Circle No. 756.

Hekman Furn.
Grand Rapids, MI (616) 452-1411
T/3 weeks/FF
Circle No. 757.

Hemisphere Steel Prods.
Brooklyn, NY (212) 388-6705
LP, OS/10 days/FF
Circle No. 758.

Herring-Hall-Marvin Safe Co.
Canton, OH (216) 489-4295
CF, F/1-14 days/FF
Circle No. 759

Hesco
Charlestown, IN (812) 256-3322
C, D, F/5 days/FF
Circle No. 760.

Hiebert
Carson, CA (213) 603-0441
C, CH, D/1-8 weeks/FF
Circle No. 761.

Highpoint Furn.
High Point, NC (919) 431-7101
C, CH, CF, D, F, SD, T/1 day/WR
Circle No. 762.

Holga Office Furn.
Van Nuys, CA (213) 782-0600
C, D, F, SD/1 day/FF
Circle No. 763.

Homecrest Industries
Wadena, MN (218) 631-1000
CS/5 days/FF
Circle No. 764.

Hon Co.
Muscatine, IA (319) 264-7100
C, CH, D, F, LP, OS, T/3 weeks/WR, FF
Circle No. 765.

Hoosier Desk
Jaspar, IN (812) 482-4367
D/10 days/FF
Circle No. 766.

Hoover Systems
Dallas, TX (214) 270-6471
LP/8 days/ FF
Circle No. 767.

Hoover Universal
Vernon, AL (205) 695-9173
CF, D/5 days/FF
Circle No. 768.

Howe Furn.
New York, NY (212) 826-0280
T/30 days/FF
Circle No. 769.

Hunt Country Furn.
Wingdale, NY (914) 832-6601
CH/21 days/FF
Circle No. 770.

ICF, Inc.
New York, NY (212) 750-0900
C, CH, CS, T/2-3 weeks/FF
Circle No. 771.

IKD/Haws
Elkhart, IN (219) 293-0621
OS/20 days/FF
Circle No. 772.

IPF/Int'l
Paterson, NJ (201) 345-7440
CH, T/5 days/WR, FF
Circle No. 773.

Indiana Chair
Jasper, IN (812) 482-3143
CH/2 weeks/FF
Circle No. 774.

Indiana Desk
Jasper, IN (812) 482-6575
D/2 weeks/FF
Circle No. 775.

International Furn.
New York, NY (212) 685-8665
CH/2 days/WR
Circle No. 776.

InterRoyal
New York, NY (212) 686-3500
CH, D, F, T/5 days-7 weeks/FF
Circle No. 777.

Intra/Van Den Berg
Salt Lake City, UT (801) 262-7445
CH, CS/10 days/FF
Circle No. 778.

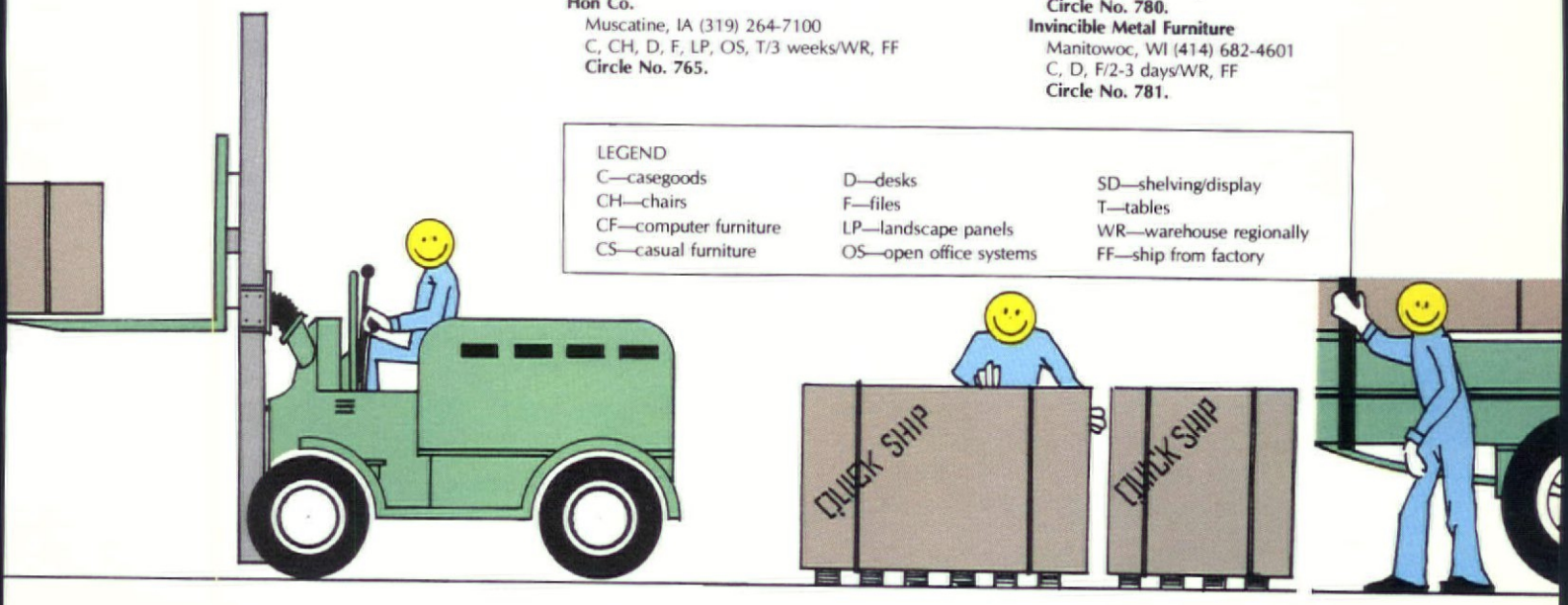
Intrends Int'l.
Scarsdale, NY (914) 472-5866
CH, CS, T/10 days/WR
Circle No. 779.

Intrex
New York, NY (212) 758-0922
C, CH, D, T/5-7 days/FF
Circle No. 780.

Invincible Metal Furniture
Manitowoc, WI (414) 682-4601
C, D, F/2-3 days/WR, FF
Circle No. 781.

LEGEND

C—casegoods	D—desks	SD—shelving/display
CH—chairs	F—files	T—tables
CF—computer furniture	LP—landscape panels	WR—warehouse regionally
CS—casual furniture	OS—open office systems	FF—ship from factory



QUICK-SHIP DIRECTORY

JG Furn.
Quakertown, PA (215) 536-3353
C, D, LP, OS/7days/FF
Circle No. 782.

J.J.K. Furn.
Orillia, Ont. (705) 326-9353
C, CH/FF
Circle No. 783.

JSI/Jasper Seating
Jasper, IN (812) 482-3204
CH/2-3 weeks/FF
Circle No. 784.

Leif Jacobsen
Willowdale, Ont. (416) 491-3333
CH/5-10 days/FF
Circle No. 785.

James Metal Prods.
Chicago, IL (312) 472-2611
CF/3 weeks/FF
Circle No. 787.

Jamestown Lounge Co.
Jamestown, NY (716) 485-1154
C, CH, CS, D/2-3 weeks/FF
Circle No. 788.

Jansko
Ft. Lauderdale, FL (305) 522-6791
CH, LP/10 days/WR, FF
Circle No. 789.

Jasper Chair
Jasper, IN (812) 482-5239
CH/10 days/FF
Circle No. 968.

Jasper Table
Jasper, IN (812) 482-6121
C, D, F, T/1 day-2 weeks/WR, FF
Circle No. 790.

Jefsteel
Brooklyn, NY (800) 221-0936
F/2-3 days/WR, FF
Circle No. 791.

K

KDI
Belmont, MS (601) 454-3451
CH, T/2 days/WR, FF
Circle No. 792.

KT Furniture
Compton, CA (213) 637-0109
CH, CS, T/5 days/WR, FF
Circle No. 793.

Kasparians
Alhambra, CA (213) 289-7895
CH, T/2-3 weeks/FF
Circle No. 794.

Kay Dee Contempo
Chatsworth, CA (213) 998-1575
CH, T/1-3 weeks/FF
Circle No. 795.

Kenmore Furn.
New York, NY (212) 683-1888
C, CH, D, T, F/7 days/WR
Circle No. 796.

Francis Kerrigan
Waukegan, IL (312) 249-1377
C, D, F, T/1-2 weeks/WR, FF
Circle No. 797.

Kimball
Jasper, IN (812) 482-1600
C, CH, D, F, T/2-4 weeks/WR, FF
Circle No. 798.

Kinder Div/Congoleum
Elkhart, IN (219) 293-3531
CH, CS/4 weeks/FF
Circle No. 799.

Kisabeth Furn.
Fort Worth, TX (817) 281-7560
CH/3 weeks/FF
Circle No. 800.

Knoll International
New York, NY (212) 334-1529
CH, D, LP, OS, T/10 days/FF
Circle No. 801.

Kobi
Hesston, KS (316) 327-2121
OS/5 days/FF
Circle No. 802.

Kroin Inc.
Cambridge, MA (617) 492-4000
CH, CS/3 days/FF
Circle No. 803.

Krug Furniture Inc.
Kitchener, Ont. (519) 743-8281
CH, D, T/1 day-stock/WR, FF
Circle No. 804.

Krueger
Green Bay, WI (414) 468-8100
CH, T/2 weeks/FF
Circle No. 805.

L

L & H Manufacturing
Como, MS (601) 526-5525
CH/3-5 days
Circle No. 806.

La Barge Mirrors
Holland, MI (616) 392-1473
T/1 day/FF
Circle No. 807.

LaMica
Upper Saddle River, NJ (201) 327-8066
C, CH, CS, D, F, T/10-15 days/FF
Circle No. 808.

Laminates Unlimited
Baltimore, MD (301) 889-5553
CF, D/7 days/FF
Circle No. 809.

Landes Mfg.
Gardena, CA (213) 327-1777
CS, T/10 days/FF
Circle No. 810.

La-Z-Boy Contract
Monroe, MI (313) 242-1444
CH/10 days/WR
Circle No. 811.

Leaf Designs
Miami, FL (305) 635-9491
CS, T/1-2 days/FF
Circle No. 812.

Leathercraft
Conover, NC (704) 322-3305
CH, CS/10 days/FF
Circle No. 813.

Lehigh-Leopold
Burlington, IA (319) 753-2271
C, CH, D/10 days/FF
Circle No. 814

Lewittes
New York, NY (212) 684-2255
CH, CS/FF
Circle No. 815.

Liberati Products
Bloomingdale, IL (312) 893-6450
CH, T/2-3 weeks/FF
Circle No. 816.

Liberty Woodcrafts
Orchard Park, NY (716) 622-2464
T/6-8 weeks/FF
Circle No. 817.

Lincora Metal
Montreal, Que. (514) 326-0840
C, SD/2 weeks/FF
Circle No. 818.

Loewenstein
Ft. Lauderdale, FL (305) 525-8453
CH/10 days/FF
Circle No. 819.

Lumex
Bay Shore, NY (516) 273-2200
CH/10 days
Circle No. 820.

Lunstead Designs
Kent, WA (206) 872-8835
C, D/5 days/WR, FF
Circle No. 821.

Luxor Corp.
Waukegan, IL (312) 244-1800
CF/5 days/FF
Circle No. 822.

M

M & J Desk Mfg.
Los Angeles, CA (213) 749-7521
D/8 weeks/WR, FF
Circle No. 823.

Madison Furn.
Canton, MS (601) 859-8000
CH, T/7 days/FF
Circle No. 824.

Major Partitions
Irwindale, CA (213) 686-1998
LP, OS/FF
Circle No. 825.

Mallin Co.
Los Angeles, CA (213) 589-6591
CH, CS/3 weeks/FF
Circle No. 826.

Cy Mann Design
New York, NY (212) 758-6830
CS, T/2 weeks/WR
Circle No. 827.

Marketing Displays
Farmington Hills, MI (313) 478-1900
SD/1-6 weeks/FF
Circle No. 828.

Marvel Metal Products
Chicago, IL (312) 523-4804
CF/5 days/WR, FF
Circle No. 829.

Charles Mayer Studios
Akron, OH (216) 535-6121
OS/7 days/FF
Circle No. 830.

McDonald Products
Buffalo, NY (800) 828-7788
OS/5 days/FF
Circle No. 831.

Meilink Safe
Whitehouse, OH (419) 877-5352
F/5 days/WR, FF
Circle No. 832.

Meridian
Spring Lake, MI (616) 842-1852
C, D, F/7 days/FF
Circle No. 833.

Metal Dimensions
Miami FL (305) 621-3237
D, T/3-4 days/FF
Circle No. 834.

Metalstand
Philadephia, PA (215) 673-5300
CH, D F, T/2-3 days/WR
Circle No. 835.

Metropolitan
San Francisco, CA (415) 871-6222
CH, T/3 weeks/FF
Circle No. 836.

Microdyne
Mansfield, OH (800) 537-5573
CH/1-5 days/FF
Circle No. 837.

Mid-South Chair Mfg.
Memphis, TN (901) 522-8461
CH, T/5 weeks/FF
Circle No. 838.

Midwest Folding Prods.
Chicago, IL (312) 666-3366
T/7 days/FF
Circle No. 839.

Herman Miller
Zeeland, MI (616) 772-3372
CH, CF, CS, D, F, LP, OS, SD, T/2 days/WR, FF
Circle No. 841.

Modar Inc.
Benton Harbor, MI (616) 925-0671
C, CF, SD/4 days/WR, FF
Circle No. 842.

Mode Corp.
San Leandro, CA (415) 895-8570
CH, LP, OS, SD/10 days/FF
Circle No. 843.

Modular Concepts
Valley Stream, NY (516) 561-7800
C, CH, SD, T/10 days/FF
Circle No. 844.

Molla
Westbury, NY (516) 334-2885
CS/4 weeks/FF
Circle No. 845.

Monarch Computer
New Windsor, NY (914) 562-3100
CF/2 weeks/FF
Circle No. 840.

Monarch Furn.
High Point, NC (919) 454-1131
C, CH, D, T/10 days/FF
Circle No. 846.

Monitor/div. Comerco
Tacoma, WA (206) 475-5800
C/7 days/WR
Circle No. 847.

Monteverdi-Young
Los Angeles, CA (213) 659-7220
C, CH, CS, D, F, T/8-12 weeks/FF
Circle No. 848.

Mueller Furn.
Grand Rapids, MI (616) 451-2738
CH, T/4 weeks/FF
Circle No. 849.

N O

NM Industries
West Springfield, MA (413) 785-5861
C, CH, D/30 days/FF
Circle No. 850.

Naomi Gale
New York, NY (212) 421-2118
SD/10-21 days/FF
Circle No. 851.

National Plywood
New York, NY (212) 585-1100
C, CH, CF, CS, D, OS, SD, T/10 days/WR, FF
Circle No. 852.

Nelson-Adams
Burlingame, CA (415) 589-3787
LP/14 days/FF
Circle No. 853.

Nevins Worldwide
Houston, TX (713) 681-4274
CH/7 days/FF
Circle No. 854.

Newton Furn.
San Jose, CA (408) 946-2980
CH, D, T/2 weeks/WR
Circle No. 855.

Nienkamper
Toronto, Ont. (416) 752-2575
CH, CS/3 weeks/FF
Circle No. 856.

Nightingale Inds.
Toronto, Ont. (416) 593-2501
CH, CF, CS, F, LP, OS, T/WR, FF
Circle No. 857.

Noise Control Prods.
Cleveland, OH (216) 523-1371
LP/15 days/FF
Circle No. 858.

Norsons Inds.
Brooklyn, NY (212) 522-6060
C, F, SD/3-10 days/WR, FF
Circle No. 859.

North River Ltd.
Baldwin Park, CA (213) 960-8551
C, CH, T/5 days/FF
Circle No. 860.

Nucraft Furn.
Grand Rapids, MI (616) 241-1605
C, CF, F, T/5 days/WR, FF
Circle No. 861.

O'Brien Partition
Kansas City, MO (816) 361-2334
OS/5 days/FF
Circle No. 862.

Office Specialty
Newmarket, Ont. (416) 895-2321
CH, CF, D, F/10 days/FF
Circle No. 863.

Office Suites Inc.
Chicago, IL (800) 621-9530
D, F, T/2 weeks/FF
Circle No. 864.

Open Office Products
Phoeniz, AZ (602) 272-6773
OS/1 day/FF
Circle No. 865.

Optimum Mgmt.
Winnipeg, Man. (204) 772-0333
CF, D, T/10-15 days/WR, FF
Circle No. 866.

Opto
Northfield, IL (312) 441-7570
SD/6 days/FF
Circle No. 867.

Othmar Klem Cabinet
St. Anthony, IN (812) 326-2361
C, CH/2-3 weeks/FF
Circle No. 868.

Owens Corning Fiberglas
Toledo, OH (419) 248-7065
LP/10 days/FF
Circle No. 869.

P

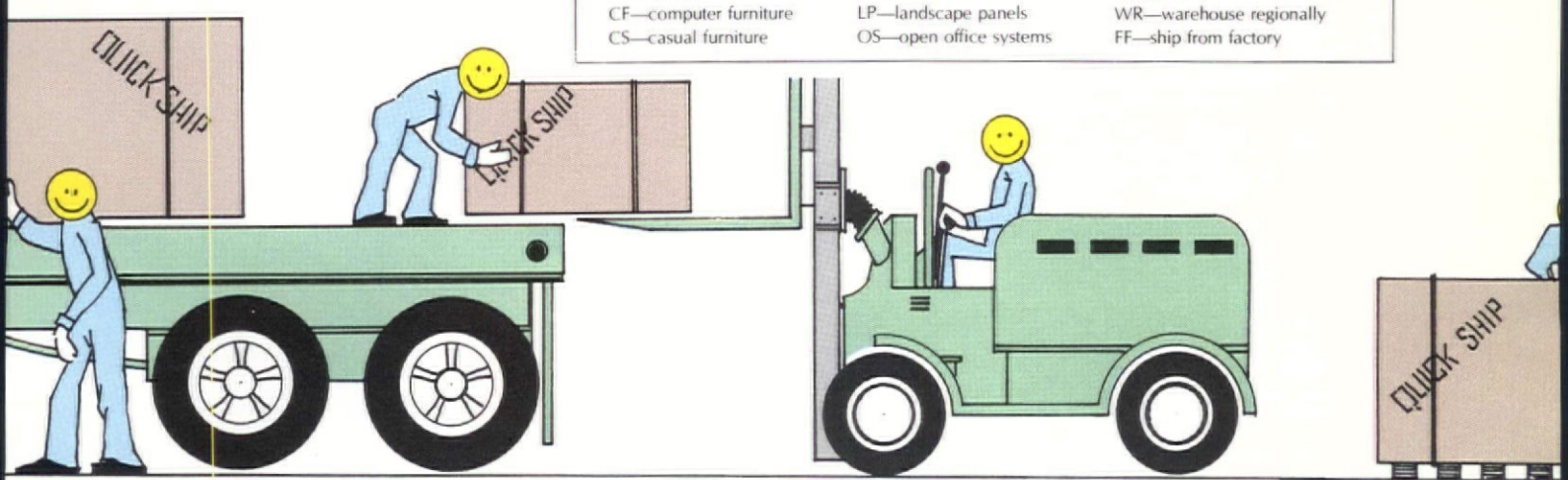
Pace Collection
Long Island City, NY (212) 721-8201
C, CH, D, F, T/2-14 days/WR
Circle No. 870.

Packard Industries
Niles, MI (800) 253-0866
LP, OS/15 days/FF
Circle No. 871.

See page 112A for Quick Ship Reader Service Card.

LEGEND

C—casegoods	D—desks	SD—shelving/display
CH—chairs	F—files	T—tables
CF—computer furniture	LP—landscape panels	WR—warehouse regionally
CS—casual furniture	OS—open office systems	FF—ship from factory



QUICK-SHIP DIRECTORY

Panel Concepts
Santa Ana, CA (800) 854-6919
LP, OS/5 days/FF
Circle No. 872.

Paoli Chair
Paoli, IN (812) 723-2791
CH, D/10 days/FF
Circle No. 873.

Patrician Furn.
High Point, NC (919) 885-6186
CH, T/2 weeks/WR, FF
Circle No. 874.

Pell Co.
St. Charles, IL (312) 584-3523
CH/1-7 days/FF
Circle No. 875.

Pleion Corp.
Santa Ana, CA (714) 835-9101
LP, OS, SD/5 days/FF
Circle No. 876.

Plymold Booths
Kenyon, MN (800) 533-0480
CS, T/10 days/FF
Circle No. 877.

Pompeii Casual Furn.
Miami, FL (305) 576-3600
CS/4-6 weeks/FF
Circle No. 878.

Precision Mfg.
Montreal, Que. (514) 631-2120
C, D/5-10 days/FF
Circle No. 879.

Harvey Probber
Fall River, MA (617) 674-3591
C, CH, OS/2-9 weeks/FF
Circle No. 880.

R

R-Way Furniture
Sheboygan, WI (414) 457-4833
C, CH, D/15 days/WR, FF
Circle No. 881.

Reeve Co.
Pico Rivera, CA (213) 949-2535
SD/2 weeks/WR, FF
Circle No. 882.

Rockaway Metal
Inwood, NY (212) GR1-1100
LP, F/2-3 weeks/FF
Circle No. 883.

Romco
Kenilworth, NJ (201) 245-3375
CF, D, F, T/3 days/FF
Circle No. 884.

Romweber
Batesvile, IN (812) 934-3485
CH, D, F/7-10 days/FF
Circle No. 886.

Risom/Marble
Guilford, CT (203) 453-3833
C, CH/3-10 days/FF
Circle No. 887.

Rose Mfg.
Grand Rapids, MI (616) 241-2451
LP/5 days/FF
Circle No. 888.

Rosemount
Lakeville, MN (612) 469-4416
LP/5 days/FF
Circle No. 889.

Royal Seating Corp.
Cameron, TX (817) 697-6421
CH, CF, D, T/3 days/FF
Circle No. 969.

S T

Salman Seating
Buena Park, CA (714) 994-0990
C, CH, D/8 days/FF
Circle No. 890.

Samsonite Contract
Denver, CO (303) 344-6188
CH, CF, T/2 weeks/FF
Circle No. 891.

Sanyo Mfg.
Forrest Clty, AR (501) 633-5030
C/2 weeks/FF
Circle No. 892.

Sauder Mfg.
Archbold, OH (800) 537-1530
CH/30-90 days/FF
Circle No. 893.

SCAM
Van Nuys, CA (213) 787-3640
SD/2-21 days/FF
Circle No. 894.

Scandiline
Compton, CA (213) 537-6411
C, CH, D, T/7 days/FF
Circle No. 895.

Schafer Bros.
Garden Grove, CA (714) 891-4691
CH, T/10-15 days/FF
Circle No. 896.

Schubert Inds.
Akron, OH (216) 733-8302
CS/10 days/WR, FF
Circle No. 897.

Seating Concepts
Naperville, IL (312) 369-8500
CH, T/2 weeks/FF
Circle No. 898.

Selig Contract/KT Furn.
Compton, CA (213) 637-0109
CH/5 days/WR, FF
Circle No. 899.

Shafer Commercial Seating
Denver, CO (303) 322-7792
CH/7 days/FF
Circle No. 970.

Shaw-Walker Co.
Muskegon, MI (616) 726-4950
CH, D, F, OS, T/10 days/WR, FF
Circle No. 900.

Shelmark Inds.
Columbus, OH (614) 486-5234
CF, LP/3 weeks/FF
Circle No. 901.

Shelby Williams
Morristown, TN (615) 586-7000
CH/3-5 days/WR, FF
Circle No. 902.

Sligh Furn.
Holland, MI (616) 392-7101
C, CH, D/1 day/FF
Circle No. 903.

Smith System Mfg.
St. Paul, MN (612) 636-3560
CF, D, SD, T/2-4 weeks/WR, FF
Circle No. 904.

Smokador
Roselle, NJ (201) 241-5313
SD/10 days/FF
Circle No. 905.

Spancraft, Ltd
Woodmere, NY (516) 295-0055
CF, D, SD, T/10-14 days/FF
Circle No. 971.

Springer-Penguin
Mt. Vernon, NY (914) 699-3200
C/5 days/FF
Circle No. 906.

Statesville-Ross
Statesville, NC (704) 873-2526
CH/4 weeks/FF
Circle No. 907.

Steelcase
Grand Rapids, MI (616) 247-2710
C, CH, CF, D, F, OS, SD, T/5 days/WR, FF
Circle No. 908.

Stendig
New York, NY (212) 838-6050
CH, CS, T/1-3 weeks/FF
Circle No. 909.

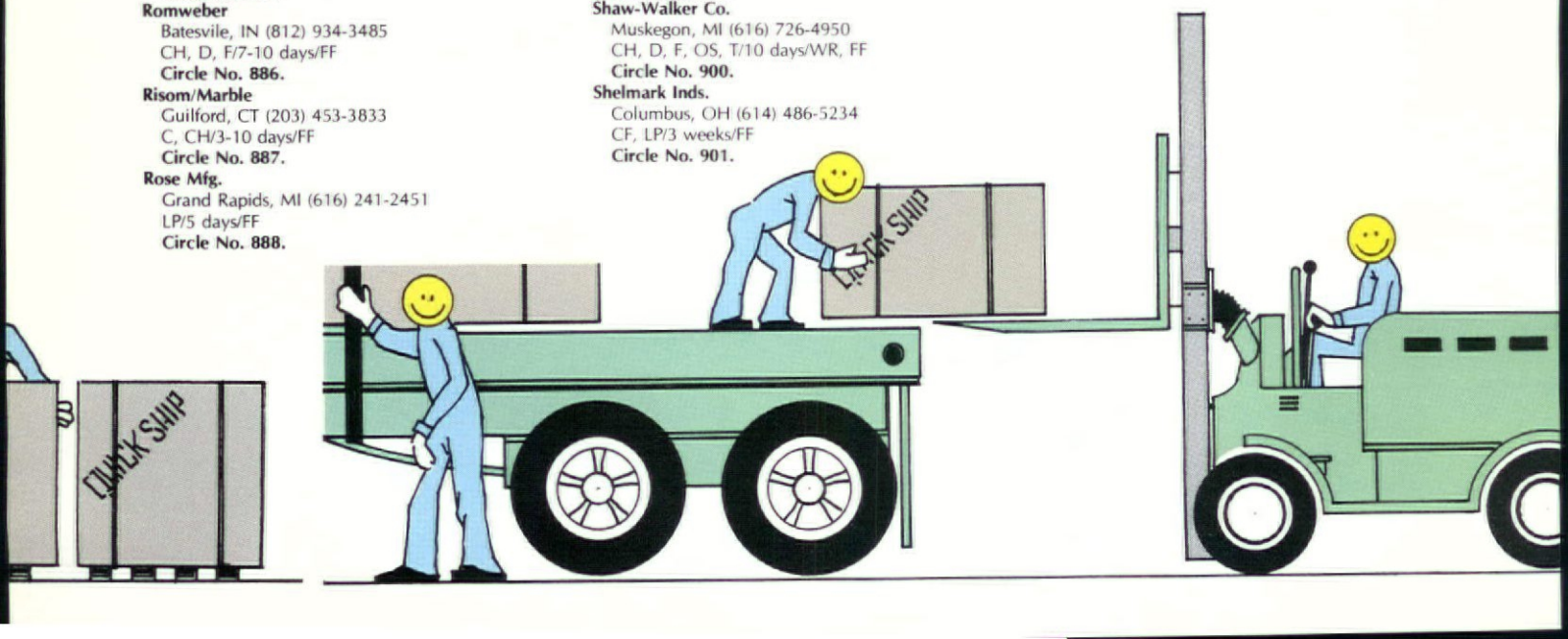
Storch-Tepper
New York, NY (212) 689-5577
CH, D/3 days/WR, FF
Circle No. 910.

Storwal International
Chicago, IL (312) 822-9240
D, F, T/3 days/FF
Circle No. 911.

Stout Chair Co.
Liberty, NC (919) 622-2286
CH/1-3 days/FF
Circle No. 912.

Stow/Davis
Grand Rapids, MI (616) 456-9681
C, CH, D, F/3 days/FF
Circle No. 913.

John Stuart Int'l.
New York, NY (212) 421-1200
CH/2 weeks/WR
Circle No. 914.



Sun-Aire Umbrella
Los Angeles, CA (213) 585-3533
CS/10 days/FF
Circle No. 915.

Sunburst Outdoor Furn.
Hialeah, FL (305) 823-3480
CH, CS, T/10-15 days/FF
Circle No. 916.

Superior Woodcraft
Union City, MI (517) 741-8751
T/30 days/FF
Circle No. 917.

Supreme Equipment
Brooklyn, NY (212) 492-7777
F/2-10 days/WR
Circle No. 918.

System Approach
Phoenix, AZ (602) 266-6634
CH, OS/10 days/WR, FF
Circle No. 919.

Systems Furniture
Torrance, CA (213) 533-1212
CF/3 days/FF
Circle No. 920.

Tayco Office Screens Ltd.
Toronto, Ont. (416) 363-0279
LP/10 days/FF
Circle No. 921.

Taylor Chair
Bedford, OH (216) 232-0700
CH, T/10 days/WR, FF
Circle No. 922.

Techniques In Wood
Rochester, NY (716) 328-3800
LP, OS/5 days/FF
Circle No. 923.

Telescope Folding Furn.
Granville, NY (518) 642-1100
CH, CS/14 days/FF
Circle No. 924.

Tennsco
Dickson, TN (615) 446-8000
F, SD, T/3 days/WR, FF
Circle No. 925.

Terra Furn.
City Of Industry, CA (213) 912-8523
C, CS/7-10 days/FF
Circle No. 926.

Thayer Coggin Institutional
High Point, NC (919) 883-0111
CH/10 days/FF
Circle No. 927.

Thomasville Furn.
Thomasville, NC (919) 475-1361
C/30 days/FF
Circle No. 928.

Thonet
York, PA (717) 845-6666
CH, CF/5 days/FF
Circle No. 929.

Tiffany Stand & Furn.
St. Louis, MO (314) 991-1700
CF/7-10 days/FF
Circle No. 930.

Timber-Line
Grand Rapids, MI (616) 245-6284
C, T/10 days/FF
Circle No. 931.

Tradewinds Outdoor Furn.
Miami, FL (305) 624-4411
CS/3 weeks/FF
Circle No. 932.

Transwall
Malvern, PA (215) 647-3040
LP, OS/10 days/FF
Circle No. 933.

Triconfort
New York, NY (212) 725-2443
CH, T/7 days/FF
Circle No. 934.

Tulip
Philadelphia, PA (215) 586-3148
CH, T/2 weeks/FF
Circle No. 935.

Tuohy Furn.
Chatfield, MN (507) 867-4280
CH, T/4 weeks/FF
Circle No. 936.

Typhoon International
San Francisco, CA (415) 621-5480
CS/21 days/WR
Circle No. 937.

U-Y

Unarco Commercial Prods.
Santa Fe Springs, CA (213) 733-9311
CS/2 weeks/FF
Circle No. 938.

Unicube
Bronx NY (212) 378-1700
SD, CF/7 days/FF
Circle No. 939.

Unistrut Interior Building Systems/GTE
N. Kansas City, MO (816) 421-4011
LP/7 days/FF
Circle No. 972.

United Chair
Leeds, AL (205) 699-5181
CH/1 day/WR
Circle No. 940.

Vandy-Craft
Chicago, IL (312) 644-1423
CS/7-10 days/FF
Circle No. 941.

Vecta Contract
Grand Prairie, TX (214) 641-2860
CH, T/5 days/FF
Circle No. 942.

Veneman Collection
Westminter, CA (714) 894-0202
CH, CS, T/14 days/FF
Circle No. 943.

Victor Systems & Equip.
Marietta, OH (614) 374-9300
F/2-10 days/FF
Circle No. 944.

Virco Mfg.
Los Angeles, CA (213) 532-3570
CF, CH, CS, D, T/1 day/WR, FF
Circle No. 945.

Vista Inds.
Louisville, KY (502) 454-3628
CS/10 days/FF
Circle No. 946.

Vitro Products
St. Louis, MO
CH/7 days/FF
Circle No. 947.

Vogel-Peterson
Elmhurst, IL (312) 279-7123
OS/5 days/FF
Circle No. 948.

Walsh & Simons
St. Louis, MO (314) 644-1215
CH/FF
Circle No. 949.

Walters Wicker
New York, NY (212) 758-0472
C, CH, CS, D, T/1 day/FF
Circle No. 950.

Watson Furn. Systems
Bainbridge Island, WA (206) 842-6601
SD, F, D, LP, OS, T/3 day/FF
Circle No. 951.

Wels Industries
New York, NY (212) 758-2611
CF, D, F, OS/21 days/FF
Circle No. 952.

Wesley Allen
Los Angeles, CA (213) 231-4275
D, T/4-6 weeks/FF
Circle No. 953.

Westinghouse
Grand Rapids, MI (616) 949-1050
T, OS, CH, CF/1-4 days/FF
Circle No. 954.

Westin-Nielsen
St. Paul MN (612) 484-3329
CH/10 days/FF
Circle No. 955.

Westnofa of Canada
Winnipeg, Man (204) 667-7106
CH, T/FF
Circle No. 956.

Westwood Furniture/Accord
High Point, NC (919) 886-5157
CH, T/3 days/WR, FF
Circle No. 957.

Wicker and Cane Furn.
Warminster, PA (215) 441-8200
CH, CS/15 days/WR
Circle No. 958.

Williams Office Furn.
New York, NY (212) 695-6766
CF, T/2-3 days/WR, FF
Circle No. 959.

Winkelman Industries
Ft. Worth, TX (817) 654-3004
CH, D/10 days/FF
Circle No. 973.

Wood Design
French Lick, IN (812) 936-9977
D, F, T/5 days/WR, FF
Circle No. 960.

The Woodsmiths
Pompano Beach, FL (305) 942-8840
T/6 weeks/FF
Circle No. 961.

Wright Line
Worchester, MA (617) 852-4300
C, CH, CF, F/3 days/WR
Circle No. 962.

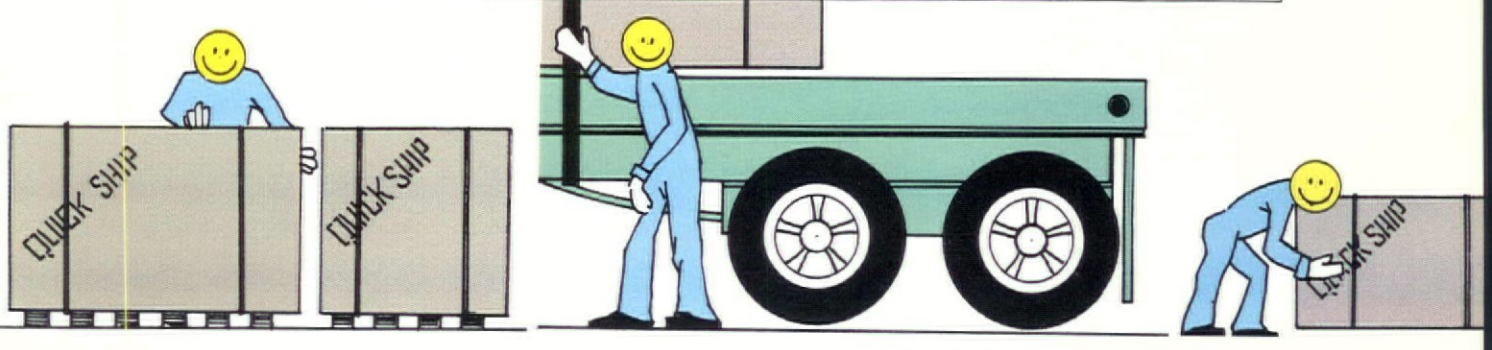
Lee L. Woodard Sons
Owosso, MI (517) 723-7881
CH/4-6 weeks/FF
Circle No. 963.

Yorkraft
York, PA (717) 845-3666
SD/FF
Circle No. 964.

See page 112A for Quick Ship Reader Service Card.

LEGEND

C—casegoods	D—desks	SD—shelving/display
CH—chairs	F—files	T—tables
CF—computer furniture	LP—landscape panels	WR—warehouse regionally
CS—casual furniture	OS—open office systems	FF—ship from factory

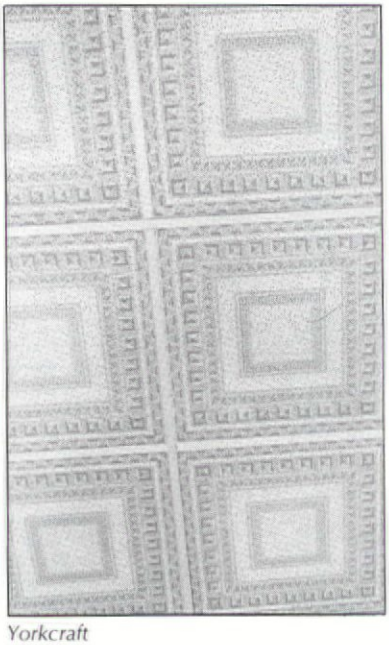


CEILINGS OFFER COSMETIC SOLUTIONS

Designers View

Decoustics

Hunter Douglas



Yorkcraft

Levolor

Conwed

Overhead systems conceal old fixtures, aid noise control with updated wrapped, vaulted, coffered styles

Designers View Group—Crossbow #1080 marks a standard 2- by 2-ft. panel available in fire retardant and fireproof variations. Designs may be specified in any wood tone finish. **Circle No. 211.**

Decoustics—Concealed suspension ceiling shown has large panels and controlled butt joints in one direction. Available systems include end-supported, direct, or suspended fastening; reveal or butt joints; floating panels; downward access; and custom fabrication. **Circle No. 205.**

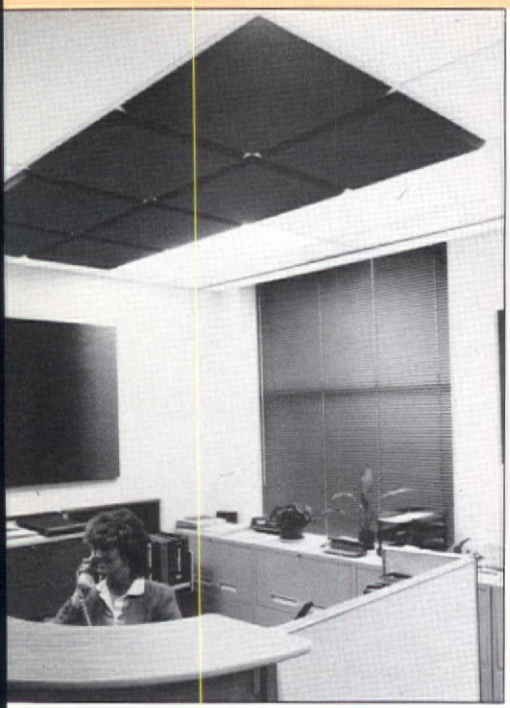
Yorkcraft—Acoustical tiles feature dimensional look through coffered design. Panels fit standard 2- by 2-ft. grids. **Circle No. 208.**

Hunter Douglas—Meadowlands Racetrack, N.J., specified this panel-type system to conceal existing ceiling components. System is available in white, beige, bronze, and polished aluminum, plus a screen style. **Circle No. 201.**

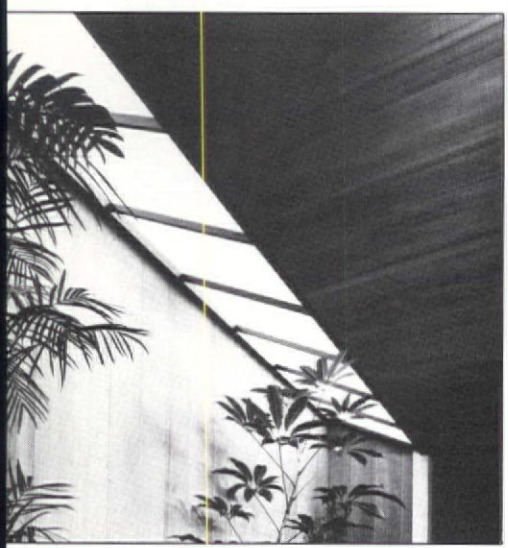
Conwed—Premier ceiling is fire resistant and rated by UL Time Design fire tests. Product has acoustical absorption qualities with an NRC range of .75 to .85. **Circle No. 213.**

Integrated Ceilings Inc.—SkyVault™ ceiling has the look of a barrel-vaulted

TO MANY ACOUSTICAL PROBLEMS

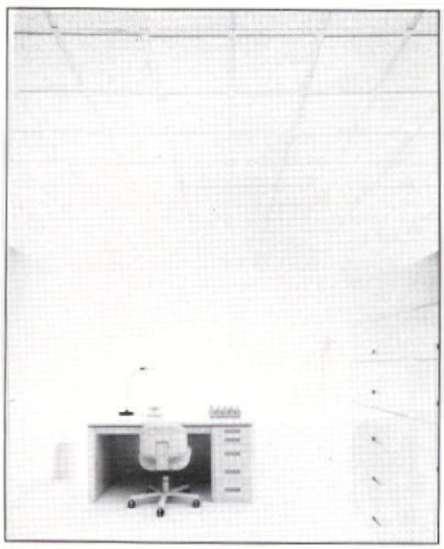


Noise Control Products

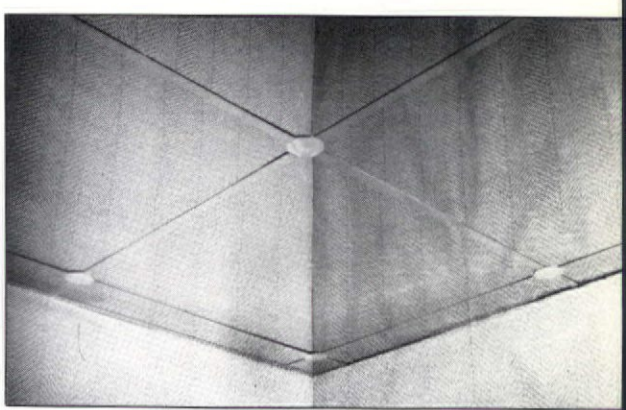


Integrated Ceilings

Entol Industries



United States Gypsum



Neoray

skylight. Light is provided from above by fluorescent strips with or without natural light combinations. System spans ceiling openings from 6- to 12-ft. wide by any length. **Circle No. 203.**

Levolor—Ceilings U-70 are available with access door kits for convenient entrance to above-ceiling space. Access doors are offered. All hardware, including safety chain, is concealed behind door when closed. **Circle No. 204.**

Noise Control Products—QuieTile ceiling inserts are designed to aid in acoustical treatments of open plan office environments. Inserts fit existing ceiling grids and are available in two standard sizes. NRC ranges from .75 to 1.00. Product is Class-A-rated against fire. **Circle No. 207.**

Neoray—Network system of highly polished stainless steel is available in panels with die cast octagonal fittings. Panels are offered on 18- to 36-in. centers, scaled to suit most applications. **Circle No. 209.**

Entol Industries—Framed with rough cedar, ceiling panels have simulated stained glass inserts. Product comes in 2- by 2-ft. sizes. **Circle No. 212.**

United States Gypsum—Line of Auratone™ Omni fissured ceiling products has been expanded to include face-cut, lay-in panels. Four design options create varied appearances. System is grid-suspended. **Circle No. 210.**

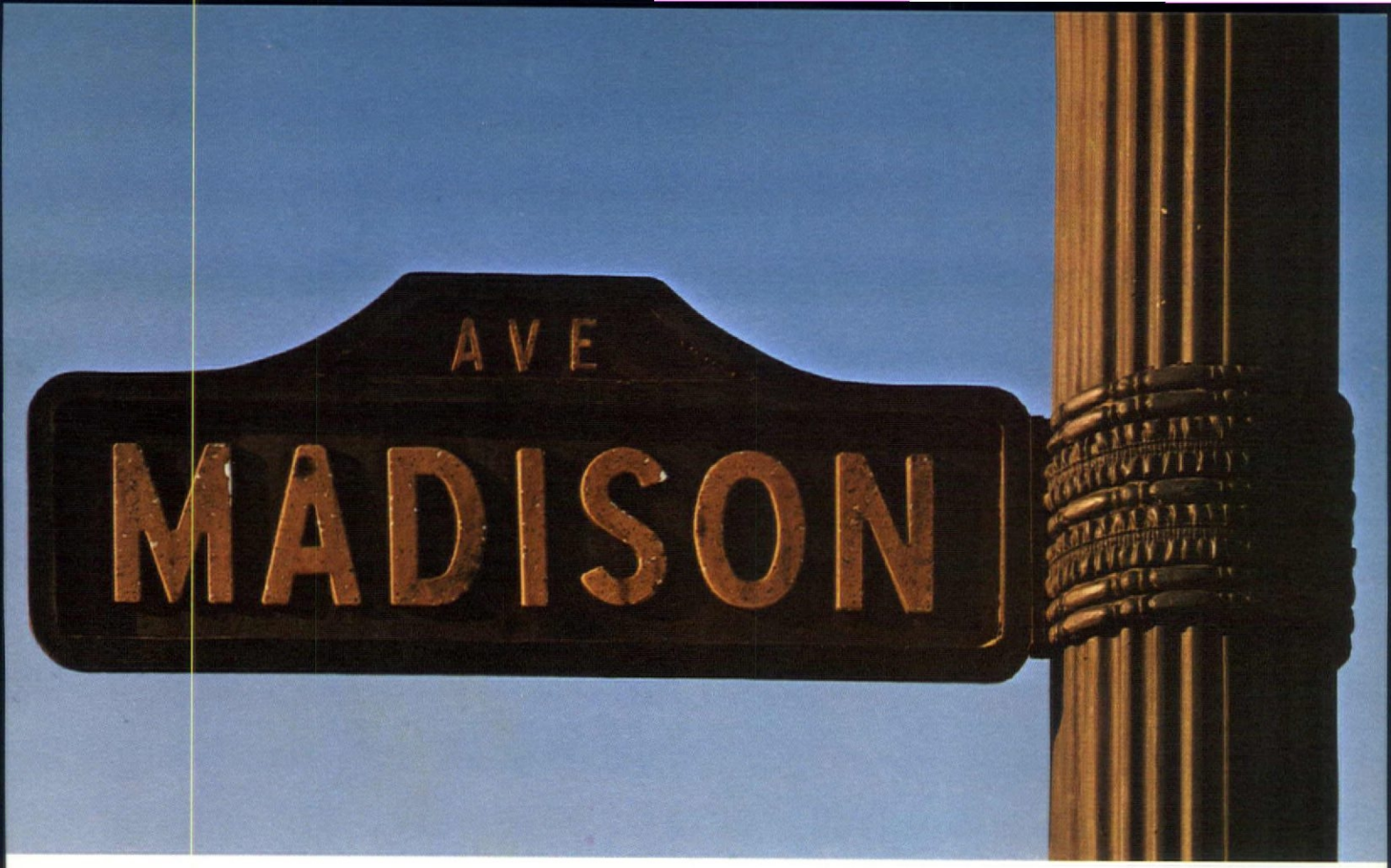
On August 3, 1492, Christopher Columbus set sail from Spain, seeking honor and wealth by establishing new trade routes with India. Since he had miscalculated the circumference of the earth by 6,331 miles, he was destined to spend years in a vain search for the mainland of Asia. In 1502 he died poor and forgotten.

If you want to reach spice merchants, pick the right continent.

Success is always easier to grasp if you're in the right place, talking to the right people. BPA-audited (Business Publication Audit of Circulation, Inc.) magazines let you know exactly where your ads are going. BPA audits the job title and description of people who receive our magazines, so you know to whom you're talking.

BPA We count, so your ads will.

This BPA-audited magazine donated the space for this ad, with creative and production costs contributed by BPA agency and advertiser members.



THE WORD ON THE STREET IS MODULAR DESIGNS.

Our sleek new Madison Avenue Series offers a unique direction in office furnishings, while maintaining the standards for quality and service that have made Modular Designs one of the most respected names in the industry.

Please write or call for our sixteen page, full color brochure. Once you see each handsome series, you'll know why people are talking about Modular Designs.

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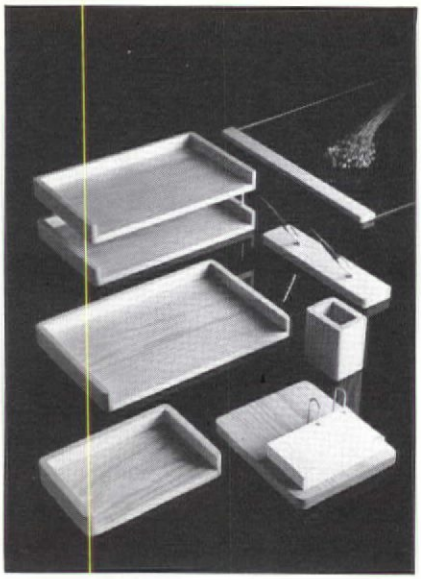
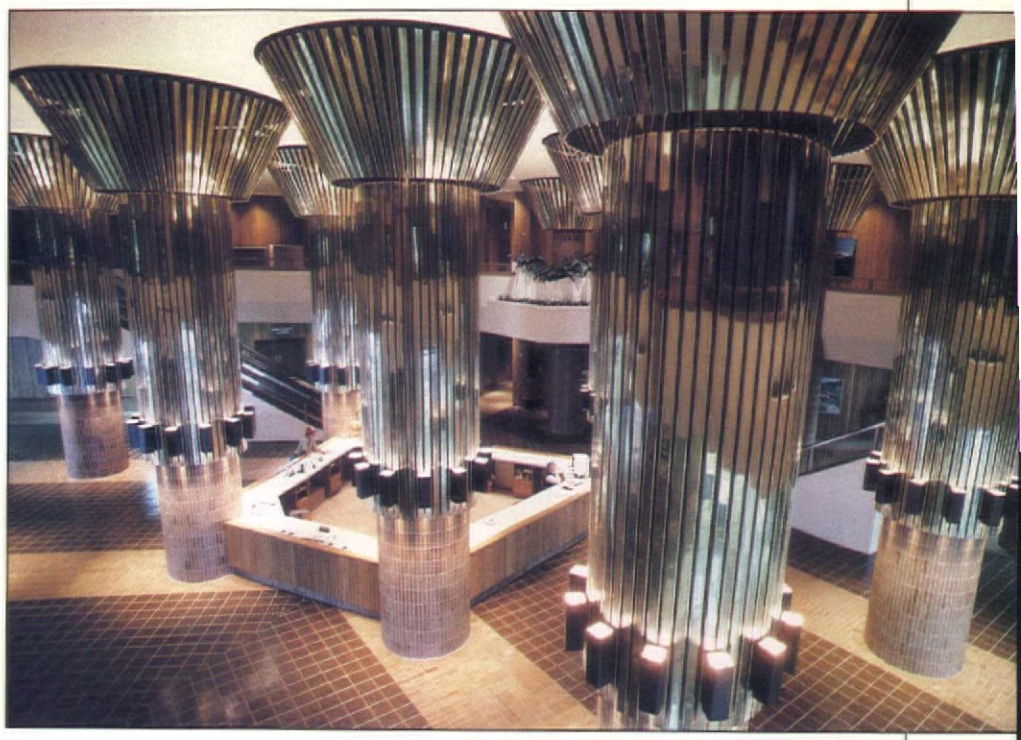


Hand-finished accessories are crafted of oak

Complete line of handcrafted solid oak desk accessories are available from C-Line Products Inc. Styles feature soft radius edges and low-lustre finishes. Cork bases protect desk and furniture surfaces. Light or medium oak is offered. **Circle No. 235.**

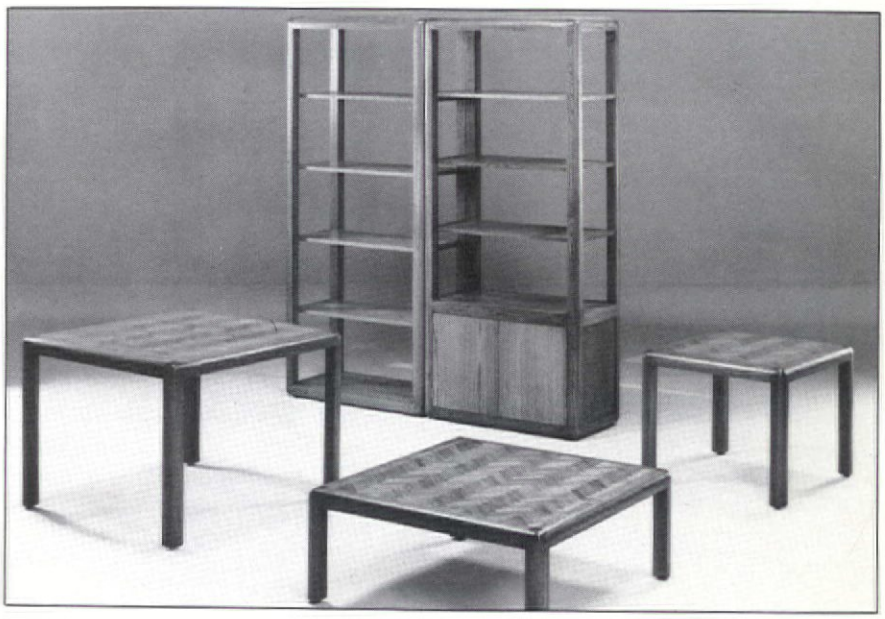
Color combination forms distinctive design

Custom colors and 14 standard combinations lend flexibility to Hampton Square carpet from Bentley. Constructed of DuPont Antron III nylon, carpet meets static control and performance requirements for commercial grade standard. Product also resists soil.
Circle No. 227.



Unique ceiling system applied in new style

Nichols-Homeshield's Willard ceiling and soffit system suits a variety of installations. Lightweight, corrosion-resistant, and rust-free aluminum panels snap in place without tools. Round- and square-edge panels, speaker panels, extended carriers, access door hardware, carrier and panel splices, and end plugs are available. Optional closure strips fit both round- and square-edge panel configurations without modification. System is shown in application wrapping columns at Oral Roberts University. **Circle No. 224.**



Parquet adds interest to table top design

Executive Office Concepts has added the Oakwood 2000 table series to its contract line. Crafted of Appalachian oak hardwood, parquet top surfaces are available in three finishes.
Circle No. 234.

Plan now to attend the fourth annual

Computer-Aided

Co-sponsored by Gralla Publications'

November 8 - 9, 1982
New York City
Halloran House Hotel

MEMO

TO: Facilities managers, architects, designers, operations managers and all corporate space planners

FROM: Your Colleagues (past Conference attendees)

RE: 4th Annual COMPUTER-AIDED SPACE DESIGN & MANAGEMENT CONFERENCE

"Anyone who is remotely connected with any phase of facilities management/space planning must keep pace with this rapidly growing field...this conference is a big step forward in this direction." —Karen Odlum, Project Manager, Aetna Life & Casualty

"Excellent...before attending this conference, I was confused and unsure of practical applications of using a computer as an aid to the planning and design process. I now have a much better understanding of what it is all about." —L. Edward George, General Manager, Paul Planert Design Associates, Inc.

"New information and practical data very valuable... exciting...I learned!" —Paula Treder, V.P. & Facilities Manager, Drexel Burnham Lambert

"Excellent...conference provided a very thorough insight into the present and future capabilities of CAD." —Lynn Evans, Independent Consultant to interior design/space planning

"I gained insight into real programs that are up and running." —Gerald Ilowite, Staff Architect, Westinghouse Electric Company

Why you should attend:

Learn to eliminate crisis-mode corporate facilities design/management...slash costs and planning time...use the computer to aid the decision-making process.

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Visit our Product/Service Display Area to examine software/hardware packages...discuss your needs with suppliers...get free answers to your questions.

Who should attend:

If you're a vice president of finance, administration, or real estate and facilities; an architect or design professional; member of a facility planning committee; or involved in any aspect of space, office, or building design or management; this dynamic, two-day conference and exposition offers valuable information you can put to use—immediately!

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  Speaker: Les J. Cranmer, Senior Vice President, Interspace Inc.
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  Speaker: Jackie Potts, Computer Systems Analyst, Social Security Administration
- **Computer-Aided Design & Drafting: Architecture & Interior Space Planning Applications**
  Speaker: Lawrence Lerner, President, Environetics International Inc.
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  Speaker: Richard Raysman, Partner, Brown, Raysman & Millstein
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- **How to Buy a Computer System Without Exceeding Your Budget**
  Moderator: To be announced
- **Furniture Bar Coding**
  Moderator: Roberta Walton, Managing Editor, Contract
- **Facilities Management Problems**
  Co-Moderators: Robert L. Engel
  John R. Adams, Assistant Director, Facility Management Institute
- **Design/Drafting Systems Review**
  Speaker/Moderator: Paul Druckman, General Manager, Master Design Corporation
- **Case Study: Evolution of Office Automation in a Large Corporation**
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To register, just fill out the coupon and mail it today to: Gralla Conferences, 1515 Broadway, New York, N.Y. 10036 -or- call Hilary Plunkett, toll free at 800-223-6767 (New York State registrants can call collect at 212-869-1300) to get an immediate confirmation of your registration.

Tuition: $495 for the first person from a company, $450 for each additional person from the same company. Tuition includes admission to two-day Conference (seminars, roundtables and exhibits), Conference/take-home materials, refreshment breaks and cocktail reception. Checks or money orders payable to Gralla Conferences.

Cancellations: Full refund of tuition if notified 48 hours in advance of the Conference. No refunds after that time.

Accommodations: Rooms have been blocked at the Halloran House Hotel. All registrants will receive hotel housing forms by mail.

Tax Deduction: Treasury Regulation 1-162-5 permits an income tax deduction for educational expenses (registration fees, cost of travel, meals and lodging) undertaken to (1) maintain or improve skills required in one's employment or other trade or business; (2) meet express requirements of an employer or a law imposed as condition to retention of employment, job status, or rate of compensation. (The IRS recommends you keep a daily record of expenditures in accordance with this regulation.)

For information on exhibiting call Justin LeWand, exhibit sales director, at (212) 391-9111.

Raysman **Daniels** **Engel**

Computer-Aided Space Design & Management Conference
c/o Gralla Conferences, 1515 Broadway, New York, N.Y. 10036

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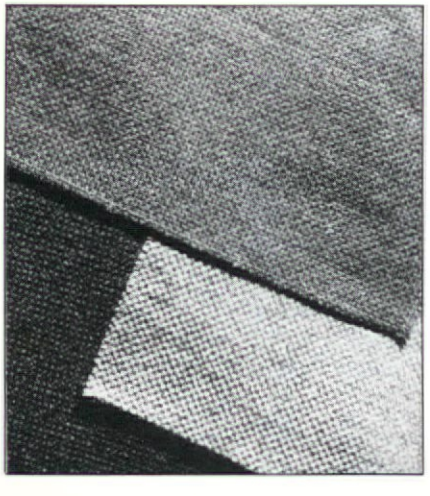
Stack, gang chairs with sleek version

Laminette III from Westnofa USA Inc. is a laminated beech chair with tablet arm option. Unit stacks and gangs for varied application. Chair is also available in 10 other finishes. **Circle No. 231.**



Pure Australian wool woven in subtle colors

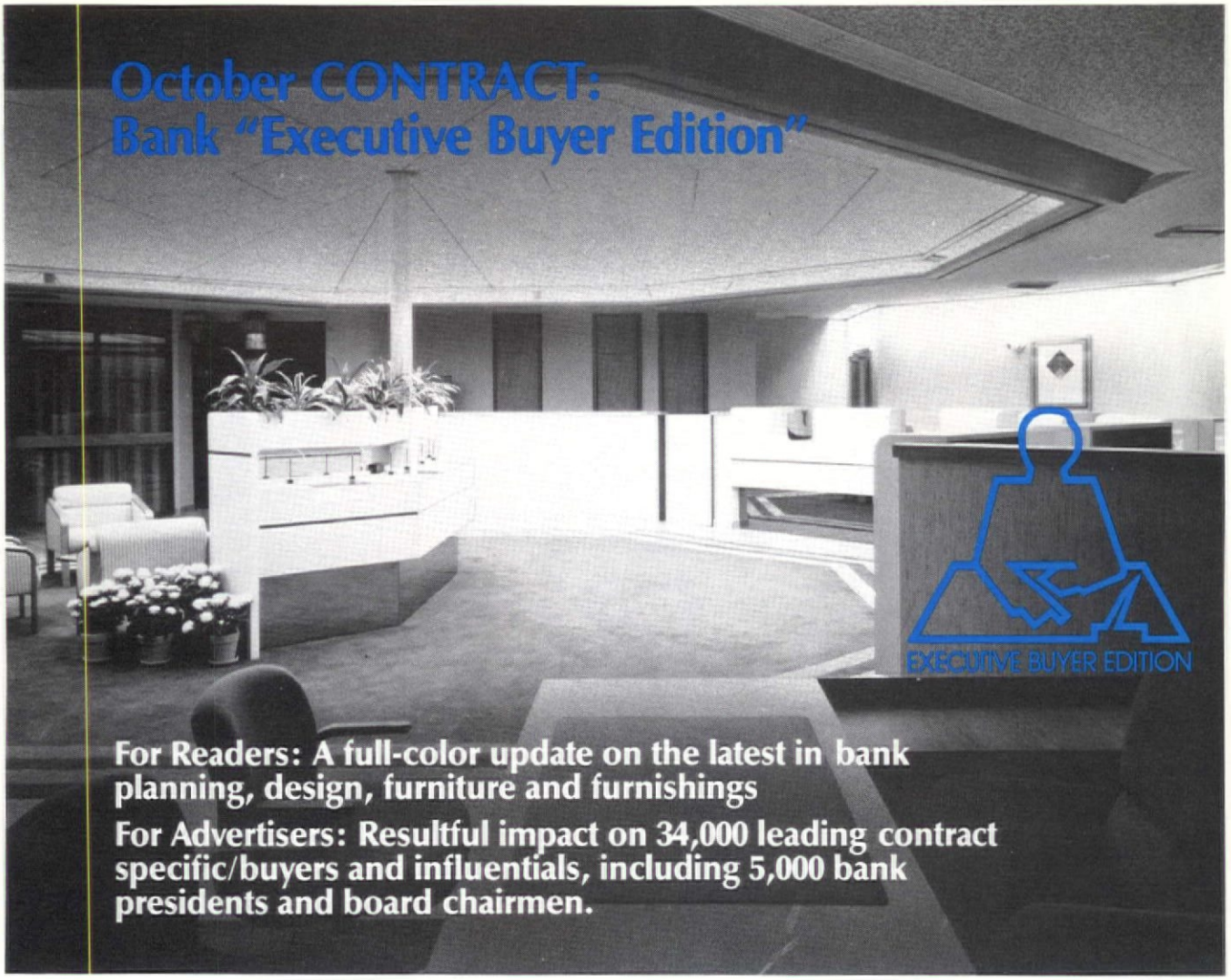
Pure virgin wool from Australia is yarn-dyed with warp yarns heathered before spinning, a process which gives the fabric subtle colorations. Called Freeman, the fabric has a low pile and comes in 10 colorways. Width is 54 in. Fabric is from Stow/Davis Textile Division. **Circle No. 237.**

Lounge series framed in exposed wood

Lounge furniture 3400 series from Alma Desk Co. is framed with round, exposed wood arms connected to leg supports. Loose chair, two-seat sofa (shown), and three-seat sofa are offered in the line. **Circle No. 232.**

Vertical shades give new slant to windows

Window coverings of northern hardwood are offered in Serre vertical style by Nanik. Treatments come in 32 finishes. **Circle No. 236.**



The October CONTRACT Bank "Executive Buyer Edition" provides business-minded editorial and hard-to-find details on impressive bank installations/furniture/furnishings...offers advertisers access to more than 29,000 volume-buying contract specifier/buyers, plus an extra 5,000 decision-making end-users at banks and other financial institutions nationwide.

October Ad Deadlines: September 10, orders; September 15, film; September 20, inserts.

Upcoming "Executive Buyer Editions"

November: Offices—Specialized editorial, plus extra circulation to 5,000 office managers/facility planners. **Space closes Oct. 8.**

December: Store Planning—Practical information, plus extra circulation to 5,000 planners, developers and managers of stores, chains and shopping centers. **Space closes Nov. 10.**

February: Health Care—Specialized health care data, plus extra circulation to 5,000 health care executives. **Space closes Jan. 10.**

April: Hospitality/Restaurants—Specialized contents, plus extra circulation to 5,000 executives at hotels, restaurants, etc. **Space closes March 10.**

June: Government—Government installations, plus extra circulation to 5,000 government purchasing executives. **Space closes May 10.**

August: Commercial Buildings—Remodeling editorial, plus extra circulation to 5,000 commercial building owners and staff executives. **Space closes July 11.**

Contract

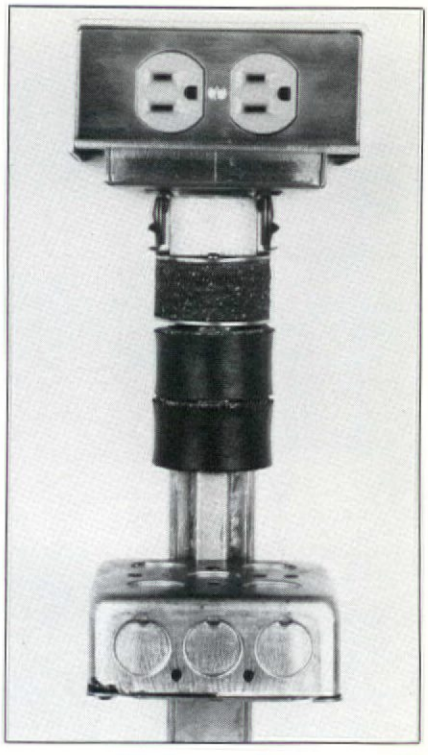
A Gralla Publication/1515 Broadway, 24th Floor/New York, NY/10036/212-869-1300

Workstations curve to fit any space

Curved panels in workstation set-up fit varied space configurations. Panel-mounted lateral files and cantilevered worksurfaces provide work and storage space. From Litton Business Furniture, product grouping includes L500 series chair upholstered in the firm's new textile collection. **Circle No. 238.**

Five-star chairs swivel

Marnay-Beaver chairs recently added to the firm's line include 1000 high back swivel tilt and 1980 high boy swivel tilt styles. Each features a five-leg base and a variety of upholstery fabrics.
Circle No. 230.

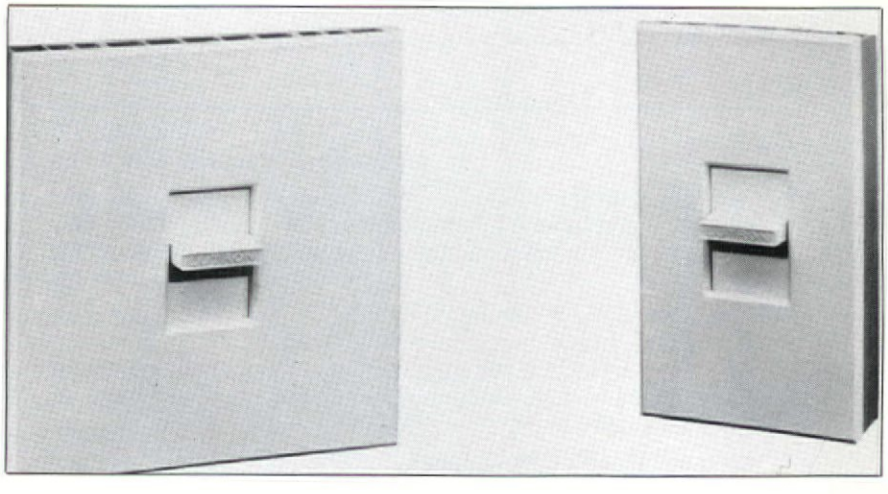


Ease installation with fire-rated outlet

Fully fire-rated for high- and low-tension combinations, "poke-thru" electrical floor outlet provides easy installation and removal. Combinations include 100 pair telephones plus power as confirmed by U.L. test data. Unit is a product of Raceway Components Inc. **Circle No. 226.**

Roll-up security door bolts into framework

Saf-T-Space roll-up steel security door bolts into the existing framework of interior closets. Manufactured by Saf-T-Case Co., the door is made of 26-gauge steel and is available in four widths plus custom sizes.
Circle No. 225.



277 volts power fluorescent light dimmer

Nova 277 volt fluorescent dimmer from Lutron is offered in two models, both with linear slide controls. NF-10-277 controls up to 10 lamps, while NF-20-277 controls as many as 20 lamps. Unit has a built-in voltage stabilizer which maintains a constant level of light when building line voltage changes momentarily. Many other switch styles are available. **Circle No. 229.**

Contract sleep-oriented products that pass the test of time.

You can count on Leggett & Platt for sleep-related products that are profitable for hotel-motel installations and for institutions and dormitories. Write for literature.

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Big bed comfort in a minimum storage space. The twin-size Stow Away is ideal wherever an extra bed is required. The sturdy steel counter-balanced frame simplifies opening and closing. It moves around easily on 3-inch, full-swivel, ball-bearing hard rubber casters. Stow Away clears all standard doorways. Woodgrained headboard and 2 retaining straps included.

Rollaway Beds

Sturdy steel angle construction. Double-strand twin-link fabric or polypropylene decks. Casters are medium hard rubber with full ball-bearing swivel action. Color is deep coffee brown. Three widths are available. . .30," 39" and 48."

The Linwood

BED BASE

Sturdy and practical. Fast assembly without tools. Linwood's durability and maintenance savings make it especially suited for contract applications. Accommodates all bedding sizes, regular and extra long. Heavy-duty models are available for waterbed support.

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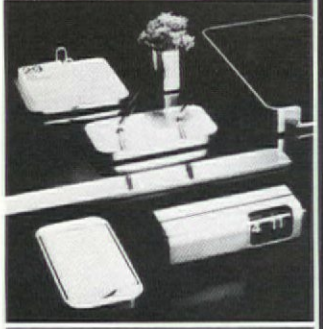

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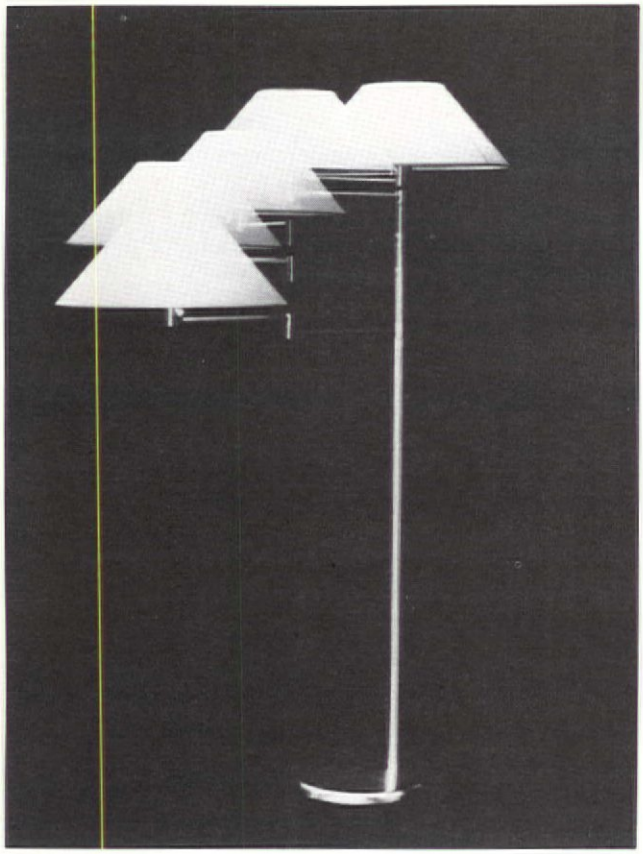
PRODUCTS & SERVICES

PLUSH CARPET SELECTED FOR CORPORATION

Walter Carpets' LeGrand, a velvet plush of Antron XL nylon, was chosen for the new Canarim Investment Corp. building, Vancouver. Installed in offices, boardroom, and reception/staircase area, carpet is designed for commercial performance and is available in 20 colors. **Circle No. 260.**

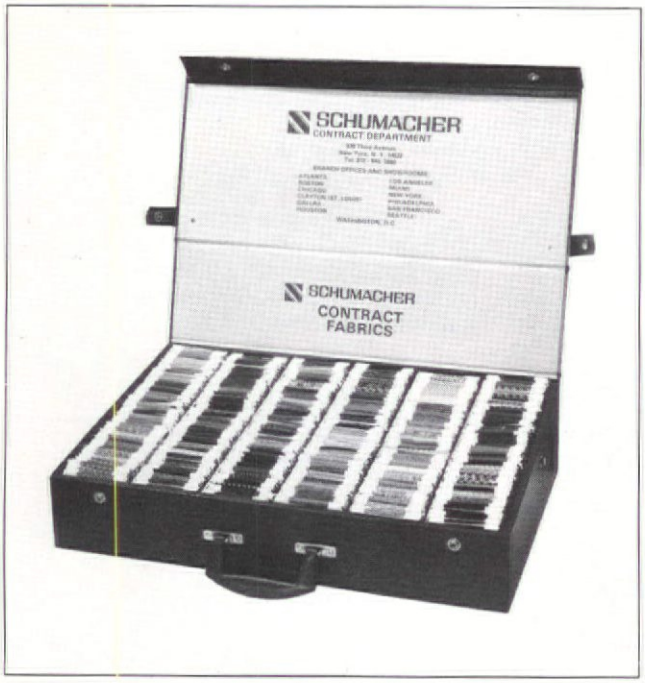
HIGH ABSORPTION LENDS ACOUSTICAL CONTROL

Softscape™ reveal-edge panels from Capaul are molded and wrapped in textured fabric for high absorption capability. Bold or flush reveal panels are available. Molded fiberglass forms panel core. Varied fabrics are offered. **Circle No. 206.**



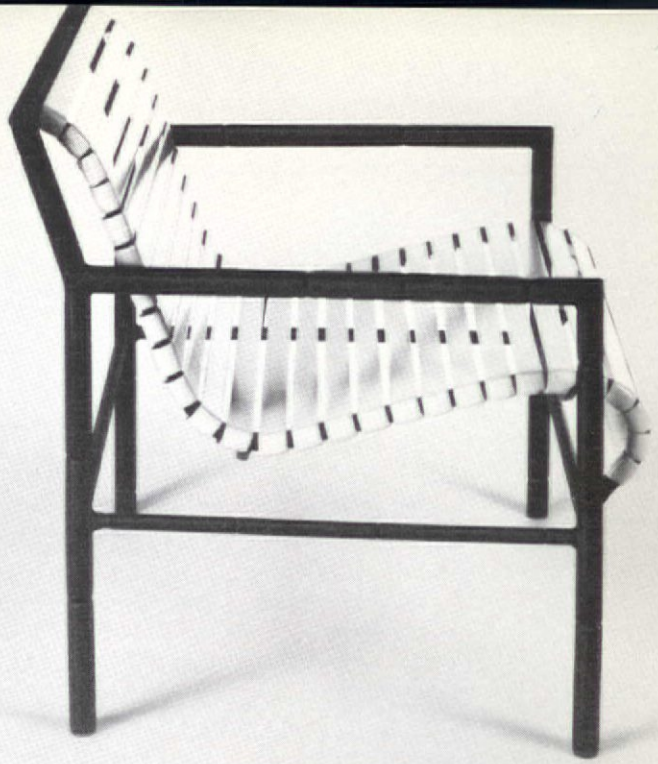
SWING ARM LAMP STILL GOING STRONG

After 55 years of production, the Nessen adjustable swing arm lamp is still offered in solid brass with linen or vinyl shade. Telescopic height adjustment and horizontal extension make lamp applicable to many areas. **Circle No. 254.**



SAMPLE KIT MAXIMIZES STORAGE FOR FABRIC

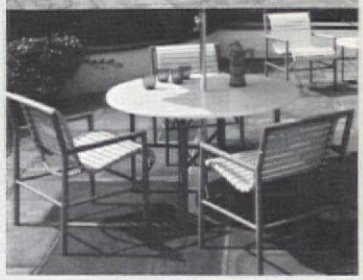
Vinyl carrying case holds up to 500 chromatically arranged fabric samples. Unit converts for countertop display when opened. Kit is available from Schumacher. **Circle No. 233.**



Molla. Something a little different – and a lot better.

Bonaire by Molla offers a unique level of comfort, design, durability, good taste and meticulous craftsmanship. Add exclusive MOLLA ALUMALOY® FURNITURE construction and you have super-strong, lightweight, outdoor furniture that won't rust—*ever!* And it's practically maintenance-free.

Bonaire is available in a wide range of colors, in a host of dining-lounge pieces, including the unique outdoor, swivel chair shown.



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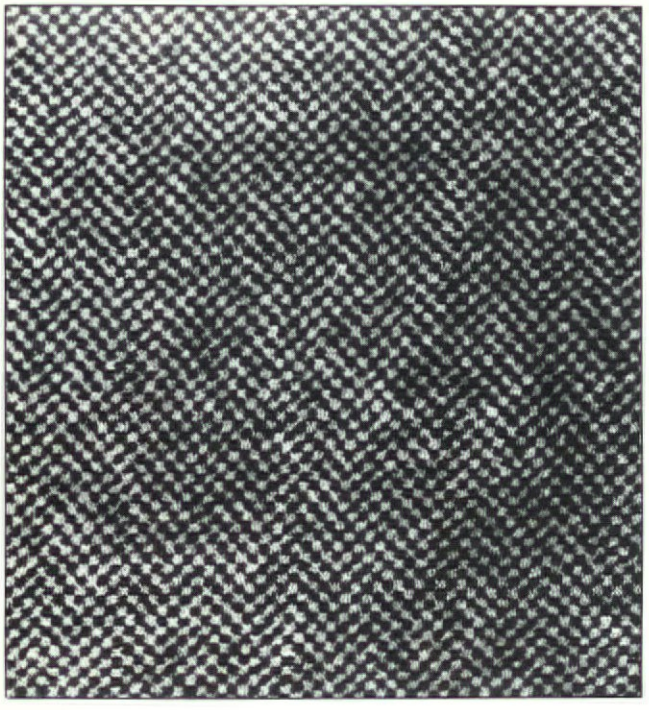
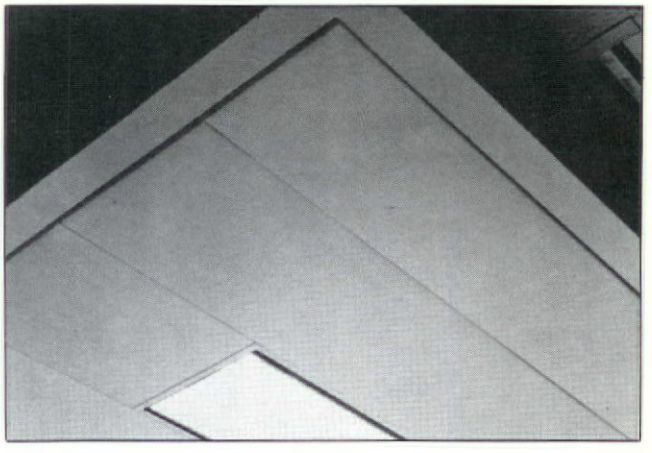
Other Showrooms: Boston, Washington, Chicago, Grand Rapids, Dallas, Los Angeles and San Francisco.



PIN-DOT LOOK ACHIEVED IN CONTRACT SAXONY

Graphic Joy from Joy Carpet Mills has a pin-dot look made of space-dyed yarn. Face fiber is continuous filament nylon with a face weight of 22 oz. Available with jute or rubber back, carpet is guaranteed for seven years. **Circle No. 261.**



CEILING IS DESIGN ALTERNATIVE TO TILE

Stretchceilings™ and Stretchwall™ ceiling panels provide a design alternative to tile ceilings. From Joel Berman Associates, product adapts to curves and irregular shapes in installations. Accessibility to area above the ceiling is maintained. Systems can be integrated with light and sprinkler fixtures. **Circle No. 202.**

ZIP-CHIP PROGRAM SENDS SAMPLES IN A FLASH

Samples of Formica Corporation's laminate products are available to designers by a toll-free phone call. Requests for samples will be filled within 24 hours. Nationwide toll-free number is 800-543-8201. In Ohio call 800-582-1396/ operator 207. **Circle No. 267.**

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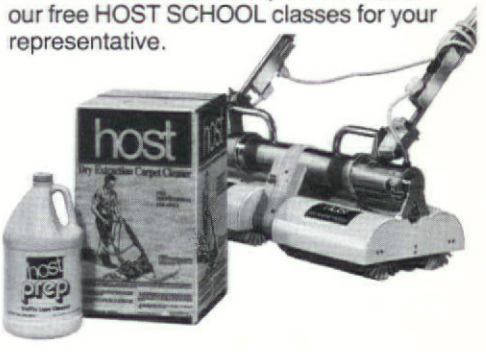

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PURPOSE

To recognize innovation and exceptional design achievement in contract and commercial furnishings and related items of manufacturers and their product designers.

ENTRANTS

All manufacturers of contract commercial furnishings and related items introduced within the past year.

RECOGNITION

- Awards will be presented at the Helmsley Palace in New York City, planned to coincide with Designer's Saturday.
- *Contract* Magazine will feature the winners of the Product Design Preview in their November issue. The Grand Prize winner will be featured in color on the front cover.
- A bound reprint of the *Contract* Magazine coverage will be distributed to all members of the Institute of Business Designers.
- The Institute will publicize the Competition winners and the products in the National Office during NEOCON activities.
- A multi-media featuring the winning products will be circulated among the Institute's chapters and utilized in nationwide IBD programs.

RULES FOR ENTRY

1. Only products designed for contract use that have been offered for sale from September 8, 1981 are eligible. IBD and *Contract* will rely on the personal integrity of each manufacturer to honor this rule. Entries are not limited in number. No entry may win more than one award and may not be entered in more than one category. A designer or manufacturer may enter more than one entry.
2. IBD and *Contract* Magazine are not responsible for lost or damaged designs or kits submitted, either through fire, theft or any other cause, in transit or on location at our own or any other address where the designs and kits may be judged or exhibited.
3. IBD and *Contract* Magazine reserve the right to exhibit individually or collectively for the period of one year the award-winning designs at their own or other addresses that may be included in a circulating exhibition tour.
4. Decisions by the judges are final. The judges reserve the right to determine the number of awards given and may choose not to award prizes in any given category.
5. Winning entries and kits become the property of the Institute of Business Designers and *Contract* Magazine.
6. Advertising and publicity on winning designs following the initial announcement of the award winners must be confined to and specifically refer to the winning design. No publicity is to be released by a manufacturer or designer of an award-winning product prior to October 16, 1982. Failure to comply with this rule will immediately disqualify the winner.
7. All advertising and publicity on winning designs must utilize the approved Product Competition image and include the year of the Competition.
   Example: "1982 IBD Silver Medallion Winner."
8. Winners will be notified by phone by the week of September 6, 1982.
9. The entry kit is designed to hold up to (8) 35mm slides and (2) 8″ x 10″ photos. Full color, large format transparencies must be available upon request.
10. Deadline for receipt of completed entry kits is 5:00 p.m., September 2, 1982, at the address printed on the label provided with page two of the entry kit (IBD—1155 Merchandise Mart, Chicago, Illinois 60654.)
11. Non-winning entry kits will be returned via United Parcel Service within 90 days if a check for $20 (made payable to IBD) is clipped to this page of the entry kit.

CATEGORIES

1. DESKS & CREDENZAS
2. CASEGOODS—Library, Health Education, Industrial Education and Hospitality, Medical, Hotel applications
3. TABLES
4. FILING SYSTEMS
5. SYSTEMS FURNITURE—Any furniture consisting of movable walls and interrelated components
6. SCREENS/PARTITIONS—Freestanding room dividers and partitions
7. COMPUTER SUPPORT FURNITURE—Specific equipment used in conjunction with computer and word processing systems
8. RETAIL—DISPLAY FURNITURE AND FIXTURES—Furniture for Stores, Shops and Showrooms
9. CEILING SYSTEMS
10. FURNITURE INTEGRATED/ TASK/AMBIENT LIGHTING
11. PORTABLE LAMPS
12. LIGHTING—All other including ceiling, recessed fixtures and public lighting
13. CHAIRS—Individual seating designed specifically for office or conference room usage
14. LOUNGE FURNITURE—Includes reception, modular, series seating
15. SPECIAL SEATING—Multi-purpose stacking, ganging, folding, hospital, geriatric, restaurant and special usage
16. UPHOLSTERY FABRICS—Any weight, natural, synthetic fabrics including vinyl and leather
17. OTHER FABRICS—Draperies, casement, bedspreads
18. FABRIC COLLECTIONS—Collections of coordinated fabric groupings (any weight)
19. CARPETING AND RUGS—(carpet tiles)
20. FLOORCOVERINGS—Hard surface flooring, resilient, ceramic tile, wood
21. SURFACING MATERIALS—Laminates, metals, plastics for vertical or horizontal surfaces
22. ACOUSTICAL MATERIALS AND TREATMENT
23. WALLCOVERINGS
24. WALLCOVERING COLLECTIONS—Any grouping of coordinated wallcoverings
25. DESK AND OFFICE ACCESSORIES—Including wall plaques, ceramics and clocks
26. WALL ART, BANNERS—(Special contract art applications)
27. VISUAL COMMUNICATIONS AND SIGNAGE
28. WINDOW TREATMENTS—Blinds, shades, including metal fabrication, wood and other materials

REQUEST FOR ENTRY KIT

Forward to:
Institute of Business Designers
1155 Merchandise Mart
Chicago, Illinois 60654
312-467-1950

Category

Date product first introduced on market

Manufacturer

Address

City, State, ZIP

Name of individual submitting entry

Phone

A CHECK FOR $95 MUST ACCOMPANY EACH KIT REQUEST

To enter this competition, send a check for $95 to IBD Headquarters, 1155 Merchandise Mart, Chicago, IL 60654 for an entry kit for each product submitted.

The kit is designed to hold photographs, 35mm slides and forms for product description. No presentation boards are required.

If you wish your kit returned after the awards are made, add an additional $20.00 for each entry.

JUDGES

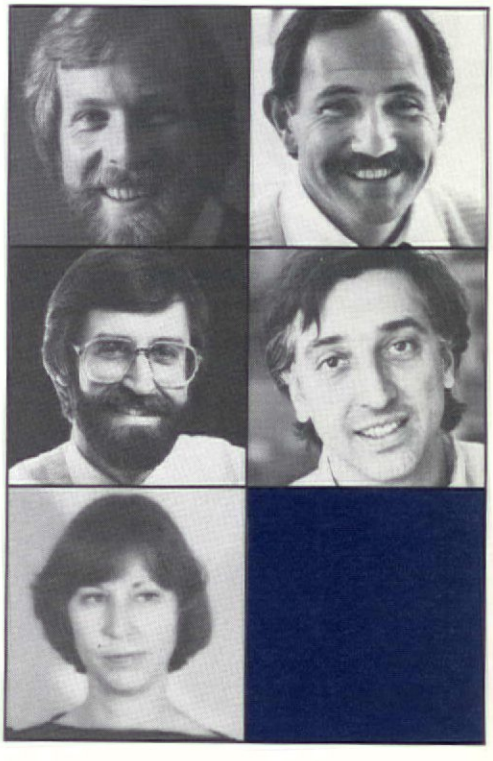
David F. Cooke, FIBD
National President, IBD
Vice-President
Design Collective
Columbus, Ohio

Charles Pfister
Pfister Associates
San Francisco, California

Dean Lindsay
Kornick/Lindsay
Chicago, Illinois

Bruce Hannah
Hannah Designs
Cold Springs, New York

Dr. Jo Ann Thompson, Ph.D.
Department of Textiles and Merchandising
University of Tennessee
Knoxville, Tennessee



Circle 62 on reader service card

Spanjer Pedestal Directories

NON-ILLUMINATED (NPD 100)

ILLUMINATED (IPD 200)

Office buildings, institutions and retail stores use Spanjer pedestal directories to flag special events, for orientation and when other directory types are hard to install. Available as single or double face units.

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Spanjer

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Chicago, Illinois 60610
312.664.2900

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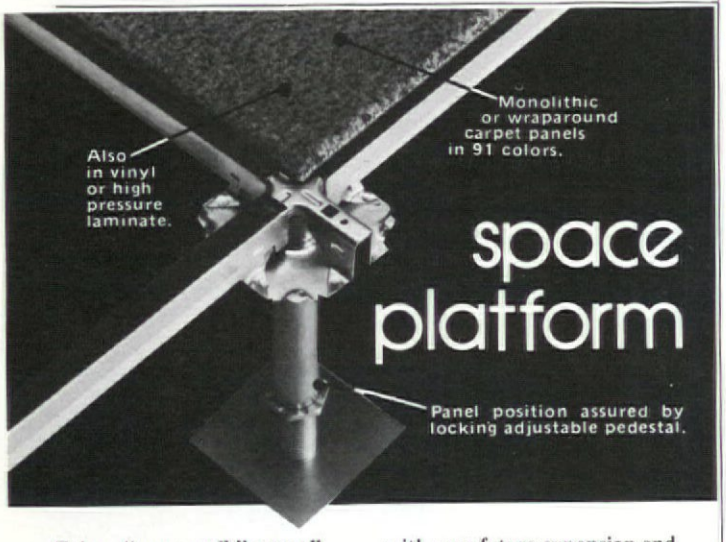

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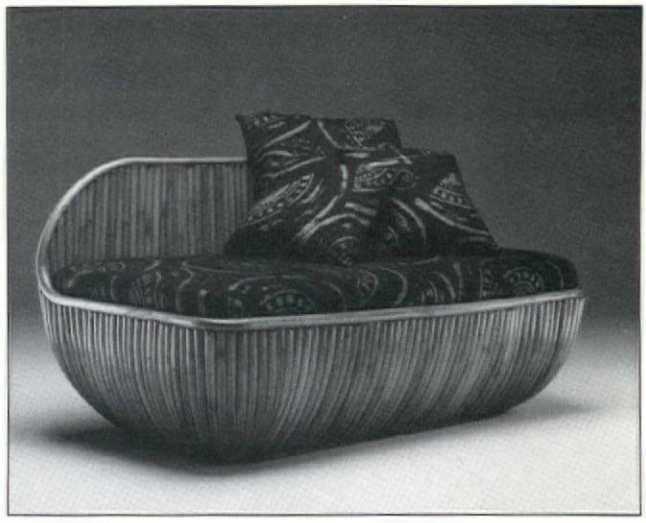
(301) 799-4200; (800) 638-5846

Tate

CM/8

Circle 64 on reader service card

PRODUCTS & SERVICES



CHIPPENDALE'S SHOWS LINE OF SOLID RATTAN

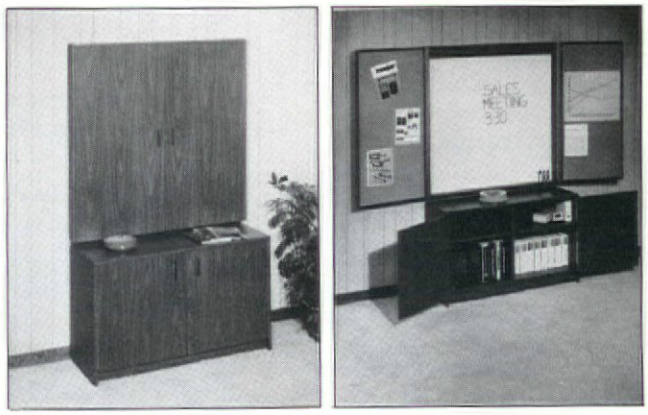
Loveseat from the Tikal collection of Roland Kentfield Ltd. can be seen at Chippendale's & Associates showrooms. Hand-rubber color lacquer covers rattan base and back. Hand-screened upholstery is from Roland Kentfield Fabrics Ltd. **Circle No. 262.**

TUNER/AMP SYSTEM CONTROLS MUSIC AND PAGING

Single unit system for background music and voice paging is available from Dukane Corp.'s communications systems division. AM/FM tuner/amplifier model 1A2000 provides 20 watts RMS audio power with controls for selection, tuning, volume, and tone. Microphone overrides music or mutes it completely for voice paging. Unit weighs 19 lbs.
Circle No. 228.

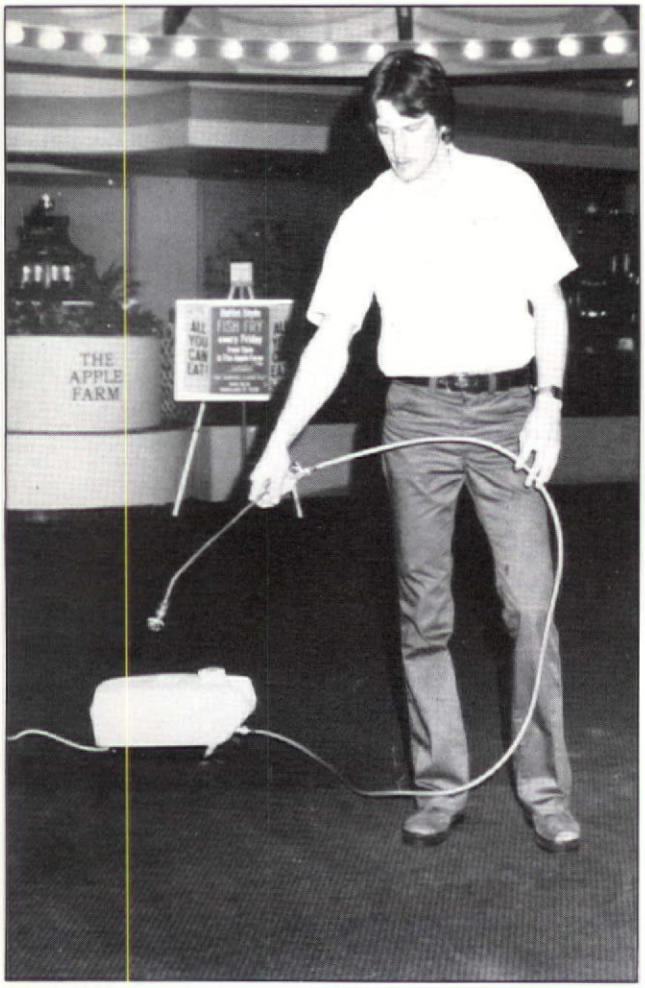
SECURE WHEELCHAIR TRAYS WITH VELCRO

Hausmann Inds. designs a new wheelchair tray that attaches to wheelchair arms with velco straps. Tray measures 24- by 19- by 6-in. with a cut-away provided for comfort. Light-colored Formica finish adds a non-glare surface. **Circle No. 269.**



MESSAGE CENTER HAS CREDENZA STORAGE SPACE

Conference Center cabinet and credenza has both cork panels and white surface for message functions. White surface also serves as a projection area. From Modar Inc., unit is wall hung and comes in a stain- and scratch-resistant finish.
Circle No. 256.



DURACLEAN SERVICE OFFERED BY DEALERS

Duraclean Plus™ service, a soil- and stain-repellent treatment, is now available from Duraclean International dealerships. Treatment contains DuPont Teflon® carpet protector using a non-flammable fluorochemical. Process also helps retain color and texture. **Circle No. 263.**

CEILING HIDES LIGHTING, SPRINKLER FUNCTIONS

Donn Corp. integrated LC4 ceiling system features a metal suspension grid that incorporates lighting, air, sprinkler, and speaker outlets. Ambient lighting units are snapped out and easily moved to any ceiling area. System is available in polished or flat white finish. **Circle No. 268.**

FLAME-RESISTANT TREVIRA NOW AVAILABLE

Fabrics of Trevira polyester from Hoechst Fiber Industries are now available with flame-resistant qualities for commercial applications. Fabrics woven of the fiber are washable and drapeable. Product was recently specified for draperies at 860-880 Lake Shore Drive, Chicago, a building of steel and glass designed by Mies van der Rohe.
Circle No. 252.

Circle 65 on reader service card

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This two-part fixture with transformer in a weighted base makes the most difficult of lighting situations seem simple, fitting into tight spaces in display cases, shelving and gardens.

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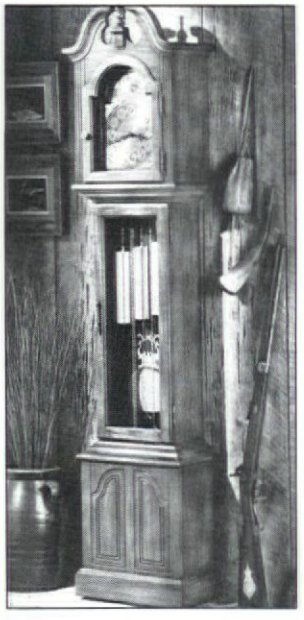
Circle 66 on reader service card

TEXTILE CREATED TO MATCH EXISTING LINE

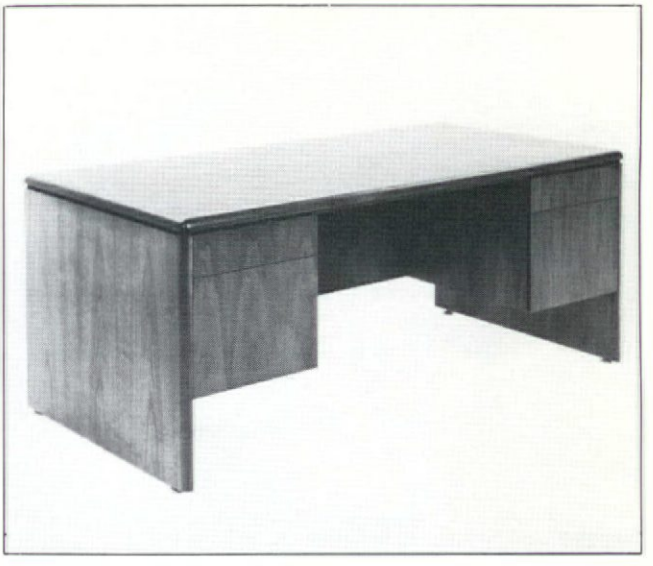
Shelby Williams Textiles has introduced a new wool fabric to coordinate with the NeoChrome Collection by Naugahyde® Fabric. The collection is manufactured to meet fire safety standards of the Boston Fire Department and the New York-New Jersey Port Authority. This collection matches wool fabric with vinyl in 30 colors. **Circle No. 257.**

TRADITIONAL STYLING ACCENTS CLOCK

Independence from Pearl Enterprises features cherry wood cabinetry and gold-colored Tempus Fugit face. Other accents include brass weights and pendulum and traditional broken-arch pediment crown. Imported chain-wound movement with eight Westminster chimes, serpentine hands, and Arabic numerals are standard. **Circle No. 282.**



Circle 67 on reader service card

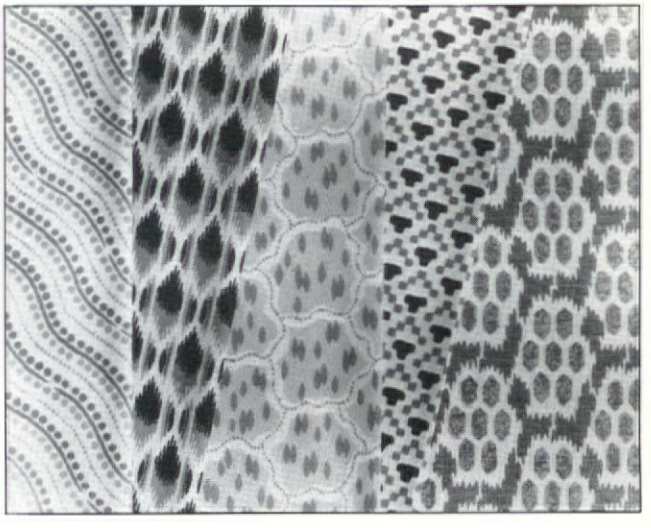


SERIES OFFERED IN THREE WOODS, TWO EDGES

Oak, walnut, or mahogany wood may be specified in desk series from Tallahan/Loop Corp. Mitered or dome edges are offered and dovetail joinery is standard. Drawers have full-extension ball bearing slides. **Circle No. 253.**

STORAGE SYSTEM ACCOMMODATES PRINTOUTS

High-density computer printout binder storage system is available from Aurora Steel Products. System is designed for use with any standard Quik-Scan or Quik-Lok shelving section in 12-, 15-, or 18-in. depths. Unit uses an extruded aluminum channel installed between shelf supports and a nylon T-bar inserted in printout. Bound printout and T-bar slide in and out of the channel. System accommodates binder sizes from 8½- by 8½-in. to 17¾- by 11-in. Complete data sheet gives information on product. **Circle No. 283.**



FABRIC DESIGN DERIVED FROM ANTIQUE SOURCE

Fabric designer Joan Kaminski Penny developed a line of 10 small-scale patterns drawn from antique sources for Lee Jofa. The hand-printed collection has soft theme colorations in cottons and a linen/cotton weave. Coordinated wallcoverings are available in vinyl, paper, and foil. **Circle No. 255.**

COLUMBUS MILLS BUYS COLORFLO SYSTEM

ColorFlo™ random color dye application system has been purchased by Columbus Mills of Georgia for subtle color blending in carpeting. The dyeing system eliminates air jets and cuts space requirements in half for its water-based dye distribution method. Equipment is manufactured at Greenwood Corp., Oglethorpe, Ga. **Circle No. 284.**

BENCH SEATING AND ACCESSORIES FEATURED

Plymold tabletops, oak bases, wall panels for indoor/outdoor installations are featured in a brochure geared to the hospitality market. **Circle No. 278.**

Circle 68 on reader service card

REDCO ADDS A FULL LINE OF BASES

TO SUPPORT OUR FULL LINE OF TOPS

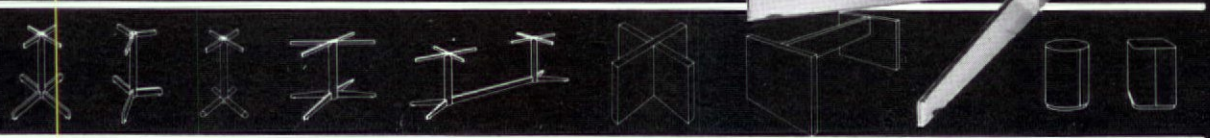
As always, you can choose from our unmatched selection of compatible wood edge styles . . . with just about any wood veneer or decorative laminate.

As never before, you can now choose from our recently added full line of quality bases: chrome, bronze, wood, cubes and cylinders.

Which is good news if you want the best tops, but would rather not seek a second supplier for the bases.

Which means we are at long last, uh, self-supporting.

More good news. Our prices are very competitive. To see what we mean, circle the service number or call us toll-free.



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REDCO MFG. DIVISION · LHL INC.
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Representatives in principal market areas.

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Circle 69 on reader service card

Circle 70 on reader service card

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Circle 71 on reader service card

PRODUCTS & SERVICES

MEXPHALT BACKING SYSTEM STABILIZES TILE

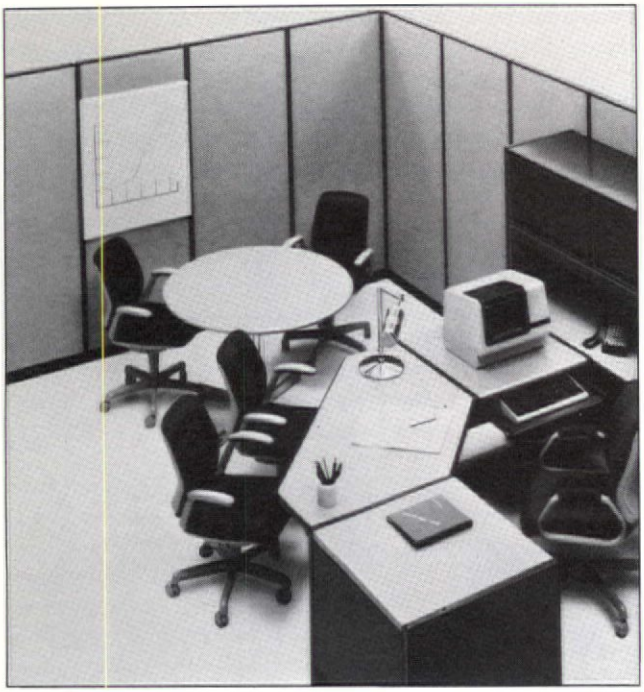
Carpet tile from Criterion Mills is backed with Mexphalt backing system, an asphalt-based product used here with fiberglass-reinforced scrim. Line includes two selections of Marquesa® Lana BCF olefin, and two styles of stock-dyed Badische staple nylon. Tiles are available in 12 solids and three printed patterns. **Circle No. 259.**

INSTITUTIONAL GRAPHICS NEED NO HARDWARE

Rubbermaid's Sign Language™ graphic systems require no hardware for installation. Clear plastic covers messages to prevent marring. Emergency signs are white with red graphics. Other signs are brown or blue with white graphics. Series contains 90 messages. **Circle No. 279.**

LATERAL FILING SYSTEM ADAPTS FOR EFFICIENCY

Lateral drawer files from Filex adapt to hold any size file or document for efficient use of office space. Steel construction has channel frame support. **Circle No. 285.**



MARKER BOARD SURFACE ATTACHES TO PANELS

Hang-on marker board has been developed for use with the Steelcase Series 9000 and movable panels. Designed for use with dry erase pens, board has easy-clean, non-glare surface. It is also a projection screen. **Circle No. 280.**

GRAY, PLUM, GREEN KEY SOLID FABRIC LINE

Updated solid colors—gray, plum, green—have been expanded in Brunschwig & Fils' contract collection. Leathers, suedes, reps, cheniles, and a felt-like fabric are included in the line. Fabrics cover a broad price range. Five fabrics pass the UFAC Classification Cigarette Ignition Test.
Circle No. 258.

ANTIQUE BRONZE FINISH IS NEW FAUCET LOOK

American-Standard washerless faucets include bronze-finish Cadet and Aquarian lines. **Circle No. 281.**

See us at Booth 2040
November 7-8-9-10
International Hotel Show
New York.

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CANADA'S FINEST!

Centrac contract furniture has been chosen by major hotels from Washington and Stamford to Houston and Dallas.
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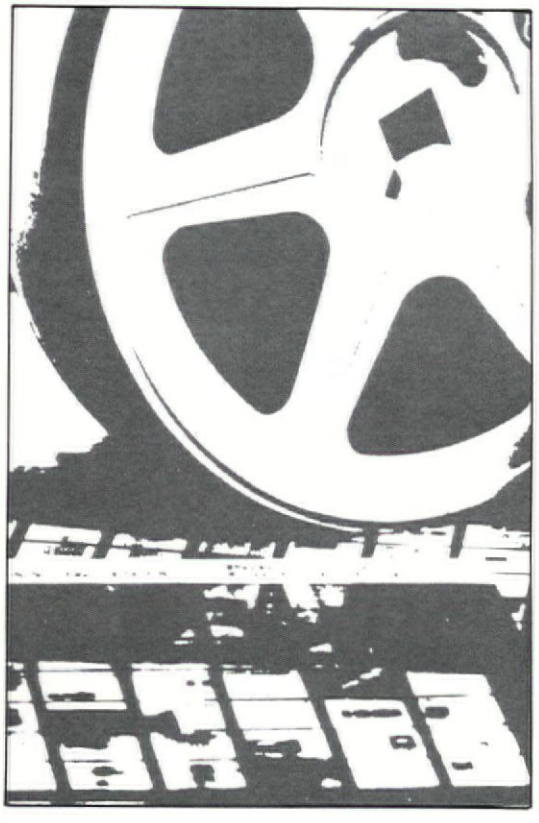

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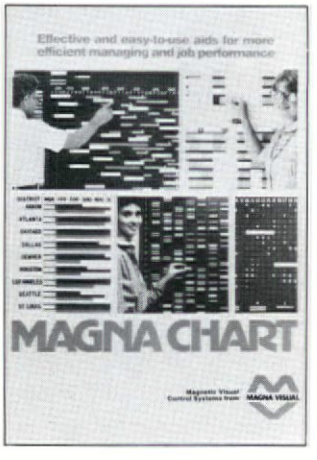
CATALOGS & BROCHURES

Four-color book shows Italian furniture and lists firms represented at the Cologne Exhibition this year. Styles range from traditional to modern and are shown in a variety of settings. A publication of FORMA, the issue updates readers on Italian furniture production and special events. **Circle No. 239.**

Complete product and price lists are available from Thunder & Light. Four-color and black-and-white catalogs and booklets detail Italian lighting product lines from the firm. **Circle No. 240.**

Steelcase describes Series 424 in a four-color, 16-page booklet on the new seating line. Photos show design options available. Cutaway illustration provides an inside look at construction features. **Circle No. 241.**



Recently published 48-page catalog from Magna Visual Inc. shows Magna Chart magnetic visual aids. Four-color catalog illustrates products for magnetic boards, porcelain steel boards, and marker boards. In addition, a large selection of individual magnetic boards and components are available for custom visual systems. Kits aid business, school, hospital, industry, and government installations. **Circle No. 248.**

Several color brochures and catalogs from Scientific-Atlanta illustrate full line of storage systems and work surfaces. Cabinets, cases, desks, consoles, and vertical cabinets are shown for use with instruments and systems in electronics, computer, industrial processing, and other technical fields. Optima line is shown and a quick-ship catalog is available. **Circle No. 244.**

"Designing Partners" has been released by Ronald Charles Associates, Miami. The firm imports and handprints fabrics and wallcoverings. The new book displays a variety of lines. **Circle No. 245.**

Woodgrains Plus brochure shows 12 new woodgrain laminates from Wilsonart. Each laminate is illustrated in four-color photography. **Circle No. 246.**

Catalog from AMP Special Industries describes features of undercarpet cabling systems now available for power, telephone, and data distribution. The 16-page, four-color guide explains installation, fitting, accessories, and specifications. **Circle No. 247.**

Bloc executive desk series is described in new four-color brochure from Litton Business Furniture. Varied components are pictured, with close-ups of file drawers and edge detailing also included. **Circle No. 270.**

Product sheets show Nevamar decorative laminates in both general purpose and postforming grades. Samples are also available from the manufacturer. **Circle No. 271.**

Monsanto's Contract Carpet Specification Guide covers areas such as texture, color, budget, flammability testing, and durability. **Circle No. 272.**

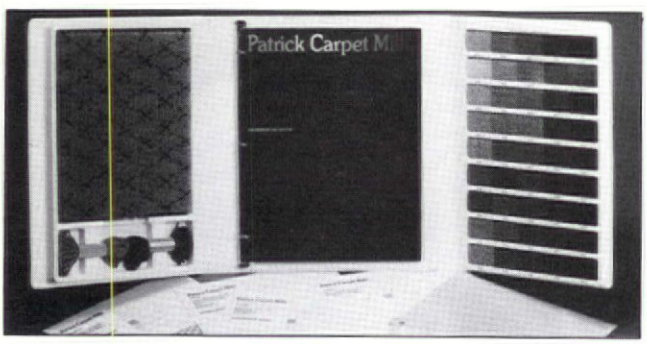
A 200-page catalog with specifications and comprehensive price list is now available from Cy Mann Designs Ltd. Fee of $25 includes updates throughout the year and page replacements as needed. **Circle No. 273.**

Oneida Silversmiths offers a four-color foodservice holloware catalog featuring serving items for the hospitality industry. **Circle No. 274.**

Entitled "Efficiency In Open Plan Systems," brochure from Panel Concepts Inc. describes three panel systems. Four-color publication shows applications in office settings. **Circle No. 275.**

RPI Designs displays tables T401 in photographs and specification sheet. **Circle No. 276.**

Four-color booklet from Levolor shows varied applications for ceiling systems offered. Specifications and drawing details are included. **Circle No. 277.**



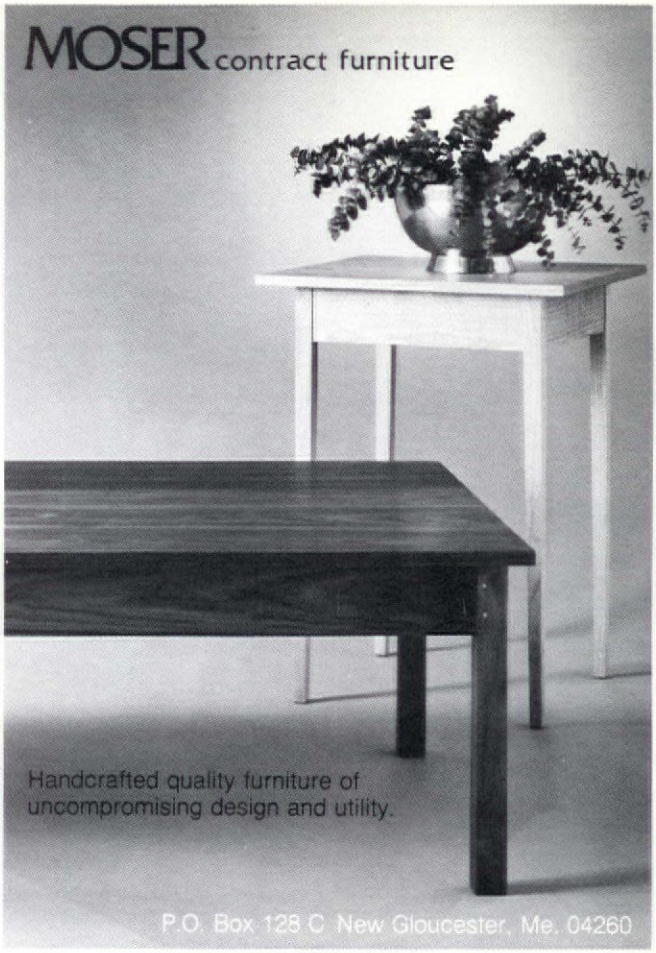
Color and design selection for carpet is the focus of a three-part kit from Patrick Carpet Mills. Carpet sample of Badische's Zeftron nylon, full-color pattern booklet, and brochure on nylon yarn are included in the kit. **Circle No. 242.**

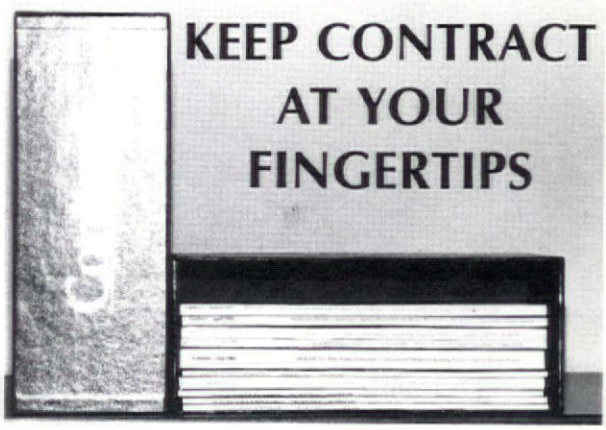
Folded brochure from Vivid shows extensive collection of acrylic furnishings. Some items include chrome or brass fittings and upholstery. Tables, chairs, barstools, and carts are among items illustrated. **Circle No. 243.**

Dualine Flexible Tambour Wallcovering is shown in design brochures. Material wraps walls and other areas in wood or metallic. From National Products Inc., brochures are four-color. **Circle No. 249.**

Newsletter from Ashod Kassabian Photography, New York, shows examples of work along with tips on getting design stories published. Data sheet lists assignments and affiliations. **Circle No. 251.**

Circle 73 on reader service card





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Cont. 8/82

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CONTRACT SALES REPS WANTED

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As a service to the commercial/institutional furnishings industry, CONTRACT offers space on this page FREE to manufacturers of contract furnishings that sell through independent representatives and that have display advertisements in this issue.

REPRESENTATIVES

The contract furnishings manufacturers listed here need you, in the territories they specify. If you are interested, write or call them direct. Manufacturers listed below have display advertisements in this issue. See these ads for additional product background.

ANGLE STEEL, 100 Acorn St., Plainwell, MI 49080. **Contact**: Chip Albright, Clyde Witt. **Product:** Mobile and open office pedestals. high density shelving, mail room equipment. **Territories**: Most territories open.

TUOHY FURNITURE CORP., 42 St. Albans Place, Chatfield, MN 55923; 507/867-4280. **Contact**: Carl D. Luedtke. **Product**: Wood contract furniture. **Territories**: Colorado and Utah.

GRANT HARDWARE CO., High Street, West Nyack, NY 10994; 914/358-4400. **Contact**: E.F. Dumesnil. **Product**: Drawer slides. **Territories**: Selected territories available.

PATRICK CARPET MILL, 2937 Maria Street, Rancho Dominguez, CA 90221; 800/421-1846. **Contact**: Marty Druss. **Product**: Contract/commercial carpet. **Territories**: Phoenix, El Paso, Albuquerque, Chicago, Pittsburgh.

LUBKE MOBELWERKE GMBH & CO. KG, P.O.B. 202 Stn. M, Toronto, Ontario M6S 4T3, Canada; 416/769-0812. **Contact**: Peter Schat. **Product**: Contract furniture (chairs, tables for offices and institutions). **Territories**: Selected territories open, showroom required.

CONGOLEUM CORP., Kinder Division, 74 Winding Way, West Orange, NJ 07052; 201/736-1379. **Contact**: Bob Exel. **Product**: Upholstered furniture & bedding. **Territories**: National territories open.

ELDON OFFICE PRODUCTS, 1130 E. 230th St., Carson, CA 90745; 213/518-1600. **Contact**: Richard K. Turner. **Product**: Desk accessories and media handling systems. **Territories**: Most market areas.

FREE INFORMATION FAST

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WYCOME MEYER, CO., 305 E. 63rd Street, New York, NY 10021; 212/753-2010. **Contact**: Theodore R. Meyer. **Product**: Contract upholstered furniture (chairs, sofas, sofabeds, tables, laminate, wood, etc.). **Territories**: Illinois, Wisconsin, Oregon, Washington, Missouri, Kansas.

FIXTURES FURNITURE, INC., 1641 Crystal, Kansas City, MO 64126; 800/821-3500. **Contact**: Norman Polsky. **Product**: Contract furniture. **Territories**: Dallas.

CENTRAC INDUSTRIES LTD., 2650 S. Clair Avenue West, Toronto, Canada M6N 1M2; 416/763-3893. **Contact**: H.K. Ellis. **Product**: High quality hotel furniture. **Territories**: Nationwide, excluding New York, Philadelphia, Boston, Atlanta, Dallas.

POULIOT DESIGNS CORP., 4700 Valley Industrial Blvd., So., Shakopee, MN 55379. **Product**: Manmade trees and plants, fiberglass and hardwood planters and furnishings. **Territories**: A few choice territories.

MOSER CONTRACT FURNITURE, P.O. Box 128 C, New Gloucester, ME 04260; 207/926-3233. **Contact**: Thomas or Mary Moser. **Product**: Handcrafted, solid hardwood conference tables, chairs, desks and occasional chairs. **Territories**: New York, New England and Southern.

ADELPHIA GRAPHIC SYSTEMS, 7714 West Chester Pike, Upper Darby, PA 19082; 215/789-7714. **Contact**: Alan D. Jacobson. **Product**: Predesigned signage system.

SIMPLEX CEILING CORP., 50 Harrison St., Hoboken, NJ 07030; 212/349-1890. **Contact**: Martin Nassof. **Product**: Aluminum acoustical ceiling systems.

UNITED TECHNICAL PRODUCTS, 32 S.W. Industrial Park, Westwood, MA 02090. **Product:** Anti-static carpet/tile mats, furniture. **Territories:** A few choice territories.

HARRY LUNSTEAD FURNITURE INC., 8655 S. 208 St., Kent, WA 98031. **Product:** Wood office furniture. **Territories:** A few choice territories.

COURISTAN CARPETS, 919 Third Ave., New York, NY 10022; 212/371-4200. **Contact:** Chris Pica. **Product:** Area rugs, broadloom carpet, Contract 21 custom program. **Territories:** New York, Dallas or Houston.

REDCO MANUFACTURING, Div. of LHL Inc., P.O. Box 1608, Grand Rapids, MI 49501; 800/253-8106, 616/245-1116 in Michigan. **Contact:** Red Wilburn. **Product:** Full line of custom tables, conference tables, table tops, bases (see ad in this issue). **Territories:** Several key territories.

CLASSIFIED ADVERTISEMENTS

Rates: A standard classified ad costs $52.00 per column inch. Estimate a column inch as 37 characters per line, 7 lines per inch, including headline and address. Please specify whether it is a signed ad or a blind box number. Add $5.00 to the cost if a box number is used. Payment with order is required for insertion of classified. Send ad and check to: CONTRACT, Classified Ad Dept., 1515 Broadway, 24th Floor, New York, N.Y. 10036. **DEADLINE:** 1st of the preceding month. **REGULATIONS:** Classified ads may be used for help or situations wanted; salesmen, reps, or lines wanted; business for sale; and any used or odd-lot products or closeouts for sale on a one-time basis. Classified ads may not be used for extensive product descriptions; customer solicitation; or for the offer of merchandise or services continuously available to our readers, which is the function of display advertising. Publication reserves the right to reject, delete, or re-word copy that is contrary to regulations.

ATTENTION: Contract furnishers, architects, designers, and dealers send us your brochures. CONTRACT Magazine is often asked by corporate representatives to provide them with qualified names. Mail to Sales Manager, CONTRACT Reader Brochures, 24th Floor, 1515 Broadway, New York, NY 10036.

HELP WANTED

MANAGEMENT OPPORTUNITIES ($30-$100,000)—20 yrs. exp. in the Search and Placement of mid to upper level executives on a national basis. Our nationwide clients seek Sales and Marketing Managers, Manufacturing and Engineering Executives, V.P.'s and Presidents with Contract Furniture experience. Client co's assume all costs. Contact in strictest confidence: YVONNE CRAWFORD, Contract Dept., COOK ASSOCIATES, INC., 35 E. Wacker Dr., Chicago, IL 60601. (312) 263-1119.

THE FURNITURE AGENCY INC.
We have job opportunities for all levels of management, supervision and sales in Contract Furniture and related industries. All costs paid by client company. Applicant and client company inquiries invited. P.O. Box 53, High Point, NC 27261 (919) 885-2095.

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- Acquisition Research and Negotiation
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Product Crafters Incorporated
646 Highway 18
East Brunswick, NJ 08816
Attention: Jared March
(201) 238-1470

Established Tampa Architect with small practice will consider alliance or merger with out-of-town architectural/engineering firm. Reply Box 236, CONTRACT, 1515 Broadway, New York, NY 10036.

REPRESENTATIVES WANTED

CONTRACT/FURNITURE

$40,000 plus, in salary and commissions, expenses paid. Benefits include profit sharing, retirement, health plan, etc.

Phone, but only if:

Successful sales experience in the contract furniture market. Closing job sales to end users through your own established architects and interior designers and office contract dealers.

Requires college, ethical, professional, personable, hard working. Travel 40%.

We are looking for full time salespersons to cover South Texas from Houston and North Texas from Dallas.

Fixtures Furniture
Kansas City, MO 64126
Call (800) 821-3500

CONTRACT REPRESENTATIVES WANTED
Major decorative accessory manufacturer, nationally known is seeking contract reps for all areas of the country to call on Architects, Designers and Office Furniture Suppliers. We major in a series of exclusive wall decor items, ceramics and sculpture. Our capabilities include custom fabrication. Interviews arranged upon receipt of letter outlining lines carried, territory covered, showroom address if retained. Write to: Austin Productions, 815 Grundy Avenue, Holbrook, New York 11741, Attn: Jules Siegel, V.P. Sales. All Replies Confidential.

CONTRACT VERTICAL BLIND REP WANTED
Progressive national manufacturer of vertical blinds seeking local or national representatives for expansion into contract vertical blind market. Very competitive pricing and liberal commission. Send reply to: Sales Manager, Box 234, CONTRACT, 1515 Broadway, New York, NY 10036.

MIRA-X INTERNATIONAL FURNISHINGS, INC., needs an experienced sales professional for the New York City area. You should be oriented toward calling on architects, interior designers, commercial furnishers and contract dealers. Ground floor opportunity to represent the exciting new H-design Collection and Panton Collection. *Must have* experience in carpet—fabric (upholstery and drapery). All replies are strictly confidential. Send resume to John C. Golisano, MIRA-X INT. FURN., INC., 246 E 58th St, NYC 10022. Phone (212) 752-3618.

Nationally recognized manufacturer of Fiberglass & Aluminum Products (Furniture, Planters, Ash Urns, Waste Receptacles and Custom Designs), seeks Manufacturer's Representatives for established sales territories. Must have following with Architects, Designers, Space Planners, National Purchasing Services, Plant Leasing-Maintenance Firms and End Users. Sales territories available: New Hampshire-Maine-Massachusetts-No. Connecticut, Vermont, Pennsylvania-Delaware-So. New Jersey, Michigan-Ohio-Kentucky, Colorado-Utah-New Mexico-Wyoming-Arizona, California (North of Bakersfield)-No. Nevada, Montana-Oregon-Washington-Idaho, Missouri-Kansas-Nebraska. Forward resume which includes lines currently represented and area of sales responsibility. Box 235, CONTRACT, 1515 Broadway, New York, NY 10036.

Nationally recognized manufacturer of Contract, Hospitality and Healthcare SEATING is currently seeking representation and showrooms in selected territories. Reply with complete details including present lines and areas covered to Box 232, CONTRACT, 1515 Broadway, New York, NY 10036.

REPRESENTATIVES WANTED
Representatives wanted for high-end European Contract Lines. Must have sales record with architects and designers as well as dealers. Choice territories still open. Send resume and list of current lines to: Skandia International, Inc., 180 NE 39 St., P.O. Box 370876, Miami, FL 33137. Attn: Department C.

REPRESENTATIVES WANTED
Fiberglas site furnishings . . . seating, tables, planters, receptacles. Select northeast and midwestern states open for an aggressive company, Write advising territory covered and products being sold. Box 233, CONTRACT, 1515 Broadway, New York, NY 10036.

SALES REPRESENTATIVE with greater NYC following to contact design firms, end users. Established carpet and flooring contractor, financially sound, competitive, very capable support personnel, service oriented. Call Collect for David Neuss to discuss position and compensation with absolute confidentiality Rug & Design, (201) 481-4700.

CONTRACT SPECIALIST
COURISTAN is expanding its rapidly growing contract division. Current territories available are: New York City, Houston or Dallas. This is an excellent opportunity to represent a prestigious company with a product line that has become a major factor in the industry. Axminster experience preferred. A good working knowledge of the architect and interior design trade a must. Applicants please reply to Christopher Pica, COURISTAN, INC., 919 Third Avenue, New York, N.Y. 10022 or (212) 371-4200.

MANUFACTURER'S REPRESENTATIVES

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Sealy, Incorporated, the leading manufacturer of bedding, is seeking experienced contract representatives to sell contract bedding to the hospitality, health care and retirement home industries.

The ideal candidates will be presently engaged in contract selling and will have had experience in dealing with major accounts. Non-conflicting lines acceptable. Various U.S. sales territories open. A very attractive compensation package is available.

Please submit a complete resume and salary history, along with lines presently carried to:

Larry Reibman
National Director of Contract Sales
Sealy, Incorporated
470 Merchandise Mart
Chicago, IL 60654

Heart attack or stroke could make the best years of your life the worst.

You have loved ones, a future, good health. It could all be lost with a heart attack or stroke. And that happens. Last year, nearly one million Americans died of heart disease and stroke. And 200,000 of them died before retirement age.

The American Heart Association is fighting to reduce early death and disability from heart disease and stroke with research, professional and public education, and community service programs.

But more needs to be done.

You can help us support research and education by sending your dollars today to your local Heart Association, listed in your telephone directory.

Put your money where your Heart is.

American Heart Association

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To place your ad in THE MARKETPLACE, just fill out the coupon below, enclose a check for the full amount, and mail to:

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CONTRACT MARKETPLACE
1515 Broadway, New York, N.Y. 10036

DEADLINE: First of the month prior to publication
RATES: $52 per column inch (approximately 58 characters to a line. 7 lines per inch). All copy is pub set at no charge. For blind box number, please add $5.00.

Please run the attached ad(s) in the next _____ issue(s) of CONTRACT.

I am enclosing a check for $ _____ ☐ This includes $5.00 for a blind box number.

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