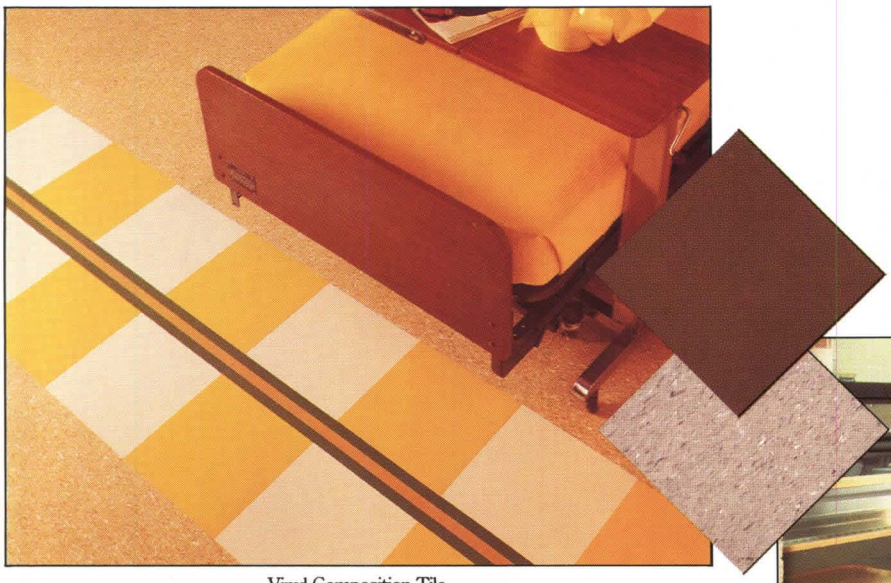
Progressive Architecture

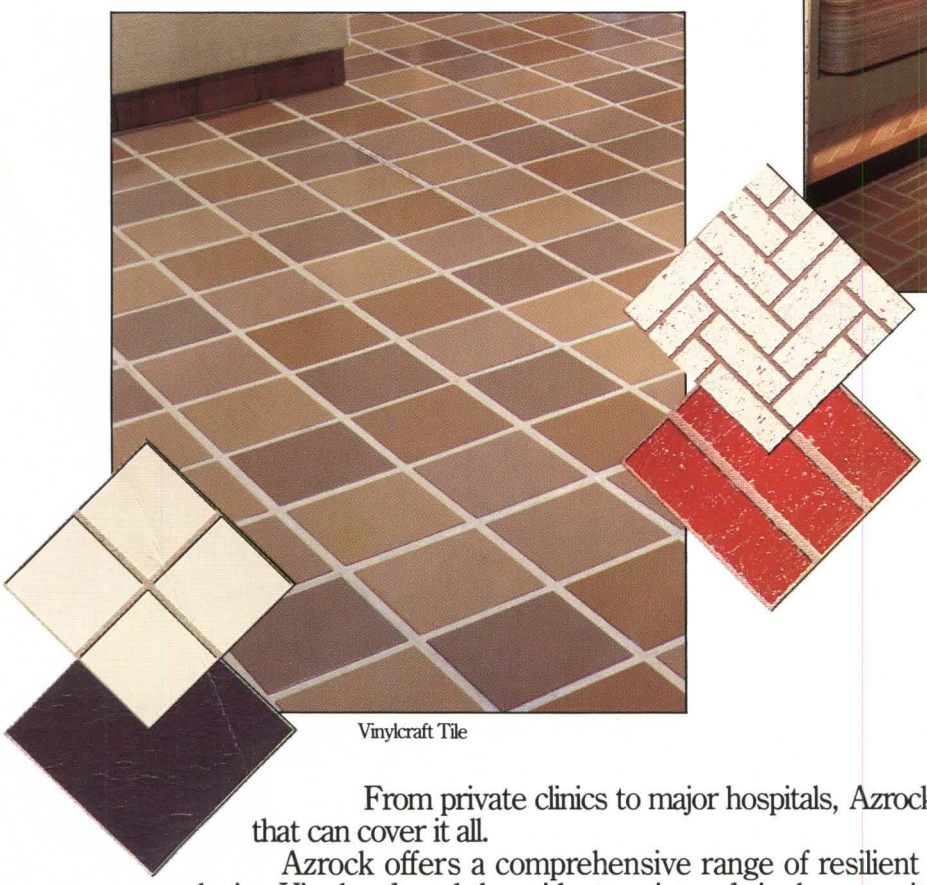
MAY 1986

THE ONE THAT COVERS ALL YOUR MEDICAL NEEDS.



Vinyl Composition Tile

Luxury Vinyl Tile



Vinylcraft Tile

From private clinics to major hospitals, Azrock is the one resilient flooring company that can cover it all.

Azrock offers a comprehensive range of resilient floors. The latest in solid vinyl tile, exclusive Vinylcraft and the widest variety of vinyl composition tile. And, they're all designed to meet your color, pattern and price point needs.

You don't need a doctor to advise you that the most coverage comes from the best single source — Azrock. Contact your Azrock flooring contractor or write Azrock Industries Inc., Dept. 424A, P.O. Box 34030, San Antonio, Texas 78265.

Azrock®

THE ONE RESILIENT FLOORING COMPANY THAT COVERS IT ALL.

Multiply the possibilities with VELUX® Gang Flashings.

VELUX prefabricated gang flashings let you group VELUX roof windows and skylights in almost any combination quickly and easily.

The precision engineering of VELUX gang flashings allows weathertight installation without the need for caulk or mastic. This means no weather delays, no mess, and less chance of call-backs. In addition, VELUX gang flashings are readily available nationwide in a wide range of standard sizes to meet your building requirements and your deadline.

VELUX®

The world leader in roof windows and skylights.

Sales, Warehousing and Service Nationwide

For more information about VELUX gang flashings, send for a free copy of our VELUX gang flashing brochure, plus "The Complete Guide to Roof Windows and Skylights"; a price list, and a dealer list. Your inquiry will be answered within 24 hours.

VELUX-AMERICA INC.
P.O. Box 3268
Greenwood, S.C. 29648

VELUX-CANADA INC.
16817 Hymus Blvd.
Kirkland, P.Q. Canada H9H3L4

® VELUX is a registered trademark

Name _____

Company _____

Address _____

City _____

State, Zip _____

PA586

Circle **No. 408** on Reader Service Card

GUARD®

BARSTOW/MIDLAND TYPE II

Enter the 'Pro Shop' with the newest Guard® embossing—Barstow, a sporty vertical rope texture—and Midland, its diagonal counterpart. Barstow/Midland Type II is offered in 30 colorways for application to a wide range of commercial interiors from rugged retail to *artful academe*. Specify Guard® contract vinyl wallcoverings for quality, durability and service. Guard® meets and exceeds all architectural specifications. See our companion Satinesque® series.

BORDEN® GUARD®
VINYL WALLCOVERING

COLUMBUS COATED FABRICS • Division of Borden Chemical, Borden Inc. • Columbus, Ohio 43216

Circle No. 338 on Reader Service Card

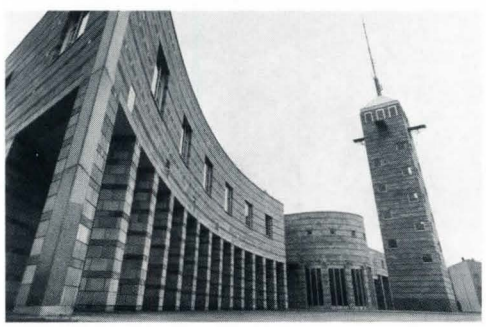
Progressive Architecture

ARCHITECTURAL DESIGN

Editor in charge: Jim Murphy

TECHNICS

SPECIAL SECTION



98

103

DEPARTMENTS

Cover
Middleton Inn, Charleston, S.C. (p. 83), by Clark & Menefee. Photo: Tom Crane

Subscription information: Send all subscription orders, payments and changes of address to Progressive Architecture, P.O. Box 95759, Cleveland, OH 44101 (216-696-7000). When filing change of address, give former as well as new address and zip codes, and include recent address label if possible. Allow two months for change. Publisher reserves right to refuse unqualified subscriptions. Professionals include architectural and architectural-engineering firm personnel and architects, designers, engineers, and draftsmen employed in allied fields. Subscription rates for U.S. professionals are $28 for 1 year ($33 in Canada, $60 for foreign); $45 for 2 years ($53 in Canada, $115 for foreign); $70 for 3 years ($85 in Canada). U.S. student subscription for 1 year is $28. Subscription rate for U.S. nonprofessionals is $45 for 1 year ($60 in Canada, $85 for foreign). Single copies are $7 in the U.S., $8 in Canada, and $12 for foreign. Permission to photocopy is granted for users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1 per copy of the article plus $0.50 per page is paid directly to CCC, 21 Congress St., Salem, MA 01970. Code number is ISSN 033-0752/81. Indexed in Art Index, Architectural Index, Engineering Index. Second class postage rates paid at Cleveland, Ohio, and additional mailing offices. Volume LXVII, No. 5. Printed in U.S.A.

Luminous Skylights

Our Luminous Skylights offer the drama and illumination of conventional skylights, but anywhere within a building. Whether in a basement or the mid-floors of a highrise, they create a feeling of light and space regardless of the weather or the time of day . . .and they never leak. They are easily assembled from modular prefabricated components, and are available in various forms. . . rectilinear, pyramid, clerestory, dome and barrel vault.

Circle No.351

F+S **Forms + Surfaces** Ceilings Division Box 5215 Santa Barbara, CA 93150 (805) 969-7721

Linear Wood Ceilings feature the finest natural woods and finishes, Class I Fire Rating, a variety of detail options. And our ingenious and versatile attachment system makes installation simple, fast and economical, and includes perfect adaptability for retrofit. Wood ceilings. . .with the quality and aesthetic excellence you expect from Forms + Surfaces.

Linear Wood Ceilings

Circle No.351

Mean Streets

The visual ugliness of our communities is usually a result of mean intentions, bluntly expressed.

ON recent trips to places as far afield as Honolulu, Hawaii, and Edmonton, Alberta, I have found urban scenes as bleak and chaotic as those I observe regularly back at P/A's home base in Stamford, Connecticut. As in most American cities, the skylines of these places bristle with commercial towers that pop up in seemingly random locations, most of them instantly forgettable in form and surface, some trying for individuality with geometrical slashes or symbolic stick-ons.

At street level in such places, we find all too many blank walls, interrupted mainly by garage entrances and by those paved voids that justify names like One Acquisition Plaza. I recently attended a slide talk by the urban observer William H. Whyte, who showed a devastating series of blank wall photos taken in dozens of American cities and put in sequence by the number of saplings per photo (laughter from the audience as we graduated, for instance, from the two-sapling examples to the luxuriance of three). The longest blank urban wall Whyte has yet encountered—about 1100 feet—is on the Town Center shopping mall right here in Stamford.

As architectural professionals, we tend to condemn these scenes in visual, formal terms. We see these skylines as lacking apparent relationships, or distinguishing features. We see their sampler of cladding materials as visual disorder. We shudder at the lack of pedestrian-scaled detail or incident in those blank street-level walls. (At least, many of us do.)

If the problem were just formal, then the remedy would be contextualism, that doctrine of visual accommodation to surroundings that was championed by the Post-Modernists and is now widely accepted by the Modernists (even though it contradicts the intellectual basis of Modernism). Most of the profession realizes that contextualism helps: Better to match the color or the module of your neighbors, better to align a cornice with the one next door, better to echo a local formal device than to insert a totally alien architectural object.

But urban ugliness goes deeper than form or surface: It is rooted in the mean intentions behind most of today's urban buildings. Those chaotic skylines say that building investment is allocated on the basis of real estate gambles, not community needs. Those blank walls along the sidewalks say that economic forces have reserved prime street-level space for uses such as employee parking or communications equipment. On the downtown shopping malls, the blank walls express a more calculated kind of exclusion: planning that channels users to "magnet" stores past the longest possible indoor retail frontage.

Reinforcing the cold-hearted economics of the developers is the unfortunate social need for security. Easier access for the public would give an unacceptable advantage to vandals and shoplifters and invite the street vagrants to settle inside.

What we are building outside the downtowns is hardly less ugly. Those tracts of houses and condos sprawling across former farmland are ugly not just because of their formal monotony or pathetic trimmings of domesticity: They are socially dubious as single-class enclaves, marketed for their security, plopped on the landscape with no reference to community facilities except the road that runs by. At the exurban shopping malls, acres of asphalt are substituted for garages.

Market forces have not always produced ugly environments, of course. The traditional American Main Street may sometimes have lacked beauty, but it had a consistency of scale and detail, punctuated by exceptional structures such as churches and courthouses—everything on the street appealing in one way or another to passersby. Exceptional commercial concentrations, such as Times Square or the Las Vegas Strip, have carried public appeal to memorable heights of brashness and fantasy. But even barriers to the public can be pleasing to pass by: Consider the fences and grilles of traditional Far Eastern towns, or the massive street walls and protected openings of their Mediterranean counterparts.

Architects can combat urban ugliness in two basic ways. As a bloc, they can work harder to ensure that zoning ordinances, review boards, and such no longer permit (or worse, *require*) structures that are hostile to community life. With their individual clients, they can strive to organize functions for greater public appeal and adjust overall building forms to community roles. Then they should treat any parts that might still be forbidding with detail and incident that people can relate to—even at the sacrifice of formal rigor. These accommodating qualities are the objectives of contextualism and should be the goals of all architects. ■

Valley National Bank Branch, Phoenix, AZ
Design Architect: Benny Gonzales
Project Architect: Porter, Pang, Deardorff & Weymiller

Even when
Dryvit® lets you

If your ideas outrun your budget, turn to Outsulation®. It's the building system that cuts construction dollars and construction time because it's light in weight and easy to put up. For instance, the flagship branch of Valley National Bank in Phoenix (left) was originally planned for precast concrete. But by choosing Dryvit® Outsulation instead, substantial savings were gained — yet the designer could still sculpture the building.

The proven exterior wall insulation and finish system.

Sure, you know all about exterior wall insulation and finish systems. You even may have used one. But if you haven't worked with Dryvit Outsulation, you're missing out on working with proven success. Over a period of 17 years, 55,000 buildings stand in the U.S.A. as testimonials to the success of Dryvit, the company that pioneered the system. From sea to sea, Canada to Mexico, the country is alive with a network of Dryvit people, offering field service and technical help whenever you need it.

This system has taken tough testing beyond code minimums.

Structural testing has included both high wind load and full scale fire tests conducted at internationally-recognized testing laboratories. And we use a 100% pure acrylic polymer formula for our Primus/Adhesive®. This gives maximum tensile and impact strength to the system. And in the Finish coat, resists staining, fading and cracking.

Design something to dazzle.

Dryvit lets you put more into a building, thanks to its innate flexibility, light weight and cost-efficiency. Dimensional shapes and aesthetic dress cost far less than with conventional forms. You can have faith in Dryvit Outsulation. And faith in yourself. Call or write for more information.

CALL TOLL FREE: 1-800-556-7752

dryvit® OUTSULATION®

DRYVIT SYSTEM, INC.
One Energy Way, P.O. Box 1014, West Warwick, RI 02893

Plant Locations:
West Warwick, RI; Tulsa, OK; Woodlake, CA;
Columbus, GA; Vancouver, BC (Dryvit Outsulation System Ltd.)

Look for us in Sweets: 7.13Dr and 7.13Dry

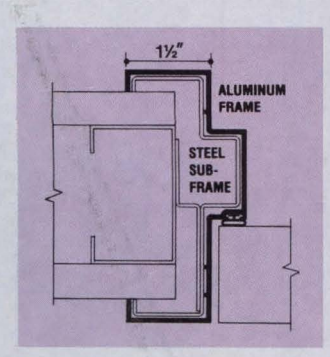
Circle **No. 346** on Reader Service Card

The budget is tight, design more.

The PHOENIX*, by Alumax: It's attractive; It's aluminum; It's *90-minute fire rated.*

On July 10, 1985, the independent laboratories of Warnock Hersey International conducted a 90-minute fire endurance and hose stream test on a prospective product by Alumax/Magnolia Division. The result was PHOENIX, *the first aluminum door frame to receive a 90-minute fire rating.*

PHOENIX combines the fire resistance of steel with the aesthetics of aluminum. Few materials are so fire resistant as steel. Steel alone, however, does not have the design flexibilities or aesthetic appeal of aluminum. To achieve the advantages of both metals, therefore, a bimetal frame system was devised which consists of unexposed 16-gauge steel sub-frame and 6063-T5 alloy outer aluminum frame.



*Patent Pending

PHOENIX permits design consistency — with no job site finishing. New PHOENIX matches Alumax's 20-minute *Royal* and *Imperial* frame lines in both color and configuration. Available are factory finishes of clear, bronze and black anodized, plus a variety of electrostatically applied, baked on paint finishes. The steel subframe, too, is bonderized, dip process painted and oven dried.

PHOENIX is a free-standing system which can accommodate multiple sizes of doors. PHOENIX units utilize single doors up to 4 feet by 8 feet, 10½ inches; double doors up to 6 feet by 8 feet, 10½ inches. Throat sizes range upward from 3½ inches, and corner tabs are included for convenient field installation.

PHOENIX is produced by Alumax, an integrated company. Each aspect of production, from smelting to extrusion, machining to fabrication, is Alumax owned and operated. As a result, it is able to offer not only an exceptional level of quality, but a custom capability which is second to none.

Complete data on PHOENIX is now available. *Imperial, Royal* and other architectural products by Alumax are covered in your current Sweet's Catalog. For more on PHOENIX, write: *Alumax/Magnolia Division, Interior Products Group, Post Office Box 40, Magnolia, Arkansas, 71753. Or call 800-643-1514 (In Arkansas, 501-234-4260).*

ALUMAX
MAGNOLIA DIVISION

Views

HongkongBank: The Issue
Never again feel that you need editorially explain, forewarn or almost apologize for a single building issue. At least not when the building is so fascinating and the coverage as brilliant as you managed in March.

If you ever pull it off again, put the editorial at the end and say something like: "Pretty good, huh?"
Robert F. Gatje, FAIA
Gatje Papachristou Smith
New York, N.Y.

I would like to commend you for the extremely thorough coverage and analysis of the HongkongBank by Foster Associates (March 1986). The building forces one to ask two questions: does it offer a designer who is not engaged in opulent corporate architecture any lessons, and, is it really an exemplar of high technology?

The answer, which is no in both instances, is found in the custom-made aspect of the building. Except for the fact that the components are fashioned of sophisticated materials, the nature of the production methods and the extreme exclusivity inherent in the creation of so many unique elements does not bespeak a kinship with the essence of high technology. In fact the closest philosophical antecedent which such a custom-made building can claim is found in the Arts and Crafts movement of 19th-Century England. Reyner Banham is correct in assuming that the style of Mr. Foster will not easily weather an Atlantic crossing, but not because American designers abhor detail. It would root with difficulty because American architects have adapted to the intense pressures of a competitive market by using the less expensive products of high technology production lines. The HongkongBank is unquestionably a masterful work, but remains an impossibly mixed metaphor of technology and idiosyncracy.
Tobias Guggenheimer
Bolt and Guggenheimer
Boulder, Colo.

Here is thanks from a non-architect for your March issue on the HongkongBank.

A collector of *feng shui* lore (who commends Sarah Rossbach's book, *Feng Shui,* to the curious), I meant simply to browse the issue and soon became totally absorbed. Susan Doubilet and Thomas Fisher have done a masterful explication.
Barbara M Walker
Ossining, N.Y.

Kudos to *Progressive Architecture* for the comprehensive study of the HongkongBank.

I thought architecture was dead but I guess not!
Richard E. Palmer, AIA
Brookline, Mass.

Congratulations on your March issue. You are right on not wanting to drive or jump on a bandwagon. On the other hand it is necessary at times for the responsible press and individuals to balance the needle of the compass guiding the course of the development of architecture.

The practitioners of Post-Modern historicism are active in promoting their wares and receiving recognition. Concurrently the Mies van der Rohe exhibition at MoMA drives home not only the formal influence of his buildings but, more importantly, the underlying fundamental contribution of his work.

Similarly your thoughtful presentation of the HongkongBank is a most valuable demonstration of another important avenue.

The Post-Modern historicism often degenerates into digging up skeletons from the closet of history. At times this is the result of a lack of original creativity reaching for a crutch, a sterile application of an inappropriate second-hand stage set denying today's life.

Your issue demonstrates and teaches a lesson in solving today's problems by using the vast reservoir of advanced technology. It shows how that can be the driving force and inspiration for those who have the creativity and inner strength to solve today's problems and advance architecture by today's means.

In examining the design of the HongkongBank it is gratifying to see the marked progression of High Tech. The Centre Pompidou was a remarkable and important step in High Tech's germinating process. It was, by hindsight and without denigrating it, utterly raw, possibly by design, even shocking. It was revealing the guts of its organism in an exhibitionistic way. An organism, plant or living body, doesn't expose its guts and bones indiscriminately. The organs are properly contained and protected, the bones covered by skin. Our body is ingeniously constructed, organized and at its best, perfectly proportioned.

Mies van der Rohe, while preoccupied by structural solutions using industrialized means, did not reveal the structure indiscriminately and was a master in coordinating and controlling a consistent building expression.

I believe the HongkongBank to be in that respect following the Miesian legacy. While Pompidou was uncontrolled, raw and rough, the HongkongBank, while articulated, is consistently controlled in its composition, exterior and scale. It is a mature, disciplined work of architecture—a work of art.

My thanks for giving it the deserved exposure with such clarity and understanding.
Ladislav L. Rado, FAIA
Biscayne Beach, Fla.

Liability and Legal Reform
"Legal Liability in Perspective" (P/A, March 1986, p. 55) recommends an aspirin for the architects' woes without offering even a hint of a cure.

Part of the legal community has lately found the building trade to be "fertile." It is common practice in our area for certain legal individuals to visit condominium associations and hold soliciting speeches. The owners then have an expert (supplied by the lawyer) go over their premises and look for flaws which otherwise would have gone unnoticed. Around here it is totally impossible to design a condo and *not* get sued over it. The suggestion to cope with this situation by cutting staff salaries is utterly absurd. Some lawyers receive hourly fees in the thousands, many sue on spec. And our staff shall pay for that?

The United States is one of the very few places on earth where lawyers are permitted to charge contingency fees. If these were prohibited and a lid put on legal fees, the greed responsible for our legal problems would certainly be curbed. I think as a profession we can and should show some backbone and work actively toward legal reform as some medical groups have done.
Karin Mannchen
Architect & Planner
Lake Worth, Fla.
[There is no doubt that the proliferation of lawyers in the United States and the ubiquitous contingency fee have exacerbated the liability situation. Cutting staff salaries *is* an utterly absurd solution, but this was certainly not recommended anywhere in the article. Working actively towards legal reform is, as Ms Mannchen suggests, the only real solution. As the article in question concludes quite clearly, the AIA is already working hard both to alert the practitioner to potential legal problems and to redress the situation at both the state and federal levels by pressing for reform. This may not be the miracle cure some would like to see, but it is certainly a step in the right direction.—Robert Greenstreet]

Architect credit extension
Two architectural and planning firms are associated in the Prudential Center Redevelopment and Master Plan (P/A News Report, March 1986, p. 21): The Stubbins Associates and Hellmuth, Obata & Kassabaum.

Keniston & Mosher Partners were associated architects with Kaplan/McLaughlin/Diaz in the Oceanside, Calif., Civic Center competition (P/A, March 1986 News, p. 23).

It takes a company with a certain kind of past to be able to consistently define that which lies ahead.

In the end, there's but one true gauge for distinguishing a company from all the rest.

Its ability to bring vision to the future. The degree to which a company looks intelligently beyond determines whether it contributes to the market—or merely reacts to it.

At Alma, that represents more than just a philosophy.

It represents, as well, a history. For one hundred years we've been quietly adhering to the belief that when you can see two steps ahead, the next step is yours.

Today, such a step is reflected in our new collection of Geometric desks—representing an entirely new departure in the use of veneers.

It's but one small example of a vision we are bringing to a wealth of new products at NEOCON. Because, at Alma, we continue to be convinced that the future belongs to those creative enough to shape it.

NEOCON 18
Space 1140
Insight into Tomorrow

ALMA

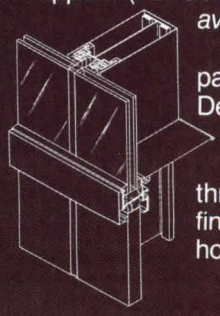
Circle No. 327

Cold Spring Granite. Its beauty is its strength.

Kawneer 3200 DesignWall. Its strength is its beauty.

The grandeur of granite requires the strength of design integrity to maintain its lasting impression. And now, Cold Spring Granite and Kawneer have put the two together in a single curtainwall system engineered to retain its beauty through the years.

Kawneer 3200 DesignWall allows Cold Spring Granite panels to be installed in a clean, flush appearance. Structural silicone holds the vision glass to the aluminum curtainwall vertical mullions. And, the result is a high performance package with aesthetic appeal. (*Performance results are available on request.*)



Cold Spring Granite panels for Kawneer 3200 DesignWall are available in nine different and distinctive colors and three handsome finishes—polished, honed, and thermal.

Cold Spring Granite and Kawneer 3200 DesignWall. Put them together by contacting your Kawneer Sales Representative or writing:
The Kawneer Company, Dept. C,
Technology Park Atlanta, 555
Guthridge Court, Norcross, GA 30092

Kawneer
The Designer's Element

Circle No. 367

CertainTeed's Hallmark Shangle® is designed to add distinction to any style home, with a look that reflects the natural beauty of wood. Yet Hallmark offers protection that goes far beyond what wood *can provide*.

Hallmark has the natural look of wood. Hallmark shingles have the natural appearance of wood shakes, created by using an extra overlay of asphalt and an extra layer of color granules. And Hallmark is available in colors that complement any home.

Hallmark is a unique heavyweight shingle. Manufactured with random overlay tabs that extend the entire height of the shingle and with a full undershingle, Hallmark adds dimension and texture to roofs.

Hallmark is an extremely durable shingle. Because of its proven construction, Hallmark has an outstanding 30-year limited warranty, transferable from homeowner to homeowner. This unique transferable warranty reflects Hallmark's strength and durability.

Hallmark is time tested. Introduced in 1965, Hallmark was the first laminated shingle. And over the years, it has become a proven performer—noted for its beauty and recommended for its durability.

So when you specify roofing materials, specify Hallmark. It has the natural look that can improve and add value to virtually any building requiring asphalt shingles. From churches and apartments to office parks and homes. It's a look inspired by the beauty of wood and unmatched by any other shingle.

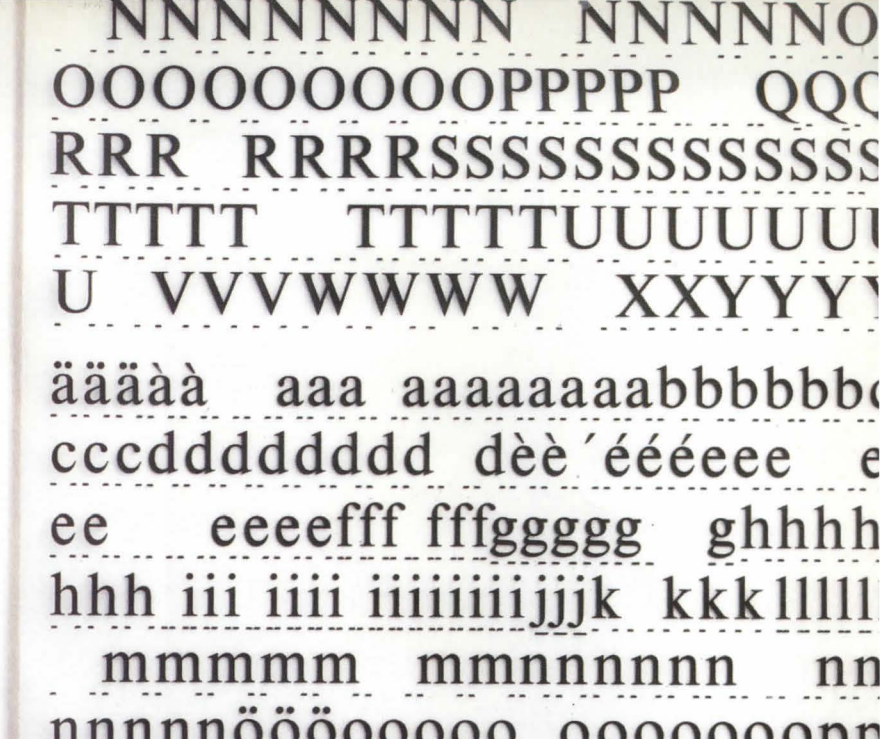
For more information, contact Hallmark Marketing Manager, CertainTeed Corporation, Shelter Materials Group, P.O. Box 860, Valley Forge, PA 19482. See Sweet's Catalog 7.7/Ce. Or call 1-800-322-3060.

CertainTeed

Be Certain With CertainTeed.

Circle No. 333

Hallmark is available in selected areas and has a Class A or Class C resistance rating depending on geographic area. Product shown is



Press ahead with Merlin.

PRESS A SENTENCE IN THE TIME IT TAKES TO PRESS A LETTER.

Pick up a sheet of press type. Find the letter you want. Position it. Adjust it vertically. Recheck the position. Rub the letter down. Make sure it transfers completely.

In the time it takes you to complete all of the above, the Merlin® electronic lettering system from Varitronics could give you a complete sentence of professional-quality lettering.

You see, Merlin is a fast, easy and very affordable system for producing high quality type on adhesive-backed tape.

Merlin saves time on any size lettering job. And that can save you money.

No matter what you're doing in print—proposals, comp layouts, technical drawings, newsletters, overhead transparencies—Merlin can make it look more professional. And you can choose from a variety of type styles and sizes.

Take the time to learn about Merlin. Simply complete and mail the coupon. Or call 1-800-MERLIN-1 (1-800-637-5461). In Minnesota, 1-800-742-5685, ext. 99.

We'll show you how to press type when pressed for time.

Call 1-800-MERLIN-1 (1-800-637-5461)

☐ Tell me how I can save time and money with Merlin.

☐ I'd like a demonstration of Merlin.

Varitronic Systems, Inc.
Dept. No. 010205
P.O. Box 234
Minneapolis, MN 55440

Name _____

Bus. Phone ( ) _____

Company _____

Address _____

City _____ State _____ Zip _____

Merlin®—a registered trademark of Varitronic Systems, Inc.

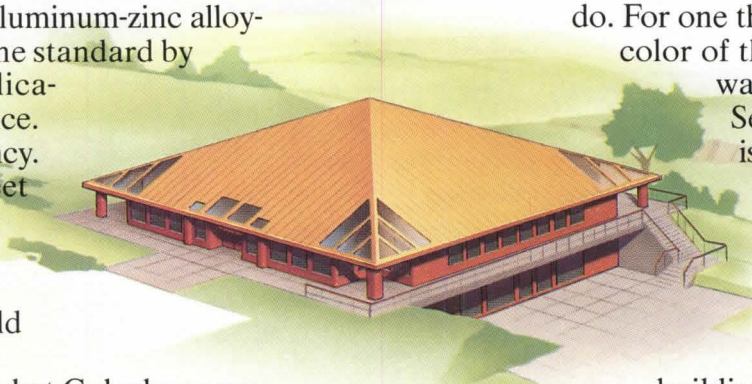
MERLIN®
BY VARITRONICS

Circle **No. 407**

The people who invented invite you to do some

For many years, Galvalume aluminum-zinc alloy-coated sheet steel has been the standard by which all metal roofing applications are judged. For appearance. For longevity. For cost efficiency.

These days Galvalume sheet is turning up in a lot of new places on buildings. So we'd like to suggest it's time to take another look at an old standard.



First, let us remind you of what Galvalume can do. For one thing, it's available in any color of the rainbow. Your client wants color, he gets color. Second, Galvalume sheet is a material with a future. Which is part of the reason we guarantee the base metal for twenty years and six months.

And as more and more buildings use color as a design

element, more and more materials get into the act. Everything from stone and stucco to sheet steel contributes to the aesthetics of the building. And that's where the design flexibility of Galvalume sheet really pays off.

If you've only considered prepainted Galvalume sheet for warehouses and such, you're missing a bet. Its range of architectural applications is as unlimited as the number of colors it comes in.

Let us tell you more about Galvalume metal building components and systems. We'll even make it easy for you with a toll-free number. **(800) 352-5700.**

It's all that stands between you and the opportunity to do some good looking inventing.

Building design concept by Michael J. Fitzpatrick, A.I.A., Architectural Alliance, Columbus, Ohio. "Galvalume" is a trademark of Bethlehem Steel Corporation.

Bethlehem BETHLEHEM STEEL

Exciting designs take shape with steel.

MBCI OFFERS YOU A QUALITY ROOF SYSTEM PLUS...

Architect:
Architecture Plus

Product Shown:
Traditional Series with 1-3/16" standing seam for maximum water shedding capacity.

Winner–1985:
"Award of Honor"
AIA-Western Mountain Region

Winner–1985:
"Innovative Application"
MBCMA Annual Awards Program

Manufacturing standards among the toughest in the industry. When you specify an MBCI roof system, you are assured that it will be true and precise.

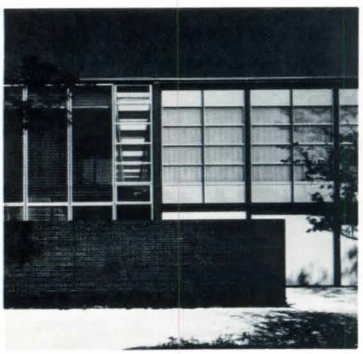
MBCI's quality control is another reason we have grown to be a major supplier of preformed metal roof, wall, and fascia systems. For our complete line of quality products, see Sweet's 7.4/Meb and 7.2/Mbc.

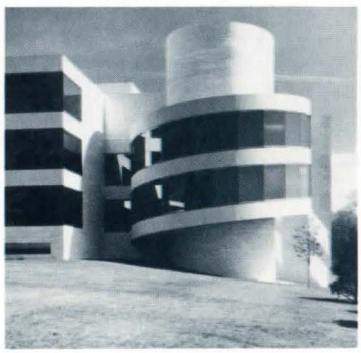
MBCI
METAL BUILDING COMPONENTS INC
A MONIER COMPANY

Houston 713/445-8555
Lubbock 806/747-4291
Oklahoma City 405/672-7676
San Antonio 512/661-2409
Dallas 214/988-3300
Atlanta 404/948-7568
Tampa 813/752-3474

Circle No. 379

P/A News Report





Steve Rosenthal

D.J. Johnson, © Charleston Housing Authority

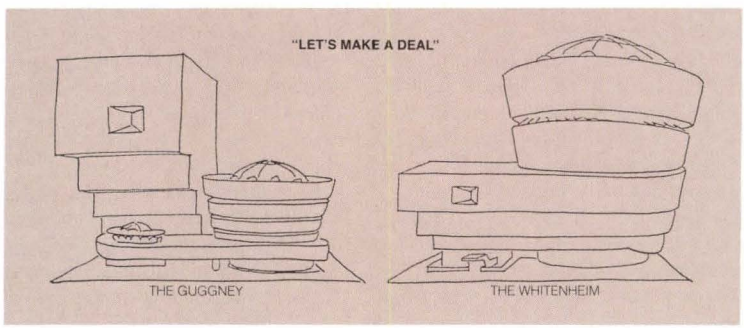
Honor Awards, left to right: Krueck & Olsen, House, Chicago; I.M. Pei & Partners, IBM Building, Purchase, N.Y.; Bradfield Associates, Scattered Site Infill Public Housing, Charleston, S.C.

AIA Honor Awards: Modesty Counts

Among the 14 buildings chosen for this year's AIA Honor Awards, the most common attribute is small scale. Five of the winners are single-family houses; there are a couple of multifamily complexes, several institutional buildings, and only *one* commercial building, a low-rise suburban complex. All were cited for "sensitive treatments of diverse and complex sites," a judgment that P/A's editors can corroborate, in most cases, on the basis of actual experience.

The total absence of urban commercial buildings is surprising, particularly in a year when many such buildings are completed. This jury, presumably, did not admire such new landmarks as KPF's Proc-

(continued on page 28)



Compromise proposal by architect/artist Tim Prentice

Update on the Guggenheim

While the trustees of the Whitney Museum of American Art in New York have beat a fast retreat, recalling Michael Graves's addition design for review with an eye to substantial reduction, those who guide the Solomon R. Guggenheim Museum are sitting tight, waiting for the City Planning Commission to complete its review of their Environmental Impact Study. Opponents of their proposed addition, designed by Gwathmey Seigel & Associates (P/A, Dec. 1985, p. 25), find they have little public recourse; too young to be considered for landmark status in New York, Frank Lloyd Wright's 1959 Guggenheim also occupies a pocket strangely *outside* historic district boundaries on the Upper East Side.

Several recent developments, however, indicate the depth and breadth of public disaffection with the proposal. The *New York Paper* has accumulated over 3500 signatures for its petition to save the Guggenheim, endorsed by a cross-cultural crowd. "Frank Lloyd Wright's landmark," they write, "is being threatened with an alteration which would destroy the integrity of this unique architectural icon." In an open

(continued on page 32)

CAD Trends at A/E/C Systems '86

The past year was a "turbulent" one for producers of computer-aided design systems, according to a recent study by Daratech, Inc., a Cambridge, Mass., market research firm. Intergraph remains top producer, with just over 43 percent of market share, while IBM—with 11.4 percent—has replaced Computervision in second place. Calcomp and McDonnell Douglas have also increased their market shares.

Equipment and applications behind these trends will be the subjects of seminars and exhibits at A/E/C Systems '86, scheduled for June 23–27 at Chicago's McCormick Place. This year's show will include conferences on construction management, design education, intelligent buildings, and liability. Contact A/E/C Systems, P.O. Box 11318, Newington, CT 06111. ■

Equitable: Art for All

One of the more successful corporate art programs to come along in some time made its debut recently at the new headquarters of the Equitable Life Assurance Society of the United States, located in New York on Seventh Avenue between 51st and 52nd Streets. The $200 million, 54-story building, designed by Edward Larrabee Barnes, includes 1.5 million square feet of office space, a new branch of the Whitney Museum of American Art, and $7.5 million worth

(continued on page 26)

Gianfranco Gorgoni © The Equitable

Chia's Palio mural.

Pencil Points

Gottfried Böhm **is this year's $100,000 Pritzker Prize winner.**

Arata Isozaki **is the 1986 recipient of the Royal Institute of British Architects Gold Medal.**

The AIA's public membership **program, the Forum for Architecture, is being phased out at the national level. The reason given: the program can be better handled by local chapters.**

Mary Means **has resigned her position as president of the AIA Foundation, which administered the public membership and research programs of the AIA. No successor has been named, and the AIA is now evaluating the Foundation's future.**

Vincent Scully, **Yale's fabled professor of architectural history, will receive the Topaz medallion for Excellence in Architectural Education from the Association of Collegiate Schools of Architecture and the AIA.**

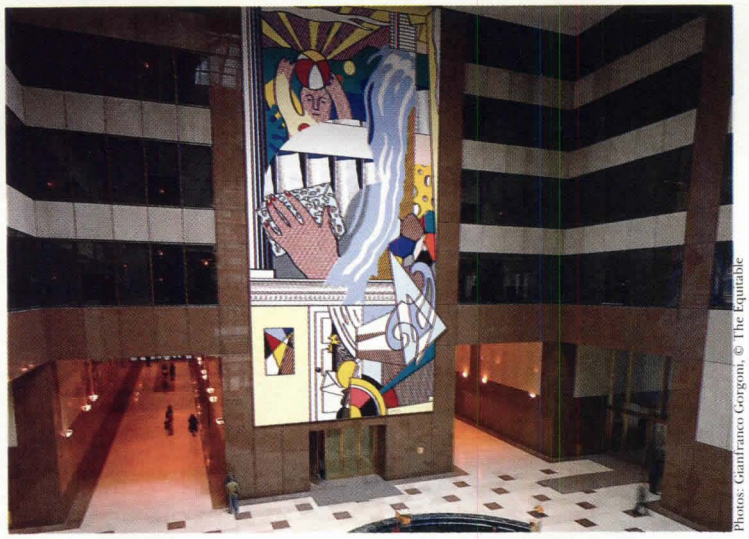
Arizona State University **is planning a two-stage competition to design an $11.5 million addition to the College of Architecture and Environmental Design. Watch P/A Calendar for details when they are announced.**

Moshe Safdie's **Coldspring New Town in Baltimore is to be the subject of a design competition. See P/A Calendar, p. 55, for details.**

The Oakhattan Group **of Oakland, Calif., and New York have won first prize in the Harlem Infill Competition (P/A, Feb. 1986, p. 23). Second prize went to Campbell & Nielsen, third to Adele Naude Santos, and honorable mention to Stoner Duncan.**

The Brooklyn Museum **will sponsor an international, single-stage invitational competition for a 20-year phased master plan. The winner, to be announced this fall, will expand and reorganize the 1893 McKim, Mead & White museum, integrating it with the adjacent Brooklyn Botanic Garden.**

St. Bartholomew's Church **has not convinced New York's Landmarks Preservation Commission that rejecting the church's development plan would cause financial hardship (P/A, *March 1984, p. 19*). The case may go to court.**



Photos: Gianfranco Gorgoni, © The Equitable

Lichtenstein's Mural with Blue Brush Stroke at Equitable.

Equitable *(continued from page 25)*

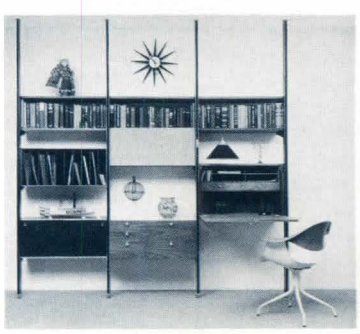
of art in the building's public and private spaces (the former includes a lobby, through-block galleria, outdoor plaza, and three restaurants).

The Seventh Avenue lobby, an 80-foot cube, houses Roy Lichtenstein's 68′ x 32′ *Mural with Blue Brushstroke,* and Scott Burton's *Lobby Furnishment,* a 40-foot semicircular, green marble bench and "water table," to be completed by a 25-foot screen of tropical conifers. Also in the lobby are the renowned *America Today* murals by Thomas Hart Benton, originally created in 1930–31 for the New School for Social Research, and now thoroughly restored by their new owner.

The galleria walls are adorned with giant-scale wall drawings by Sol LeWitt. A brilliantly colored, 54′ x 124′ mural by Italian artist Sandro Chia depicts the Palio, the ancient horse race in Siena, in the bar of the Palio restaurant, which was designed by Skidmore, Owings & Merrill. (All three restaurants are independently operated in space leased from Equitable.) Soon to come is outdoor seating, designed in granite by Scott Burton, for the building's public/outdoor plaza, which connects the new building to Equitable's former headquarters on Sixth Avenue, designed by SOM. And these are just the public areas. Equitable's corporate spaces, designed by Kohn Pedersen Fox Conway Associates in a tasteful Neo-Georgian mode, boast an impressive collection of 20th-Century American paintings and prints. The Whitney advised Equitable on many of the works in the program, which is curated by Pari Stave Choate of the Equitable Real Estate Group, Inc. To see so much impressive artwork accessible to the public in one corporate office building is an encouraging as well as an enjoyable experience.

What is so puzzling about this effort, however, is the undistinguished quality of the building itself—which is ironic, since it was Barnes who is said to have sold his client on the art program in the first place. A none-too-felicitous composition of pink granite and cream limestone, Barnes's tower can't seem to make up its mind whether it's a Modern skyscraper or a Post-Modern one. The 72-foot-high arched entrance leads into the surprisingly banal lobby, which looks disorientingly like the building's exterior; only the impressive artworks rescue this space from the ranks of the forgettable. From there up, the building is resolutely ho-hum.

Fortunately, we are seeing more projects like Equitable, in which commissioned art thoughtfully addresses its context. The driving force behind this effort was Benjamin D. Holloway, Chairman of the Equitable Real Estate Group; he believed that creating what amounts to a cultural landmark out of a corporate building would be good business as well as good citizenship. He's right about that, but why not go a step further and house these works of art in a building that is itself a work of art? ***Pilar Viladas*** ■



HMI Archives

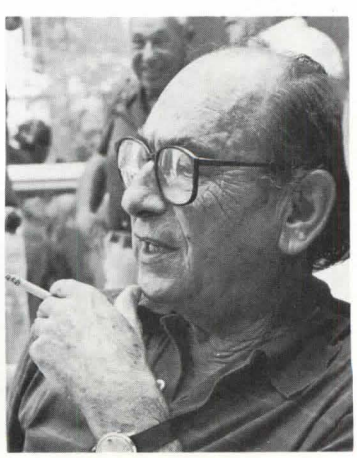
Swagged Leg Chair and Storage System.

George Nelson, Critic and Designer

George Nelson, one of the key figures in American industrial design, died on March 5 at the age of 77. Nelson, an architect, industrial designer, author, and educator, graduated from Yale College and the Yale School of Fine Arts and, as a 1932 recipient of the Rome Prize in architecture, wrote about prominent European architects of the day for P/A's predecessor *Pencil Points.* Upon his return to the U.S., he joined the staff of Time Inc., where he served as associate editor and later co-managing editor of *Architectural Forum* (1935–1944), and then as head of the Experimental Department of *Fortune-Forum* magazines.

Nelson's innovations in design ranged from his 1942 "Grass on Main Street," a planning precursor to the pedestrian mall, to his revolutionary Storagewall for Herman Miller that pioneered modular and office landscape furniture. Nelson's role as advisor to the manufacturer also included introducing Charles Eames to the company. And it was in the kitchen of the Nelson-designed 1959 American National Exhibition in Moscow that the famous Nixon-Khrushchev debate took place.

Nelson maintained his own design office in New York for many years, pursuing product, communications, graphic, and exhibition design, as well as residential, commercial, and institutional architecture. A fellow of the AIA, the Industrial Designers Society of America, the Royal Society of the Arts, the American Academy in Rome, and a board member of the International Design Conference in Aspen, Nelson was in 1984 named Scholar in Residence at the Cooper-Hewitt Museum, the Smithsonian Institution National Museum of Design, in New York. ***Pilar Viladas*** ■



Melissa Brown

George Nelson.

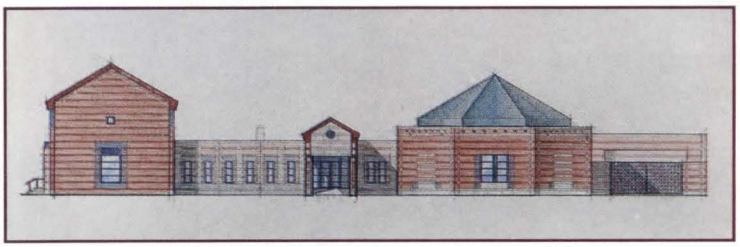
Pelli at Rice: Part Two

It's not often that an architect gets a return engagement relating to his own previous work. Cesar Pelli & Associates followed completion of the Jesse Jones School of Public Administration (Herring Hall) on the Rice University campus in Houston (see P/A, April 1985, pp. 86–97) with a commission to expand the adjacent Rice Memorial Center for student services and activities. Known as the Ley Student Center Expansion, Pelli's project increases the facilities from 50,000 square feet to 75,000 square feet.

The scope of this expansion provided enough program "meat" to reform edge conditions of the Center so that it might visually relate to Herring Hall and shape the campus space which both buildings bound.

The original Center was constructed in 1958 for a student enrollment half the present size, and the expansion will permit centralization of services into one main building from dispersed offices across the campus. The program comprises activity offices for the student newspaper, radio station, and year book, a large student lounge, multipurpose room, two private dining areas, and recreational areas. The building is reorganized, its entry shifted from north to west, where a corridor spine acts both as a unifying element linking the old and new wings, and as a covered porch for the new "front." This strategy, with its pragmatic connection to off-campus student parking, also points to a potential future expansion of the campus to the west, as suggested in planning studies by Pelli.

While the existing Center provided only a token acknowledgment of the architectural vocabulary of the pre-World War II campus (see critique by David Gebhard, P/A, Dec. 1981, pp. 60, 61), Pelli has suggested a treatment more sympathetic to the old Rice in terms of both massing and surface detail, while effectively tying into and extending the present building. While the *parti* of long, parallel blocks running east/west continues the campus pattern (as does Herring Hall), Pelli also introduces a new element in the form of the octagonal multipurpose room. This original element, moreover, extends a secondary feature of the Rice campus: that of subsidiary spatial features developed off the east/west axis. The new garden, defined by elements of the expansion plugged into the corridor spine, creates a more intimate space in relation to the major campus quadrangle.



Pelli's Ley Student Center at Rice (Herring Hall at right, top).

Currently under construction, the Ley Student Center Expansion will be completed in time for the fall semester, 1986.

Peter C. Papademetriou ■

Improving NEA Competitions

The competition has had its partisans and its detractors, and now, as the "boom" continues unabated, it has its pedagogues. During the month of April, the National Endowment for the Arts sponsored a series of four workshops for sponsors.

After five years of experimentation and 80 grants, the NEA's commitment to competitions is thus reaffirmed. Despite modification of grant program themes and a change in administration (with Adele Chatfield-Taylor replacing competition champion Michael Pittas), the competition continues to represent an important target for NEA funding.

There is new direction, acknowledging that the enthusiasm of proselytizing years led to mistakes. Workshop discussions revealed that selecting a competition type appropriate to a given program and assuring equitable, fair results for both competitors and sponsors are now paramount concerns for the NEA. In practice, this means that ideas competitions, when funded, are expected to have a specific foreseeable influence on public opinion, and that there will no longer be first prizes with no monetary value beyond the commission, or contests for sites that are not already secured.

The workshops and the excellent textbook prepared for them, *The Planning and Administration of Design Competitions* by Jeffrey Ollswang and Lawrence Witzling, reflect a growing tendency to provide help for those who promise to help themselves. Although the NEA pointed with pride to places now on the map because of their competitions, like Roger Williams College, Escondido, Calif., and Newport News, Va., they have recently invested in competitions like the no-risk, invited contest between highly qualified experienced designers of arts centers for the Arizona State Fine Arts Complex. Designers and sponsors can only applaud competitions with good prospects for a realized building; nevertheless, there must remain room for the occasional Cinderella contest. The Vietnam Veterans Memorial in Washington, D.C., perhaps the most important built competition design of the past 25 years, if not the century, started out as a $5000 grant to a group of volunteers.

Helene Lipstadt ■

The author writes frequently for P/A from Boston.

Osborn Named P/A Publisher

Robert Osborn has been named Publisher of *Progressive Architecture* magazine. Prior to joining P/A, Osborn served as Vice President and Group Publisher of the Penton publications *Heating/Piping/Air Conditioning* and *Chemical Engineering Catalog*.

Osborn joined HPAC in 1952 in an advertising sales capacity. Since that time, he has held a wide variety of positions with the company, including Marketing Director of Reinhold Publishing Co., an operating division of Penton Publishing.

Osborn is a member of the American Society of Heating, Air Conditioning and Refrigeration Engineers and the American Society of Plumbing Engineers. He replaces Peter J. Moore who has moved to the position of Advertising Sales Manager for Penton's Executive Network. ■

Proposals to House the Homeless

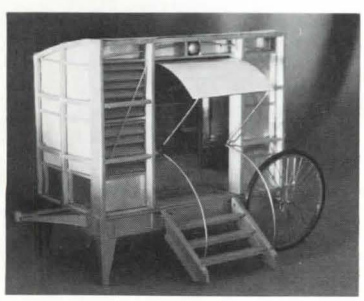
The Homeless at Home, at the Storefront for Art & Architecture in New York, March 2–29, was an exhibit that addressed the difficult topic of homelessness, and what architects can do about it. This subject, of much current interest to many architectural professionals, was explored in four days of meetings, seminars, and workshops last fall in Washington, sponsored by the AIA's Housing Committee (P/A, Jan. 1986, p. 40).

Fifty artists and architects participated in the New York show, organized by Glen Weiss and Rosemary Cellini, beginning with an open call for entries last April. Surprisingly, none of the artists' pieces captured the emotional resonance of the subject; the work by architects is much more successful, mainly because it seems more practical and more germane.

The show was not visually oriented; ideas prevailed over images, with a few exceptions. Architect Christopher Egan, of Austin, Texas, for example, designed a mobile shelter for two people that was practical yet jaunty and resembled a gypsy caravan. Other pieces fell into the utilitarian but worthwhile category; there's no room for design frills in the budgets of the nonprofit organizations that actually commission housing and shelters for the homeless.

The pieces in the show that seemed the most useful and yet troubling were those stopgap measures that accept the problem as permanent. Proposals that social spaces should be reorganized to accommodate street people, with more public amenities available, and comfortable street furnishings provided are last-ditch efforts; so too the mobile shelters that fit into unused spaces between buildings

(continued on page 28)



Christopher Egan, Mobile Shelter.

Homeless *(continued from page 27)*
or can be set up in the park at night, and a kit designed to turn shopping carts into temporary camps.

In the end, these serious and well-thought-out responses from architects only serve to point out the futility of their efforts. The problem is societal, not architectural, and until fiscal and governmental action results in the construction of adequate housing and lots of it, architects will not be directly involved in the solution. ***Joanna Wissinger*** ■

Two Shows on Hunt

The architecture of Richard Morris Hunt (1827–1895) is on view in two New York shows this month; one, entitled *Richard Morris Hunt: Civic Architecture*, is at the Municipal Art Society (through May 31) and the other, *The Architecture of Richard Morris Hunt*, at the Metropolitan Museum of Art (through June 15). Both institutions have a more than passing interest in Hunt: He was a founding trustee of both and also designed the Fifth Avenue façade of the Metropolitan (1894–95), his last commission, completed by his son, Richard Holman Hunt, after his death.

Hunt was an important figure in the architectural profession in many ways; by the time of his death, he was widely acknowledged as "the Dean of American architecture." He was one of the founders of the American Institute of Architects, and through his own practice, established the principle of fixed fees for architects. Hunt was also the first American architect trained at the Ecole des Beaux-Arts in Paris; he brought French ideas of urban grandeur to the U.S., where English Romanticism had formerly held sway.

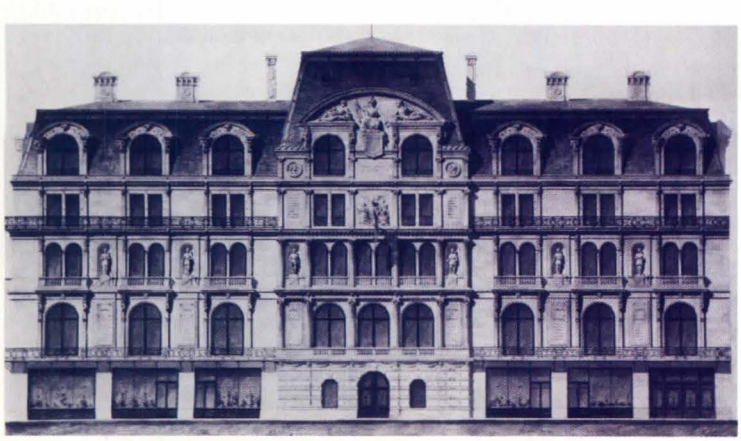
The MAS gallery is quite small, but the exhibit there gives a good overview of the highlights of Hunt's career as a civic architect, including his unbuilt proposal for the four southern entrances to Central Park (1863), rejected by Calvert Vaux as not in keeping with the democratic nature of the park, and his base for the Statue of Liberty (1881–86).

The show at the Metropolitan is compendious, and includes all the buildings shown at the MAS, as well as a number of wonderful large-scale exhibition watercolors Hunt executed while a student at the Ecole. The show traces his early career in detail, and demonstrates his expertise with what were then brand-new commercial building types: cast-iron façade buildings, apartment houses, and skyscrapers. These designs refute the assumption that he only did palatial residences for the rich on Fifth Avenue and in Newport.

Hunt's skill in dealing with clients is also revealed; a doll-house-size model of Biltmore (1888–95) in Asheville, N.C., designed and built for George Vanderbilt, must have been a powerful selling tool; and his drawings of interior details from Marble House (1888–92) in Newport, for William Vanderbilt's wife, Alva, demonstrate his attention to detail.

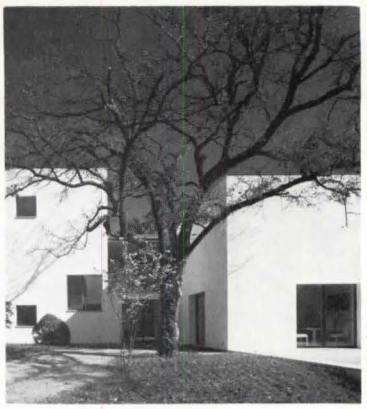
Hunt was also a pioneer in his use of commercial photographers; he commissioned photography of most of his built work, and the surviving sepia-toned examples are on display at the Met.

These two exhibitions showcase a bygone era of conspicuous consumption, when the Robber Barons of the Gilded Age could afford palaces and Hunt was the architect who provided the plans. But they also establish him as something of an innovator, and a stalwart contributor to the profession.
Joanna Wissinger ■



AIA Foundation

Richard Morris Hunt, Union League Clubhouse, 1867.



Nick Wheeler

Barnes/Avakian, Dallas residence.

AIA Honors *(continued from page 25)*
ter & Gamble headquarters in Cincinnati (P/A, Oct. 1985, pp. 71–81) or Michael Graves's Humana tower in Louisville (P/A, July 1985, pp. 21–22). (Conceivably, they were not among the 600 entries, but since both firms have won Honor Awards in recent years, it is unlikely that they sat this one out.)

The winning houses were: steel and glass house in Chicago by Krueck & Olsen Architects (P/A, Dec. 1981, pp. 62–67); Bergren Residence, Venice, Calif., by Mayne & Rotondi Architects (a.k.a. Morphosis; P/A, Aug. 1985, pp. 88–92); a residence in Dallas by Edward Larrabee Barnes Associates and Armand P. Avakian Associates; Parker residence, Bainbridge Island, Wash., by James Cutler Architects; Wenglowski House, Deer Isle, Maine, by Peter Forbes & Associates. Multifamily housing included scattered-site public housing in Charleston, S.C., by Bradfield Associates and 500 Park Tower, New York, by James Stewart Polshek & Partners, with Schuman, Lichtenstein, Claman & Efron, Associated Architects (the only high-rise building honored).

The sole commercial winner was an IBM Corporate Office Building, Purchase, N.Y., by I.M. Pei & Partners. New institutional buildings honored were: Loyola Law School, Los Angeles, by Frank O. Gehry & Associates, with Brooks/Collier (P/A, Feb. 1985, pp. 67–77); Herring Hall, Rice University, Houston, by Cesar Pelli & Associates (P/A, April 1985, pp. 86–97); building for Cleveland Clinic, Cleveland, by Cesar Pelli & Associates and van Dijk, Johnson & Partners.

Three winning remodeling/rehabilitation projects—a larger number than in any recent year—included: Gottesman Exhibition Hall, New York Public Library, New York, by Davis, Brody & Associates and Giorgio Cavaglieri; Kaskel Library, Hackley School, Tarrytown, N.Y., by Keith Kroeger Associates; Battell Chapel, Yale University, New Haven, Conn., by Herbert S. Newman Associates.

The jury for the Honor Awards was chaired by N. Michael McKinnell, FAIA, of Boston, and included: Charles F. Davis, Seattle; Merrill Lynn Elam, AIA, Atlanta; Dan Kiley, Charlotte, Vt.; William C. Muchow, FAIA, Denver; John Pastier, Los Angeles; Robert Tremonti, Troy, Mich.; William D. Warner, FAIA, Exeter, R.I.; Frank D. Welch, FAIA, Dallas.
John Morris Dixon ■

Institute Honors

Also to be honored at the AIA Convention in San Antonio this June are nine individuals and organizations for "achievements that enhance or influence the environment and the architectural profession" in ways other than designing buildings.

Honored this year will be: Antoinette Forrester Downing, pioneering preservationist, Providence, R.I.; David H. Geiger, structural engineer, New York; William H. Jordy, art historian, Brown University; Adolf Kurt Placzek, former librarian of the Avery Library, Columbia University; Cervin Robinson, architectural photographer, New York; Rudolf Wittkower, architectural historian (1901–1972); Cathedral of St. John the Divine, New York, for "an extraordinary building undertaking"; Gladding, McBean & Company, Lincoln, Calif., for maintaining the art of terra-cotta production; Master Plan for the U.S. Capitol, for sensitive direction of Capitol Hill development. ■

Honorary Fellows

Chosen for elevation to honorary fellowship in the AIA are nine foreign architects (out of a permissible ten): John M. Davidson, Australia; Solange d'Herbez de la Tour, France; Abdel Wahed El Wakil, Egypt; Brian E. Eldred, Canada; Wilhelm Holzbauer, Austria; Henning Larsen, Denmark; Geoffrey Arthur Rowe, Great Britain; Heikke and Kaija Siren, husband-and-wife team, Finland.

The Sirens were selected primarily for building design, as were El Wakil, Holzbauer, and Henning Larsen. Herbez de la Tour was founding president of the International Union of Women Architects, and other honorary fellows have also contributed mainly in the arena of professional organizations. ■

Designed to withstand the winds of fashion.

Time, the unsympathetic judge, turns a kind eye to great design. For though today's fashion may be tomorrow's folly, true style will endure. Will only grow better.

So it is with the refined grace of this Delta® Award Collection® faucet in sumptuous Cultured Gold.* Finished with a single crystal knob.

Delta washerless faucets. They last. And last. And last.

For more information, call your Delta Sales Representative.

DELTA®

We're first because we last.®

Also available at a DELTA STUDIO® SHOWROOM near you.
Call: 1-800-428-4330. ©1985 Masco Corp. of IN.

Circle No. 341 on Reader Service Card

*Simulated gold finish.

Toronto's Troubled Architecture School

On January 23rd, University of Toronto president George Connell announced the administration's intention to eliminate the Faculty of Architecture and Landscape Architecture. If the recommendation is accepted by Governing Council in June, the oldest architecture school in Canada will shut its doors in 1990, its centennial year, when currently enrolled students may expect to graduate.

Connell blamed the bombshell decision on a chronic shortage of provincial funding, to which the position paper issued by the university three weeks later adds "long-standing divisions within the Faculty," the inability of staff to attract research grants, and the "anomalous" position of the school in the university.

The administration's move, however, is only marginally related to money: some partisans contend it's really a way to punish a faculty long considered ungovernable. The problems of the school are by now legend. They center on the controversial figure of Peter Prangnell, chairman of the architecture school from 1969 to 1976, and now one of nine tenured staff. Prangnell hired a dynamic staff with strong links to the city, including Kenneth Greenberg, now head of Toronto's Urban Design Group; George Baird, a scholar of urban form; and Jack Diamond, a pioneer in infill housing.

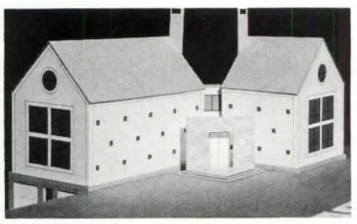
But this coalition came apart. Faculty departed and the school split into two camps, one led by Prangnell and the other by Baird.

Under the deanship of Blanche Van Ginkel, from 1976 to 1981, the situation improved. Diverse points of view were represented, but teachers like Daniel Libeskind, Larry Richards, and Alberto Perez-Gomez fled the school almost as soon as they arrived. Antonio de Souza Santos became chairman in 1981, but he couldn't ride the maelstrom. In 1983, Jacob Spelt, a geographer, was parachuted in as acting dean of the faculty. He engineered a radical revision of the curriculum to emphasize scholarship and technical subjects as well as design.

Santos resigned as chairman in May 1983, but stayed on to teach as had Van Ginkel. With so many lingering ex-deans and ex-chairmen, power bases remained and resentments festered. But over the last three years, with Baird as acting chairman, the results of the new program began to be felt positively. The university conducted a search for a permanent dean in late 1985 but balked at the final hour, Baird resigning in frustration. Faced with another acting chairman, third- and fourth-year students took a stand, boycotting some second-term courses and demanding the resignation of the acting dean and the formation of a new search committee. Baird and many of the part-time staff supported them. It was at this point that the administration flung its axe, refusing to acknowledge any signs of progress—or any responsibility for a decade of mismanagement.

Adele Freedman ■

The author is architecture critic for The Toronto Globe and Mail.



Tuck Hinton Everton Andrews House.

New talent debuts in Tennessee exhibit

It may have taken a few years, but some of the spirit of the "Whites," "Greys," "Silvers," the "New York Five," and the "Chicago Seven" is working its way into other architectural communities. Young, talented architects are opening communications with each other and going to the public with their enthusiasm. One current show, "New Firms, New Forms: The Works of Tennessee's Young Architects" reveals some very talented emerging voices.

While the title of the show may overstate its scope—there *are* other young Tennessee architects—its intent is excellent, and should be emulated by other groups elsewhere. The exhibition, sponsored in part by the Tennessee Historical Society, with funding from the Tennessee Committee for the Humanities and the Tennessee Arts Commission, includes the work of five firms: Brewer Fuller, Looney Ricks Kiss, Kurt Stagmaier, Tuck Hinton Everton, and Manuel Zeitlin.

Beginning with a symposium last September at Vanderbilt University, Nashville, the show traveled around Tennessee, and is now at Memphis Brooks Museum of Art, Memphis, through May 31. ***Jim Murphy*** ■

Stack The Deck In Your Favor.

rotection evel 1:

STYROFOAM*
brand insulation from Dow is made of EXTRUDED polystyrene.

No other material maintains its integrity—or its R-Value—like STYROFOAM brand insulation. The tough closed cells of blue STYROFOAM insulation lock out moisture, and let the insulation do its job above the membrane.

That means protection. Ask to see the proof.

Protection Level 2:

PRM™
Liquid Membrane from Hydrotech is like no other. Take a close look at its superior thickness and adhesion. And at its ease of flashing and year-round installation capabilities. PRM spreads thicker to cover a wider variety of substrates. And nobody else in the market does a better job of self-healing or bridging cracks. The proof is in its watertight track record in over two decades of premium construction all around the world. Ask to see the premier job list.

Olympia Centre,
Chicago, Illinois
Architect:
Skidmore, Owings & Merrill
Owner/Developer:
Olympia & York
General Contractor:
Paschen-Newberg
Joint Venture

*Trademark of
the Dow Chemical Company

When you need a watertight, cost efficient, long lasting roof, consider the above facts about the most unique IRMA (Insulated Roof Membrane Assembly) protection in the industry.

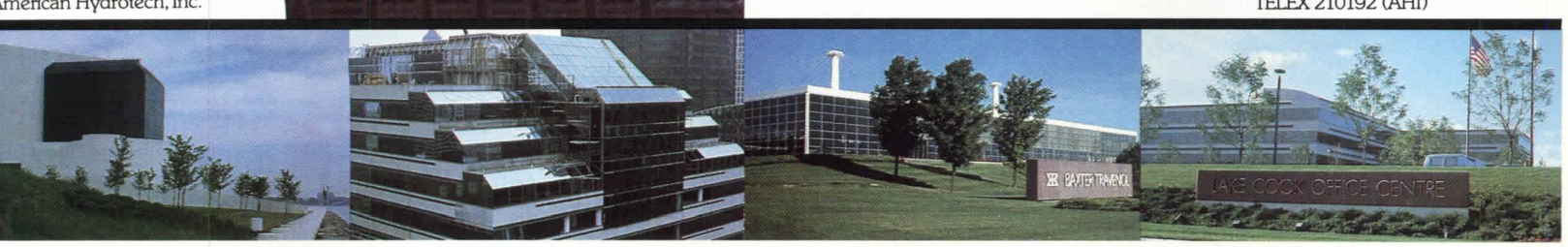
Protect the water-shedding membrane and you lengthen the life of the roof. Protect your peace of mind as well.

Choose the Dow/Hydrotech team.

Dow + Hydrotech
You need us both.

HYDROTECH

American Hydrotech, Inc.
303 East Ohio, Chicago, Illinois
60611 • 312/337-4998
TELEX 210192 (AHI)



Guggenheim *(continued from page 25)*
letter addressed to *City Planning* Commission Chairman Herbert Sturz, architects Romaldo Giurgola and Klaus Herdeg wrote, "We would like to raise our voices to those who are shocked that the Guggenheim Museum administration itself—being patrons of the arts—would want to devalue, if not trivialize, their major work on exhibition, namely the building itself . . ."

In expressing dissent, these two architects are, surprisingly, more the exception than the rule. Few of those who publicly denounced Graves's design for the Whitney have gone on record against the Guggenheim. (Few, on the other hand, have spoken in its defense.) What's the difference? C. Ray Smith, editor of *Oculus*, monthly news magazine of the New York Chapter of the AIA, speculates that many architects were so horrified by the professional infighting that erupted over Graves's design that they have resolved to remain silent in this second case. Paul Goldberger in *The New York Times* blames style: Gwathmey's Modernist design, although fundamentally unrelated to Wright's—and even antithetical—is more acceptable in today's climate than Graves's radically Post-Modern project.

The recent roast staged by the New York AIA at Gwathmey's request (Graves, on the other hand, was "invited" by the AIA to his tar-and-feather session, P/A, Sept. 1985, p. 25) proved an unaccountably tame affair. After four and a half years of design development, Gwathmey told his audience, he would not discuss whether his addition was in fact necessary, nor would the trustees consider other options that involved building off-site, or merging with other museums to permit exhibition exchanges.

By declaring those issues off bounds, the architect cut off all criticism save that related directly to his design. His audience cannot be blamed if they failed to follow his complicated geometric analysis of Wright's design or even to comprehend the relationship of new to old which, given the Guggenheim's spiraling, three-dimensional form, is not easily resolved in section or plan. Wright's arbitrary, intuitively derived design at times eluded Gwathmey's rational analysis and defied all "contextual" gestures, including the impossible attempt to line up the base of the elevated box addition with the ever-moving edge of the spiral. More unfortunate
(continued on page 34)

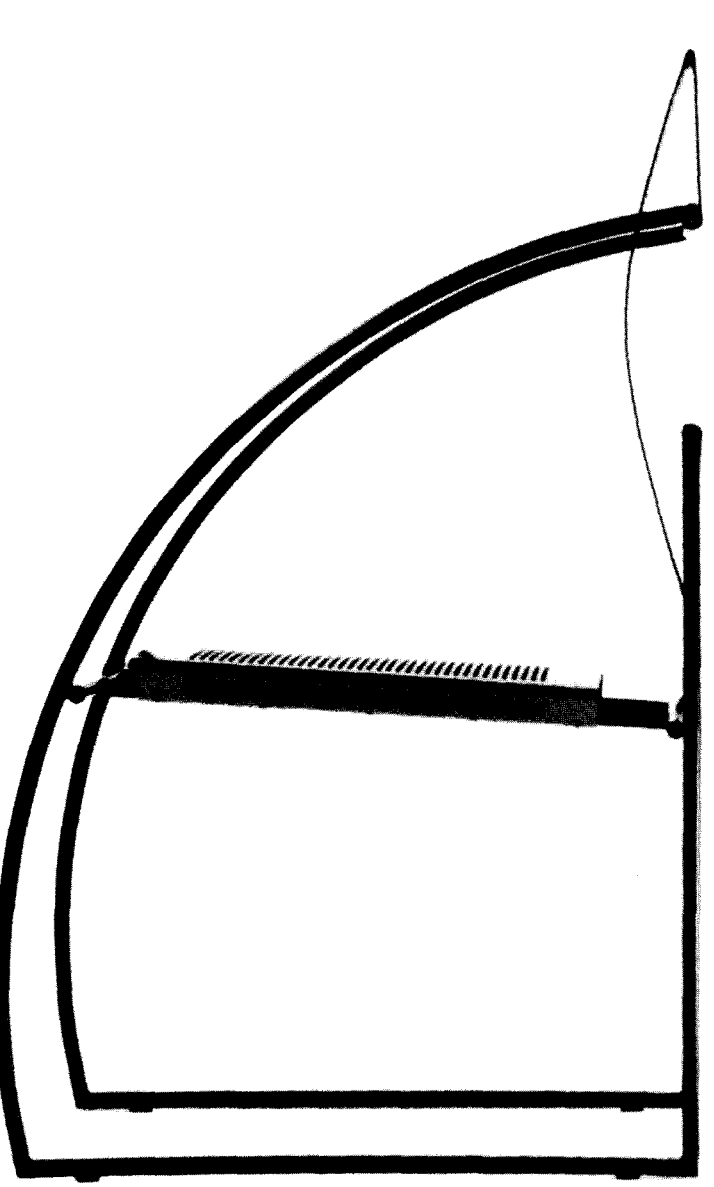
ICF

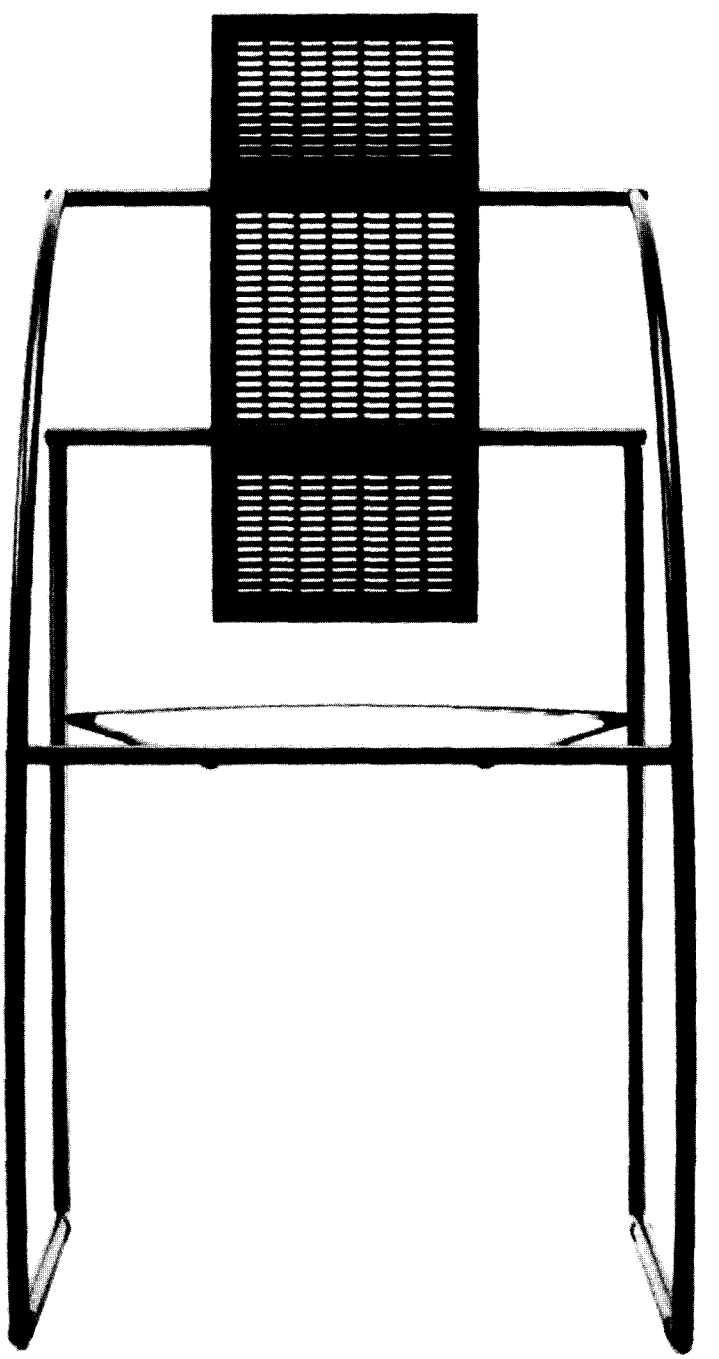
International Contract Furnishings Inc.
305 East 63rd Street
New York, N.Y. 10021
Telephone: 212/750-0900
Telex: 236073 ICF UR

Circle No. 359

The Quinta Chair
Design: Mario Botta, 1985

Botta's fifth chair exploits the resiliency of perforated steel, used only as seat slings in his first and second chairs.





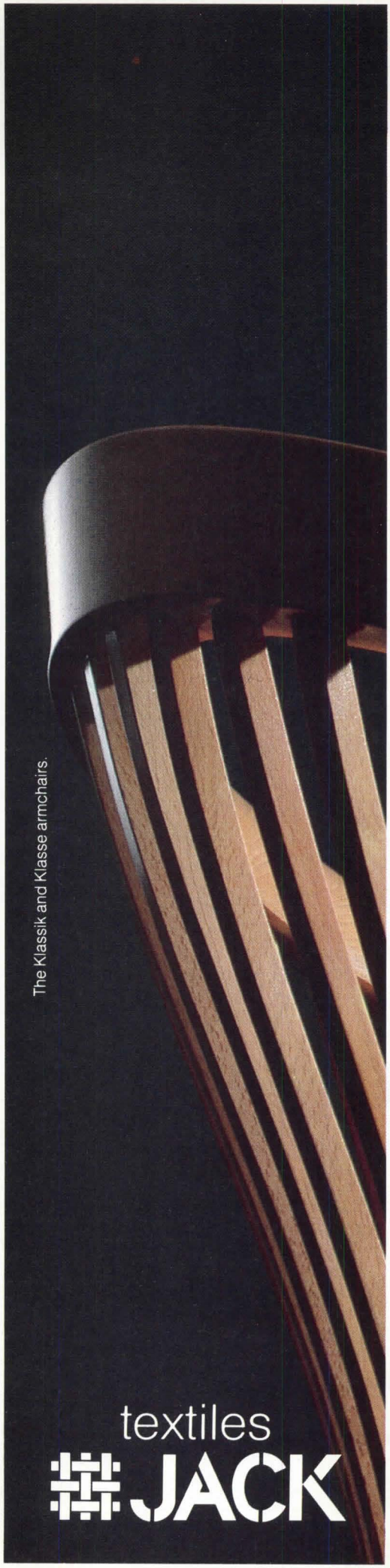
Guggenheim *(continued from page 32)*
still were the malapropisms seized upon by critics who compared the design to a toilet or forklift."

The evening's *coups de grace* were delivered by Richard Meier, Peter Eisenman, and John Hedjuk (four, with Gwathmey, of the former New York Five; Graves is the fifth). Their "condemnation" of Gwathmey's design as "too timid" diverted the focus of the session's attention, defusing criticism of the scheme by claiming it *tame*. Defending their colleague in this roundabout way, all three architects alluded to the underlying programmatic issues that Gwathmey placed off limits. "Given the nature of the problem," said Meier, "the solution is exemplary." But, he added, "we all wish the program were slightly smaller."

Therein, as they say, lies the rub. Neither the Guggenheim, nor the Whitney, has convinced its public that the ends justify the means. Space allocations in the new Guggenheim tower fill the elevated box with art storage, conservation, and administrative offices. These nonpublic functions, while necessary, do not deserve the monumental expression accorded them in this design (nor do they require spectacular views of Central Park). The fundamental issue, however, isn't whether this addition is right or wrong, compatible or crushing, but whether there should be any addition at all, let alone one of this size, on this location. The national AIA's selection of the Guggenheim for this year's 25-year award, hardly a coincidence, confirms collective opinion: "The Guggenheim Museum," reads the nomination," is an architectural landmark and a monument to Wright's unique vision." In a case of this sort, the best addition may arguably be no addition.

Whether they speak for or against the Gwathmey scheme, or say nothing, the profession has an obligation to address more general issues raised in both the Whitney and the Guggenheim debates. Landmarking procedures that make age the first criterion for eligibility clearly do not protect the monuments of our time. Steady public pressure may yet convince the Guggenheim trustees to follow the Whitney's lead and review their priorities. But institutional safeguards for underaged if acknowledged landmarks should be put in place now, before another forklift is raised.

Daralice D. Boles ■



The Klassik and Klasse armchairs.

Forty under Forty British style

A major exhibition on the work of young British architects, which toured the U.K. in 1985, will now make the rounds of American cities under the auspices of the Glen-Gery Corporation. Copying an idea that originated with the New York Architectural League in 1941 and was revived there in 1966, the British "Forty under Forty" were selected by a panel of judges composed of Michael Manser, then president of the Royal Institute of British Architects; Professor Adrian Gale of Plymouth Polytechnic; architect Richard Rogers; and Paul Hyde-Thompson, chairman of Ibstock, Glen-Gery's British affiliate.

Although the three professional jurors are all "declared modernists," their selections run the full gamut. The trends that emerge in this collection thus have more to do with practice than style. "This generation of architects," comments Manser, "is a slightly lost generation. The opportunities for new buildings have been smaller in their time for two reasons—the ecomony and obsessive conservation." As a result, the show spotlights smaller jobs—interiors, residential work, and rehabilitation. Adds Rogers, "The only way that you can break through to . . . the public is through competitions and exhibitions."

Organized by the RIBA with the support of Ibstock, the exhibition opens at Glen-Gery's Washington, D.C., showroom on May 22 (through June 10) followed by engagements in New York (June 17–July 1), Philadelphia (July 8–22), Baltimore (July 19–Aug. 12) and Somerville, Mass. (Aug. 19–29). A catalog, which reproduces exhibition panels (and renders some, in the process, illegible) is available. ■

The Skyscraper at 100

Last year marked the one hundredth anniversary of William Le Baron Jenney's Home Insurance Building in Chicago, a seminal work in the development of the skyscraper. To usher in the "second century of the skyscraper," the Council on Tall Buildings and Urban Habitat and the Chicago Committee of High Rise Buildings held a conference on the subject in Chicago, appropriately enough. It offered over 80 technical papers, presented by some of the leading lights in the high-rise field. Engineer William LeMes-

surier spoke on structural systems; researcher Alan Davenport, on wind response; engineer Lev Zetlin, on failure investigation; architect Arthur Gensler, on interior systems. Dispersed among the technical sessions were "theme" presentations by such notables as architects Harry Seidler, Bruce Graham, and William Pedersen, historian Carl Condit, and developer Gerald Hines.

The conference left little doubt as to our technical ability to construct buildings much taller than Sears Tower, the current record holder. To prove the point, Joseph Colaco of CBM Engineers, along with a group of architects and engineers, showed how the construction of Frank Lloyd Wright's Mile High Skyscraper is now technically—and economically—feasible, using high-strength (1400 psi) concrete, a bundled tube structure, a mat foundation (18 feet thick), multilevel elevators, and multiple skylobbies. "There's no technical reason," said Colaco, "why we can't build a mile high."

There are human reasons, though, as several speakers reminded the audience. First among the naysayers was critic Paul Goldberger who, in his keynote address, stated that what matters is not how tall we build, but how tall buildings affect the people that inhabit them and the urban context that surrounds them. Adding technical support, if sometimes inadvertently, to that position were papers on the physiological effects of too much building sway, too fast an elevator, or too long a travel distance in very tall buildings, and the logistical effects of too many people, cars, and services coming together at the base of very tall buildings. The urban effects, too, were addressed in an entire session devoted to San Francisco's new downtown zoning plan (P/A, Jan. 1986, pp. 122–124). In regulating not just floor area ratios and setbacks, but the actual height, bulk, and square footage of office buildings in the downtown, that plan suggests that tall buildings may test the limits of public acceptance long before they test those of concrete and steel.

The next hundred years will bring taller buildings. But if this conference is any indication, the second century of the skyscraper also will bring more controversy than the first. ***Thomas Fisher*** ■

(Two years of conference papers have just been published as *Advances in Tall Buildings,* Council on Tall Buildings, Van Nostrand Reinhold, New York, 1986.)


No. 45
in a
commercial
design series.

ANDERSEN DEMONSTRATES HOW A PLANT THRIVES IN NATURAL LIGHT.

We all know how factories used to be. Dark, drafty, depressing places to work. With the walls closed to the daylight.

But when the Werner-Pfleiderer Corporation found a spot in an old apple orchard for their North American plant, they wanted a design that would turn this beautiful natural setting into a stimulating work environment.

Andersen® Perma-Shield® casements reach up and bring sunlight deep into the building, illuminating employee work areas and brightening employee spirits.

(Research shows that visual tasks can be performed three or four times more effectively under daylight conditions than under artificially lit conditions.*)

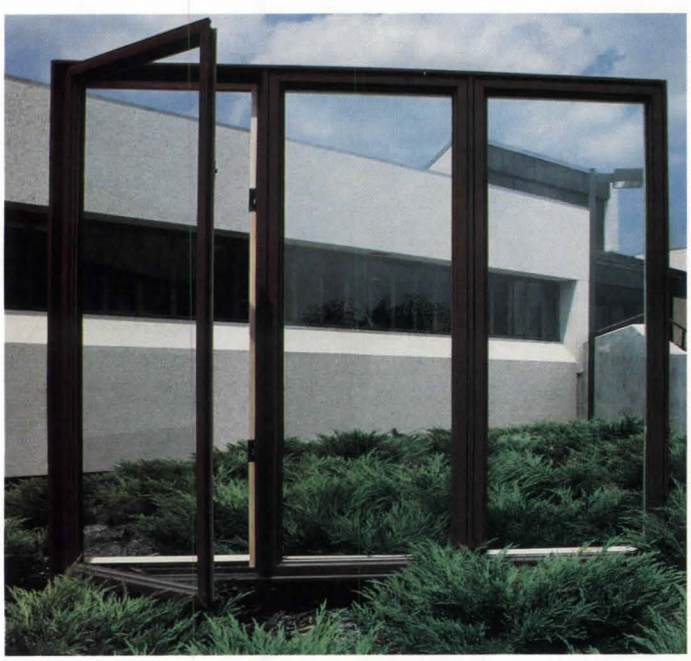
Andersen windows lighten up energy costs too. In summer they open to invite refreshing breezes indoors. Reducing air conditioning demands.

Come winter they close snugly, securely against freezing winds. Far more weathertight than industry standards to help reduce heating costs.

And Andersen windows stay on the job. Our solid wood core is covered with rugged Perma-Shield vinyl that won't chip, flake or peel, so it doesn't need painting. And the earthy Terratone color blends beautifully with most exteriors.

When it comes to manufacturing plants, take your clients out of the dark ages with quality Andersen windows, gliding patio doors and the extraordinary Andersen roof windows.

For more information, call your Andersen distributor or see Sweet's File 8.16/An. Or write Andersen Corp., Box 12, Bayport, MN 55003.



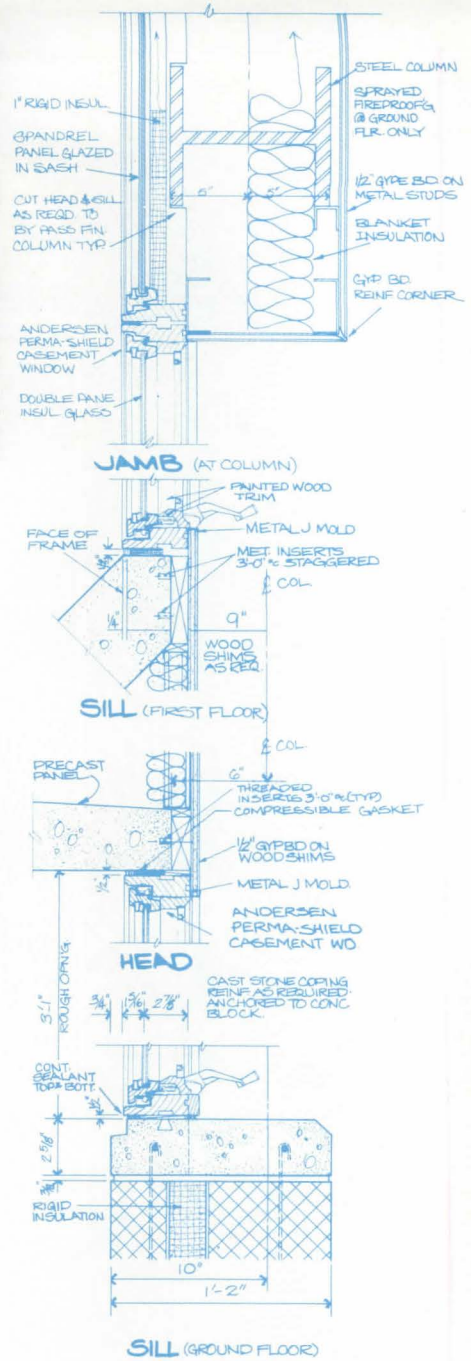
Werner and Pfleiderer Corporation–U. S. Headquarters, Ramsey, New Jersey.

Architect: Ballou-Levy-Fellgraff Ridgefield Park, New Jersey.

86133 © 1986 Andersen Corp.

Printing limitations prohibit exact duplication of Terratone color. Use actual sample for building specifications.

*Source: Benefits of Daylighting, Cost and Energy Savings. ASHRAE Technical Paper, J.W. Griffith, 1977.

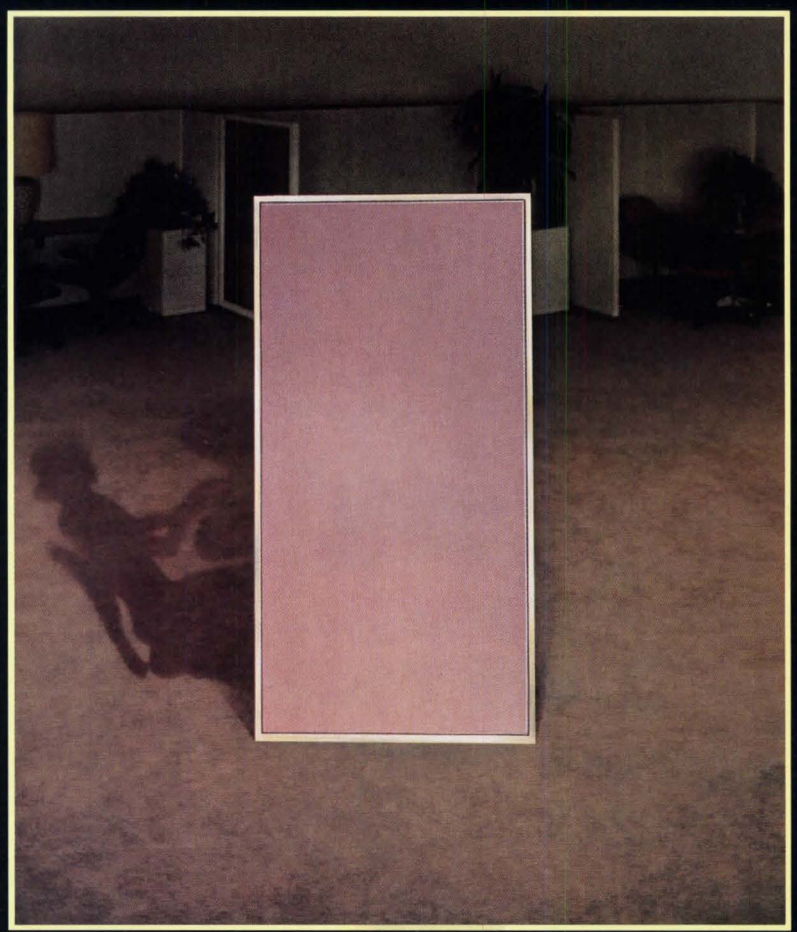


Come home to quality.

Andersen

Andersen AW Windows • Patio Doors ™

Circle **No. 323** on Reader Service Card



MAKING WORK SPACE

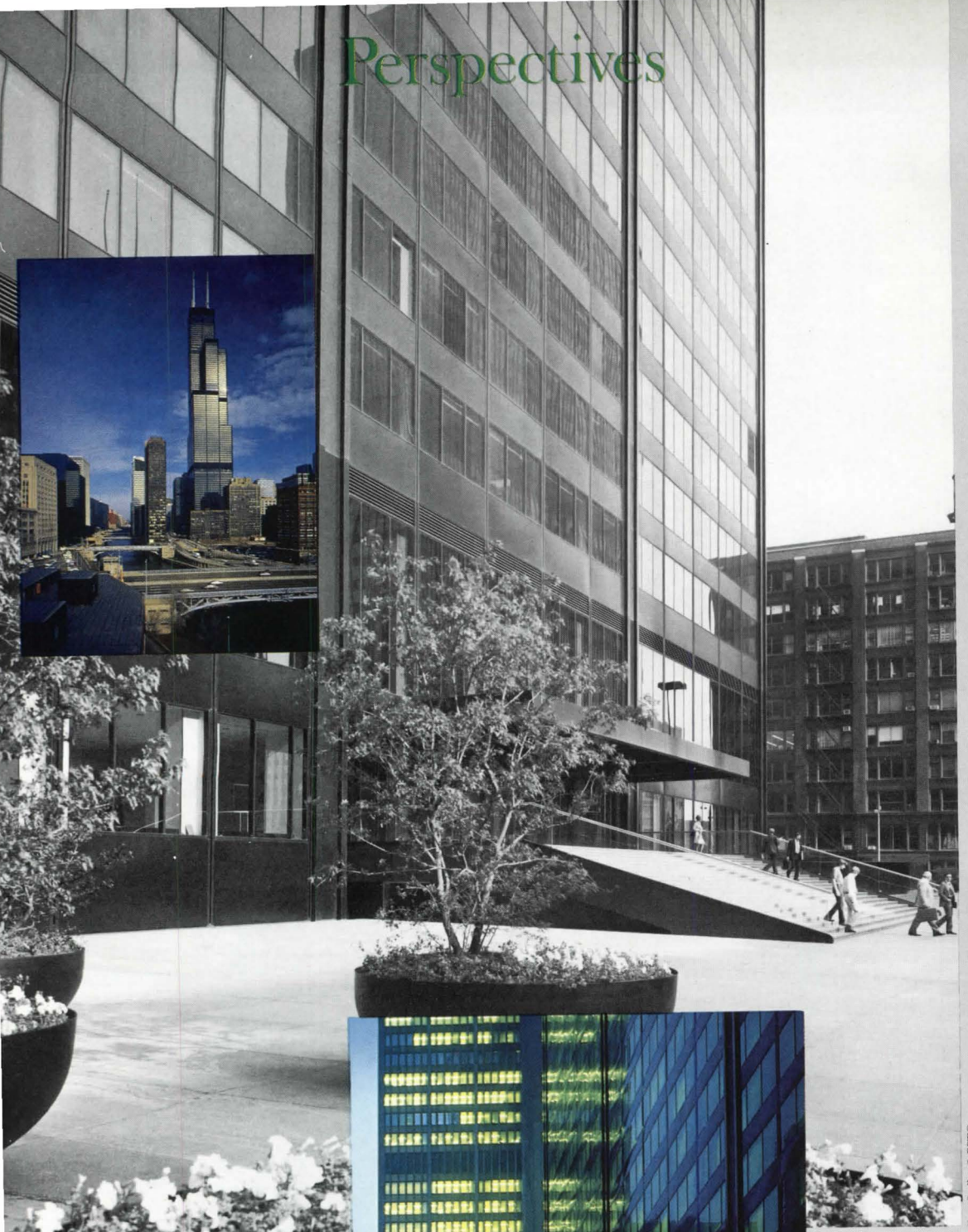
WORK.

We see the modern office the same way you do. Simple. Clean. Coordinated. And that's why we've become the number one source for decorative finishes that bring together partition walls, load bearing walls, and a variety of metal and wood furniture elements into a unified office interior. Borden offers the widest choice of colors, textures, and patterns in metal and wood vinyl laminates and wallcoverings in the industry. Applied to the substrate of your choice, they make the work space work. Contact your Borden representative soon. Together we'll bring a fresh new focus to the office environment. COLUMBUS COATED FABRICS, Division of Borden Chemical, Borden, Inc., Columbus, Ohio 43216. Phone: (614) 297-6060.

BORDEN

GUARD® DECORATIVE FINISHES

Whether for reasons of fashion or function, an increasing number of office towers from the 1950s, 1960s, and 1970s are now undergoing rehabilitation. The Sears Tower in Chicago is a famous example, InterFirst in Dallas more mundane.



Ezra Stoller © ESTO

Color photos: Timothy Hursley

Chicago's Sears Tower (inset, top) has never functioned properly on a public level. A new barrel-vaulted entrance on Wacker Drive (right) replaces wind-swept steps and minimal canopy (above) with a winter garden open to anyone.

Sears Resurrected

Just over 10 years after its completion in 1973, the Sears Tower in Chicago, still the world's tallest skyscraper, underwent a major renovation finished in June, 1985. Changing use patterns and problems evident from the opening day provoked the $25 million rehabilitation, which involved construction of a major new entrance on Wacker Drive, complete renovation of the underground retail mall, and major rerouting of tourist and business traffic through the building. The original cast was reassembled for the restoration, with Skidmore Owings & Merrill, Chicago, as architects and Morse/Diesel contractor.

Like most monolithic, glass-skinned skyscrapers, the original Sears Tower was scaled to the skyline, not the sidewalk. Entrances were afterthoughts, punched through a flush-glass façade. The understated entry sequence, a typical modern tactic, produced special problems for Sears. Office workers, responding to routine, don't necessarily need a well-marked entrance and circulation plan, but the Sears Tower plays host to 1.4 million visitors a year, most of whom have never been there before. Furthermore, the world's tallest tower is subjected to unusual wind pressures, which make the main Wacker Drive plaza a blustery and even dangerous approach.

The original building was designed with security in mind, its plazas restricted to employee use. The new Sears is more public-spirited, opening the southern plaza to general use with new benches and landscaping. The barrel-vaulted bustle on Wacker Drive, which breaks down winds, also provides a more monumental entrance designed by project architect Fred Lo to complement the original structure, repeating its black-anodized aluminum mullions and bronze-tinted glass. Inside, employees and tourists separate immediately, the former moving

Timothy Hursley

Winter garden interior on Wacker Drive.

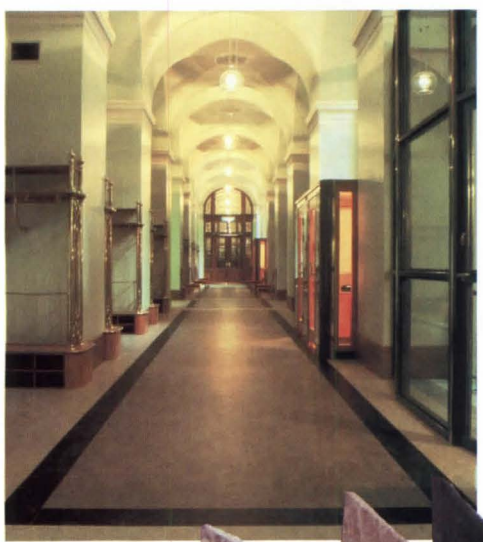
up twin curved, cantilevered stairs to a mezzanine lobby, and the latter down two flights to a new Visitors' Center. (Not the least of many complications raised by the redo involved dropping elevator shafts running to the observation deck two additional floors below grade.)

Sears also had an economic agenda: reshaping its unsuccessful retail mall to capitalize not only on in-house trade—the 25,000 workers and tourists who pass through each day—but also on the swelling ranks of workers from other new office buildings in the booming downtown business district. The mall's problems stemmed from poor visibility and access, improved as much as possible by floor-cutaways on the Franklin Street side and a new skylighted entrance extended from Jackson Boulevard. The new mall was also carefully reprogrammed, with fast-food outlets and gift shops close to tourist entrances.

Sears isn't the only modern monolith requiring substantial renovation after a very short period. Many of the problems prompting restoration are purely technical: The 30-year-old curtain wall of Lever House in New York, for example, had deteriorated so much two years ago that maintenance costs could be seriously advanced as justification for its demolition (P/A, March 1983, p. 25). In other cases, the issue is style—upgrading an "ordinary" glass office tower to compete for design-conscious tenants (see InterFirst Facelift, below). Still other redos, like the Sears renovation, are initiated for programmatic reasons. In Detroit, John Portman's Renaissance Center is being renovated both inside and out, its failed mall updated and its anti-urban architecture softened. In Boston, a controversial scheme to expand the Prudential Center (P/A, March 1986, p. 21) would fill in the open spaces between towers. The nation's vast inventory of office towers from the 1950s, 1960s, and 1970s virtually guarantees a steady increase in the business of remaking Modernism. ■

Linoflex® Tiles
in 10 coordinating colors.

The Natural Choice



If you think natural linoleum is old-fashioned, look again. Forbo gives you two great resilient floors, impeccably styled with the look of Carrera marble, in the broadest range of complementary colors that perfectly target the needs of today's open interiors.

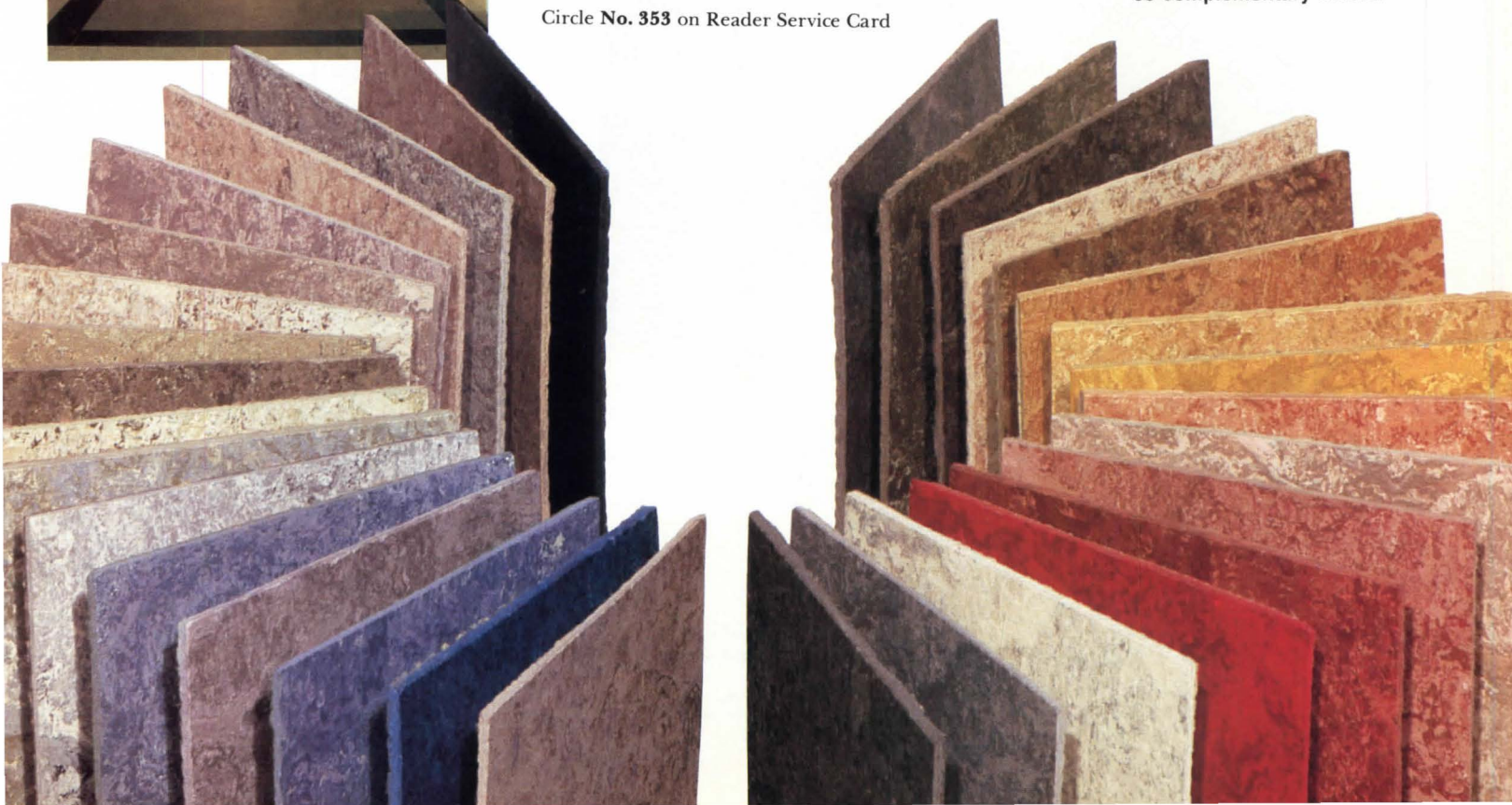
Forbo Marmoleum and Forbo Linoflex® Tiles. Extremely durable yet warm to the touch. Highly resistant to fire, cigarette burns, chemicals and stains. Anti-static, anti-bacterial and asbestos free. And easily maintained with Forbo's ETC factory finish.

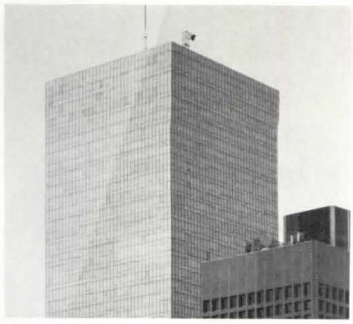
For more details and technical information call or write:

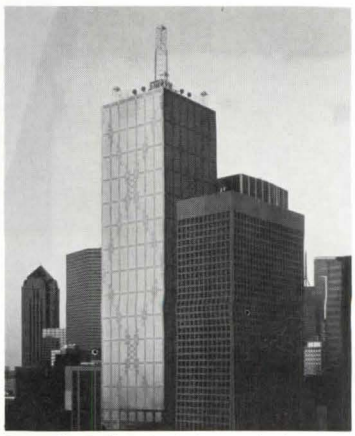
Forbo
FORBO NORTH AMERICA
218 W. Orange St., Lancaster, PA 17603.
Telephone (800) 233-0475. In PA (800) 321-7696.

Marmoleum
resilient sheet in 33 complementary colors.

Circle **No. 353** on Reader Service Card







InterFirst's façade, before and after.

InterFirst Facelift

Rehabilitation of the 14-year-old InterFirst Two in Dallas by SOM's Houston office applies techniques similar to those of the Sears renovation. Caught in competition with fancier new office buildings, among them SOM's own LTV Tower (P/A, July 1985, p. 95), InterFirst was steadily losing its market share. "The mechanical system was fair," says Richard Keating, "and the structure excellent, but the building had a public perception problem." Ongoing difficulties with the original curtain wall gave SOM the chance to reclad the façade in a blue/green grid that follows diagonal bracing. A new three-story stone base and 160-foot antenna will change both sidewalk and skyline perceptions. An 81-foot glass pyramid provides new visual and physical access to a faltering retail mall below the western plaza. The office lobby is to be remodeled, and a new rotunda cut through to the floor below.

Keating defends this type of adaptive reuse as good business practice. Assuming it cost $20 per square foot to build an office tower in 1970, and $20 to renovate it in 1986, the total expenditure still falls short of the $60–70 required for new construction. SOM's own commissions prove the trend: InterFirst is only one of several office facelifts in Dallas, Denver, and Houston now on the boards in the Houston office. ***Daralice D. Boles*** ■

When you make America's best floor tile, the only way to go is up.

Since IAC was founded in 1981, we have dedicated ourselves to producing the best glazed ceramic floor tile in America. So, when we decided to enter the ceramic wall tile market, we committed ourselves to maintaining that same standard.

That's why we chose to merge with LAUFEN, a recognized worldwide leader in fine ceramic products including INCEPA wall tile. INCEPA's full range of elegant colors and patterns and rich waterfall-glaze finish offers our customers the kind of quality they have come to rely on.

INCEPA's 6″ x 6″ European sizing makes this fine ceramic wall tile easier and quicker to install. It requires 50 percent less grout, fewer trim pieces, and costs less per square foot to install than standard 4¼″ x 4¼″ tile. And INCEPA wall tile conforms to all ASTM standards including sizing, squareness, and warpage.

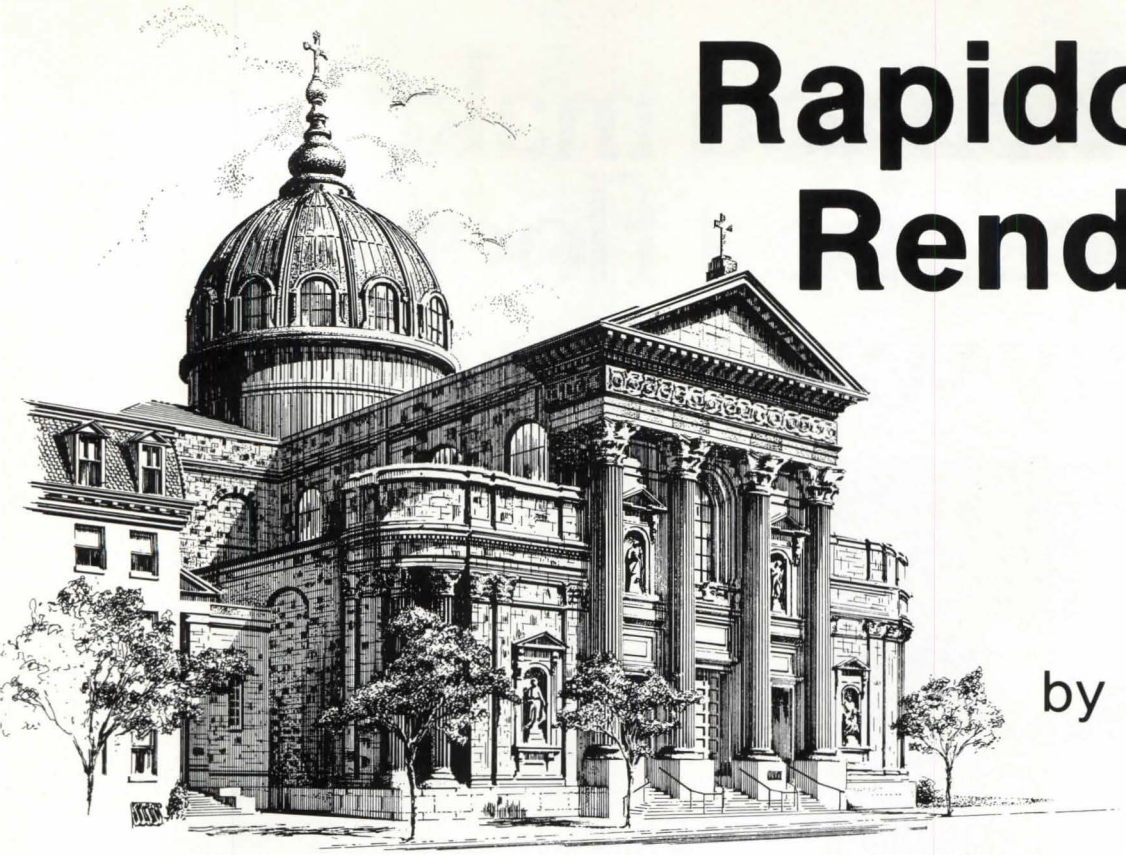
INCEPA is available only from IAC. So, if you're looking for a ceramic wall tile with the beauty and durability you can depend on, look no further than America's best ceramic floor tile manufacturer—IAC. We're moving up in the world.

For more information on an IAC distributor near you, call IAC at 1-800-331-3651.

iac
LAUFEN

Circle **No. 361** on Reader Service Card

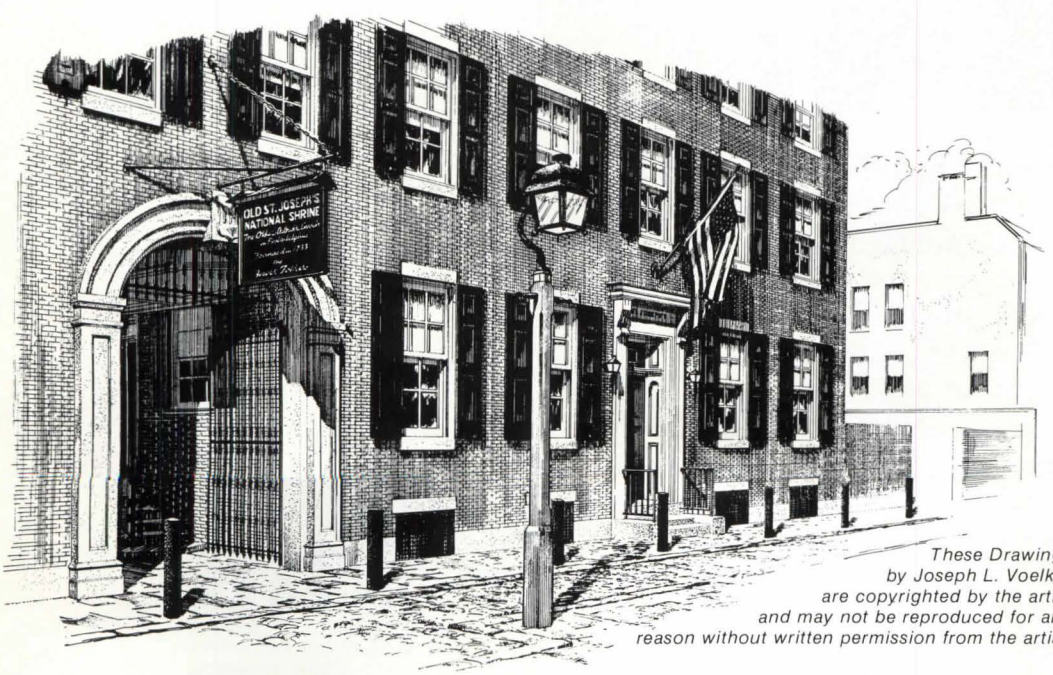
Rapidograph® Renderings



by Pennsylvania artis

A keen eye for detail and a deft hand for expression provide Joseph Voelker of Springfield, Pa., with a mastery of pen-and-ink rendering of his subjects — particularly architectural subjects. Artist Voelker's pen is the Rapidograph® technical pen with tubular nibs that allow the artist to stroke in virtually any direction on the drawing surface, much the same way a pencil is used. This is the great advantage of the Rapidograph® pen over conventional pens, such as the crow quill and fountain pen which, for the most part, cannot be stroked up —against a paper grain.

This versatility of movement in pen-and-ink drawing contributes to faster completion of drawings, which might account for artist Voelker's prolific nature: In addition to his commerical and graphic arts output, he has created a series of fine-art drawings of famous and historical landmarks in and around the environs of Philadelphia, of which these illustrations are only a few.

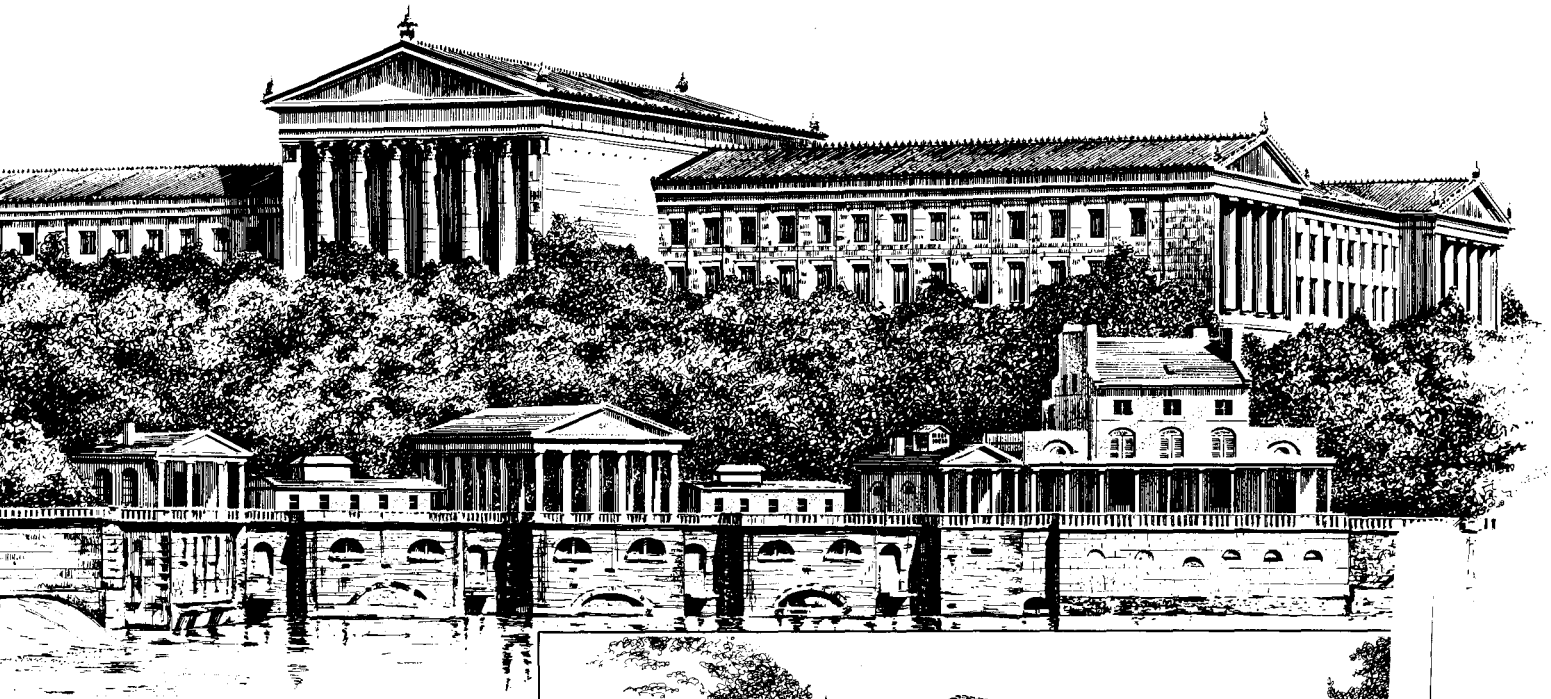


These Drawings by Joseph L. Voelker are copyrighted by the artist and may not be reproduced for any reason without written permission from the artist.

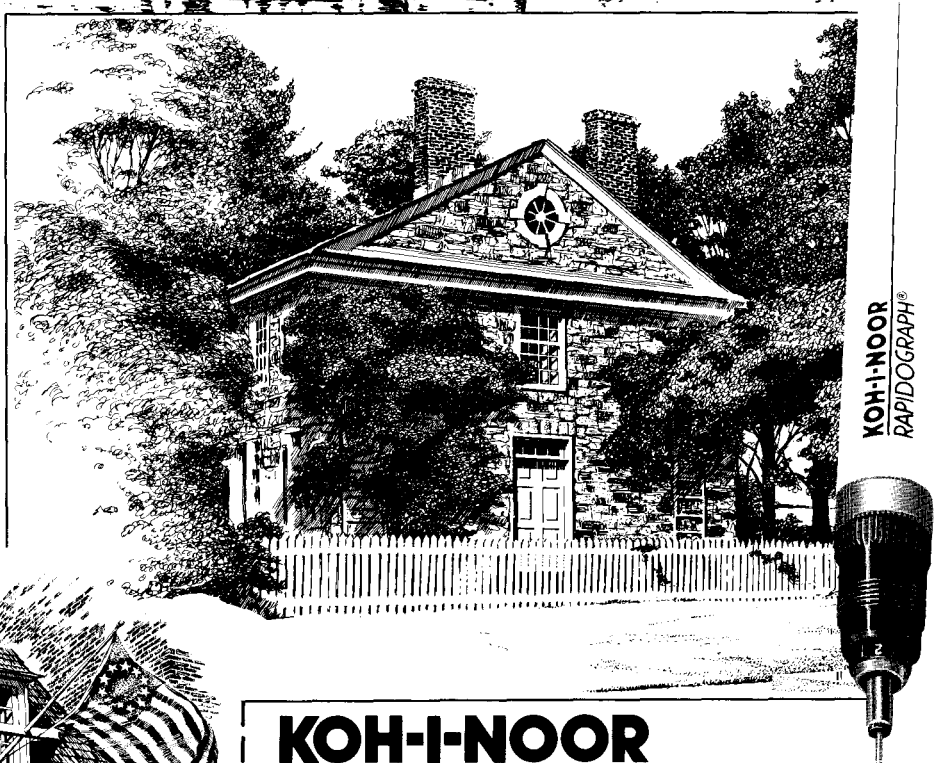
Rapidograph® *renderings* present your architectural designs in the clearest light possible . . . good ideas translated into exciting visuals. These drawings by Voelker are examples of precision-clear interpretations which can be presented for any project — a restoration, a conversion, a modern highrise, a neoclassic structure, and so on. Such drawings can have a free-hand abandon or be developed with minuscule refinement to hold details in photographic blowups.

The tubular nib is available in 13 line widths. Just the weight of the pen itself and the handhold to keep the pen erect provide a consistent ink laydown. The designer, drafter or artist has only to guide the pen with an easy, non-fatiguing hold. The patented dry, double-seal cap keeps ink throughout the balanced ink-flow system ready for instant startup, contributing to optimum drawing time. Refillable ink cartridge also helps keep productivity high. The Rapidograph® pen is designed for use with carbon-black india drawing inks that dry waterproof and smear-proof, allowing the artist to enchance drawings with other media, such as colored drawing ink and watercolor washes, or even pastels and colored pencils.

Look for the *Koh-I-Noor Rapidograph®* on the pen to be sure of the dependability and ease of performance that make the Rapidograph® pen the most widely used technical pen in the United States and Canada.

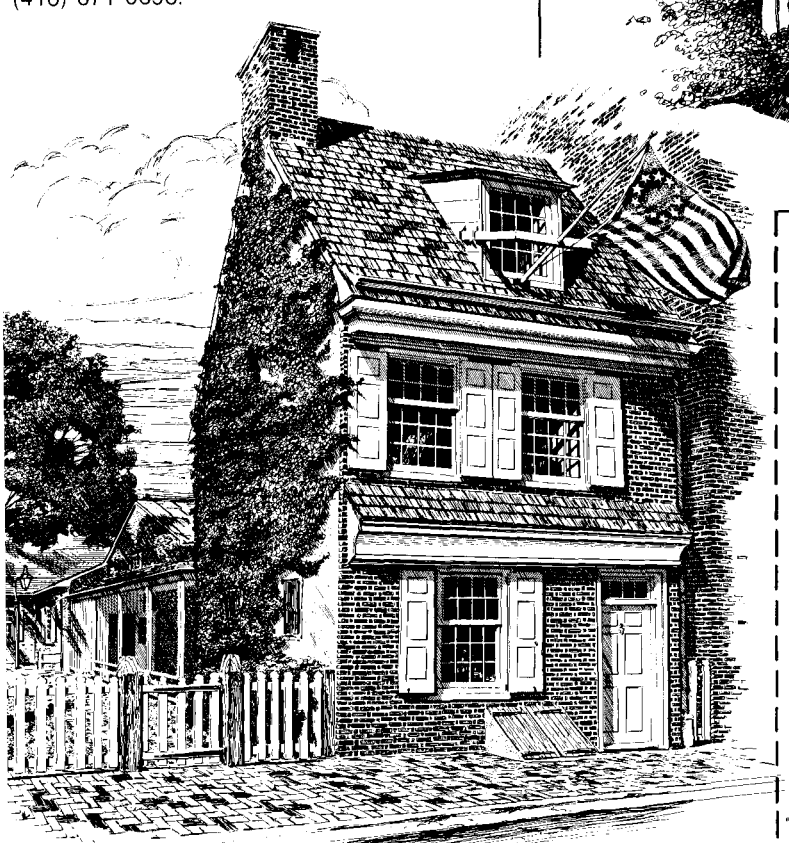


oseph L. Voelker



KOH-I-NOOR RAPIDOGRAPH®

Single pens and pen sets are available. Ask your dealer or send the coupon for details: Koh-I-Noor Rapidograph Inc., 100 North St., Bloomsbury, NJ 08804 (201) 479-4124. In Canada: 1815 Meyerside Dr., Mississauga, Ont. L5T 1G3 (416) 671-0696.



KOH-I-NOOR
RAPIDOGRAPH®
a rotring company

Koh-I-Noor Rapidograph, Inc., 100 North St.,
Bloomsbury, N.J. 08804
In Canada: 1815 Meyerside Dr.,
Mississauga, Ont. L5T 1G3

Please send complimentary Catalog "E" describing Rapidograph technical pens, Koh-I-Noor inks and other artist materials.
☐Please send me the names of Koh-I-Noor dealers in my area.

Name (Please print or type)

Company Name (if the following is a business address)

Number and Street, RD and Box, etc.

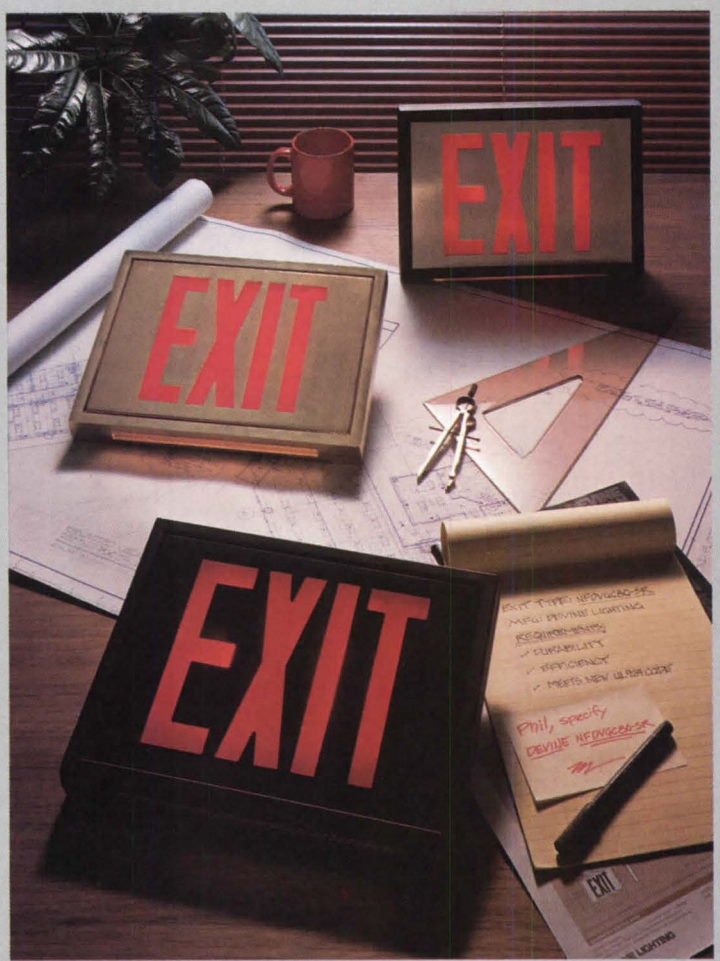
City State Zip

*RAPIDOGRAPH is a Registered Trademark of Koh-I-Noor Rapidograph, Inc. © 1985

PA-5/86

Circle **No. 368** on Reader Service Card

Are you ready for UL924?



SPECIFY DEVINE EXITS. MEET NEW UL924 CODE.

You can specify quality emergency exits today that comply with tomorrow's new requirements.

The NFDVG80 emergency profile exit from Devine Design is now available.

The new guidelines were developed with a single goal in mind: save lives. Performance in the emergency mode demands reliability and visibility. That's why UL924 requires signage letters at least six inches tall with a minimum stroke width of 3/4 inch. Furthermore, luminance must be high enough to provide a contrast ratio at least .5 even after 90 minutes of battery operation. Designing an exit to meet these requirements wasn't easy but we did it. Availability isn't the only reason to select this exit though; we have four other good reasons to specify Devine.

VERSATILITY

No matter the application, the NFDVG80 can handle the job. The crisply styled exit offers six mounting arrangements including the UM Universal Mount, six face styles, and incandescent sources.

We even offer this as a standard exit—the NFG50 exit—with the option of adding a battery pack for future conversion to meet UL requirements.

DEPENDABILITY

Our exits are constructed of rugged die cast aluminum for long term trouble free service. Energy efficient sources and state of the art electronics. A wide selection of tough thermosetting acrylic enamel finishes ensure attractive appearance year after year. Exits that work—and look like new for the long run.

UL File number: E71392

VALUE

Combine quality, dependability and versatility and you find extraordinary value in this exit from Devine.

How else is there to describe an exit that offers all this at a competitive price?

UL APPROVAL

The most important factor of all, UL924 was drafted to help save lives by providing clear information in emergencies. The NFDVG80 allows you to meet that responsibility . . . now.

Five good reasons. Versatility, dependability, value, UL approval and availability. An early, logical answer to UL924 requirements. The remarkable NFDVG80 emergency exit from Devine Design.

WILL EXITS YOU SPECIFY TODAY MEET TOMORROW'S CODE? OURS WILL.

Like more information? Call us on our toll free number: **1-800-826-5496** in the U.S.; **1-800-361-1441** in Canada.

DEVINE

Subsidiary of Kidde, Inc.

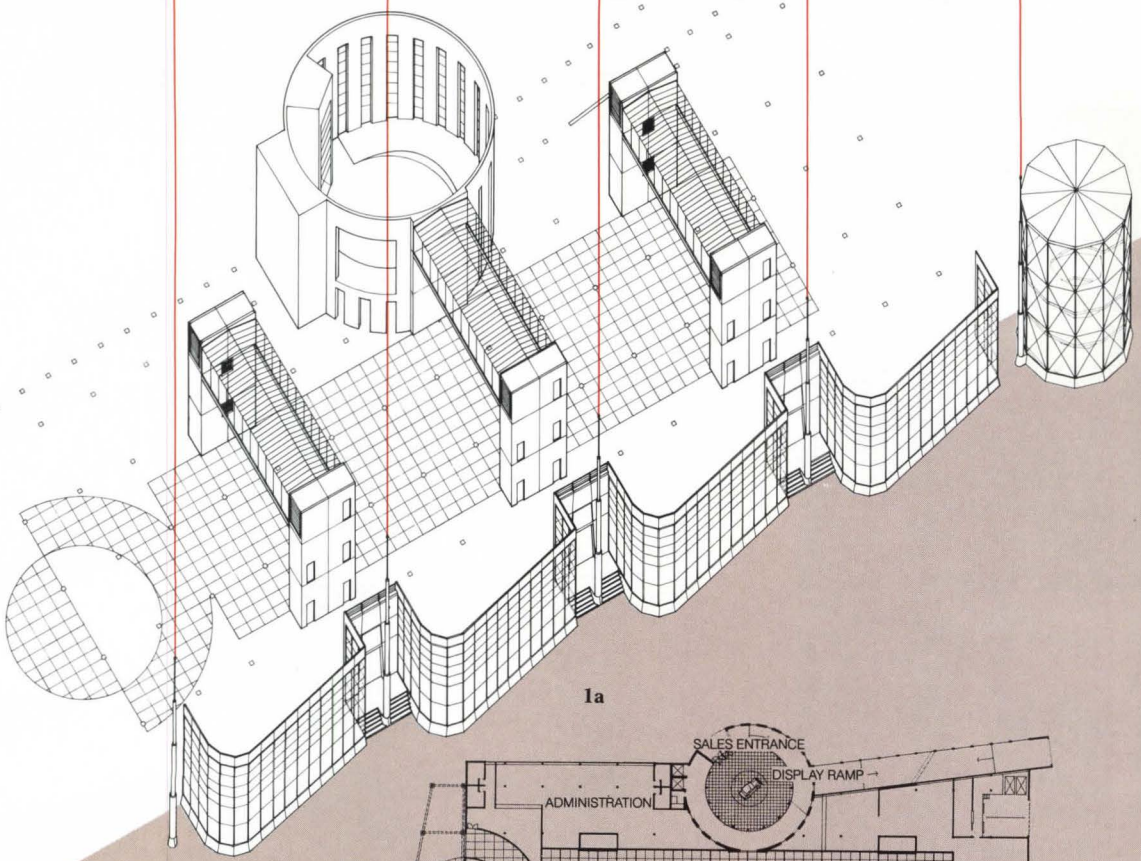
KIDDE

KANSAS CITY ■ MONTREAL

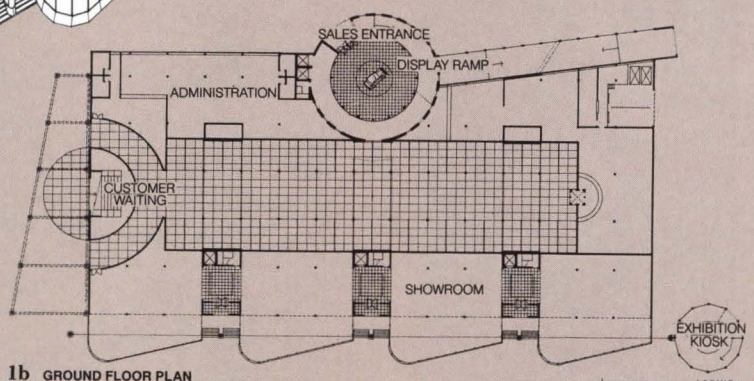
Circle **No. 343** on Reader Service Card

In Progress

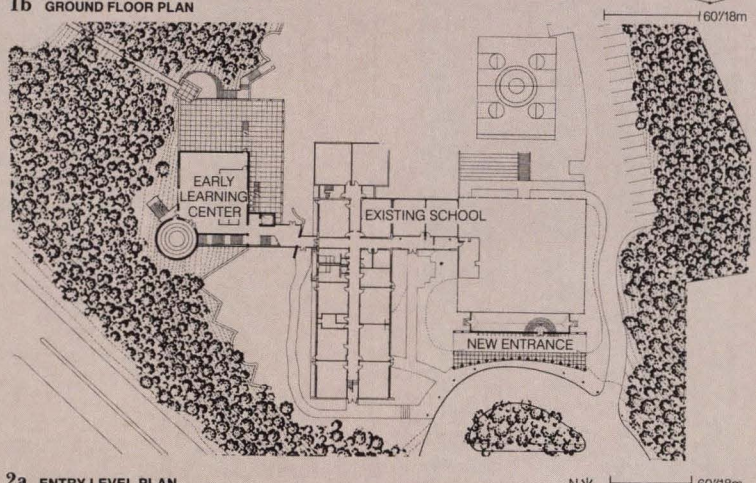
Commercial and educational commissions are shown in this month's In Progress section, ranging from an auto dealership to an elementary school.



1a



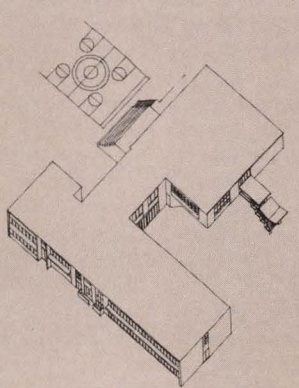
1b GROUND FLOOR PLAN



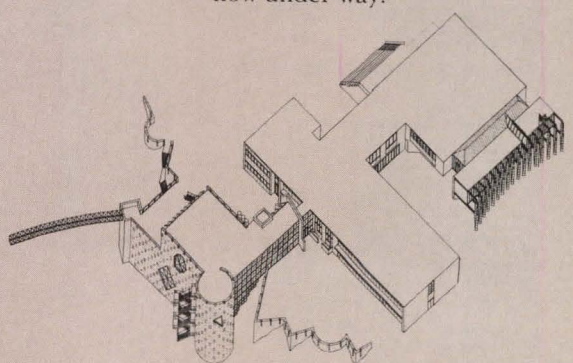
2a ENTRY LEVEL PLAN

1 Ron Greenspan Volkswagen/ Lotus/Subaru, San Francisco, Calif. *Architects: Tanner & Van-Dine, San Francisco.* This multi-franchise urban automobile dealership will house four sales showrooms, a 44-car service center, body shop, parts and new car storage, and administrative offices. The site, adjacent to an elevated portion of US 101 in San Francisco's South of Market industrial area, was previously occupied by a dairy processing plant. Highway-scaled signage; a "Super Ron" statue related to ad campaigns; low-level lasers; a glazed, helical display ramp; and roof-top storage of over 200 cars all advertise the dealership. Inside, the sales area and waiting room for service customers overlook the ground-floor central service area. Construction begins this fall.

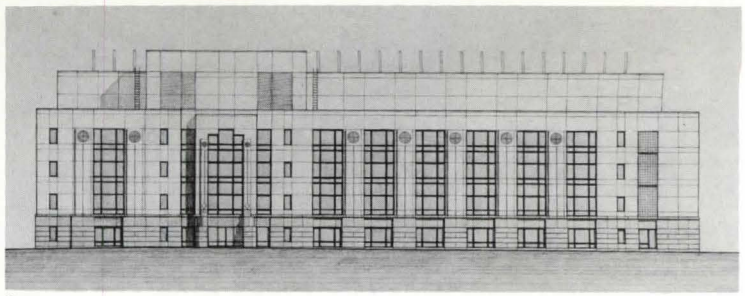
2 Trinity School additions, Atlanta, Ga. *Architects: Lord & Sargent, Atlanta.* A new gymnasium, media center, and library are stacked in one three-story addition to a private elementary school. Shaped as a toy castle and keep at the edge of a 40-foot gorge, the concrete and glass block bearing walls are punctured by large geometric openings. A second addition, housing administrative offices on the second floor, provides a new loggia entrance whose twisted columns play upon the notion of toy building blocks. A new bridge spans from the "castle" to playground space beyond the gorge. Construction of the 25,000-square-foot additions is now under way.



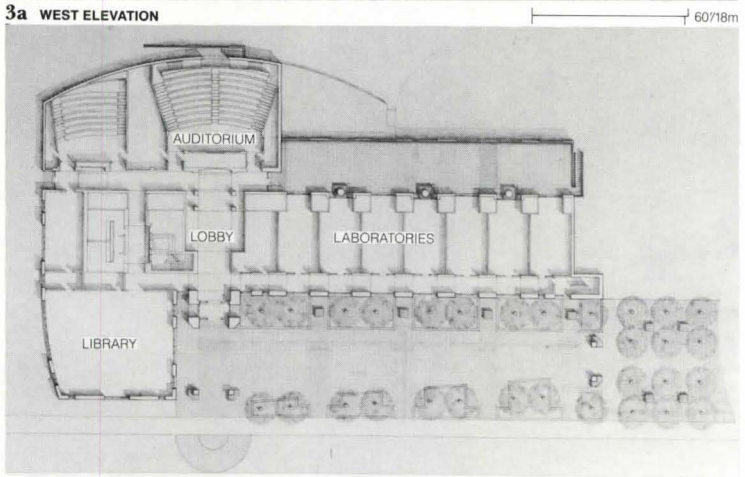
2b EXISTING



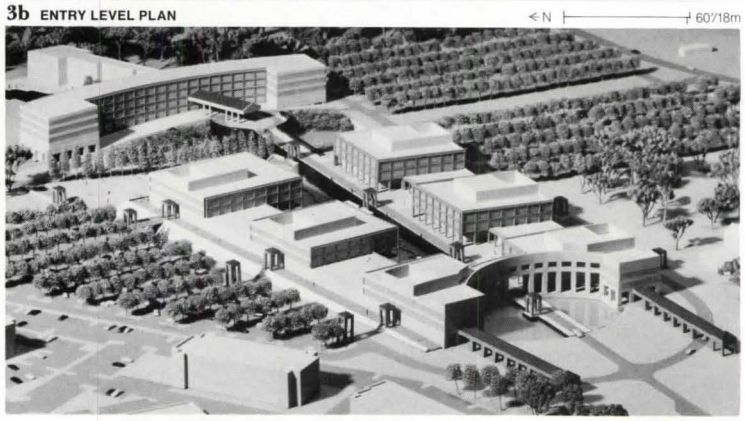
2c PROPOSED



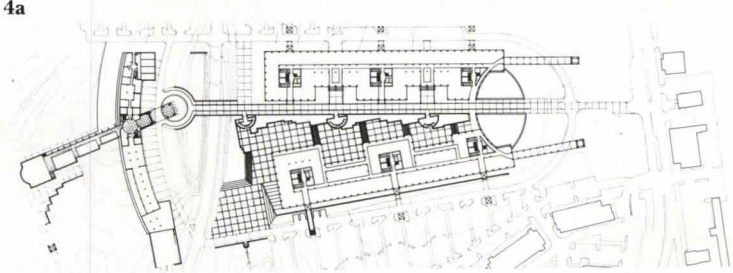
3a WEST ELEVATION — 60'/18m



3b ENTRY LEVEL PLAN — N — 60'/18m



4a

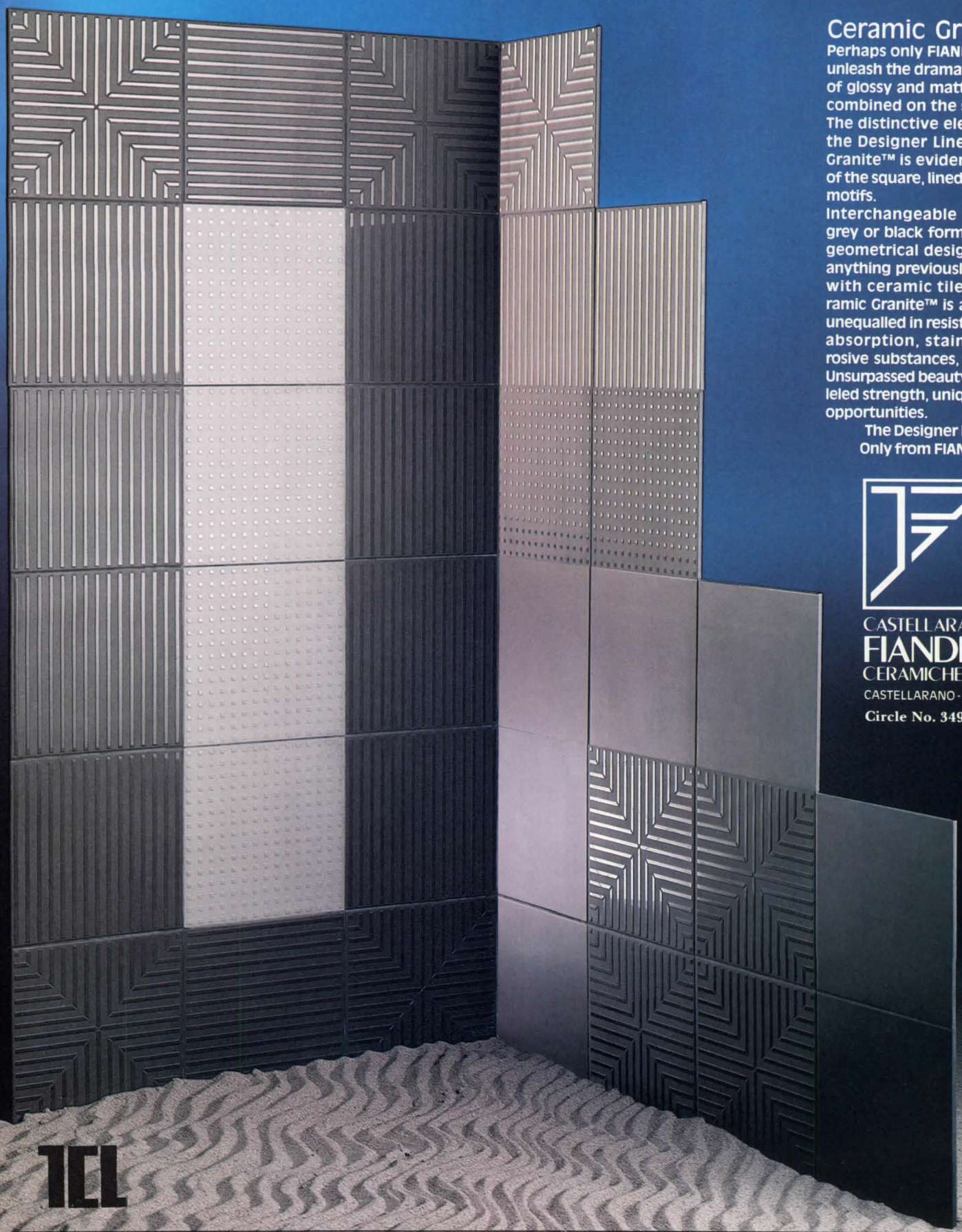


4b SITE PLAN — N — 60'/18m

3 Vitreous State Laboratory, Catholic University, Washington, D.C. *Architects: Perkins & Will, Washington.* Flanked by classroom buildings, this 92,000-square-foot laboratory for glass research forms the third side of a landscaped quadrangle. The building's pink granite base and precast concrete superstructure house flexible, column-free labs, a public auditorium, library, and classrooms. The VSL, to be completed this fall, is a "smart" lab building, dependent upon automatic mechanical controls; its ice cooling system creates ice during off-peak hours which is used to cool the building the next day.

4 Landmark Center, Suburban Va. *Architects: Swanke Hayden Connell Architects, Washington, D.C.* This master plan for a 60-acre triangular parcel is now in schematic design. The central pedestrian street is lined with six steel-frame commercial office blocks, three set atop a retail mall of monolithic red granite. The axis ends in a 250-room hotel/conference facility. Parking fills the gap between buildings and outer site boundaries.

ONLY FIANDRE



Ceramic Granite™

Perhaps only FIANDRE could unleash the dramatic effects of glossy and matte finishes combined on the same tile. The distinctive elegance of the Designer Line Ceramic Granite™ is evident in each of the square, lined and cross motifs.

Interchangeable styles of grey or black form intricate, geometrical designs unlike anything previously possible with ceramic tile. And Ceramic Granite™ is absolutely unequalled in resisting water absorption, staining, corrosive substances, even fire. Unsurpassed beauty, unparalleled strength, unique design opportunities.

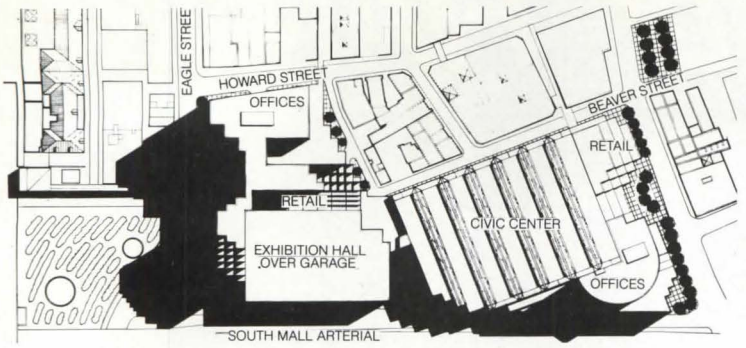
The Designer Line.
Only from FIANDRE.

CASTELLARANO
FIANDRE
CERAMICHE SpA
CASTELLARANO - ITALY

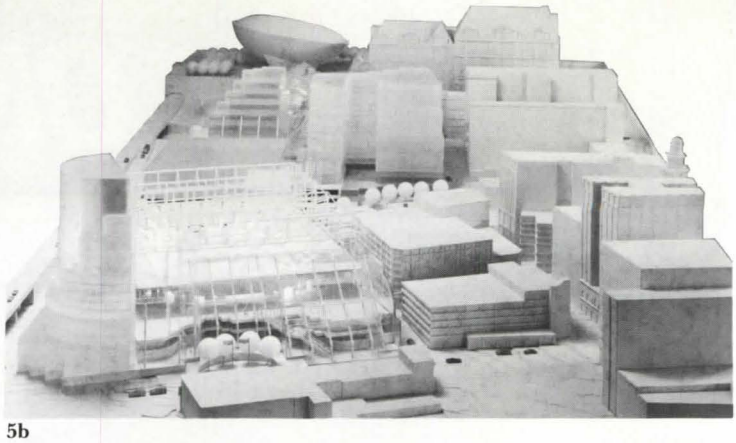
Circle No. 349

TCL

In the U.S.A. and Canada: **TRANS CERAMICA LTD.** P.O. Box 795, Elk Grove Village, ILL 60007 ph. 312/350-1555



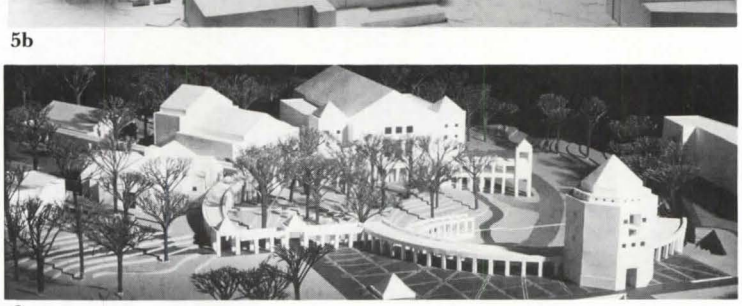
5a SITE PLAN



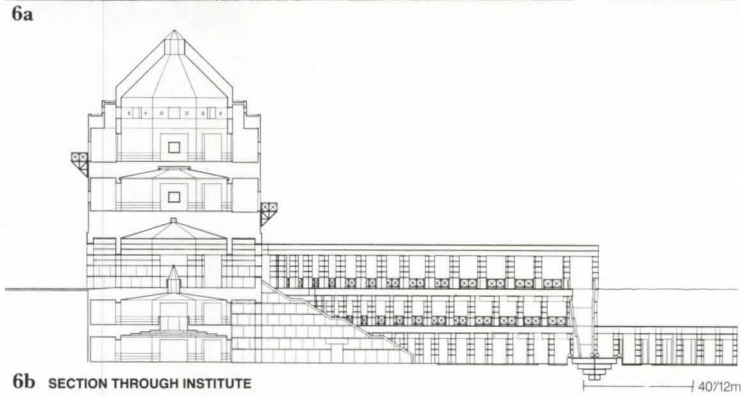
5b

5 Albany County Civic Center, Albany, N.Y. *Architects: Crozier Associates, Albany. Planning consultant: Vincent Ponte, New York.* Construction of a 15,000- to 18,000-seat civic center and adjacent 1000-car garage, to begin this summer, will serve as catalyst in this ambitious, diversified development. A 400-room convention hotel and 50,000-square-foot column-free exhibition hall with conference facilities, restaurants, and shops will occupy air space over the garage, which enjoys direct access to a major downtown artery. Sites are also set aside for two 200,000-square-foot private office buildings. Elevated pedestrian circulation will link Albany's central business district through the civic center to the Empire State Plaza.

6 Strom Thurmond Center, Clemson, S.C. *Architects: CRS/Sirrine, Houston, Texas. Associated architects: Enwright Associates, Greenville, S.C.* Sited in a dramatic, natural bowl on the Clemson University campus, this multiphase complex includes the 50,000-square-foot Strom Thurmond Institute; a 30,000-square-foot, 425-seat theater; 17,600-square-foot drama department and classroom building; and 38,700-square-foot, 1850-seat concert hall. The brick and limestone Institute, which will house the Senator's private papers, his office, and an auditorium for public lectures—half above ground and half below—comprises the first phase of construction due for completion summer, 1987.



6a



6b SECTION THROUGH INSTITUTE

In Stock, Nationwide

Von Duprin Exit Devices

Von Duprin door exit hardware . . . from our network of stock-carrying representatives. We've taken steps to improve the availability of Von Duprin door exit hardware with 18 stock-carrying representative locations and the additional support of 11 exclusive wholesale distributor locations, so you're never far from the exit device you need for a rush requirement.

Von Duprin, the pioneer in exit devices, offers you a broad choice of versatile crossbar devices or smooth-operating pushbar devices, all built to the highest quality standards. Finishes available through the stocking network include dull chrome, aluminum, dark bronze and dull bronze with polished chrome, polished brass and many special finishes available direct from the factory.

At Von Duprin, door exit hardware is our only business. So when you need an exit device fast, call your local Distributor or Von Duprin Representative.

Von Duprin, Inc.
400 West Maryland Street
Indianapolis, Indiana 46225
(317) 637-5521

VON DUPRIN

Part of worldwide Ingersoll-Rand

Circle No. 409 on Reader Service Card

"The Safe Way Out"

ONE LOOK AT A WINDOW OPENS TWO WAYS. AND REASONS TO SPECIFY IT.

Turn the handle on a Marvin Magnum Tilt-Turn 90 degrees and the window swings into the room for cleaning. Turn the handle a full 180 degrees and the window tilts into the room for ventilation.

Close the window and it will exceed any commercial performance code. Radically. It's another first for Marvin. One other manufacturers are watching closely.

EVEN WE WEREN'T EXPECTING A WINDOW THIS GOOD.

When we began developing this window, we knew the combination of precise technology and Marvin craftsmanship would result in a commercially viable wood window. When we saw the test results, we were amazed:

Air infiltration: .01 cfm @ 25 mph. .02 cfm @ 50 mph (10 times lower than the toughest proposed standard).

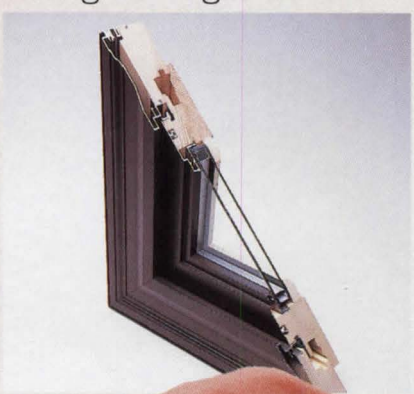
Wind load: 200 mph positive pressure. 256 mph negative pressure.

Water infiltration: 0 @ 66 mph.*

U values: As low as .22.

R values: As high as 4.55.

In engineering this window to open two ways, we engineered it to perform better than any commercial wood window on the market. It didn't just meet commercial standards. It shattered them.



MARVIN'S MASTERPIECE.

We didn't compromise the way this window looks. If anything, we raised our already high standards a bit.

Pride. Attention to detail. Beautiful western Ponderosa pine. All the traditional Marvin trademarks are here. So, too, are a variety of styles, including Round Tops and a simulated double hung. There's even a tilt-only Magnum Hopper and an authentic double hung.

The lines are long and graceful. And versatile. The Marvin Magnum Tilt-Turn can bring beauty and performance

*Test results for 48" x 64" Magnum Tilt-Turn.

THAT THREE GOOD

to high-rise, low-rise, hospitals, schools or office buildings.

HERE'S WHAT YOU GET STANDARD. PLUS A FEW OPTIONS.

Every Tilt-Turn comes with tough, heavy-duty hardware, including adjustable hinges and locks for a perfect fit. For an extra tight seal, we weld the weatherstripping at all four corners.

The wood is pressure treated with insecticide and water repellent solution to protect against rot and decay.

Then there are options. Like maintenance-free exterior finishes (a medium bronze cladding or Polycron™).

Or glazings. Marvin Magnums are available in single pane, 7/8" insulating, 1" insulating, solar

bronze, solar gray, solar cool, Low E, or Low-E with Argon. And sizes. Tilt-Turns are available from 17"x 23" on up.

Just as important is the option these windows give you to explore new applications. No window is better suited to renovation. No window performs as well in new construction.

Take a good look at this window that opens two ways. Then, for more information, or the name of your nearest Marvin distributor, call toll-free **1-800-328-0268** (in Minnesota 1-612-854-1464). Or write Marvin Magnum Windows, 8043 24th Avenue South, Minneapolis, Minnesota 55420.

After all, we didn't just engineer these windows to open two ways. We engineered them to open your mind.

Circle **No. 378** on Reader Service Card

MARVIN MAGNUMS

ENGINEERED TO OPEN THE MIND.

COMMERCIAL PERFORMANCE

Tough enough for your most demanding commercial application and smart enough for residential use, Daniel Platt frostproof, commercial tiles create an integrated system for maximum ease of maintenance. Available in a wide selection of colors, finishes and associated fittings, Daniel Platt responds to your specifications. Another exclusive import of United Ceramic Tile.

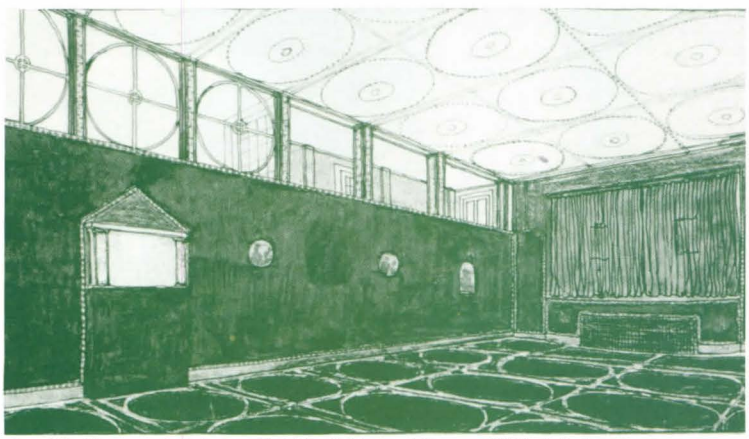
UNITED CERAMIC TILE™
ARCHITECTURAL DESIGN DIVISION

156 FIFTH AVENUE, SUITE 1002, NEW YORK, NY 10003
212 691-3600 516 582-3300 TELEX 6852084

UNITED CERAMIC TILE CORP.

Circle No. 406

P/A Calendar



Franz Schachinger

Josef Hoffmann, Palais Stocklet Music Room, Vienna 1900, July 3.

Exhibits

Through May 30
Preserving New England. Boston Architectural Center.

Through May 31
New Firms, New Forms: The Works of Tennessee's Young Architects. Memphis Brooks Museum of Art, Memphis, Tenn. (see p. 30).

Through May 31
Behind Closed Doors: Young Architects Forum 1986. The Architectural League, New York.

Through May 31
Richard Morris Hunt: Civic Architecture. Municipal Art Society, New York (see review, p. 28).

Through June 15
The Architecture of Richard Morris Hunt. Metropolitan Museum of Art, New York (see review, p. 28).

Through June 20
John Nolen 1869–1937: Pioneer City Planner and Landscape Architect. Cret Gallery, Univ. of Pennsylvania, Philadelphia.

Through June 27
Louis Kahn: Unbuilt Work in New York. NYC/AIA, Urban Center, New York.

Through July 6
Louis H. Sullivan: Unison with Nature. Octagon Museum, Washington, D.C.

Through July 20
Tokyo: Form and Spirit. Walker Art Center, Minneapolis (P/A, April 1986, p. 108).

Through September 1
Frank Lloyd Wright and the Johnson Wax Buildings: Creating a Corporate Cathedral. Renwick Gallery, Washington, D.C. (P/A, April 1986, p. 27).

May 10–August 10
Mies van der Rohe Centennial Exhibition. Museum of Contemporary Art, Chicago (P/A, February 1986, pp. 21, 23).

May 22–June 10
40 Under 40. Glen-Gery Brickwork Design Center, Washington, D.C. (see page 34).

May 29–August 31
Shaker Design. Whitney Museum of American Art, N.Y.

May 30–July 3
Arthur Erickson: Selected Projects, 1971–1985. London Regional Art Gallery, London, Ontario (P/A, May 1985, p. 26).

June 2–21
Exhibition and Benefit Auction for Architects, Designers and Planners for Social Responsibility. Max Protetch, New York.

June 6–July 12
Mies van der Rohe: Architect as Educator. Crown Hall, Illinois Institute of Technology, Chicago.

July 3–August 24
Lawrence Halprin: Changing Places. Museum of Modern Art, San Francisco.

July 3–October 22
Vienna 1900: Art, Architecture and Design. The Museum of Modern Art, New York.

Competitions

May 31
Registration deadline, Wolverine Technologies Design Competition for Vinyl Building Products. Contact Design Competition, Wolverine Technologies, P.O. Box 1864, Ann Arbor, Mich. 48106.

May 31
Deadline for First Stage entries, Pershing Square Design Competition. Contact Professional Advisor, 523 W. Sixth St., Suite 200, Los Angeles, Calif. 90014 (213) 624-5115.

June 1
Registration deadline, Coldspring/Cylburn Arboretum Open Design Competition. Contact John W. Hill, FAIA, Professional Advisor, Box 23935, Baltimore, Md. 21203 (see p. 26).

June 6
Postmark deadline, 10th Annual Halo Lighting Awards. Contact The Hanlen Organization, 401 North Michigan Ave., Chicago, Ill. 60611 (312) 222-1060.

June 30
Deadline, Downtown Development Awards. Contact Margaret DeWitt, Downtown Research & Development Center, 1133 Broadway, Suite 1407, New York 10010 (212) 206-7979.

July 15
Entry fee deadline, Los Angeles Prize, Visions of Architecture in the Year 2010. Contact Los Angeles Chapter/American Institute of Architects, 8687 Melrose Ave., Suite M-72, Los Angeles, Calif. 90069.

Conferences

May 15–16
Rocky Mountain Design: The People, Projects and Products. Denver Design Center, Denver. Contact the Design Center, 595 South Broadway, Denver, Colo. 80209 (303) 733-2455.

June 4–7
Art/Culture/Future: American Craft '86. The Oakland Museum, Oakland, Calif. Contact Conference Office, American Craft Council, P.O. Box 30756, Oakland, Calif. 94604 (415) 272-0600.

June 7–14
American Solar Energy Society '86. University of Colorado, Boulder. Contact Susan Burley, ASES, 2030 17th St., Boulder, Colo. 80302 (303) 443-3130.

June 8–11
1986 AIA National Convention. San Antonio Convention Center, San Antonio. Contact AIA, 1735 New York Ave., Washington, D.C. 20006 (202) 626-7396.

June 10–13
NEOCON 18. The Merchandise Mart, Chicago. Contact The Merchandise Mart, #830, Chicago, Ill. 60654 (312) 527-4141 (see p. 133).

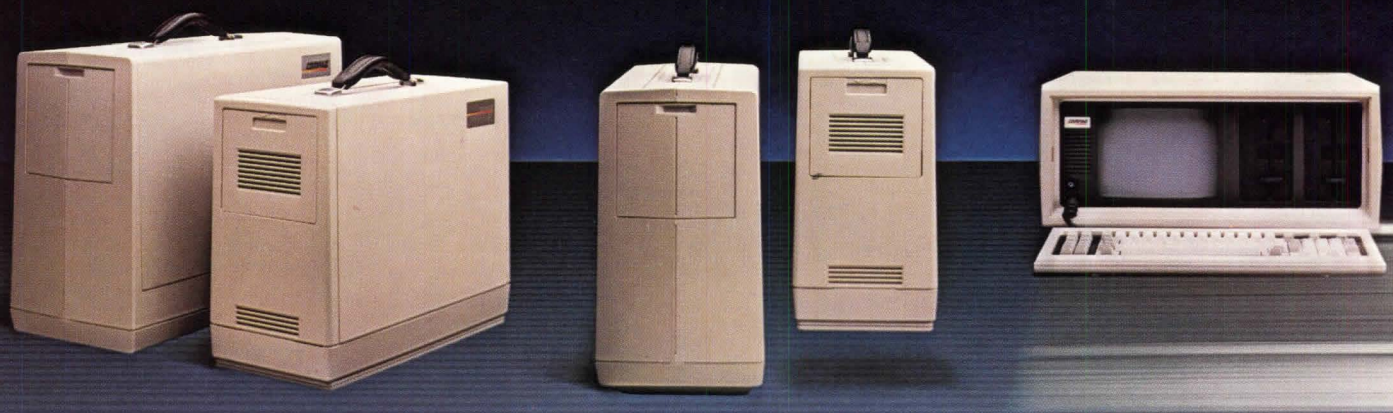
June 15–20
Insight and Outlook . . . Views of British Design, 36th Annual International Design Conference in Aspen. Contact Deborah Murphy, IDCA, P.O. Box 664, Aspen, Colo. 81612 (303) 925-2257.

June 20–22
Construction Specifications Institute Conference/Exhibit. Los Angeles Convention Center, Los Angeles. Contact CSI, 601 Madison St., Alexandria, Va. 22314-1791 (703) 684-0300.

June 23–27
A/E/C Systems. McCormick Place, Chicago. Contact Conference Director, A/E/C Systems '86, P.O. Box 11318, Newington, Conn. 06111 (800) 237-3600.

July 16–19
American Society of Interior Designers Annual Conference and International Exposition of Designer Sources. Century Plaza Hotel, Los Angeles. Contact ASID National Headquarters, 1430 Broadway, New York, N.Y. 10018 (212) 944-9220.

At last, the world's best-selling portable computer has a little competition.



It's 30% smaller

17% lighter

400% faster

Introducing the remarkable new COMPAQ PORTABLE II

Now there's a portable personal computer so small, so light, and so fast it defines a new industry standard. From the same company that set the standard—COMPAQ.®

The new advanced-technology COMPAQ PORTABLE II™ has all the advantages of the world's best-selling full-function portable—the original COMPAQ Portable—plus it's even more portable. And it's far more powerful than most desktop computers.

With its 80286 microprocessor, the COMPAQ PORTABLE II can run all the popular business software written for IBM® Personal Computers. At speeds *three to five times faster* than the COMPAQ Portable, IBM PC/*XT*™, and other compatibles.

It's more computer in less space

Never before has a computer this small been capable of so much. Making the COMPAQ PORTABLE II 30% smaller and 17% lighter—with no reduction in monitor size and a big gain in functionality—was an engineering triumph. The result is a full-function, advanced-technology personal computer that's easy to take on business trips or carry from desk to desk.

A computer for now and for the future

The COMPAQ PORTABLE II excels in compatibility. And because of its standard 360-Kbyte diskette drive format, your data diskettes will be fully interchangeable with other COMPAQ, IBM, and compatible personal computers.

Expandability? An optional 10-Megabyte fixed disk drive stores over 5000 pages of data. RAM expands to 2.1 Megabytes without an expansion slot, and with one expansion slot RAM can expand to 4.1 Megabytes. Since interfaces for the most popular peripherals are already built in, the two expansion slots can be used for *connecting* your computer to others: add a modem, a networking board, or a board for communicating with your mainframe.

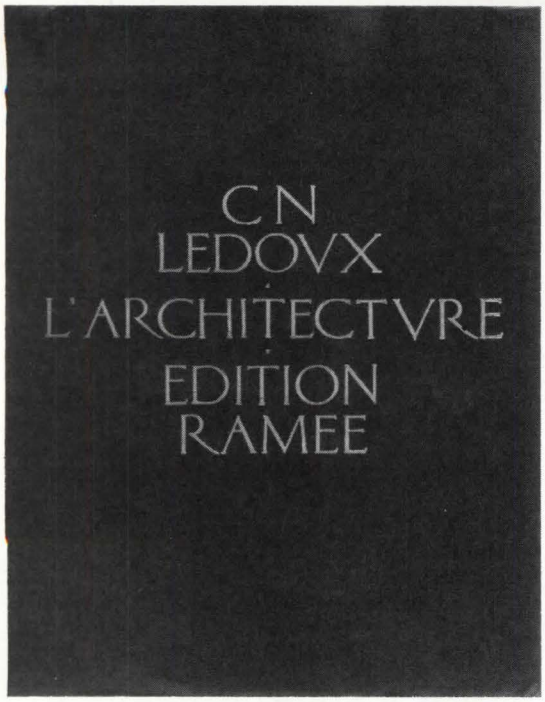
No compromises

The COMPAQ PORTABLE II puts tremendous computing potential within the grasp of every computer user. It's backed by the service and the support of over 2900 Authorized COMPAQ Computer Dealers worldwide. Plus, it's made by the undisputed world leader in portable personal computers. And for that title, there's no competition.

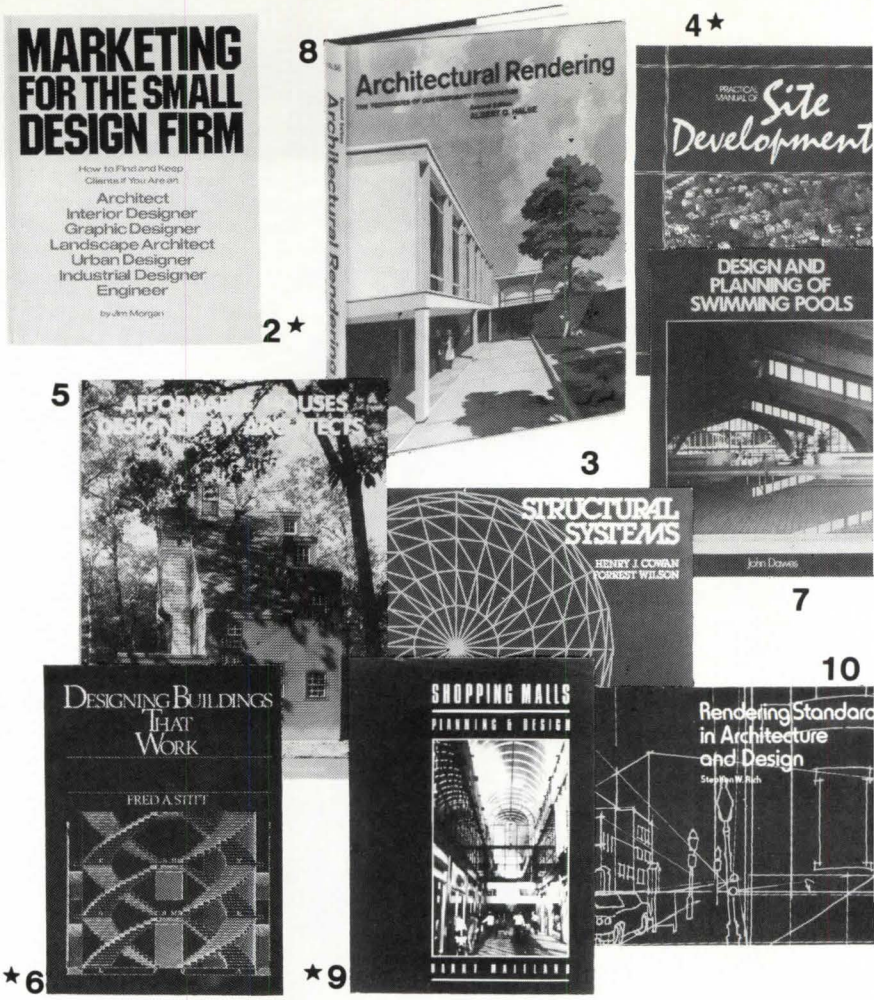
For the name of the dealer nearest you, call toll-free 1-800-231-0900 and ask for Operator 16. In Canada, call (416) 449-8741. In Europe, telex 84117898630AB; 898630 COMPAQ TTX D.

It simply works better.

COMPAQ PORTABLE II™



1 The most important and beautiful book on the architecture of Ledoux.



Progressive Architecture BOOK STORE

Each book has been selected for its usefulness to you in your professional practice. **Prices slightly higher in Canada. Foreign orders must be accompanied by payment.** It is not necessary to send payment with the order. Circle appropriate numbers on the Reader Service Cards in the back of this issue, add your name and address and mail. Local sales tax **must** be included with payment. Prices subject to change. **For faster service, send the card in an envelope to:**

Marie DeFelice
Progressive Architecture
600 Summer Street
PO Box 1361
Stamford, Ct. 06904

P/A Back issues

A limited supply of the following issues of P/A are available at $7.00 per Copy. **Check MUST accompany order!** Connecticut Residents Add 7½% Sales Tax.

April	Maki/Treatment Centers/Energy POEs and HVAC
March	Special Issue: Foster's HongkongBank/ British High-Tech
February	Two Churches/Berlin's IBA/London Docklands
January	33rd Annual P/A Awards
December	Beeby/Taveria/Jahn/Gehry/Entrances
November	Adaptive Reuse/Tax Credits/Substitute Materials

1 C.N. Ledoux: L'Architecture, Edition Ramee

324 pp., illus. . . . $55.00

C.N. Ledoux: L'Architecture is the finest monograph of Ledoux's work in circulation. Among the projects in this edition is the Town of Chaux and other Ledoux designs, inspired by his belief that a building should be characterized by its functions. It is reprinted as one volume, including the first English translation of Ledoux's "Prospectus" and an introduction by Anthony Vidler.
Circle B601 under Books.

NEW★

2 Marketing for the Small Design Firm

by Jim Morgan
159pp., illus. . . . $27.50

Geared specifically for firms with ten or fewer employees, this is detailed, proven advice for getting more business with the budget you have to work with. Sample charts, forms, checklists, letters, tips for better promotion and more.
Circle B602 under Books.

3 Structural Systems

By Henry J. Cowan and Forrest Wilson
256 pp., illus. . . . $16.95

This is a comprehensive guide to preliminary structural design using a minimum of mathematics and numerous illustrations to describe structural forms and their mathematics. It has a strong emphasis on graphic presentation and is an instant-access reference to structural design. Full consideration is given to the internal and external forces that a building must withstand, and the interaction of structural and environmental design.
Circle B603 under Books.

NEW★

4 Practical Manual of Site Development

by B.C. Colley, R.C.E.
220pp., illus. . . . $37.50

This book is the comprehensive reference source for those involved in the civil engineering design of land development projects. It presents the political, economic and construction considerations as well as physical limitations of any such project. Architects, planners and developers will find it very helpful for understanding the various factors engineers must consider and the problems they must solve.
Circle B604 under Books.

5 Affordable Houses Designed by Architects

Edited by Jeremy Robinson,
168 pp., illus. . . $44.50

This lavishly illustrated volume shatters the myth that architect-designed houses are more costly than developer-built houses. The superb photographs, floor plans, drawings, and details of interiors and exteriors present a wealth of ideas on how to construct beautiful and unique houses within limited budgets.
Circle B605 under Books.

NEW★

6 Designing Buildings That Work

by Fred A. Stitt
244pp., illus. . . . $32.50

Designers, architects and others concerned with buildings can improve upon the *building plan process* by using "high speed design" rather than the hit-or-miss intuitive planning methods of the past. Proven techniques for predesign, programming, planning methodology, planning rules of thumb and systematic problem solving.
Circle B606 under Books.

7 Design and Planning of Swimming Pools

By John Dawes,
276 pp., illus. . . . $52.50

A comprehensive manual that describes the essential characteristics and consequent design requirements of every type of pool imaginable. Also deals in great detail with more technical matters, such as structural problems and how to solve them, finishes, filtration, circulation and water treatment, heating and ventilating.
Circle B607 under Books.

8 Architectural Rendering: The Techniques of Contemporary Presentation

By Albert O. Halse, 326 pp.,
illus., 2nd edition, 1972 . . . $69.00

This completely up-dated revision of the most widely used guide to architectural rendering covers all working phases from pencil strokes to finished product — and shows how to obtain the desired mood, perspective, light and color effects, select proper equipment and work in different media.
Circle B608 under Books.

NEW★

9 Shopping Malls: Planning & Design

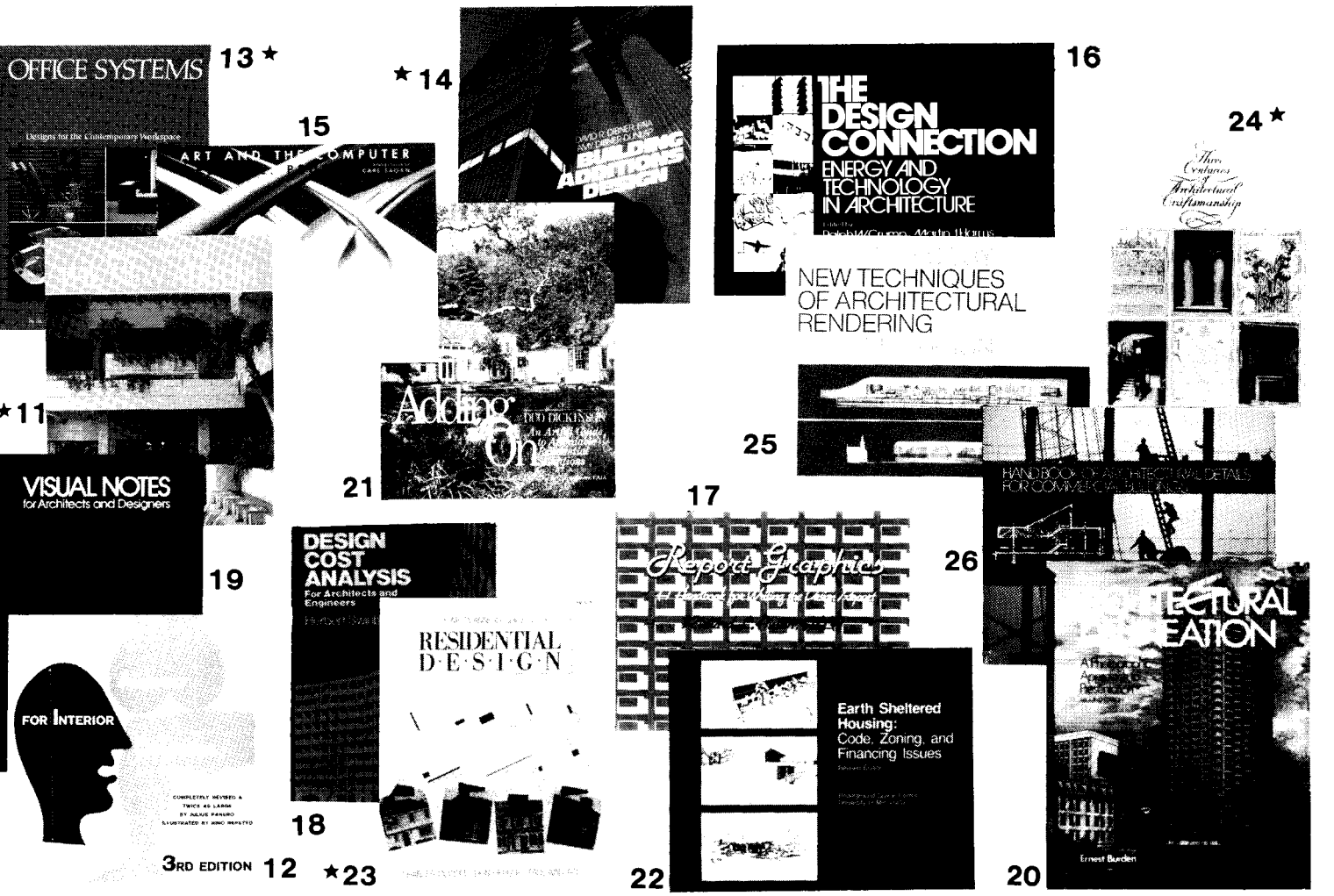
by Barry Martland
183 pp., illus. . . . $49.95

This book presents a dynamic and rapidly evolving building form, concentrating on two aspects — design and impact. Analyzing over one hundred examples of malls, the author traces the way in which their design has evolved. Amounts to the most comprehensive and up-to-date study available on this subject.
Circle B609 under Books.

10 Rendering Standards in Architecture and Design

By Stephen W. Rich
340 pp., illus. . . . $32.50

Organized for quick reference, this book shows how to make drawings rapidly and accurately. Easy-to-read charts and step-by-step instructions guide you through each phase of perspective development. Clear explanations of special terms help understanding theories and methods presented.
Circle B610 under Books.



NEW★

1 The New Atrium

Michael J. Bednar, AIA
8pp., illus. . . . $37.50

th thorough coverage of the role the new atrium in urban planning, chitectural design, and historic eservation, this guide vividly dem- strated the exciting and versatile sign possibilities of large-scale ia. The author shows how atria n be utilized to enhance the de- gn of cities and make them more able, investigates current techni- l and code considerations, and layzes the potential of the atrium energy conservation.
rcle B611 under Books.

2 Anatomy for Interior Designers, 3rd Ed.

Julius Panero
6 pp., illus. . . . $19.95

is book has always been considered ng proof that statistics need not be ll and that a useful reference book n be a joy to use. New text and ditional drawings are informative d humorous. Covers areas on verti- l circulation, lighting, hardware, ors, windows and openings.
rcle B612 under Books.

NEW★

3 Office Systems

Sandra Edwards & the Editors of dustrial Design Magazine
6pp., illus. . . . $49.95

is book encompasses both the stems and individual components leading manufacturers and in- udes: partitions; furniture for elec- onic workstations; storage stems; chairs; tables; filing cabi- ts; lighting fixtures; accessories. photos are complimented with aptions supplying designers mes, design firm and client, de- ling the purpose of each piece or stem component.
rcle B613 under Books.

NEW★

14 Building Additions Design

By David R. Dibner, FAIA &
Amy Dibner-Dunlap
204 pp., illus. . . . $39.95

This book will help architects, engineers and building owners make better decisions about whether or not to build an addition to a nonresidential building, and once that decision is made, about how to do the job in an efficient, economical way.
Circle B614 under Books.

15 Art and the Computer

By Melvin L. Prueitt
246 pp., illus. . . . $34.95

Provides a report on some of the fine works of art being produced by artists using computers. It discusses problems in computer picture production and explains how they have been solved. Also demonstrates various methods of displaying scientific data and mathematical formulations that often turn out to be quite aesthetic.
Circle B615 under Books.

16 The Design Connection

Edited by Ralph W. Crump
and Martin J. Harms
184 pp., illus $22.50

This book probes the relationship of formal architectural design to both building technology and human values. Locational, climatic, cultural, and historical viewpoints are all considered in depth. It bridges the gap between architectural theory and practice.
Circle B616 under Books.

17 Report Graphics, A Handbook for Writing the Design Report

By Richard L. Austin, ASLA
159 pp., illus. . . . $24.50

Step by step this book shows how to develop and combine artwork, specifications and written text into reports that "sell." It even explains how to organize and present audiovisual reports. No other source currently available can help you create more distinguished reports.
Circle B617 under Books.

18 Design Cost Analysis for Architects & Engineers

By Herbert Swinburne,
317 pp., illus. . . . $35.95

This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the design stage when the potential for controlling costs is greatest.
Circle B618 under Books.

19 Visual Notes for Architects & Designers

by Norman Crowe & Paul Laseau
216 pp., illus. . . . $24.95

Demonstrates how to make rapid, notational sketches that serve as visual records for future reference, improve understanding and facilitate the development of ideas. How to greatly expand knowledge of a subject beyond what is gained through observation or verbal representation alone.
Circle B619 under Books.

20 Architectural Delineation, A Photographic Approach to Presentation

By Ernest Burden
280 pp., illus. . . . $44.50

This masterful guide thoroughly updates the author's innovative method for using photographic techniques in delineation. He discusses a valuable new application of the photo-layout technique. Rendering projects shown in the original edition have been replaced by up-to-date projects and 16 pages of full color projects have been added.
Circle B620 under Books.

21 Adding On

By Duo Dickinson
177 pp., illus. . . . $35.00

This book offers a multitude of ideas to help both architect and homeowner. Rejecting the inevitability of standardized design solutions, the author proves that the thought and care of good design can create unique, effective and beautiful improvements that meet today's needs.
Circle B621 under Books.

22 Earth Sheltered Housing: Code, Zoning, and Financing Issues

By Underground Space Center,
University of Minnesota
143 pp., illus. . . . $14.95

This is an updated version of a U.S. Dept. of Housing and Urban Devpt. study revealing the extent of earth sheltered housing restraints and how government action can ease them and encourage such structures. Constraints by restrictive building codes and zoning ordinances are detailed. The major issues of concern to code and zoning officials are clarified.
Circle B622 under Books.

NEW★

23 Home Planners' Guide to Residential Design

by Charles Talcott, Dan Hepler &
Paul Wallach
218 pp., illus. . . . $19.95

This guide demonstrates ways to ensure that the design of one's home is functional, technically feasible and aesthetically pleasing. Filled with helpful tips and realistic guidelines, the book explains the basic principles of residential design and provides step-by-step procedures.
Circle B623 under Books.

NEW★

24 Three Centuries of Architectural Craftsmanship

by Colin Amery
240 pp., illus. . . . $21.50

A carefully chosen series of drawings that demonstrate, by showing the details as well as the whole nature of the buildings, the skills of the craftsmen and the skills of the architect. Buildings included from the 17th, 18th and 19th centuries and examples are taken from the domestic and public building worlds.
Circle B624 under Books.

25 New Techniques of Architectural Rendering

By Helmut Jacoby
167 pp., illus $16.95

This book contains a broad, international selection of architectural drawings that represent the most outstanding modern contributions to the field. Mr. Jacoby has given consideration to examples that interpret architectural designs in detail, for the layman as well as the specialist.
Circle B625 under Books.

26 Handbook of Architectural Details for Commercial Buildings

By Joseph DeChiara
506 pp., illus. . . . $69.50

This Handbook illustrates and examines the full range of architectural details currently used for commercial buildings. Part I features plans, elevations, and sections for office buildings, banks, retail stores, theaters, and more. Part II concentrates on architectural details. Practicality and realism are stressed.
Circle B626 under Books

Strength is Only Half the Story

Nothing operates doors more smoothly, anchors them more securely or supports them more efficiently than Rixson pivots. Far stronger than hinges, Rixson door pivots have an unsurpassed record of trouble-free performance.

But Rixson's unobtrusive pivots also assure that architectural design will not be compromised...that only the attractiveness of the entrance will be apparent, not the hardware.

Rixson-Firemark offers the most extensive line of pivots in the world. Because no one knows more about door control than Rixson-Firemark.

RIXSON-FIREMARK
9100 West Belmont Ave.
Franklin Park, IL 60131
312/671-5670

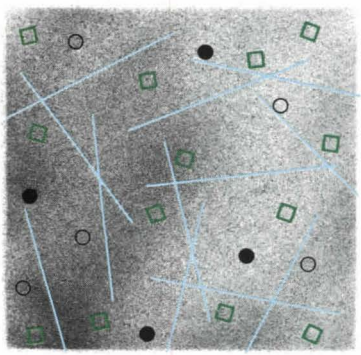
(Can.) Ltd. 43 Racine Rd.
Rexdale, Ontario M9W 2Z4
416/743-6216

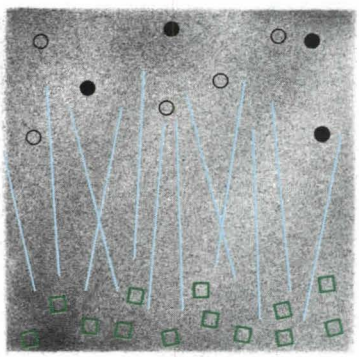
A DIVISION OF CONRAC CORPORATION

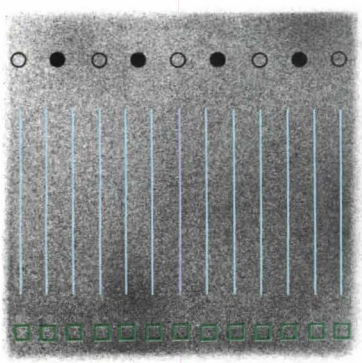
Circle No. 387 on Reader Service Card

P/A Practice

Management: Larry Paul Fuller discusses a new management strategy developed by The Coxe Group and David Maister.
Specifications: William Lohmann explains how to avoid cash flow problems on a job.







Management: Matrix for Success

The copy promoting "Master Strategies for Success"—a one-day conference for design professionals held recently in Dallas—seemed unusually strong, even as marketing for a professional seminar. Presented jointly by The Coxe Group of Philadelphia and Boston management consultant David H. Maister, the conference was billed as "a real breakthrough," the culmination of "our total experiences since 1967." Recipients of the flyer were urged to attend the conference—even if they did "nothing else this year"—to hear a revolutionary new plan for organizing and managing successful architectural and engineering firms.

When some 225 registrants convened for the event, most came with the perennial question: "Is this really something new?" And this time the answer was: "Yes." The something new—the breakthrough—is perhaps best understood in the light of consultant Weld Coxe's observation that, for a decade, various "authorities" have been counseling design firms to become more businesslike if they expect to survive in today's economy. In theory, a well-defined set of business management principles that works for one firm should also work for another firm. But conventional wisdom tells us that is not the case. "In fact," Coxe says, "for every professional service organization that is doing well under full application of business management, there are probably ten times as many professional service firms doing as well or better while operating under a rather different set of rules—or no rules at all." The breakthrough was the development of a comprehensive model that creates order out of chaos, providing for the first time a clear picture of why some firms succeed in doing things one way, while others can be equally successful doing things quite differently.

The Coxe Group model, developed over the last two years in conjunction with David Maister, is based on the premise that—despite apparent inconsistencies in design-firm success formulas—there *are* distinct categories of professional service firms, and for each category there is a best set of management strategies. A firm should first understand its own uniqueness; then, by following the model, it can adopt the strategies that fit best in order to succeed.

At the heart of the model is the notion that there are two key issues that shape professional service firms: technology—how the firm processes its work; and values—what the people leading the firm want out of what they are doing. The full spectrum of firm technologies and values forms a matrix within which the differences between firms, and the appropriate strategies for each, become more readily discernible. The matrix produces six basic firm types, each with very different forms of organization and management.

Coxe's technology spectrum, the vertical axis in the matrix, includes three firm types, ranging from "strong idea" to "strong service" to "strong delivery."

Strong Idea firms are defined as those organized to deliver singular expertise or innovation on unique projects. They operate within a context of flexibility, according to the nature of the assignment, and are usually organized around a few "stars" or "gurus" who have the last word.

Strong Service firms are characterized as those organized to deliver experienced, reliable service, especially on complex, major assignments. Their project technology is designed to apply comprehensive, multidiscipline services to clients who want to be closely involved in the process.

Strong Delivery firms are seen in the model as those organized to provide highly efficient service on more routine assignments, often to clients who seek more of a product than a service. Their project technology is designed to

(continued on page 62)

Specifications: Payment Procedure

Ultimately, it comes down to cost—the bottom line. The architect struggles with the budget, the owner is concerned with financing, and the contractor has to make a profit. Together they juggle the project cost factors, most of which are readily apparent and modifiable. Bricks and mortar are pretty obvious. If the project cost is too high, quality or quantity can be reduced—or the masonry can be replaced with less expensive construction. Less tangible are the contractor's costs of temporary facilities, submittals, insurance, and employee benefits. Other factors are almost totally hidden.

Perhaps the most elusive cost factor is the contractor's cash flow pattern. Unlike clear-cut mortgage commitments and interest rates, the contractor's cost of underwriting month-to-month construction operations is nebulous. It is a direct response, however, to project conditions stipulated by the owner and architect in the General Conditions and Supplementary Conditions. So it may be beneficial to explore some means of reducing that cost.

Most of the problems involving cash flow have been addressed by the Construction Industry Affairs Committee of Chicago since its inception in 1967. CIAC has issued numerous recommendations for improving payment procedures, speeding up change orders, reducing retention of funds, and streamlining paperwork. All of its recommendations have been developed jointly by CIAC's member organizations: Chicago Chapter AIA, Chicago Chapter CSI, Consulting Engineers Council of Illinois, Builders Association of Chicago (AGC), American Subcontractors Association (Chicago Chapter), and Mechanical Specialty Contractors Associations.

For instance, CIAC Recommendation No. 13 states that better prices will result if bidders

(continued on page 64)

Management *(continued from p. 61)*
use prior solutions repeatedly and with high reliability regarding technical, cost, and schedule compliance.

Coxe argues convincingly that these three technologies call for significantly different organizational and management strategies. According to the model, the technology of architectural and engineering firms specifically influences:

- Choice of project process.
- Project decision-making.
- Staffing at mid-level and below.
- Best markets.
- What you can sell.
- What you can charge.
- Best management style.

The three positions on the vertical "technologies" axis—strong idea, strong service, strong delivery—account for only half of the six-part matrix. The other half comes from the "values" spectrum, on the horizontal axis, which depicts two fundamental values that motivate design professionals. The key words are "practice" ("a way of life") at one end and "business" ("a means of livelihood") at the other end.

Coxe portrays the practice-centered firm as being motivated by qualitative rewards ("How did the project turn out?"), whereas the business-centered firm is motivated by quantitative rewards ("How did we do on that project?"). While admitting there always has to be some balance between practice values and business values, Coxe maintains that whichever one is primary makes a big difference (although neither is more "noble" than the other). The model isolates the following aspects of design firms as being strongly influenced by the values of those in positions of leadership:

- Organization structure.
- Organization decision-making.
- Staffing at the top.
- How you market.
- Best clients.
- Marketing organization.
- Profit strategy.
- Rewards.
- Leadership style.

The point is that the different positions—Practice-Centered vs. Business-Centered—will lead to very different choices in each of these aspects, although either direction can produce successful results. Each of the firm types can be Practice-Centered or Business-Centered with equal opportunity for high profits and good service (although the clients served may be very different). But Coxe points out three extremes that should be avoided. A firm can be so preoccupied with its "way of life" (a Practice-Centered Practice rather than the more viable Practice-Centered Business) that it simply ignores the fundamental necessities of business, such as fiscal responsibility and accountability to clients and staff. At the other end of the values spectrum, a firm can move past the viable Business-Centered Practice position to an unrealistic posture of Business-Centered Business. An example is the publicly held firm whose ownership does not include professionals and whose clients eventually rebel at the lack of strong professional orientation.

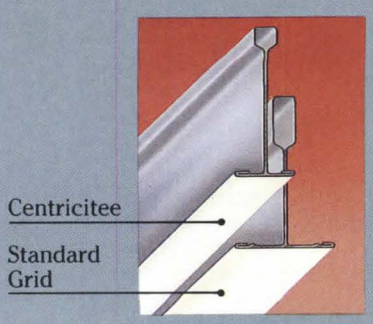
Coxe warns that firms positioned at the middle of the spectrum are also at a dangerous extreme where neither practice values nor business values are strong enough to override the firm's need to preserve itself. The firm becomes an Organization-Centered Organization—a bureaucracy—seeking to maintain its members without proper regard for the quality or marketability of its services.

A whole book could be devoted to details of The Coxe Group model (indeed, one is currently in the works), but the matrix is useful even at a basic conceptual level. Regarding the decision-making process, for example, practice-centered firms do well with consensus decisions,
(continued on page 64)

TECHNOLOGIES		
Strong Delivery	A	B
Strong Service	C	D
Strong Idea	E	F
	Practice Centered Business	Business Centered Practice

VALUES

You'll like the look, because there's less to like.



This is the Centricitee™ ceiling system. Grid so thin it virtually disappears. It's the only narrow faced, 2 hour fire-rated grid you can buy. So while there's a lot to like, there's also less to like.

DONN

Donn Corporation
Westlake, OH 44145

Circle **No. 421** on Reader Service Card

Specifications *(cont. from p. 65)*
payment. CIAC recommends (No. 13) that subcontractors' waivers for the current month accompany the application for payment in the subsequent month. Recommendation No. 19 proposes standard forms for partial and final waivers of lien.

Unit prices (No. 20) and allowances (No. 21) also affect the cost of the work and should be limited in scope and number. Unit prices should be obtained only from the apparent low bidder (prior to signing a contract) and only for unknown or otherwise undefined work. Both add and deduct prices should be established. Agreement on a fixed time period during which unit prices are effective will preclude some of the bidder's reluctance to submit reasonable numbers.

Allowances are usually employed for purchase of products (brick or hardware, for example). They establish a stipulated lump sum or unit cost amount to be included in the bids. As with unit prices, they must be clearly defined to avoid expensive confusion later. Inevitably, questions will arise on shipping costs, insurance, taxes, unloading, storage, and method of payment if they are not anticipated in the contract documents. Both unit prices and allowances should be processed as changes to the contract.

Aside from regular monthly payment procedures and retention, the greatest restriction on cash flow may be the processing of change orders. It often takes weeks or months to reach agreement on changes in the work, thereby holding up payment to the contractor or progress of the work itself. CIAC tackles change orders in Recommendation No. 7, which outlines the following procedures for their expeditious handling:

1 Minor deviations from the requirements of the contract documents, when submitted as part of shop drawings, product data, samples, or other submittals should be identified on the submittal by the contractor and authorized by the owner.

2 The conditions requiring contract modification should be fully disclosed to all involved parties at the earliest possible time.

3 Explicit instructions should be issued by the architect regarding the scope of a proposed change.

4 Each change should be identified by the architect with appropriate nomenclature to be used on document revisions, files, and correspondence.

5 The same nomenclature should also be used by the contractor and subcontractors, even if they maintain their own numbering systems.

6 The contractor should not proceed with work involving changes unless written authorization for the work has been received.

7 Pending agreement with the contractor on the details of a change order, the owner should issue another form of authorization, thereby allowing the work to proceed and the contractor to be paid.

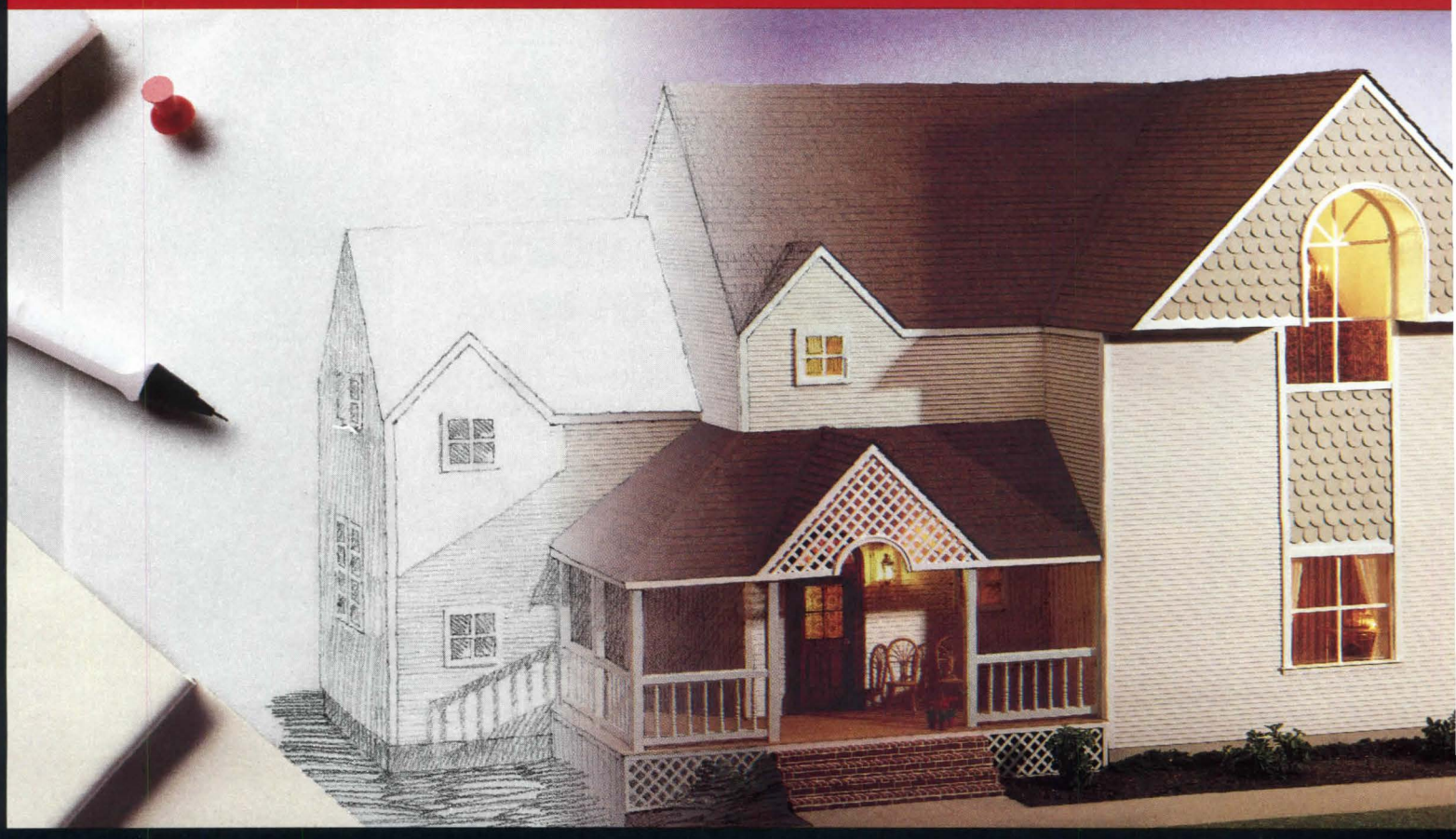
A means of implementing the last concept is under consideration for inclusion in the next edition of AIA Document A201.

Hidden costs are elusive. If you feel that the CIAC recommendations might help you deal with them, write to the Construction Industry Affairs Committee of Chicago, 1647 Merchandise Mart, Chicago, IL 60654. The binder of recommendations for $12.00 also includes specifiers' implementation guides.

William T. Lohmann, AIA, FCSI ■

The author is Specifications Manager for Murphy/Jahn, Chicago.

Introducing Restoration® Vinyl.

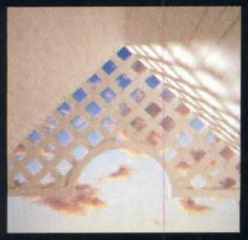


Everything You Thought Vinyl Could Never Be.

Used to be, vinyl siding looked like, well, vinyl siding. Most architects probably thought that this would always be the case. Not so.

Now there's Restoration solid vinyl siding. Restoration looks like real painted wood. You have to see it to believe it.

Budget and aesthetics often pull at a design from opposite directions. When a client not only wants the appearance of painted wood, but also the economy and durability of vinyl, Restoration solid vinyl siding provides the balance. It has all of the advantages of vinyl – lower cost, durability, low maintenance; plus all the aesthetic advantages of real wood.



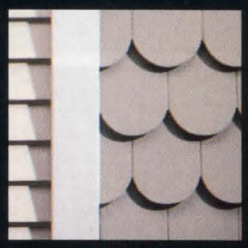
The Restoration Collection includes beaded panel and lattice.

Faithfully detailed window moldings, trim and this extra-wide corner post.

Through sophisticated technology we've achieved a smooth low gloss finish on a panel that's guaranteed to last a lifetime.* To provide flexibility, we've created the Restoration Collection, a full line of architecturally accurate vinyl accessories.

For more information on the entire Restoration Collection, call *1-800-521-9020 (in Michigan, call 313-386-0800).*

After all, seeing is believing.



Restoration Collection Great Shapes.

RESTORATION COLLECTION™

Enduring Appearance, Uncommon Economy.

This Old House

As seen on "This Old House."

*A copy of the Lifetime Warranty is available by writing Wolverine Technologies Inc., 1650 Howard Street, Lincoln Park, Michigan 48146.

Circle No. 412 on Reader Service Card

Introducing

OLYMPOS™
DELPHI™

Two new marbles from the mountains of the Gods

---

beautiful color

beautiful consistency

beautiful pricing

beautiful delivery

beautiful marketing support

---

a beautiful opportunity

for eleven of America's top marble importers

for complete information call Mr. Jose de Alvare at 1.800.USA.MARBLE

Offered exclusively thru **Onda Limited** Scottsdale, Arizona

---

a member of the Alvare Group

MEMBER - MARBLE INSTITUTE OF AMERICA

Circle No. 396

BELGIAN LINEN WALLCOVERINGS

Our newest collection offers a warm, rich range of moods for the contract or residential environment. All wallcoverings feature a class A Flame Spread Rating in accordance with the ASTM-E-84 tunnel test.

CROFTERCRAFT V®

ALASKA, WALLCOVERINGS NORTH, **CALIFORNIA,** WALL-PRIDE INC., **CANADA,** CROWN WALLPAPER CO., **FLORIDA,** CAROUSEL DESIGNS INC., **ILLINOIS,** THYBONY WALLCOVERINGS, **MARYLAND,** CAPITAL ASAM INC., **MASSACHUSETTS,** NORTHEASTERN WALLCOVERINGS, **METRO NEW YORK,** J. JOSEPHSON INC., **TEXAS,** WALL-PRIDE INC.–ROY JACOBS CO.

For distributors in your area call toll free or write Croftercraft V®, 104 West 40th St., New York 10018 1-800-341-2282.

protected by Scotchgard Fabric Protector

Circle **No. 336**

The HOLGUIN BoardBuster™ Drafting Table Solution #28:

HOLGUIN PC Solutions automate the drafting process and obsolete the drafting table.

Stop wasting time chalking up long hours at the drafting table. Get the HOLGUIN BoardBuster and free yourself for more profitable activities...like racking up productivity and hustling new business.

The BoardBuster is a powerful, easy-to-use CAD software solution that runs on versatile, low-cost IBM PC compatible hardware. And it won't leave you behind the 8-ball when you want to expand. BoardBuster can grow from a single workstation to a fully-integrated, multi-user, multi-functioning network quickly and economically.

So get on the stick. Get the HOLGUIN BoardBuster and shoot the lights out on the competition...and on your drafting table.

For more information and a Free BoardBuster Poster, send your business card to — Attention: Bill BoardBuster.

HOLGUIN

5822 Cromo Drive • El Paso, Texas 79912
1 800 CAD-PDC1, In Texas 1 800 592-1061

HOLGUIN has sales offices throughout the U.S., and is represented in over 27 countries worldwide.

See all the HOLGUIN Real World Solutions at A/E Systems '86, Booth 737.

Circle **No. 356** on Reader Service Card

GUARANTEED. FOREVER.

ALKCO LITTLE INCH™ that's all they had to write about undercabinet lighting

As long as there's electricity, ALKCO LITTLE INCH™ undercabinet lights will still be working. Designing a commercial "heirloom" was the last thing we had in mind. We simply wanted the first useful lights that would slip under cabinets in barely one inch of vertical. Naturally, we made them out of sturdy cold rolled steel, coated them with bonderized enamel and installed electrical components designed to our own exacting specifications.

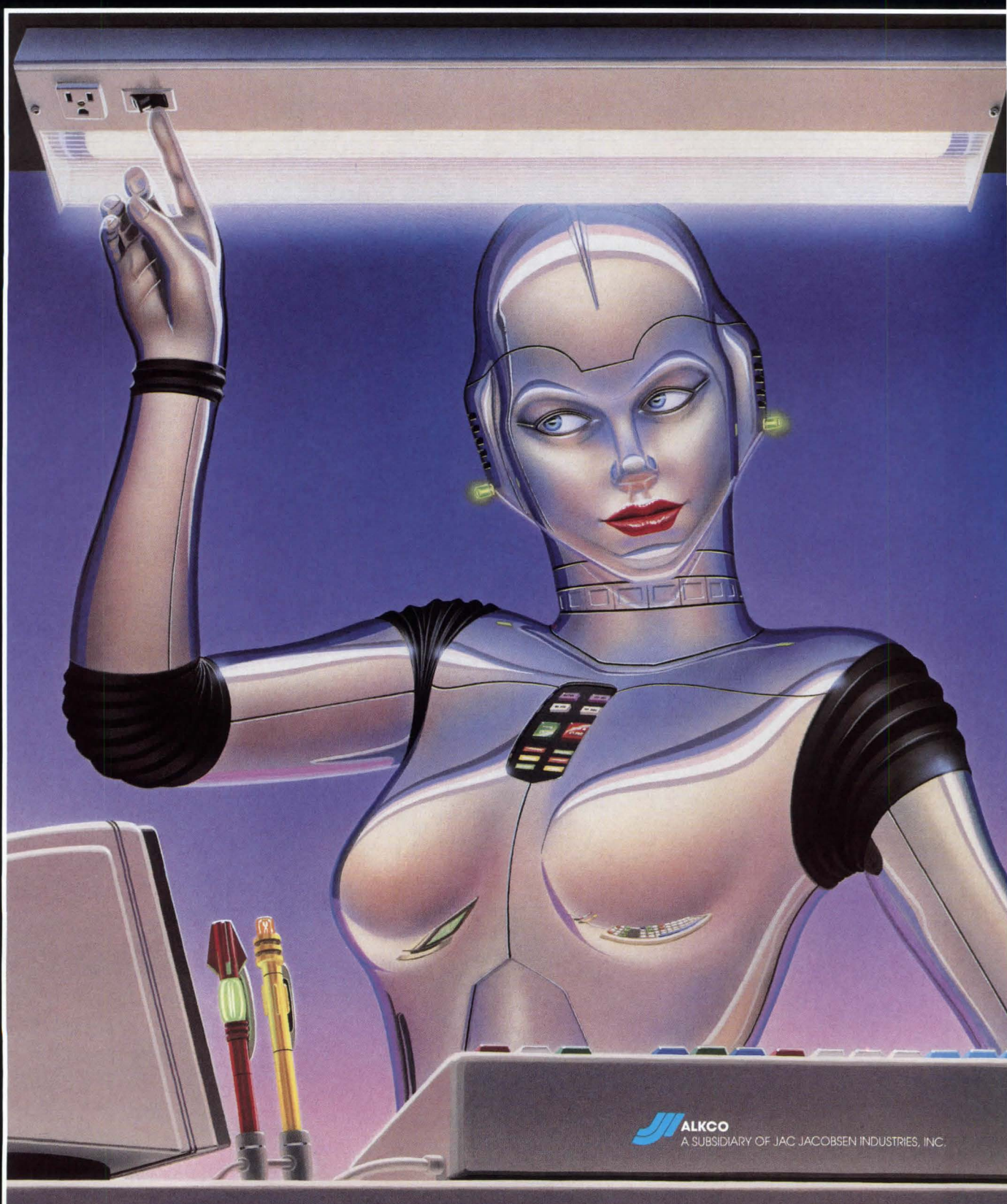
Our unique lens of proprietary ALKCORYLIC™ maintains maximum light transmission and won't brittle or yellow. Options are unlimited — lengths from 12" to 42", output from 8 to 26 watts, superior incandescent or white light rendering from exclusive ALKCOLUX™ lamps. Rocker switches, plug-in models, grounded convenience outlets, fuses, stainless steel construction and more.

But our lifetime guarantee is standard equipment. So all you have to write for undercabinet lighting is Alkco Little Inch. Like they did for our refurbished Statue of Liberty . . . and for homes, schools, offices, hospitals and institutions . . . everywhere they wanted an undercabinet light to last through the next millenium.

P.S.: Please keep our other contemporary classics in mind . . . VARILUX™ three-level task lights . . . LINCANDESCENTS™ ribbons of incandescent warmth for accent ambiance . . . WALLSCAPES™, soft-lighting wall-mounted fluorescents.

For information, contact your Alkco representative or distributor, or write ALKCO, 11500 West Melrose Ave., Franklin Park, ILL 60131.

ALKCO
where quality comes to light



ALKCO
A SUBSIDIARY OF JAC JACOBSEN INDUSTRIES, INC.

Circle No. 319

Frank Bodoni, regular guy

Bodoni Bold (400%)

Bodoni, Small Face (35%)

Bodoni Italic (20 degrees)

Bodoni Condensed
(50% horizontal x 130% vertical)

Bodoni Expanded
(110% horizontal x 35% vertical)

Bodoni Reversed

Bodoni Edited

Canon presents the many faces of Bodoni.

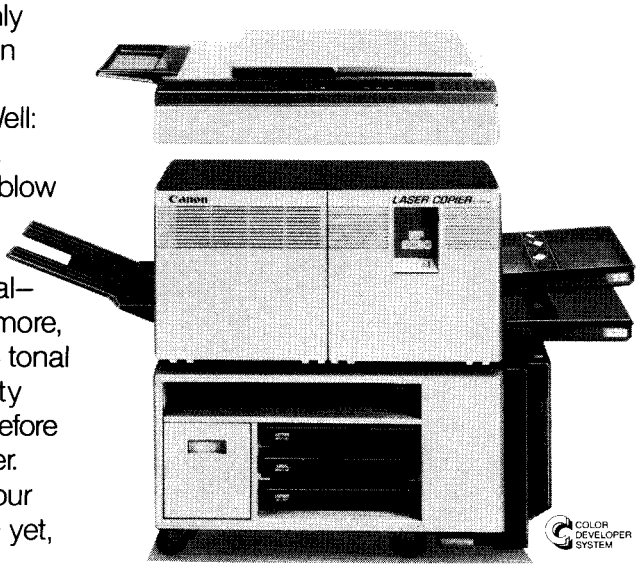
Only the Canon Laser Copier System gives you so many ways to be creative.

Canon presents a copier that does things no copier has ever done before. In fact, it does a lot of things stat cameras and studios do–only faster and cheaper. It's the Canon NP-9030 Laser Copier System.

And just what can it do? Well: Stretch an original, or squeeze it. Slant it. Shrink it down to 35%, or blow it up to 400%. Turn a positive into a negative. A negative into a positive. Edit out part of an orginal–or edit in part of another. What's more, the NP-9030 digitally resolves 64 tonal gradations, producing high-quality position-ready half tones–never before obtainable from an ordinary copier.

And while the NP-9030 is our most advanced copying system yet, it also breezes through everyday copying jobs. You get crisp, clear copies up to 11″ x 17″, and 30 letter-size copies per minute.

The Canon NP-9030 Laser Copier System. It'll put a smile on *your* face.



Canon NP 9030
LASER COPIER SYSTEM

For more information about the NP-9030, call toll free **1-800-OK CANON.** Or write **Canon, U.S.A.,** P.O. Box 5023, *Clifton,* N.J. 07015.

NAME

TITLE COMPANY

ADDRESS

CITY STATE ZIP

TEL. (82) PAR 0586

The Canon Laser Copier System.

Canon
SAMMY DAVIS JR. GREATER HARTFORD OPEN

Come see the Canon Sammy Davis, Jr. Greater Hartford Open July 3–6 or watch it on CBS Television

Summitville®

More design options and all the benefits

Summitville's extensive choice of colors, shapes and styles has a solution for the most demanding architectural requirements.

It's the ceramic tile that can make your projects something extra special.

Summitville has a natural *beauty* that other floors can't match. A durability carpeting, vinyl or wood won't provide. And quality that's hard to find in other floor products.

Summitville's Quarry Tile, shown above, is extruded to provide a tough, durable surface that's fireproof, dentproof, fade-proof and highly resistant to stains. It's easy to maintain and keeps its good looks for years. Even in heavy traffic areas like lobbies, restaurants and shopping malls.

See Sweet's File 9.18/Sum for our complete line of ceramic tile, including custom colors, wall murals and decorative insets.

Specify Summitville. The ceramic tile that adds more beauty and value to any installation.

Summitville's Quarry Tile is available in six color ranges, with smooth or abrasive surfaces. Choose from seven shapes plus trim units.

Summitville®

Summitville Tiles Inc. • Summitville, Ohio 43962

Circle **No. 398** on Reader Service Card

A Stanley door makes any house better.

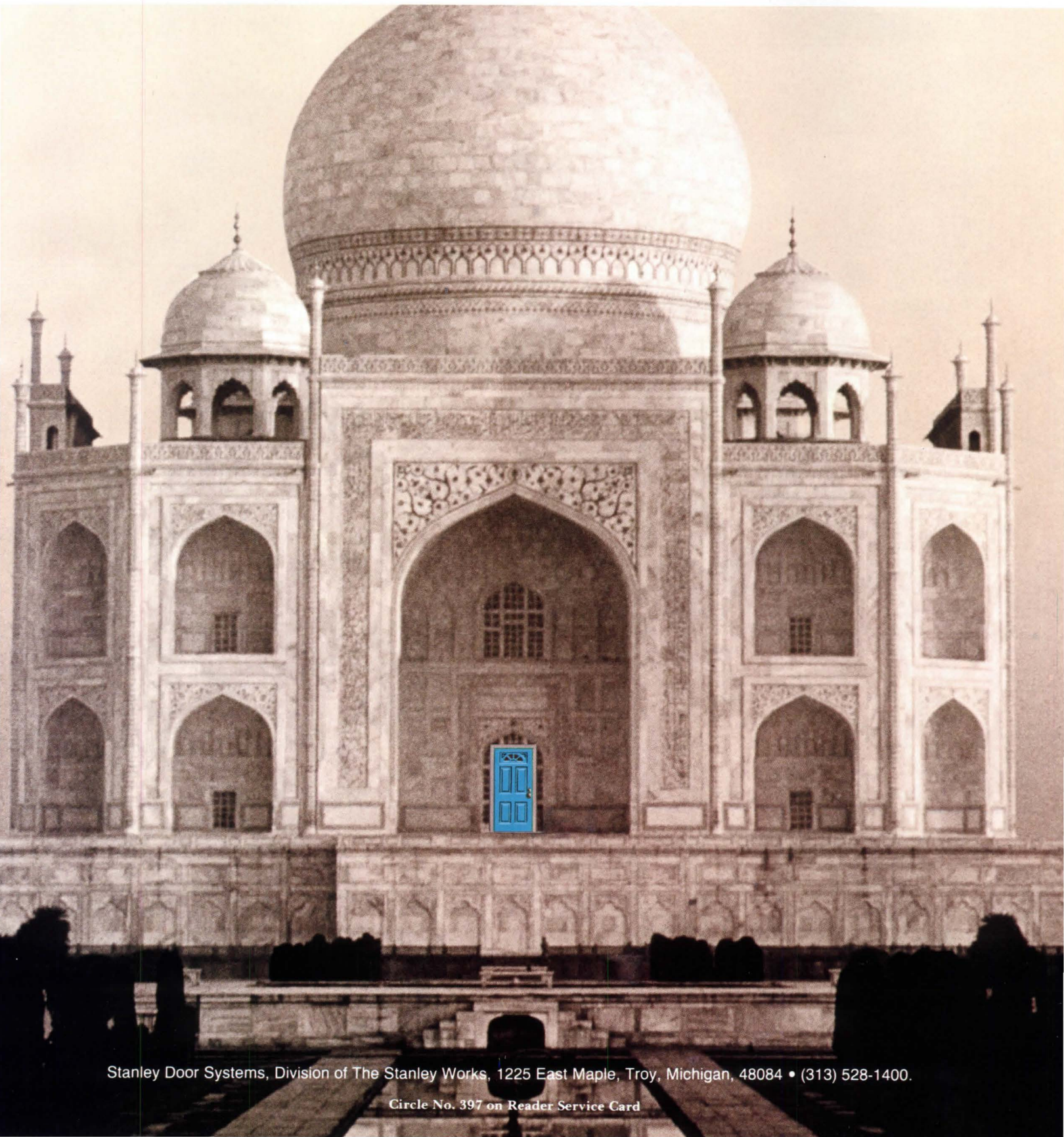
Energy efficiency. Security. High style without high cost. These are the features your clients demand from a door system. And from you.

It is exactly this combination of quality and value that has made Stanley steel door systems the choice of contractors, architects and homeowners alike.

Stanley door systems are engineered to the highest standards and crafted for long-lasting beauty. And once they're installed, they won't warp, crack, split or rot, with energy efficiency far superior to wood doors.

So when you're looking for the perfect door for that little house in the country, call Stanley, the Total Door Company. The name known and trusted for quality for over 140 years.

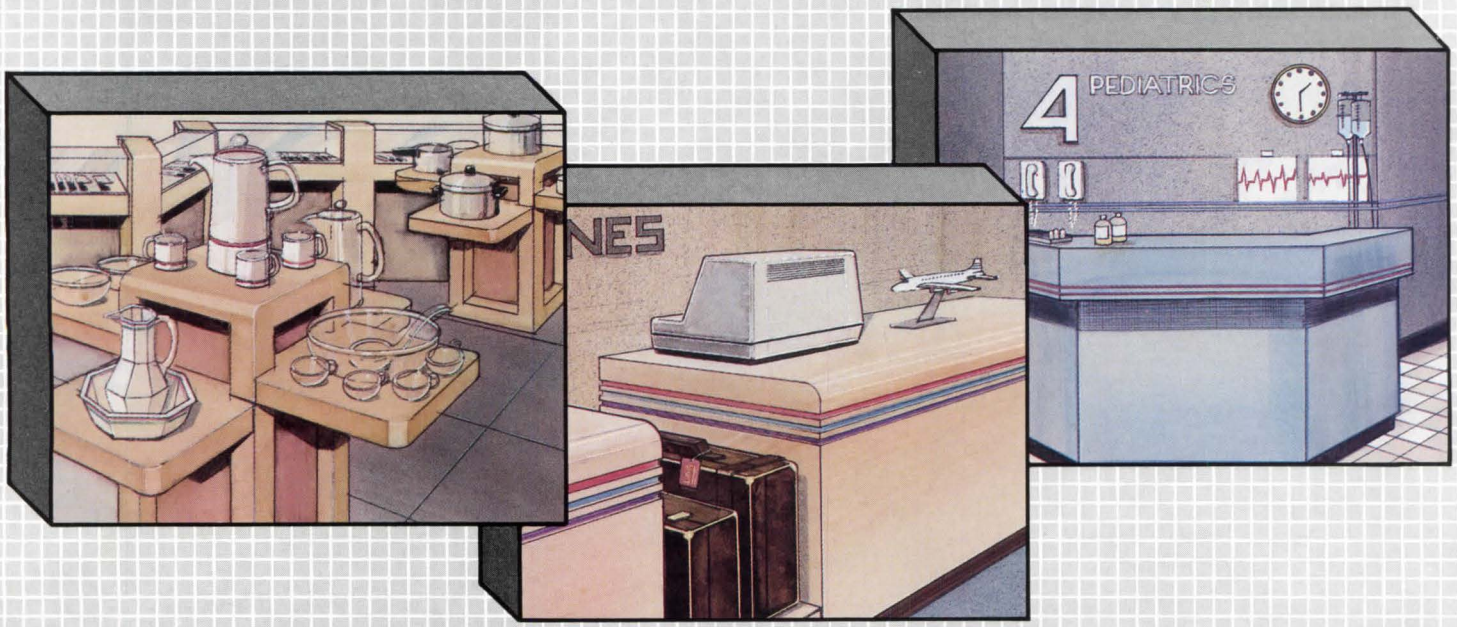
STANLEY
helps you do things right.®



Stanley Door Systems, Division of The Stanley Works, 1225 East Maple, Troy, Michigan, 48084 • (313) 528-1400.

Circle No. 397 on Reader Service Card

More options in design. More options in applications.



For architects, specifiers and designers, freedom of choice is the fuel that fires the imagination.

When Westinghouse introduced the world to plastic laminates in 1908, we opened a whole new set of options for the creator of innovative interiors. Micarta laminate sparked a new era in the treatment of interior spaces.

Micarta hasn't stopped creating options. And we've been stoking the fires of imagination ever since.

Micarta is available in 154 colors, patterns, and woodgrains. Because Micarta matches or complements leading hard and soft floor and wall coverings, it is a perfect ingredient for achieving fully integrated interiors.

Micarta is so tough and long lasting it provides superior wear resistance and easy maintenance in virtually any application—even where special grades are required.

Decorative and durable, Micarta is the perfect surface for doors, partitions, fixtures, and counters —any area exposed to constant wear—whether in hotels, banks, hospitals, stores, restaurants, or other public spaces.

Micarta laminate. The choice that gives you freedom of choice.

Don't just specify laminate. Specify Micarta.

MICARTA SPECIAL GRADES

Available for special applications

Fire Retardant:
Meets or exceeds all NEMA standards and building code requirements for a Class 1 rating.

Armortop:
A remarkably tough surface for areas subject to extremely hard use.

Anti-static:
An ideal laminate for use with computer cabinetry and in applications close to electrical energy.

Access Flooring:
Resistant to high traffic mars and scuffs; impervious to dirt and dust.

Engraving Stock:
Engraving stock is available in many color options that can graphically coordinate all signage to your interior statement.

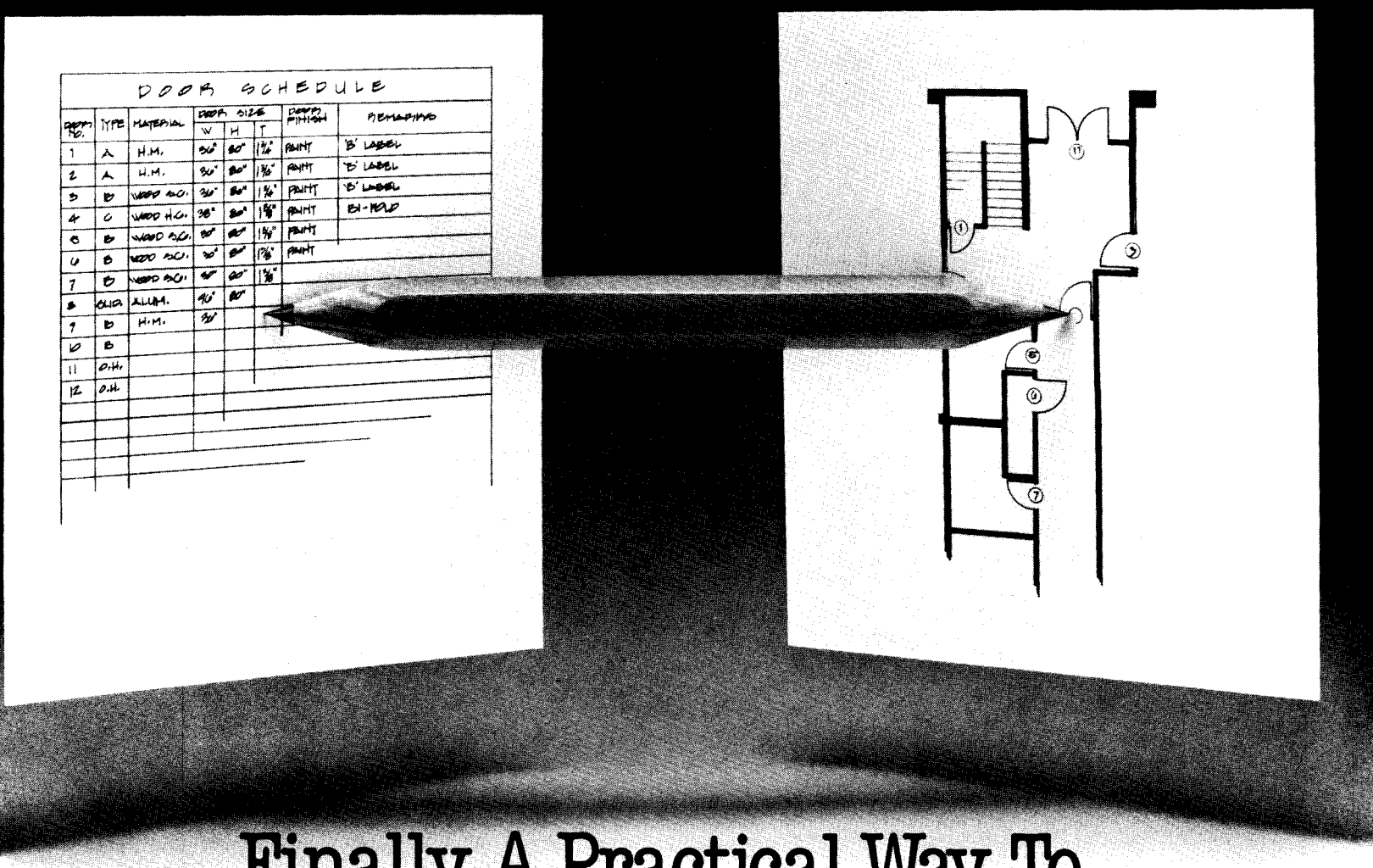
MICARTA®

You can be sure...if it's Westinghouse

OVERNIGHT LAMINATE SAMPLE SERVICE:
1-800-MICARTA

WESTINGHOUSE
MICARTA DIVISION
Hampton, South Carolina 29924

Circle **No. 413** on Reader Service Card

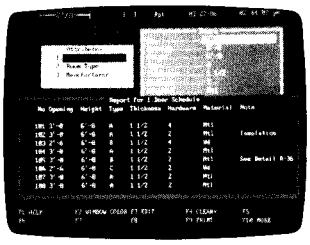


Finally, A Practical Way To Integrate Drawings And Data.

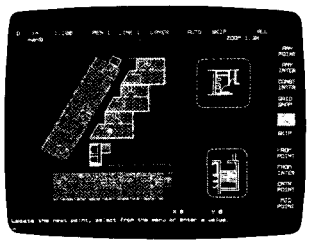
Introducing Drawbase™.

In today's architectural marketplace, you need more from a CADD system than just pretty pictures. You need precise, up-to-the-minute graphics and data.

Drawbase is the first system of its kind. The standard by which future CADD systems will be measured. That's because Drawbase is the only PC-based system to integrate advanced color graphics and powerful data management into one interacting system. So changes you make graphically are automatically reflected in the data base, and vice versa. You get better information, so drawings and reports are more complete. All at a cost that will keep your business manager smiling.



The data management screen, responding to changes in graphics, provides current reports, calculations, and system information...



...while the full color graphics screen provides the user with advanced drawing creation and manipulation tools.

Drawbase Gives You The Whole Story.

Drawbase helps you analyze and report on your designs. You give your clients the kind of valuable data they need to understand the whole picture. Accurate square footage, cost analysis, conformance to the program, income projection, and more. Plus, information is updated automatically as the design evolves according to client and market demands.

The More, The Better.

More information. Better information. No PC-based architectural tool gives it to you like Drawbase. Get it as software alone, or in a package featuring either the IBM AT or HP Vectra PC.

Drawbase from SKOK. Be practical about it and get all the facts by calling 1-800-225-SKOK. Or write SKOK at 222 Third Street, Cambridge, MA 02142.

Drawbase SKOK™

IBM AT is a registered trademark of International Business Machines Corp.
HP Vectra is a registered trademark of Hewlett-Packard.

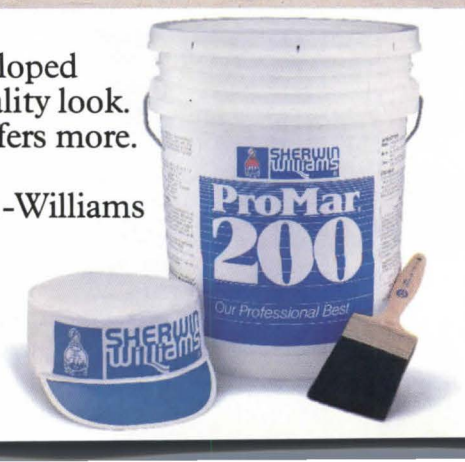
Circle **No. 388** on Reader Service Card

Introducing ProMar® 200. Sherwin-Williams' highest quality professional paint.

You asked Sherwin-Williams for a top-quality paint, so we developed ProMar 200 interior finish. It's easy to apply and gives your job a quality look.

And because ProMar 200 is the top of our professional line, it offers more. Better hiding. Excellent touch-up.

Ask for our professional best, ProMar 200. Now at your Sherwin-Williams store. Or call **1-800-321-8194.** (In Ohio, **1-800-362-9181.**)



ASK SHERWIN-WILLIAMS.
PROFESSIONALS DO.

SHERWIN WILLIAMS

Circle **No. 395** on Reader Service Card

When it comes to innovation, we show our true colors.

When we created the revolutionary Bali Micro® Blind, we expected imitators. To stay a step ahead, we continually create new colors with you in mind. And we custom-make our blinds to fit any size or shape window, providing dependable service and prompt delivery. For a free copy of our Commercial Design brochure on how Bali Blinds help you create colorful windows, call 1-800-233-8756.

BALI®

The name to look for in blinds.™

JOINT VENTURE

Partner your most adventurous designs with Color Quest™ surfacing. Eight brilliant new pastels, in standard decorative laminates, formable SOLICOR® colorthrough sheets, matching tambours, and more.

For product samples, literature and technical information, call toll-free (within the continental USA):
1-800-433-3222
Texas: 1-800-792-6000

WILSONART®
BRAND DECORATIVE LAMINATE

Bringing new solutions to the surface™

Circle **No. 411**

A Place Apart

Sited adjacent to one of South Carolina's great plantations, Middleton Inn, designed by Clark & Menefee, acknowledges its venerable 18th-Century neighbor through opposition, not emulation.

Middleton Inn (foreground) and gardens of Middleton Place.

et on a small bluff overlooking the Ashley River, the lodge anchors one end of the main guest building. Its upstairs uite is used as a conference room, pend- ng construction of a separate facility. Visible to the right are the cabinet-guest ooms which face the river across an pen lawn.

OF the 32 plantations that once lined the Ashley River outside Charleston, S.C., only one, Drayton Hall, survived into the 20th Century intact. The neighboring Middleton Place, home to a signer of the Declaration of Independence and a signer of the Ordinance of Secession, was burned by victorious Union troops in 1865. The earthquake of 1886 finished what Northern troops began; of the three main buildings, only the gentlemen's guest wing remains beside the rubble of the manor house and flanking library.

But the gardens survive. Restored in the early years of this century by Middleton heir J.J. Pringle Smith, the 65-acre estate supports this country's oldest landscaped gardens. A National Historic Landmark since 1975, the ruins, gardens, and farm buildings of Middleton Place are open to the public under the administration of a nonprofit foundation headed by Charles Duell, a Middleton descendant.

It was Duell who dreamed up the idea of Middleton Inn. A combination guest house and conference center, the Inn would cater especially to "regulars" who attend flower festivals and other seasonal events at Middleton Place, while also serving as a corporate retreat with the necessary conference facilities. There were—and are—several risks involved in such a venture. The most crucial is distance; some 15 miles outside central Charleston, the Inn is remote from city tourist attractions. Duell's architect, W.G. Clark, chose to capitalize on that separation from the city, making of the Inn a rural retreat. Design decisions repeatedly opt for the unconventional, challenging typical tourist notions of service, style, and accessibility.

Clark himself is not a native Charlestonian. The architect spent six years in Robert Venturi's office, although Middleton Inn, his first major work alone, seems more akin to the work of Peter Eisenman than to that of the Post-Modern polemicist. Clark's other work to date in the Charleston area has been limited to residences, but two years ago, the architect won a competition to design an addition to the New Orleans Museum of Art (P/A, April 1984, p. 39), which he and his partner, Charles Menefee, are now executing in joint venture with the New Orleans firm Eskew Vogt Salvato & Filson.

Clark's relationship with Charles Duell and Middleton Place began in 1974. Over the past 12 years, the architect has rehabilitated several plantation buildings for use as a gift shop, restaurant, and foundation offices, building a crow's nest office for Duell atop the latter. A visitors' orientation center designed in 1974 was never constructed.

The architect worked up three different site plans for the Inn on three different parcels of land before the decision was made to build a quarter mile from the gardens, outside the landmark boundaries. The final choice of site was felicitous. The Inn, like the original manor house, occupies a small bluff overlooking the flat marshlands and former rice fields of the Ashley River. The terraced formal gardens of Middleton Place were carved into a natural 30-foot bluff, a small mountain by regional standards, in the 1740s. The Inn's rougher terraces, cut into a less spectacular rise, are the product of shallow phosphate mining carried out after the Civil War.

The Inn's initial program called for only one building, the L-shaped lodge and guest wing. Subsequent marketing studies forced the client to more than double the number of guest rooms from 25 to 55. Rather than expand the main building, Clark chose to break up the additional 30 units into three buildings, two of 8 and one of 14 rooms. (A fifth building, not yet constructed but shown on the site plan, would serve as the conference center.)

In siting the original ell, the architect took advantage of the mined grade change to minimize building bulk from land approaches, presenting it as a two-story structure, while preserving a more monumental three-story façade on the water. (A second drop disguised the riverside pool, which is not visible from the lawn.) The adjunct guest suites, however, are sited more randomly, as if dropped onto the landscape. The two westernmost buildings in particular, turned off axis to match contour lines, seem unanchored. The terraced relationship to the river, site rationale for the main building, is absent in these ancillary structures; as two-story afterthoughts turned to land, not water, they lack the power and precision of the original ell.

The basic building diagram of paired, stacked units evolved early in design development, independent of site planning concerns. (The paired unit prototype was tested in the two previous site plans.) In

a typical pair, a T-shaped masonry armature houses bath, entrance, closet, and refrigerator in one direction, fireplace in the other. The bedroom-cabinet is set off from this masonry skeleton by two vent-reveals. The contrast of parts is carried through in materials: the bathroom/dressing room's cool Carrara marble floors, tiled bath, sandblasted glass block window, and stuccoed, vaulted ceiling balanced against a light, airy bedroom with warm pine shutters, oak floors, ash and pine furniture, and cypress paneling.

The rooms, although not large, contain a number of surprise details. A shuttered sidelight by the front door, left open to indicate that a room is free, permits a view from the stair landing through the room and out to the Ashley River. The bathroom's sliding "barn" door closes to unveil yet another sidelight with beveled reveal (for privacy) that lets a sliver of daylight in to illuminate the bathroom mirror. The wooden "hearth" doubles as a bench or suitcase stand. At the open end of the headboard is concealed a small drawer for jewelry. Finally, the shuttered window wall can be adjusted in endless combinations of open and closed.

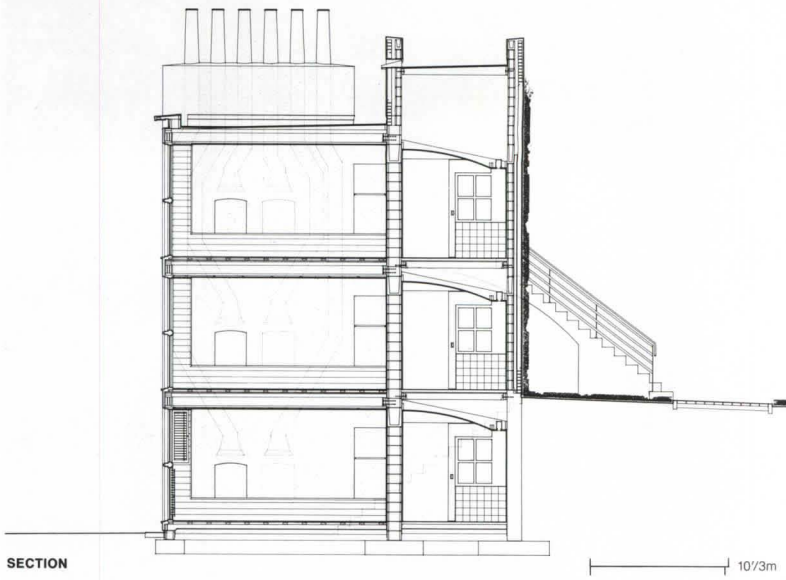
Tourist-class conventions are flouted throughout: there are no curtains, and area rugs woven to the design of Dian Boone replace the usual wall-to-wall carpeting. The TV, hotel icon, occupies a recessed niche in the fireplace wall, out of sight except when in use. The baths are exceptionally generous. (Here alone craftsmanship fails the Inn's otherwise high standards, with shoddy tub tilework.)

The Inn departs from the norm in organization as well. Guests don't drive their cars to the door; parking is remote and wheelbarrows serve for luggage transport. Units open directly to the outdoors; there are no hallways or even covered walks connecting to the lodge where the main office, café, and lounge are located. (The Inn dispenses golf umbrellas along with room keys in inclement weather.) Most exceptionally, the Inn's main restaurant is sited a quarter mile away, in a plantation building. Breakfast and a light lunch are served in the lodge, but dinner requires a walk, regardless of weather.

But Middleton Inn's biggest break with Charleston hospitality norms is a matter of style. Modern architecture never made it big in the Charleston area, least of all in the bed and breakfast trade which capitalizes on the quaint and Colonial. Clark argues that to do a "Colonial Williamsburg number" at Middleton Inn would only mock the power of the plantation ruin itself. Reasoning that it is impossible to equal the original, he chose to do the opposite. The Inn is not visible from the Gardens, even in winter, nor does it borrow from its very formal neighbor at any level, from site planning to choice of materials. Middleton Place is an American Versailles, with formal parterres and pools; Middleton Inn pursues a picturesque site plan, with minimal intervention in the landscape, down to dirt roads. The 18th-Century gardens are axial, organized along a center line that extends from the entrance gate through the manor house's original great hall, down the symmetrical lawn with its paired butterfly pools, and straight out the middle of the Ashley River. Middleton Inn is approached along a curving drive; the first views are oblique, and no conventional front façade greets guests, although the lodge is clearly identified.

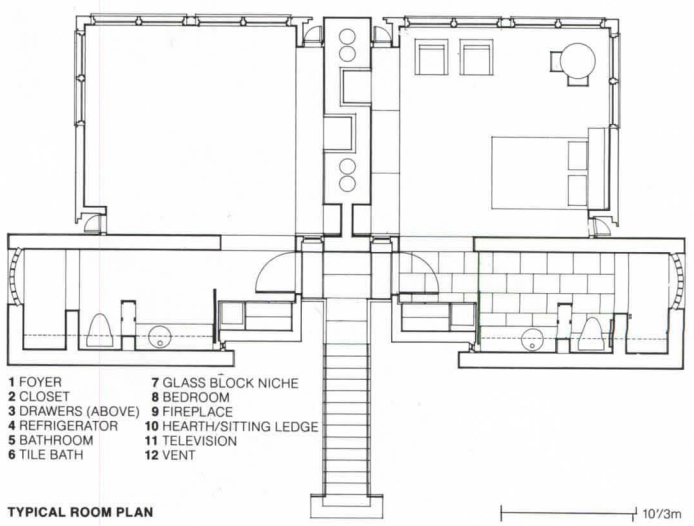
Yet Clark's work is not completely devoid of local color. Terra-cotta chimney pots, wooden shutters, and stick-style furniture are Charleston details. The uses of a particular stucco finish, called "slave coat" in the area, and "Charleston green" paint follow regional tradition.

The Charleston green, incidentally, has a wonderfully recessive effect in the Middleton woods, blending far better than pure black. Clark likes the way his buildings "disappear" from a distance, dissolving into dark wood frames and reflected tree trunks. The contrast of stuccoed walls and wooden cabinets is intentional, but the color and character will change with time as ivy grows up and over the weathered masonry armature, producing a massive "hedge" through which is glimpsed the river and protected marshlands beyond. Clark speaks of his Inn as a "future ruin"; yet his detailing is crisply contemporary. The wooden cabinets rest not on grass but on white concrete pads; copper cornices act as a "reveal" between building and sky. In its own way, the Inn preserves as tight a balance with nature as did the plantation's manor house. The style is dramatically different, but the underlying tension is the same. ***Daralice D. Boles*** ■



SECTION

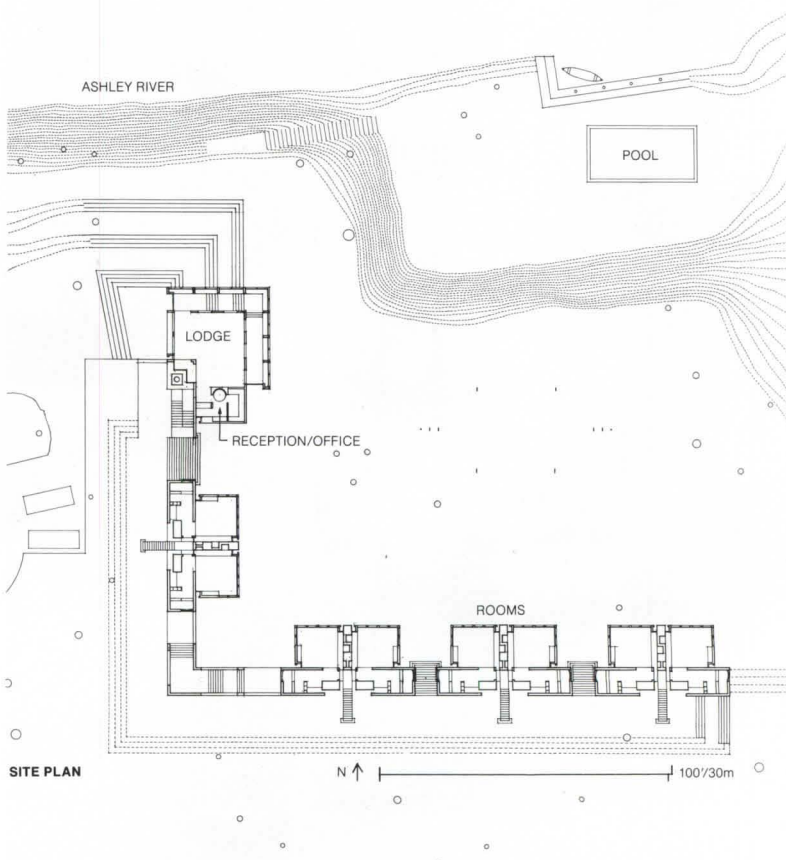
10'/3m



1 FOYER
2 CLOSET
3 DRAWERS (ABOVE)
4 REFRIGERATOR
5 BATHROOM
6 TILE BATH
7 GLASS BLOCK NICHE
8 BEDROOM
9 FIREPLACE
10 HEARTH/SITTING LEDGE
11 TELEVISION
12 VENT

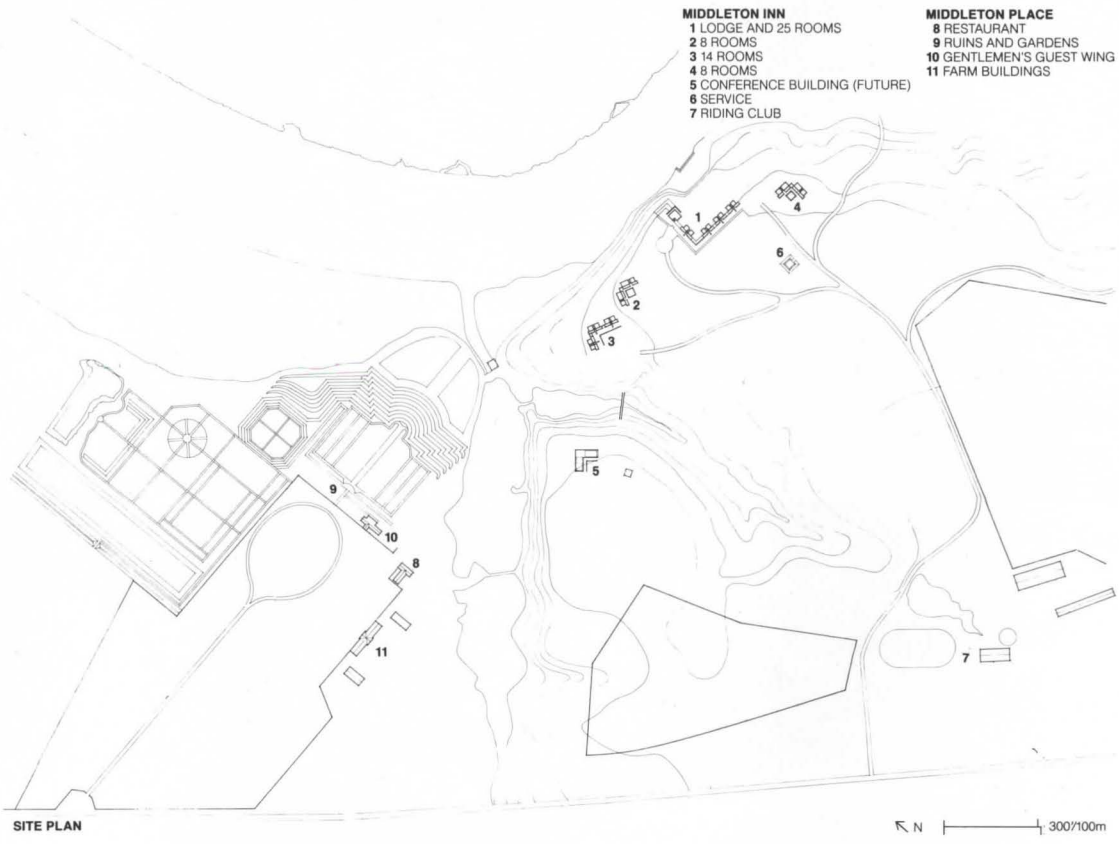
TYPICAL ROOM PLAN

10'/3m



SITE PLAN

In contrast to the very formal plantation with its stepped terraces and symmetrical plan, Middleton Inn is approached along a curving dirt drive (see site plan, below). Clark hopes greenery will in time soften the Inn's tough masonry skeleton (above) while preserving a contrast to crisp wooden cabinet-rooms visible through its vast openings.



SITE PLAN

From the river, the Inn stacks up to three stories, topped by copper cornices and terra-cotta chimneys. Paired units sharing a fireplace wall are separated by stairs (visible beneath the white granite lintels, above) which lead down to the lawn and ground-floor units.

Middleton Inn
Charleston, S.C.

Sandblasted glass block windows permit a constantly changing pattern of light and shadow into the bathrooms/dressing rooms (facing page, top). Their low, vaulted, stucco ceilings contrast the airy, shuttered bedrooms, which overlook the lawn and river (facing page, bottom left). The double-height lounge in the main lodge (facing page, bottom right) has an ingenious fireplace whose stack runs up outside glass walls, permitting birds to fly between chimney and room.
The lawn overlooking the Ashley River is the closest Middleton Inn comes to the formal layout of the adjacent plantation. Although not a natural clearing, the lawn was nonetheless a "found" feature of the existing landscape. Shallow phosphate mining at the turn of the century cut into the gentle bluff, creating three terraces. Clark sited his main guest house at the highest ridge, so that only two stories are visible from the landside approach, all three from the river (above). A pool has been recently cut into the lowest terrace (off the photo to the right) separated from the river by a narrow spit of land.

Project: *Middleton Inn, Charleston, S.C.*
Architects: *Clark & Menefee Architects (formerly W.G. Clark Architect), Charleston, S.C. in association with Charleston Architectural Group (William Riesberg, Stephen Thompson, Charles Menefee III, and Huston Eubank.). With William Vukovich, Frances Humphreys and Maynard Ball.*
Client: *Middleton Inn Associates (Charles Duell).*
Site: *nine-acre wooded bluff adjacent to Middleton Place, a National Historic Landmark, overlooking the Ashley River and marshlands.*
Program: *fifty-four guest rooms and a lodge with lobby, offices, café/bar, and suite. Total gross enclosed space: 34,000 sq ft; covered but unenclosed space: 3000 sq ft.*
Structural system: *reinforced concrete retaining wall; masonry cavity walls; wood frame.*
Major materials: *exterior: stucco-covered brick walls, sandblasted glass block, painted wood siding, clear insulating glass, single-ply membrane roofs with copper cornices, concrete stairs with painted metal rails, terra-cotta chimney pots. Interior: marble floors, stucco and ceramic tile walls, wood and vaulted stucco ceilings (masonry armature); oak flooring, cypress wall paneling, gypsum board ceilings with ash surrounds (wooden cabinets); (see Building Materials, p. 190).*
Mechanical system: *individual electric heat pumps in guest rooms.*
Consultants: *Sheila Wertimer, landscape; Dian Boone, interiors; Robert A. Shoolbred, structural; Rosser White Hobbes Davidson McClellan Kelly, Inc., mechanical; G. Robert George, civil.*
Custom furniture: *Dian Boone, design; JMO Woodworks, fabrication.*
General contractor: *Steir, Kent & Canady.*
Costs: *withheld at client's request.*
Photos: *Tom Crane, with exception of aerial, Jack Alterman.*

P/A Inquiry: Privatizing Public Housing

This P/A Inquiry examines eight public housing rehabilitation projects in Boston, Albany, and Newark. The introductory essay outlines current thinking, while the following text analyzes design issues.

SIX years ago, Boston had some of the worst public housing in the country. Vacancy rates had risen above 50 percent in many developments, tenants had filed a class action suit demanding better maintenance, and the housing authority had gone into receivership. Today, Boston is rehabilitating much of its public housing—a phenomenon happening in other cities as well. That is all the more remarkable for its emergence in a period of dwindling federal funds.

This P/A inquiry examines those efforts, looking at the policies behind them and the physical changes they've produced. It shows that behind some simplistic assumptions about public housing lies a very complex problem in which design can play an important if sometimes ambiguous role.

Public Housing's Rise and Fall

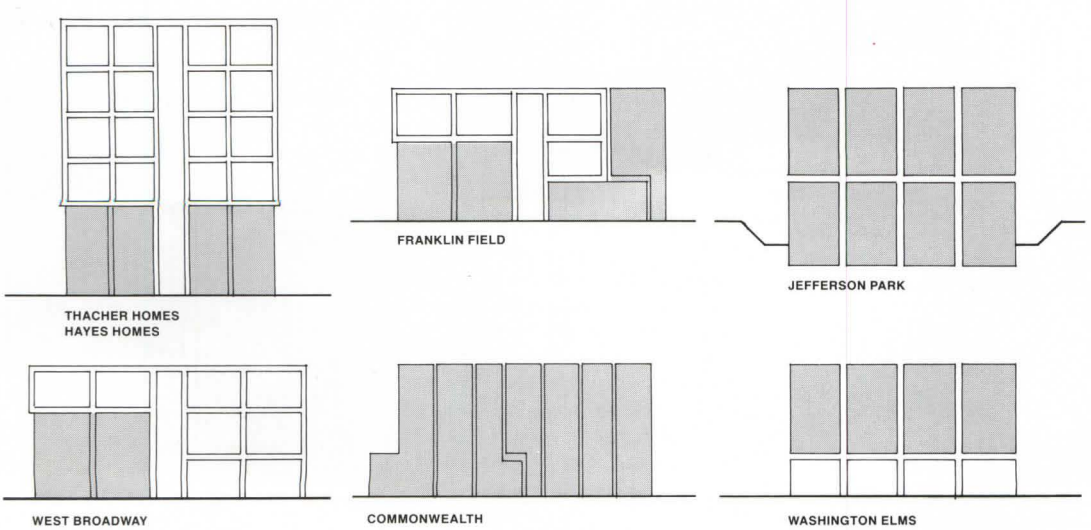
When Congress passed the first Housing Act in 1937, it did so to create jobs and to accommodate growing numbers of people who could not afford market-rate housing. The federal government mandated that each community have a local authority to oversee public housing construction, management, and operation.

The initial housing was designed for young families and the working poor, who saw public housing as a temporary living situation. That tenant mix changed in the 1950s. As low-interest mortgages enabled working people to buy housing and as the federal government set stricter income limits for tenants in subsidized units, public housing became the place of last resort for very poor and typically very large families. That placed the local housing authorities in a bind. Operating and maintenance costs rose, in large part because of the increase in the number of children, as the ability of tenants to pay rents high enough to meet those costs declined.

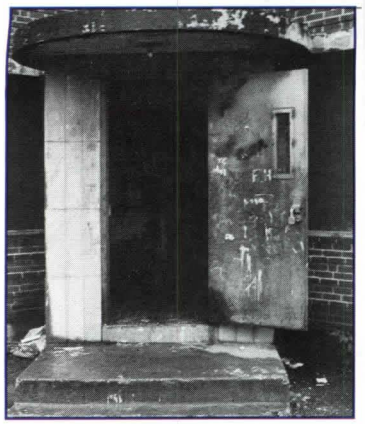
The federal government, during the 1960s and 1970s, sought solutions to that problem, including centralizing housing management to reduce costs and reimbursing housing authorities for the difference between the fair rent and the tenants' contribution of 25 percent of their income. Yet those solutions brought new troubles. "The centralization of management," says housing consultant James Stockard, "contributed to a lack of accountability among managers." And as reimbursements became an ever larger drain on the budget, the federal government refused to pay all of the operating deficits of the local authorities. That put many local authorities in financial difficulty, and led to the further deterioration of public housing.

Simple Assumptions

Public housing policy has undergone a needed reappraisal in the last several years, although some of it has been flawed by simplistic assumptions. One such assumption is that most of the 1.2 million units of public housing are badly deteriorated. In fact, "about 70 to 80 percent of public housing just needs minor fix-ups," says Gayle Epp,



In this schematic comparison of building sections, devised by researcher Gayle Epp, one-story apartments are distinguished from duplexes or triplexes (shaded). In five of the six examples (shown in diagram at left, in detail on the following pages), three-story apartment buildings are transformed into townhouses. The new building sections break up stacked floors of flats into new arrangements of duplex over duplex (Jefferson Park), duplex over flat (Washington Elms), triplex (Commonwealth), flat over duplex (Franklin Field, left half), and a mix (West Broadway). The sixth high-rise example (Thacher and Hayes Homes) replaces ground-floor and second-floor flats with duplexes, maintaining stacked flats on upper floors.



1a

Cymie Payne

1b

a researcher in the firm Welch & Epp and a member of a team studying the condition of HUD's housing stock. "Only 7 to 10 percent need major rehabilitation."

Another simplistic idea, popular in the current administration, is that residents can better manage the public housing developments themselves. While resident management has worked in some instances, "it does so," says James Stockard, "only if the buildings are in good shape, and if there is enough money, training, and support."

A proven alternative, now threatened by budget cuts, places professional managers in each development. "On-site managers are more accountable," says Stockard, "and they can actually save money through such things as better rent collection and more preventive maintenance."

A third, seemingly simple idea, also popular in the current administration, would increase the involvement of the private sector in public housing. Here, too, efforts such as turning public housing over to private management have succeeded in some instances. "We're not tied to prevailing wages or other union restrictions," says John Corcoran, whose company manages the recently rehabilitated Commonwealth Development in Boston (figure 3), "so we can be more efficient and flexible."

But efforts to convert public housing to mixed-income private developments, while they achieve integration, also increase the shortage of subsidized apartments. Columbia Point, a privatized public housing development in Boston, mixes low- and middle-income tenants and gives the tenants' group a share in the ownership and profits, but the hundreds of low-income apartment units, although already vacant, will not be replaced. Sales in other cities have not received much developer interest, partly because of the deteriorated neighborhoods around the developments.

A fourth assumption, long accepted by the architectural community, is that the creation of private or semiprivate outdoor space is what tenants most want and the developments most demand. Much evidence supports that idea. "Having looked at over 100 case studies," says Claire Cooper Marcus, coauthor of a new book on site design in public housing (reviewed on page 180), "we've found that the spaces between buildings are the most critical to a project's success." Yet "what tenants want the most," says Ron Atjielski of the San Francisco Housing Authority, "are remodeled kitchens and bathrooms, and door and window security measures."

Some housing experts also have questioned: Can defensible space go too far? "Is a suburban model with mostly private outdoor space," asks architect Antonio DiMambro, "appropriate for urban housing?" And, "Can too much privatization," asks James Stockard, "close off the potential for community? Are we repeating the mistake we made 40 or 50 years ago by designing for the present population and not looking down the road to the needs of future tenants?"

Complex Solutions

James Rouse, whose Enterprise Foundation helps communities buy and rehabilitate tenements without displacing their inhabitants, once said that we haven't solved the problem of low-income housing because we haven't intended to solve it. But it is also true that we haven't solved the problem because of its complexity. The factors that make for successful housing are complex—factors that include "a high adult-child ratio," says Sue Weidemann of the University of Illinois; "a lot of maintenance; strong, consistent, and fair management; and tenants with similar values." The funding of public housing also is complex, since states, which have little experience with or money for public housing, have begun to pick up the federal tab.

Design has an important role to play in making public housing work, as the following examples show. But unless we stop the current wholesale abandonment and demolition of public housing, particularly in cities with financially strapped housing authorities, design will become a moot point. "Our present inventory of assisted housing," writes Chester Hartman in the book *America's Housing Crisis*, "is a valuable national resource which would cost many times as much to replace as it would to maintain adequately." Certainly no preservation effort has greater social benefit than the rehabilitation of our public housing stock. ***Thomas Fisher*** ■

The following analysis was written by ***Daralice D. Boles.***

Site

Reduced Unit Count

A study of Boston public housing projects undertaken by researcher Gayle Epp concludes that "problem" projects tend to be those with the largest number of units, independent of density or population. The eight developments shown on these pages all had exceptionally high unit counts, reduced through varied strategies of selective demolition, rehabilitation, and new construction. Reductions can be drastic: 17 buildings are to be demolished at Columbia Point, for example. The number of units in Washington Elms dropped from 324 to 168; in Thacher Homes from 525 to 325. The number of actual displaced residents, however, is usually small, given high vacancy rates prior to rehabilitation: 80 percent for Thacher Homes; more typically, 57 percent for Commonwealth Development. The notion of eliminating low-income housing units, while justified as a remedy of last resort, is nonetheless controversial, and most housing authorities find a way to keep the overall population housed constant, sometimes through a convoluted numbers game that "transfers" residents from low-income projects to Section 8 programs. At Thacher Homes and Hayes Homes, new townhouse construction on site replaces all demolished high-rise units, so that the overall project population remains unchanged.

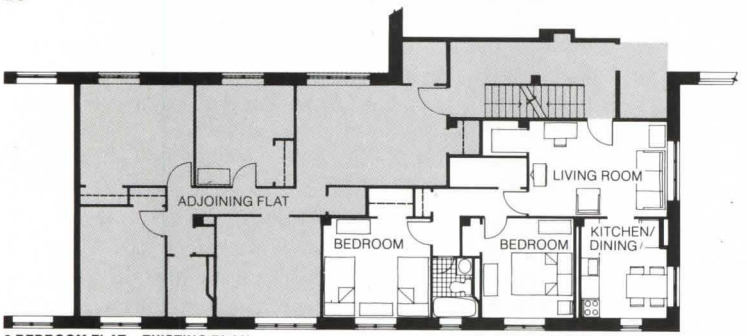
Neighborhood Integration

Friction between a public housing project and its surrounding neighborhood can be exacerbated by the project's site plan, which often emphasizes separation from the city. Architects disagree as to how integrated or isolated a project should be. Jefferson Park turns inward to focus on a community courtyard (figure 4b); Franklin Field focuses outward with front stoops facing city streets (figure 1c). Strategies aimed at integration take one of two forms: replacing the common curvilinear street pattern with a continuation of the city grid, as at West Broadway, or knitting a project and its neighborhood together at the edges. Jefferson Park's health facility, which serves both residents and the community at large, will be situated on a boundary street (figure 4b); Commonwealth Development's tenant management building (figure 3e) is set at the site's main entrance and functions as a kind of "gate house" for surveillance purposes. Where commonly traveled public "short cuts" pass through a development, as at Jefferson Park (figure 4b), a clear distinction between general public space and semipublic "residents only" space is crucial.

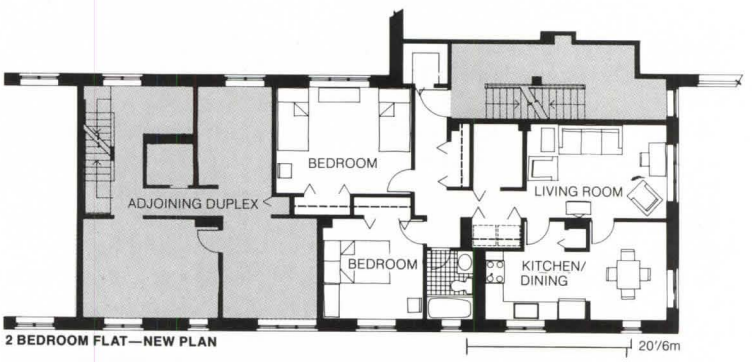
Cymie Payne

1c

Franklin Field, Boston
Architects: *Wallace, Floyd, Associates; Carr-Lynch Associates, Boston*
Program: *Rehabilitate 1954 public housing, increasing room and unit sizes and raising the proportion of 4- and 5-bedroom units from 7 to 25 percent; minimize common stairs; provide on-grade entrances and private backyards; build new community facilities; and relandscape grounds.*
Cost: *$25 million.*
Client: *Boston Housing Authority, Franklin Field Tenant's Task Force.*
Design strategies: *Reduce number of units from 504 to 346; create duplex and triplex units on lower floors with private backyards; place 1- and 2-bedroom flats on upper floors (1d/e); enlarge entrance (1a/c) and reduce number of flats sharing it from 12 to 4; enlarge kitchen and dining areas (1d/e); distribute parking areas and give every unit street frontage.*



2 BEDROOM FLAT—EXISTING PLAN



2 BEDROOM FLAT—NEW PLAN

1d

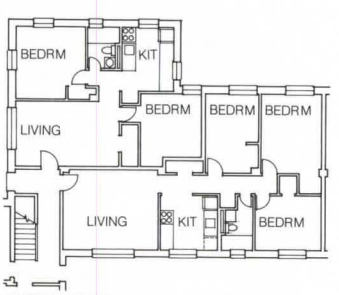
Goody, Clancy

2a

West Broadway Housing, Boston
Architects: *Goody, Clancy & Associates; Lane/Frenchman & Associates, Boston*
Program; *Break down superblock housing project; decrease number of units; alter development's image.*
Cost: *Stage 1, $19 million (completed June 1986); subsequent stages, $25 million (commencing January 1987).*
Client: *Boston Housing Authority, West Broadway Task Force (tenant organization), Commonwealth of Mass., Executive Office of Communities and Development. (See P/A, Jan. 1983, pp. 124–125; P/A, July 1984, pp. 78–79)*
Design strategies: *Change building image with new finishes and pitched roofs (2a/b); bring street grid into site; pair buildings around semiprivate outdoor courts; place community facilities along new central street; reduce units from 1000 to 675 through horizontal and vertical breakthroughs (2c/d); provide fenced-in yards.*

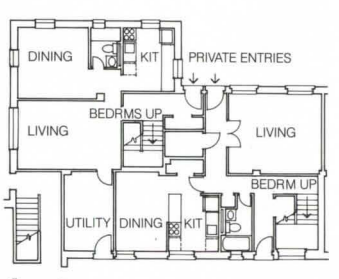
Clemens Kalischer

2b



ORIGINAL PLAN

2c



NEW PLAN

2d

Parking/Traffic

The six Boston projects shown replace large, remote parking lots with small, dispersed, on-site spaces (figures 3g, 4b) close to units. These mini-lots and curbside parking slots are subject to casual surveillance and therefore safer for both cars and people. Other incremental changes—the introduction of speed bumps or rerouting of thoroughfares—can reduce the speed and volume of traffic passing through a development. Reconfigured streets also change the orientation of buildings, distinguishing front from back (figures 3f/g), or creating subgroups within a complex (see Neighborhood Integration; Landscaping).

Landscaping

Careful landscaping can introduce variety into a static site plan. Planting and hedges can provide privacy screens for ground-floor units, distinguishing semipublic from private outdoor space. Landscaped courtyards, (figures 4a/b) and cul-de-sacs (figure 3b) can enforce subgroup identity within a development, provided these common outdoor spaces are not too tight (Claire Cooper Marcus sets the minimum at 30 feet across) or too large and empty. Protecting plantscape is another matter. New landscaping accomplished for purely cosmetic reasons, without a careful site strategy and maintenance program, is sure to suffer abuse. At Franklin Field, for example, bollards and chains designed to keep kids off the grass are all too easily ignored. Extensive regrading of the site at Commonwealth, on the other hand, converted the 5-foot drop from building entrance to sidewalk into an attractive zone of stepped berms, benches, patios, and entryways (figures 3a/b). The change in section also provided a clever way to protect the new landscaping from wear and tear.

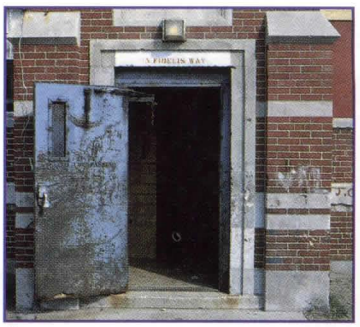
Outdoor Play Space

The lack of purpose-built play space is a key defect in most public housing. Recreation areas should be dispersed throughout a development and well defined. Moreover, different age groups require different facilities and should be physically separated. While all play areas should be relatively accessible and well maintained, tot lots in particular should be set in sunny spots, close to units for easy access and surveillance. Sidewalks and pedestrian paths will be used for play, and these elements should be dimensioned to accommodate active use (figures 1c, 2b, 3d, 4a, 5a). The elderly too have their own turf requirements; sunny, quiet retreats within easy walking distance of their units.

Site Maintenance

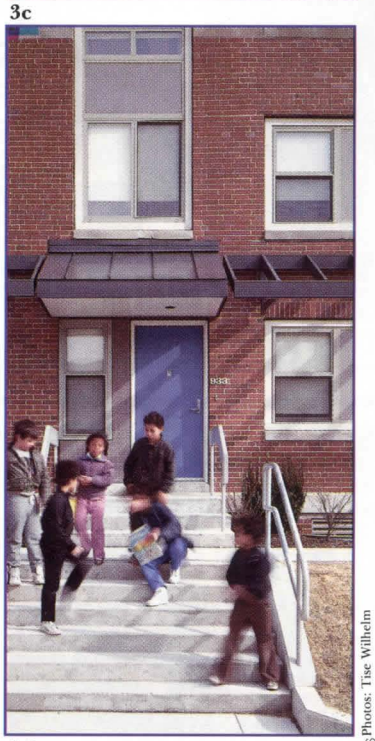
The success or failure of a public housing project is as much a

3a



3c

3b



3d

Commonwealth Development (formerly Fidelis Way), Boston

Architects: *Tise, Wilhelm & Associates and Carr-Lynch Associates, Boston, Mass.*

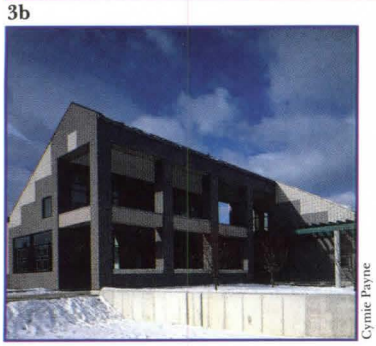
Program: *Demolish two midrise apartment buildings and rehabilitate remainder, reducing the number of units from 648 to 392; create elderly housing in two midrise buildings; build a new community management building, day-care center, and elderly community center.*

Cost: *$27.4 million.*

Client: *John M. Corcoran Company; Boston Housing Authority.*

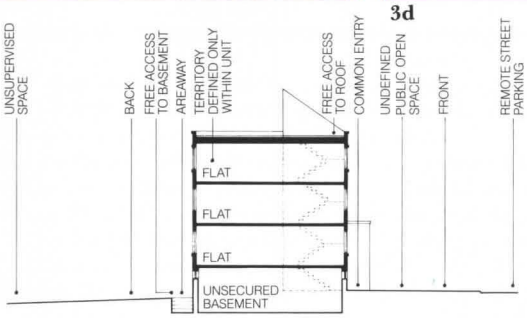
Design strategies: *Reroute through street and construct private parking loop; add new front and back doors with new entrance canopies and stoops (3c/d); secure basement entrances and replace roof access (required by code in lieu of second means of egress) with new entrances; use earth berms, hedges, and walls to define private and semipublic outdoor space (3b/d/f/g); separate play areas for children of different age groups; place community facilities along new street (3e); convert three-story buildings into triplexes with private yards and midrise buildings (3a) into duplexes with flats above; add new living room extensions to three-story buildings (3b) to enlarge end triplexes; distribute parking areas closer to units; provide community garden space; separate elderly courtyard from children's and adolescents' recreation areas.*

Photos: Tise Wilhelm



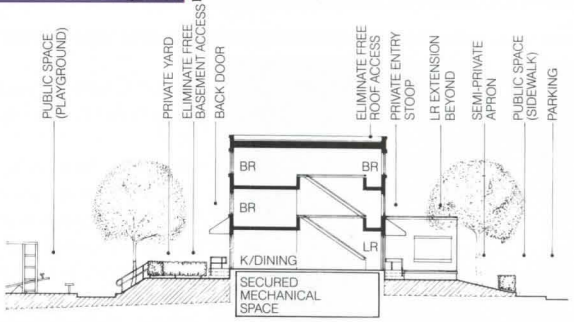
Cymie Payne

3e



EXISTING CONDITION

3f



REHABILITATION

3g

matter of maintenance as it is of design. Prompt repair is a proven deterrent to vandalism; similarly, residents are more likely to maintain and outsiders less likely to abuse outdoor space clearly identified as belonging to a given unit. Materials should be picked with durability in mind; West Broadway's painted façades, for example, (figure 2b) "solve" the graffiti problem with successive coats of paint. Trash pick-up is another chronic maintenance problem. Jefferson Park's tenants have succeeded in securing decentralized trash service with garbage cans kept beneath the stoops at each unit. Where unsightly dumpsters are unavoidable, careful landscaping or screen walls can provide camouflage. The more decentralized the location, the better.

Community Facilities

Just as maintenance is best managed by a resident operator, so community services may best be provided onsite, housed in an identifiable structure that serves as the social heart of the community (figure 3e). Other shared facilities such as laundries and tot lots (figure 4a), if generously planned and easily accessible, can become social subcenters. At West Broadway, social services line an internal "street." Similarly, Columbia Point's new mall and bayside park are lined with social service buildings and retail space, provision of the latter made necessary by the project's remote location.

Building Image

Opinions differ as to the long-range value of "cosmetic" change. Critics claim limited funds are better spent on such essentials as kitchens and baths. Proponents argue that unless residents feel proud of their place, and protective, they will continue to abuse it. The most successful alterations provide variety of color, building height, and entry conditions; more subtle architectural devices such as varied window patterns or minor changes in material don't register. One of the more ridiculous (and expensive) alterations proposed by the Boston Housing Authority is the window greenhouse; added to end units, these glazed projections do little to modulate a monotonous façade; from within the units they serve only to block the view. New stoops and porches (figures 3d, 4a, 5a), on the other hand, break down the building surface effectively and provide a place for residents to add their own stamp. West Broadway provides the most extreme example of altered building image, with its new pitched roofs, window projections, corner entries, and elaborate color scheme varied by village (figures 2a/b).

Fire Station
Mödling, Austria

Youth, Professionalism, and Imagination

A young Viennese architect imprints his own vision upon lessons recently learned, in his first built work, which has resulted from winning an open competition.

ERNST Hoffmann's fire station in Mödling (a small town near Vienna) presents encouraging proof that the various "isms" that have been in the air in the past decade—Post-Modernism, Rationalism—need not produce, in the hands of impressionable practitioners, awkward, pastichelike results. Quite the contrary: Absorption of contemporary lessons of contextualism and collective memories can have a markedly beneficial result. In the fire station—the winning entry in an open competition and Hoffmann's very first built work—one sees evidence of numerous influences: Mario Botta's use of contrasting textural materials; Michael Graves's compact sense of scale and his tension between large and small elements, notably windows; Leon Krier's sophisticated urban fantasies as expressed in drawings; and Gustav Peichl's effective use of industrial components. While the fire station reflects these various influences, it still projects an individual evocative strength of its own and an exemplary and appropriate urban presence. Furthermore, this young architect's professional approach has resulted in a structure economically and well built.

The fire station plays a special role in the life of Mödling, a role augmented by both the organization of the building and the use of the site. In small Austrian towns, fire fighting is performed by a corps of volunteers, and the fire fighters' families and the town residents in general tend to identify with their fire station and take pride in it. In Hoffmann's building, then, the fire trucks are parked behind glazed overhead doors, so that parents making regular Sunday and holiday outings with their children can walk by the building to see the red trucks. A small semicircular museum adjacent to the building entrance contains old fire-fighting artifacts also visible through large windows. And the second-story lounge provided for volunteers waiting between emergency calls has become a recreation room for the firemen's families and other community members: It is large, bright, and airy, contains a small kitchen, and is lined with closets where games are stored.

The subtle placement of structures on the site has allowed the fire station to become a focal point for the long street on which it stands, a street lined with trees and repetitive workers' housing. To increase the advantageous effect of a bend in the street at this point, the architect curved one end of the building to close the vista. To demarcate the transition from linear to curved building, he projected a semicircular form (the museum) beyond the façade line, a form which also serves to announce the entrance at its side. And to take full advantage of the closed vista at the end of the long axis, Hoffmann placed a tall tower with numerous functions: It serves as a drying tower for the hoses and a practice tower for firemen in training, and its peak carries a broadcasting mast to receive fire alarms and to communicate with the brigades.

For the interior, Hoffmann had an idea that further involved the community: He arranged to have students in the town's technical school, where he also had studied, build the furniture which he, and in some cases they, designed. He also commissioned a local artist to create a photographic mural strip to follow the line of the interior curved staircase. The use of local amateur skills permitted much finer quality work than the budget would otherwise have allowed. The interior does suffer, however, from youthful exuberance, with an overembellishment of a number of fittings such as closet doors, skylights, and counter in the lounge.

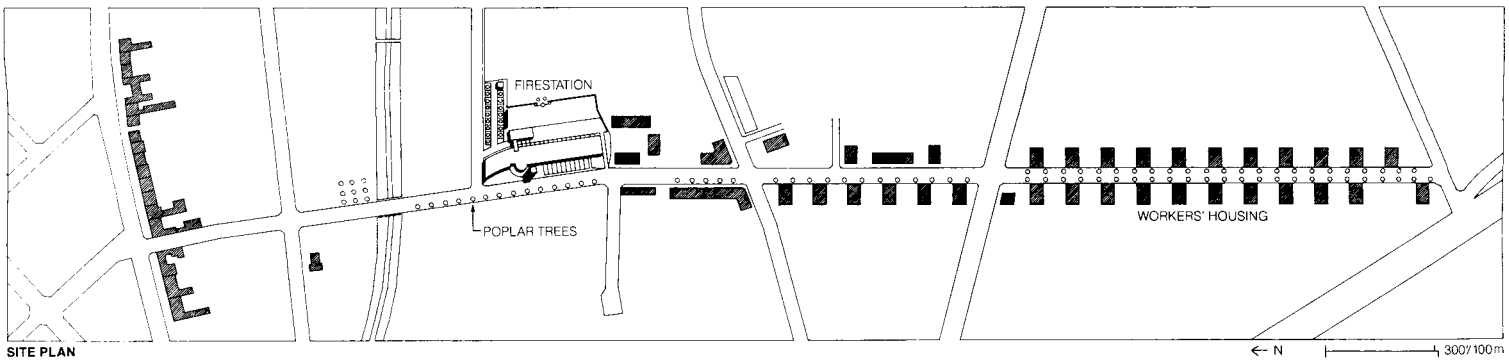
Architectural detailing on the exterior is simple and economical, and reinforces the basic concepts. The double exterior wall, with insulation in the cavity between two layers of masonry, has an outer face of concrete block: Small gray bands of block alternate with larger, whitish block, the horizontal striping chosen to emphasize the curved building form rather than as homage to Botta, says Hoffmann. In the curved section, the bands are further elaborated by the use of inset polished pink granite squares, while in the museum façade, amusing porcelain busts of former fire chiefs are inset as capitals above the piers. To contrast with the matte finish of the concrete block, Hoffmann chose shiny anodized aluminum for the window frames. Various small painted metal or stucco elements throughout the scheme—the entrance doors, for example, or the chimney on the rear practice wall—are colored either red, blue, or yellow, to represent fire, water, and optimism. Glimpses of all three colors are visible from any point, a small piece of joy introduced almost as a private code by this young and talented architect.

Susan Doubilet ■

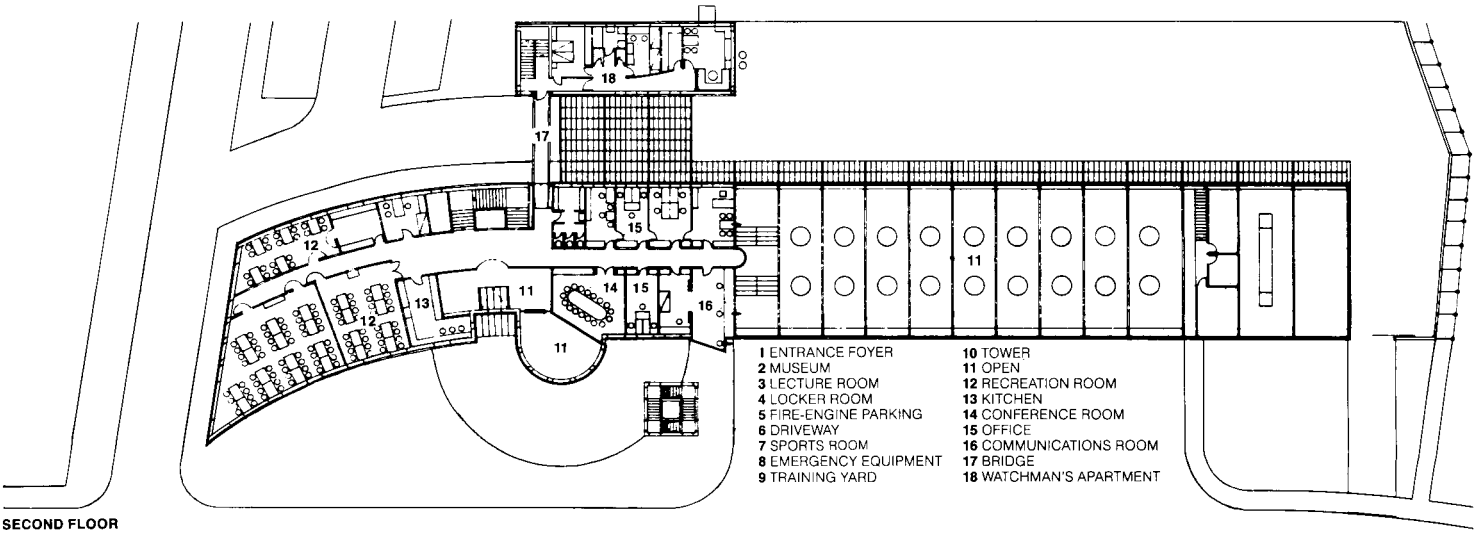
Fire Station
Mödling, Austria

The fire station, which stands at a bend on a street lined with workers' housing, serves to terminate the long street axis (see plans overleaf). Its linear form curves forward at one end (above) to close the vista, while a tall broadcasting and training tower (above and left) acts as the major focal element. To signal the transition from the straight form of the parking garage (right in photo left) to the curved form, a semicircular room, which functions as a museum (above), is projected beyond the established facade line.

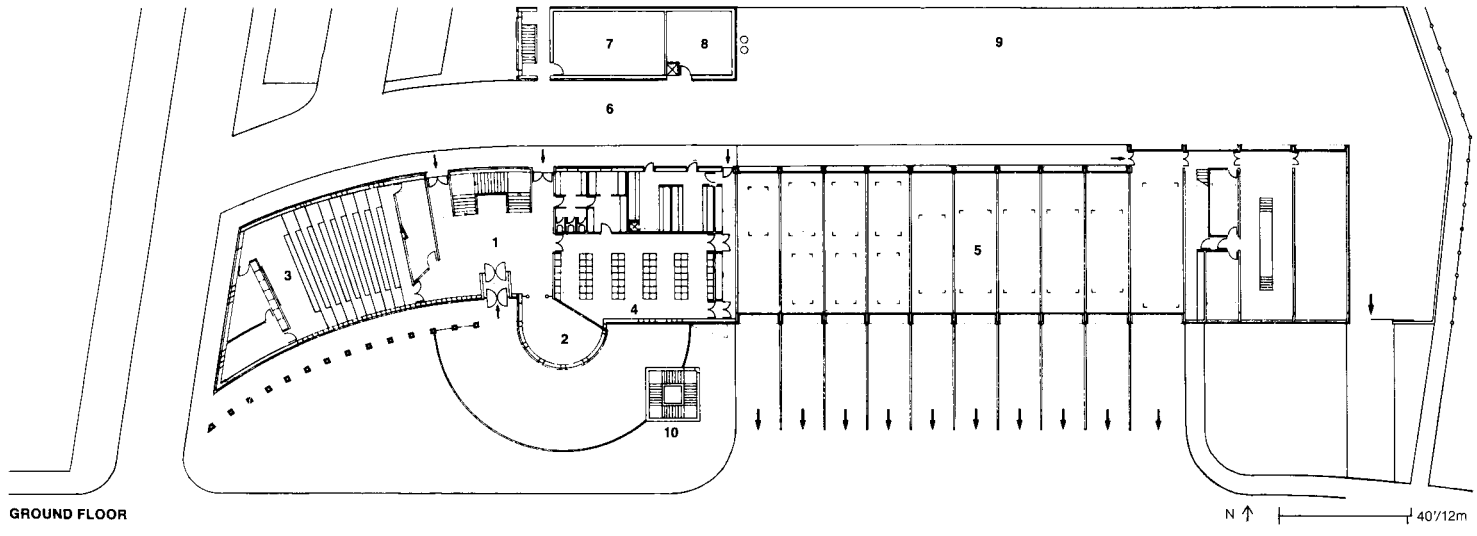
Fire Station
Mödling, Austria



SITE PLAN

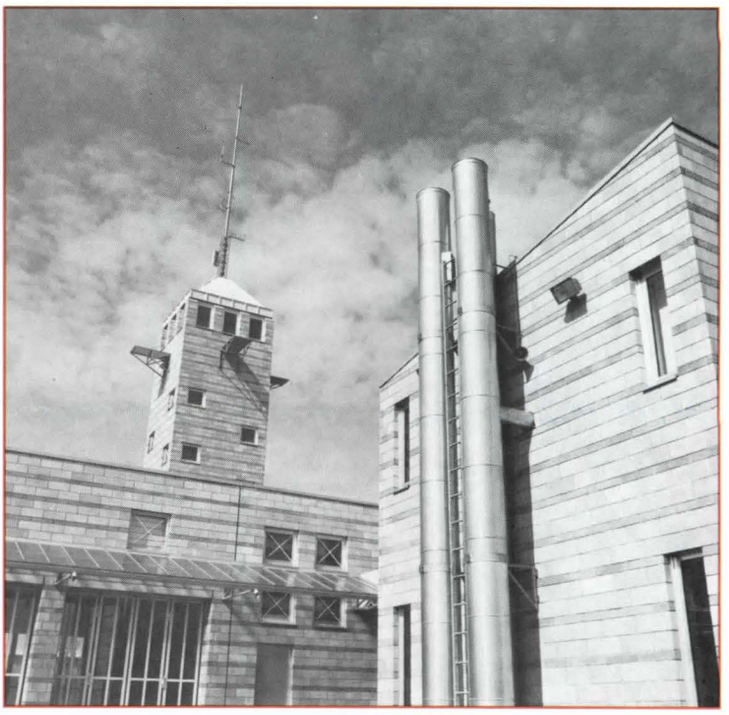


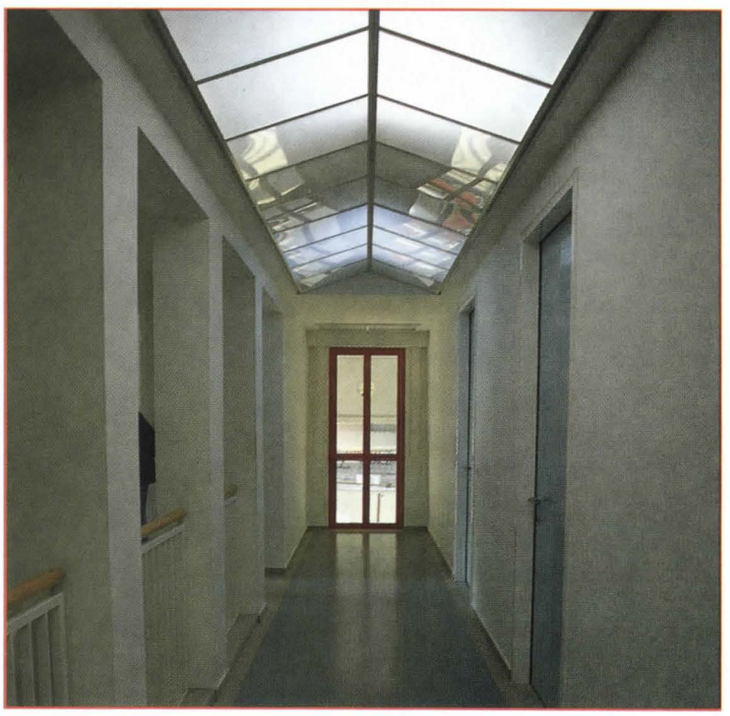
SECOND FLOOR



GROUND FLOOR

The site plan (top) reveals the subtlety of the gesture which curves a linear building to close a long axis. At the same time, the linearity of the street is reinforced, both by the building and by a row of poplar trees across the street.





Horizontal bands of concrete block contrasting in color and size are used to emphasize the linear nature of the building. To further highlight the curved façades (top left), polished granite tiles are set into the narrow bands of the concave section to the left of the entrance door, while colored porcelain busts of former fire chiefs are set into the convex museum façade to the right.

The fire truck garage section of the building, seen (top right) from the practice yard at the rear of the site, is for the most part prefabricated. To compensate for the disappointingly flat profile of the small, square second-story windows, the architect designed aluminum cross-braces to be placed in front of the sashes to deepen the effect. A shiny finish has been used for window frames and other metal elements, to contrast with the concrete block's matte finish and to heighten the industrial imagery.

Yellow, red, and blue are used for occasional accents on the exterior and, sparingly, on the interior, as in the entrance hall (above left). A skylighted hallway (above right) connects offices, conference room, and communications room on the second story.

Fire Station
Mödling, Austria

The side view of the site (above) reveals the highly sculptural practice wall with its symbolic central fireplace. To the right of the practice wall is the watchman's apartment, with a bridge connecting it to the main building. The driveway under the bridge gives access to the large practice yard beyond.

Project: *Fire Station, Mödling, Austria.*
Architect: *Ernst Hoffmann, Vienna.*
Site: *at the town's periphery, at the end of a long row of workers' housing.*
Program: *fire-engine parking garage, communications room, conference room, locker room, small auditorium, recreation room, museum, watchman's apartment.*
Structural system: *concrete block bearing wall.*
Major materials: *gray and white concrete block exterior finish, anodized aluminum windows, gypsum board interior walls.*
Consultants: *furniture studio of the Mödling Technical High School, furniture.*
Costs: *$1.5 million.*
Photos: *Ernst Hoffmann.*

P/A Portfolio
Three Urban Buildings

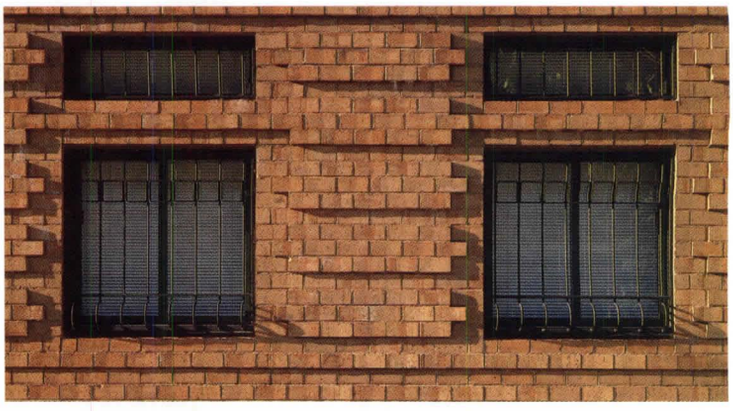
The three American buildings included in this P/A Portfolio have been pointedly chosen for their diversity. Two of them are insertions into the fabric of Manhattan. The third is a P/A-Citation-winning school, now completed, in San Francisco.

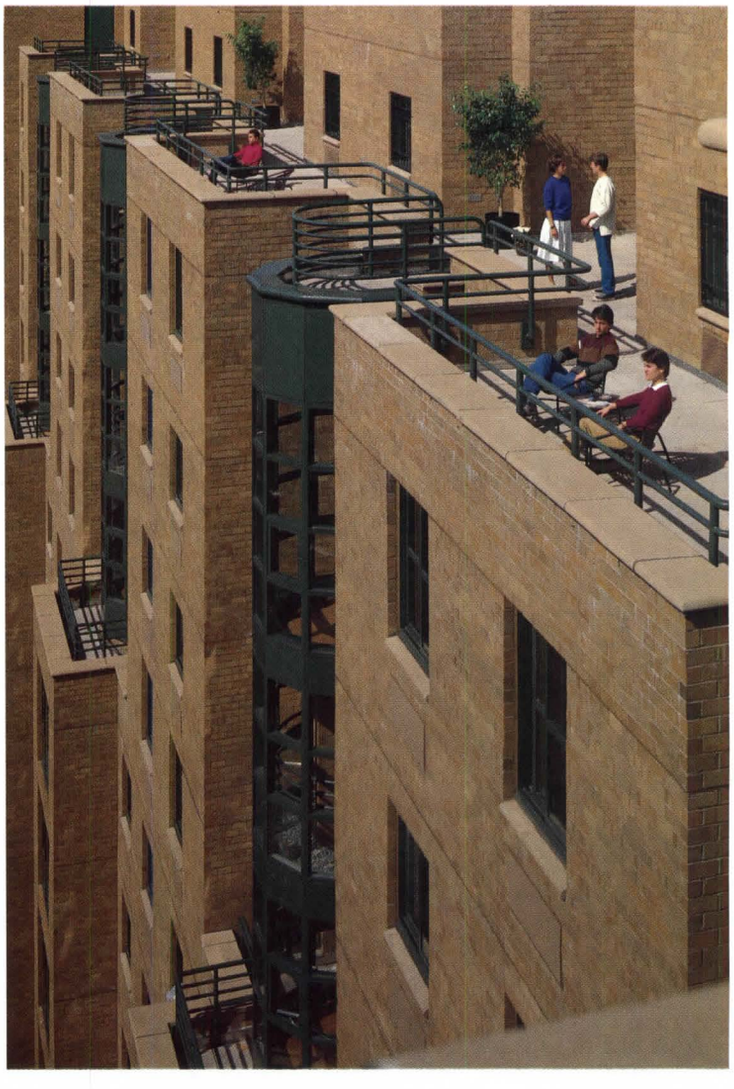
THE second in this new series of P/A features demonstrates that the subjects of these articles will sometimes be quite diverse, rather than related, as in the first Portfolio, on the buildings of Berlin's IBA program (P/A, Feb. 1986, pp. 93–101). The criterion for inclusion is that P/A's editors see the works as embodying important architectural lessons that can be conveyed succinctly in two or three pages. While some essential parts of these buildings will not be illustrated, the quality of the whole fabric will be assessed by writers who—as in the case of all P/A building features—have visited the site. These Portfolios, along with the P/A Inquiry series (p. 92) are P/A efforts to feature a broader spectrum of architectural accomplishments. (See Editorial, January issue, p. 7.)

John Morris Dixon ■

© Wolfgang Hoyt/ESTO

Entrance canopy of Mt. Sinai residence hall (see next page).





In a high-rise structure containing suites for some 600 medical students and staff, architects Davis, Brody & Associates have embodied exceptional amenities for such dense, institutional housing, in a finely detailed envelope that recalls the best of Manhattan residential streetscapes.

MANY of us carry in our minds an idealized image of the New York high-rise apartment house, assembled from the best examples of the 1920s and 1930s, such as London Terrace on West 23rd Street or the landmark structures of Central Park West. Such buildings would have finely detailed walls rising in clifflike masses from discreetly prominent entrance canopies toward penthouses at the top that form rhythmic projections against the sky. Possibly no American apartment building of recent years has represented this urbane type more eloquently than this residential hall for the Mt. Sinai Medical Center.

Located at Park Avenue and East 98th Street, the building is just beyond the edge of the prosperous Upper East Side district, where the massive medical center complex meets East Harlem's mix of tenements, public housing, and vacated plots. While serving the medical center's need to offer students and staff comfortable, immediately adjacent housing, this structure reinforces the fabric of the city at this borderline location with architecture that visibly belongs to Manhattan.

Given the need to house over 600 people on a site roughly 100′ x 300′, providing one secure entrance and one bank of elevators, the architects had to range their suites along double-loaded corridors. On the ten floors of one-story suites, they take advantage of the linear extension by giving each unit two entries, so that residents can bypass the shared central rooms if they wish. On the top five floors, where the building sets back, they have developed two-story suites, using only two public corridors.

At the street, a 12-foot setback from the building line allows for a second line of trees behind the curbside row and a generous canopied entrance, set toward the west end, nearest to the medical facilities. Above the straight first-floor wall—free of dangerous alcoves—the building mass is sculpted, with living rooms on the first ten floors projecting in regularly spaced bays; above them project the cylindrical metal-and-glass envelopes of the stairs that connect the duplex floors and offer broad views at their oversized landings.

The suites themselves are compact, of course, but not cramped. The main rooms have expansive windows, oak parquet flooring, and family-sized kitchen facilities; bedrooms have synthetic tile floors, individually controlled HVAC units, and good basic furniture. The long corridors vary in width from 4 feet on the straightaways to 6 feet at suite entry alcoves. Light valances at these points alternate with dimmer, recessed lighting in the stretches between. Well-framed posters in the doorway alcoves—bought with money saved in construction—help give each location an identity of its own.

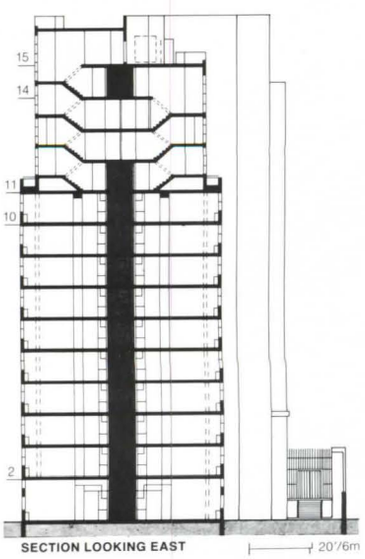
John Morris Dixon ■

Walls of 4″ x 8″ tan brick, with joints tinted slightly darker, are given added relief at the ground floor (top), which also displays simple but thoughtfully detailed grilles and gateways. At upper-floor setbacks (above) are roof decks with sleek lines of pipe railing, painted dark green to match curtain walls of curved stair projections. Long view of north-facing front (facing page) shows rhythmic massing based on length of typical four-bedroom suites. Disciplined pattern of typical bedroom windows, with dark HVAC grilles beneath each one, is broken by expansive windows of suite living rooms. Cylindrical projections house stairs that connect pairs of floors of upper-floor duplexes (see section); unglazed portions house open emergency stairs required between units. Location of entry and elevator core toward west end shortens walk to medical center and Madison Avenue commercial conveniences.

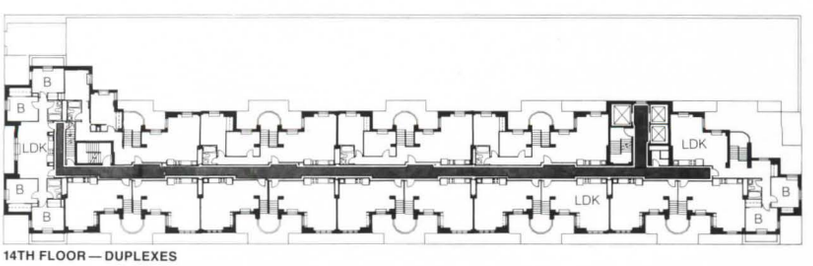
Project: *Jane B. Aron Residence Hall, Mt. Sinai Medical Center, New York.*
Architects: *Davis, Brody & Associates, New York (Marta Rudzki, AIA, project manager; Mark Meyer, Steven Davis, AIA, project designers; George Rehl, AIA, project architect; Ron Tagliagambe, construction administration; Marie Colasson, John Hersey, Robert Lubalin, AIA, William Rawn, AIA, Renee Sandoz, project team).*

Site: *30,708-sq-ft rectangle along E. 98th St. at corner of Park Ave.*
Program: *134 living units for total of 613 medical students, nurses, and hospital staff; 212,000 gross sq ft.*
Structural system: *cast-in-place concrete on steel piles.*
Major materials: *brick and concrete cavity wall; painted gypsum board (see Building Materials, p. 192).*
Mechanical system: *oil-fired boiler supplying hot water to individual heating/cooling units.*

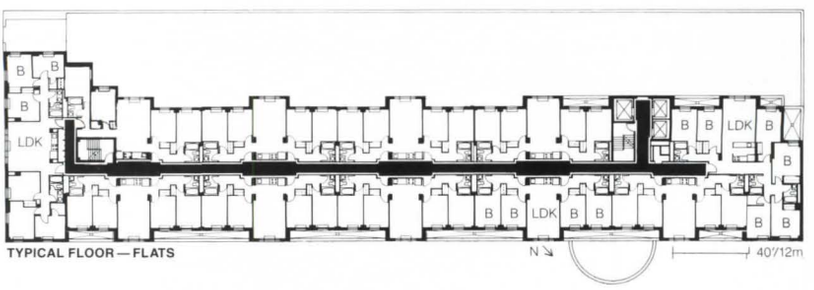
Consultants: *Hanna/Olin, landscape; Robert Rosenwasser Associates, structural; Cosentini Associates, mechanical.*
General contractor: *Morse Diesel.*
Costs: *about $17 million, excluding furnishings and fees.*
Photos: *©Wolfgang Hoyt/ESTO.*



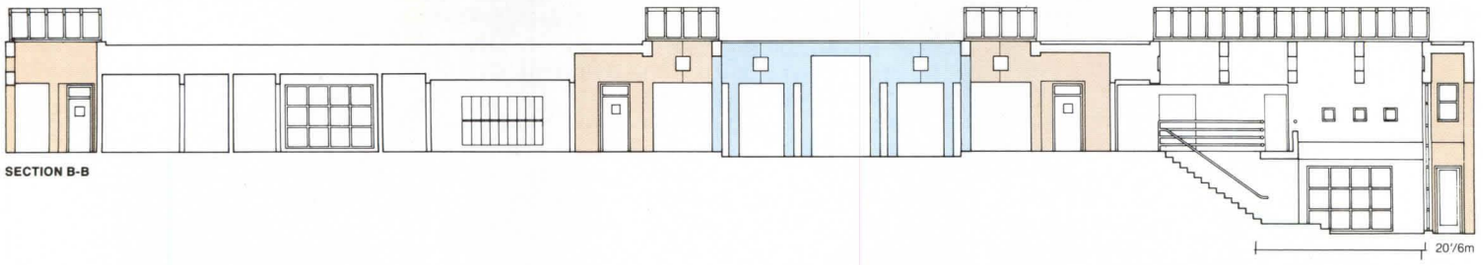
SECTION LOOKING EAST



14TH FLOOR — DUPLEXES



TYPICAL FLOOR — FLATS



In this P/A-Citation-winning school addition to an existing religious community center, architects DiNapoli/Berger have used a central court and skylighted arcades for shelter and daylight on a foggy, windy site, arranging them to give a sense of quiet order.

IN the chilly, foggy western reaches of San Francisco stands a group of religious institutions—Roman Catholic, Greek Orthodox, and Lutheran, among others—strung along an arterial street named, appropriately, Brotherhood Way. Among them is Beth Israel Judea Temple, built in the 1960s on a hilltop, with its Jewish Community Center on the lower slopes.

In the 1970s, this community center was losing its supporting population, and a plan was developed to reinforce it by combining its successful nursery school with a Jewish elementary school then sharing space with another school in the city. A program drawn up in 1981 by Marquis & Associates called for the school's use of the existing gym and some other facilities, while the new construction, including ten classrooms and a library, would be suitable for community center use after school hours.

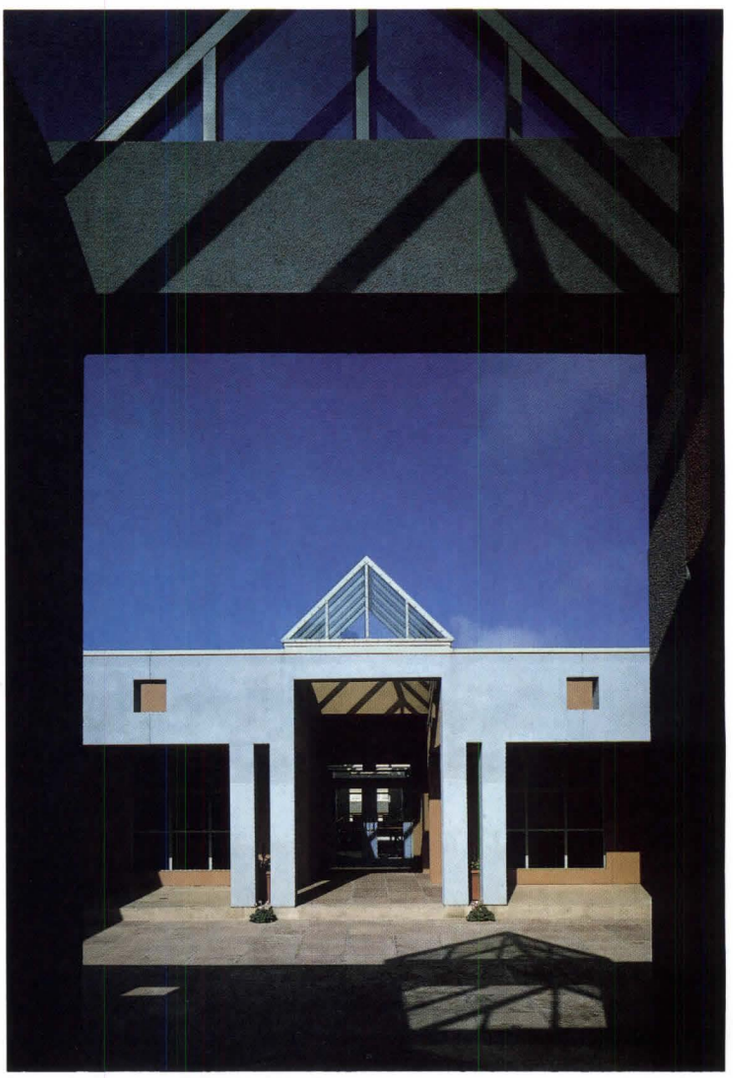
As architects chosen to carry out this program, DiNapoli/Berger faced two major hurdles: a very limited budget and a problem site. Funding for the addition was eased when the proposed design won a P/A Citation in 1984. The honor elicited gifts that provided an adequate budget for the addition even after $128,000 was diverted to upgrading the existing gym for use as a theater.

The site for the addition was a former ravine, filled with debris from a nearby excavation in the 1950s. Its resulting instability required a massive, costly concrete beam foundation. Its location at the bottom of a north-facing, wooded slope exaggerated the general lack of sunlight in this vicinity, but the sunnier level area further north had to be reserved for playfields.

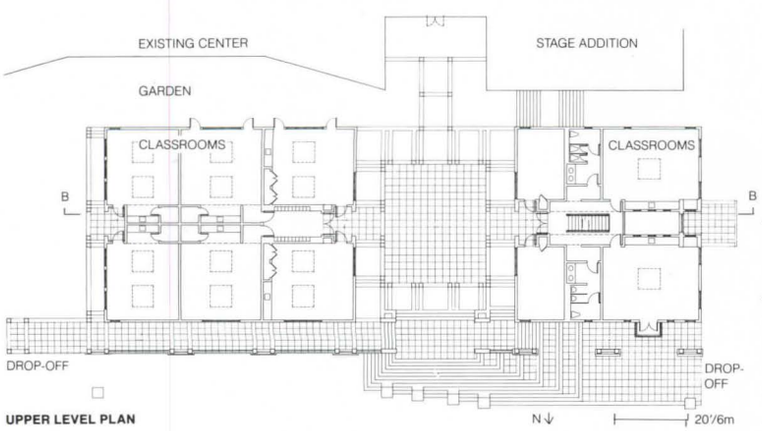
The face of DiNapoli/Berger's extension now serves as the gateway to both the school and the community center. Although it presents a commanding front toward the public street, its moderate scale and earth color make it fit comfortably among existing structures, and its modular arcade forms an effective backdrop for outdoor games. The designers also considered the visibility of the addition roof from the temple up the hill, developing an orderly arrangement of peaked skylights and parapets on an otherwise clean roof.

The building's design is highly legible, with color used to highlight elements. The light blue of the railings and skylight framing complements the prevailing tan; use of blue in the courtyard makes it readable, even from a distance, as the open core of the structure. The only significant weakness of the building seems to be that the small classrooms, while nicely scaled for children, were not large enough for adequate storage and equipment.

Just as the P/A jury's recognition of the design hastened funding, the success of the building in use has revitalized the community center—so much so that DiNapoli/Berger are now designing an expansion. Additional classrooms—larger than the present ones—are to be built over part of the community center. ***Sally Woodbridge*** ■

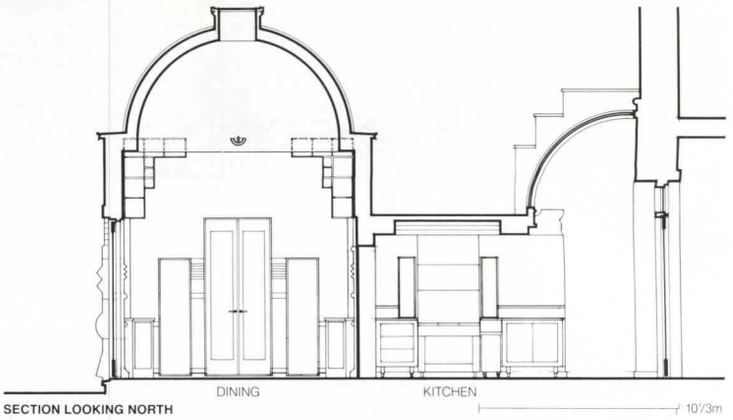


Skylight-covered and wind-sheltered public spaces respond to the bleak coastal climate of the building site and form the major social spaces in scheme comprising mainly basic classrooms. The central courtyard (above) accommodates gatherings and allows through access to the preexisting community center from the new public entrance (facing page, top). Here, generous stairs double as bleachers for games in front of the school, the site's only suitably flat area. The front arcade (facing page, left) gives the whole complex a face of appropriate scale and provides covered area for access roadways at either end. Inside the school (facing page, right) the sun-catching skylights and blue pipe railings continue.



UPPER LEVEL PLAN

Project: *Brandeis Hillel Day School, Frank and Jennie Gauss Campus, San Francisco.*
Architects: *DiNapoli/Berger Architects, Berkeley, Calif. (William DiNapoli, Miles Berger, design principals; Larry Tarter, project architect; John Barton, Troy Bassett, Lucinda Harvey, Peter Lena, Reid Lerner, Betsi Macdonald, Britton Schlinke, JanLee Wong, assistants).*
Site: *1.85 acres on a north-facing slope, adjoining existing community center.*
Program: *ten classrooms, library, stage addition, other school facilities (9885 sq ft interior, 4452 sq ft covered areas); remodeling 6226 sq ft of existing building.*
Structural system: *concrete slab; wood frame with some bearing walls designed to absorb shear.*
Major materials: *plywood with cement plaster exterior; gypsum board interior walls; built-up roof; wire-glass skylights (see Building Materials, p. 192).*
Mechanical system: *individual hot water baseboard units; heat from main gas-fired boiler.*
Consultants: *Barber & Associates, landscape; Shapiro Ikiro Hom, structural; Lefler Engineers, mechanical; Stan Anderson, electrical; Dames & Moore, soils; interiors by architects; Laura Lempert, color.*
General contractor: *Gilco Construction Co.*
Costs: *$1,228,846 (actual, 1984, not including furnishings or fees); $75 per sq ft for new construction.*
Photos: *Dugart.*



SECTION LOOKING NORTH

In a small back garden addition to his own townhouse, architect James Rossant of Conklin Rossant accommodates the specific interests of his wife, a food writer, while integrating a remarkable variety of his own ideas about space and detail.

ATTEMPTING a serious architectural statement in a mere 300-square-foot house addition can be risky for a young architect. But James Rossant is no ambitious youngster; as a partner in the established firm of Conklin Rossant, he is used to working at urban scale—currently on a new capital city for Tanzania. Even the richly eclectic design ideas he has brought to this small project are combined with mature discipline.

Rossant and his wife, food writer Colette Rossant, have long owned an 1832 townhouse in a motley (unlandmarked) block in SoHo. Their kitchen and dining room were in the original garden-level location. Since their children were leaving home, they decided to turn this lower level into a rental unit and add a main-floor kitchen and dining room for the small dinner parties the Rossants frequently hold.

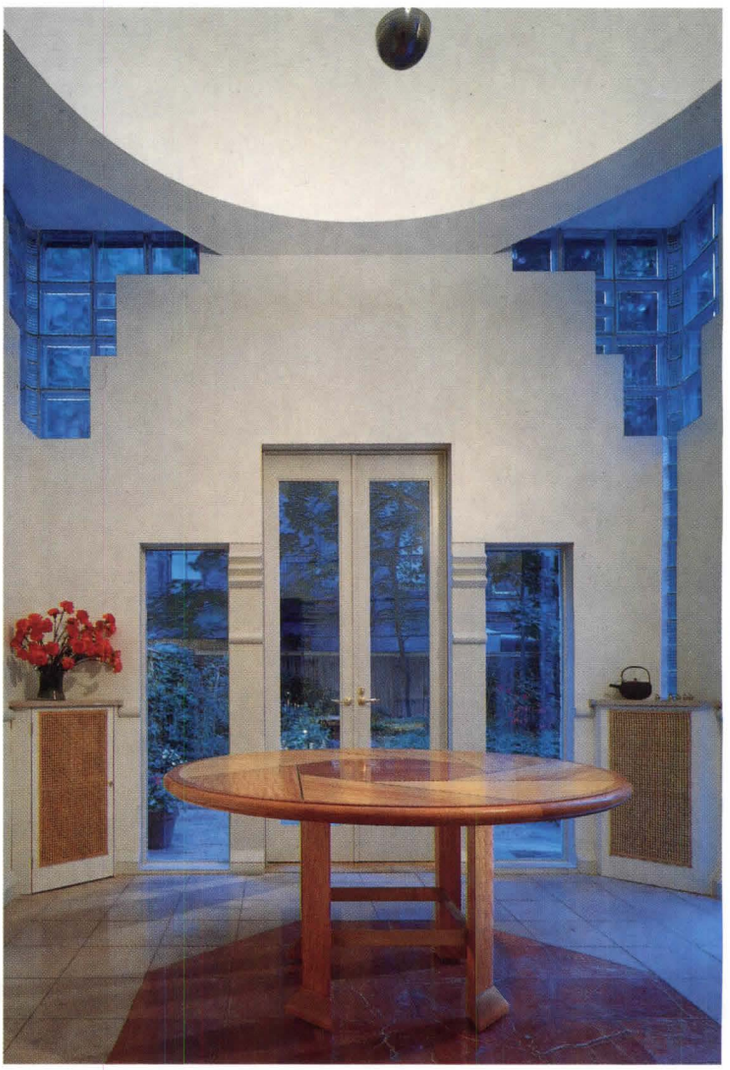
Rossant's design shrewdly adds a dining room in the garden without blocking the outlook from the main living space. It provides a glazed conservatory, sheltering a dining terrace for the downstairs unit, which is nicely separated from the owners' new terrace. The obvious drawback—that guests have to pass through the kitchen to reach the new dining room—was considered acceptable, especially since Colette's cooking style is fast and neat, incorporating Oriental techniques.

The square, domed dining room is a ritual setting, centered on an architect-designed table. With no furniture except chairs around this table, the 11-foot-square space seems ample. The dome relieves the volume in the only direction in which it could be expanded.

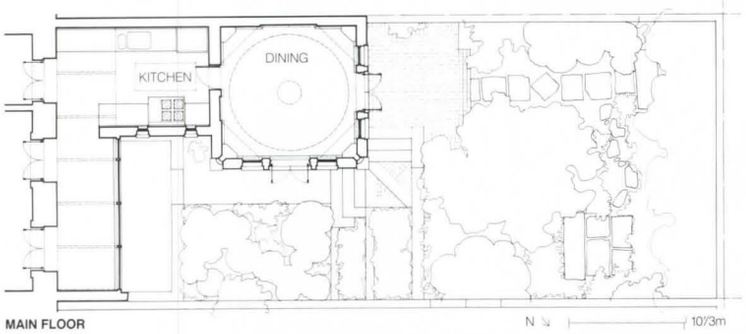
From outside, the dining pavilion has the miniaturized monumentality of a Renaissance *tempietto*. But Rossant points out that it is more closely related in form to the small courtyard mosques of Cairo, which he has been examining en route to and from Tanzania. Where the all-masonry mosques have massive pendentives transferring dome loads to the cubic base, however, he has supported his lighter dome on angled beams and substituted pendentive-shaped areas of glass block, which capture and transform any light that enters the garden—even light from surrounding windows at night.

There is Classical inspiration, says Rossant, in the skylight, a circular opening with a square lid, and in the abstracted Palladian composition of the French doors flanked by lower headed windows. The stone mullions between these openings recall yet another historical source, Victorian New York, where cast iron and brownstone mullions were often carved on the front face only—with vaguely anthropomorphic forms like these—to save money and produce flat jambs. On the interior, wood moldings recall these motifs at finer scale.

While the design inspirations behind this little addition may be remarkably numerous—and the suggestions they evoke even more far-flung—the result has integrity. ***John Morris Dixon*** ■

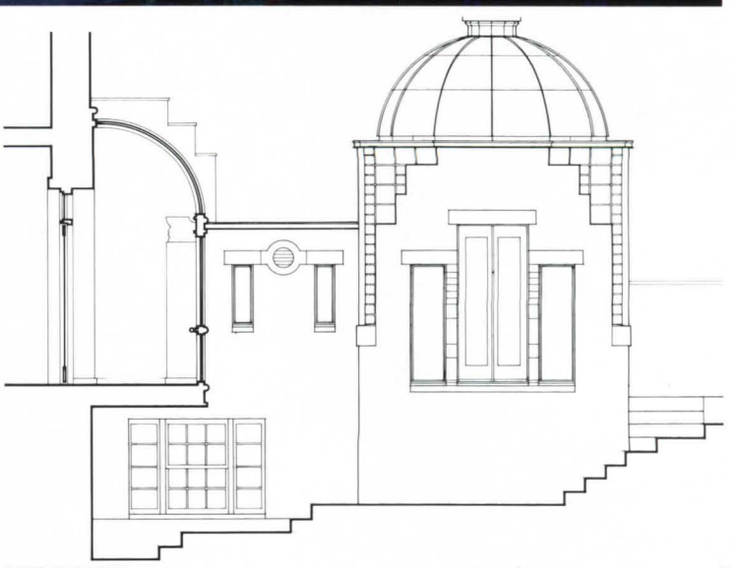


Form and details of the dining room block (facing page, middle) suggest sources as divergent as Renaissance, Islamic, Victorian, and Early Modern. In the 11-foot-square interior (above), devices such as differing window and door heights and a featureless dome upset one's sense of scale. Dome serves as a reflector for a small halogen lamp, suspended on fishing line, with power from a coiled cord. Architect-designed table for eight—60 inches in diameter—has inlays of oak, primavera, and bronze around a marble octagon; the octagon is repeated in red marble inset in floor of French polished limestone. Two of corner "hutches" are for storage, two supply heat. Linking the dining room block to the main house is an L-shaped kitchen-conservatory element (aerial view and plan, facing page). Copper cladding of handrail and window head help relate greenhouse framing here to remainder of addition; sun-shading is not needed in this location. Stone-trimmed circular vent in kitchen wall marks location of range.



MAIN FLOOR

Project: *House extension, New York.*
Architects: *Conklin Rossant, New York (James S. Rossant, partner in charge; Christopher Barriscale, project manager).*
Clients: *James and Colette Rossant.*
Site: *rear garden, 25 ft wide.*
Program: *addition to 1832 townhouse; dining room, kitchen, enclosed balcony. Total added area: 300 sq ft.*
Structural system: *brick-faced masonry bearing walls; wood frame roof with steel dome ribs.*
Major materials: *brick, limestone, copper roofing, aluminum and wood-framed insulated glass (see Building Materials, p. 192).*
Mechanical system: *fin-tube radiation, existing system.*
Consultants: *Mark K. Morrison Associates/William Wallis, landscape.*
Cost: *$75,000; $200 per sq ft, excluding furnishing, landscaping, fees.*
Photos: *© Wolfgang Hoyt/ESTO.*



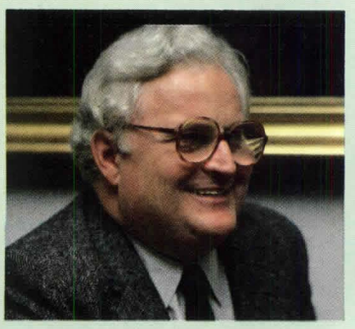
NORTH ELEVATION

P/A Sixth Annual International Furniture Competition

Does art have a place in the marketplace? An age-old question rears its head again in this year's competition, as the jury ponders the gap between finely crafted, more conceptual designs and those that offer innovative and applicable solutions to basic furniture design problems.

HAS the art of furniture design become more art than design? It's hard not to draw that conclusion in examining the eight winners of P/A's Sixth Annual International Furniture Competition. Of the 938 entries that came in from 29 countries, the overwhelming majority were for furniture that was one-of-a-kind art rather than production-oriented design. Indeed, while the competition was and is intended to offer a forum for new ideas rather than a proving ground for product design, this year's jury questioned the consistent gap between the more conceptual pieces and those that are clearly intended for production. Is there no reconciliation possible between the two ends of the spectrum? Obviously there must be—we've seen it in the classic designs of Mies, Breuer, Aalto, and Eames, among others—but it doesn't seem to be happening today; both the technological and cultural imperatives seem to be absent. Almost all of this year's winners—with one or two exceptions—are either conceptual or one-off, craftsman pieces, intended for home or gallery rather than for the assembly line. What these pieces *are* strong on is craftsmanship, and this quality figured prominently in the jury's discussions. But, as evidenced by their comments (facing page), craft isn't everything. The rediscovery of furniture design by the art and architecture communities is now an established fact; the question is, how to make it a fact of everyday life? Or is architect- and artist-designed furniture destined to remain a luxury item?

The jury gave no awards this year; they found two entries worthy of citations, and gave the other six honorable mentions, citing a lack of what they called "big ideas" or truly innovative approaches to furniture problems, and criticizing what they termed "design inflation," which causes too many small ideas to appear as big ones. Furniture design is a very old endeavor whose problems have been examined from just about every angle; it simply isn't possible (or necessary) to reinvent the wheel every year. But it's clear that some of the age-old problems of the discipline need redefining, perhaps by some of the more enlightened members of the industrial and architectural design professions, in order to spark some fresh solutions. *Pilar Viladas* ■



William Stumpf is a furniture and industrial designer, and principal in the firm of William Stumpf + Associates, Minneapolis.

1986

General comments

Haigh: Having looked at over 900 entries, there is a large amount of personalized, handcrafted furniture. Regarding the discussion we were having earlier about "design inflation," perhaps we would be in a better state if some of these people didn't design, and there were fewer entries that were of a higher quality.

McCurry: So much of what we saw was highly personalized, ornate, and overdone.

Stumpf: It's like everyone's designing images out of the magazines instead of going back to basics and understanding things.

Wrede: One concern, when one looks at all of this, is that it seems as if we picked a lot of one-off things. There aren't many objects here I could see going into production.

Haigh: Out of all the entries I saw three things that addressed that issue, that said "I'm an object addressing mass production."

McCurry: I saw a fair number of well-constructed craftsman pieces.

Stumpf: The Post-Modern language is becoming somewhat boorish very quickly. There's a McDonald's at the Minneapolis airport that is a marble affair, and you look at it and say, "My God, it's come this far." You almost wish that kind of thing would come back the way it originally was . . . There is a strange thing going on here; I mean there's a lot of paper concept and very little physical design; and those things that are finished and crafted seem to lack in concept. There's a divorce between the two, which I find very frustrating.

Haigh: Two or three years ago you could identify a certain amount of eclecticism emerging, you could identify a certain shift. Do we recognize any movements here, any real trends?

Wrede: Certainly looking at what we picked out, what I see missing are the more production-oriented pieces.

Haigh: I don't think we could find enough quality pieces of that sort to honor . . . It's not that we didn't choose them, it's that they weren't there.

Stumpf: The production sphere is an increasingly more fearful experience to a lot of people. The more I think about experimenting in *furniture* design, the less I think about production.

Wrede: When I talk about production, I'm not necessarily talking about something that's totally oriented to the economics of production; I'm talking about pieces that one could imagine as duplicates, that many people would want. A lot of the pieces that we picked are oriented to a very limited market.

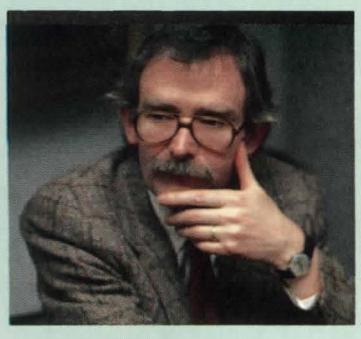
McCurry: We were all searching for universals, but instead found solutions for particularized situations. What we saw was so heavily "designed," and so much of a particular "time spot." We looked for something more inventive; there were a lot of gimmicks. In the end, we had to choose things with iconic appeal when what we were really looking for were things that could be mass-manufactured—the "chair of the '80s," that sort of thing.

King: I was looking for the quality of the ideas behind the design, an aesthetic or functional concept—ideally both. There were some beautifully crafted pieces, but craftsmanship alone is not enough. Some pieces would work or do a job, but that is perhaps the basis from which we would start, not a point of arrival. I was attracted to those entries where you could see people trying for new concepts. But too often they were spoiled by the use of badly done Post-Modern clichés or careless detailing. I think I was looking for signs of new uses for furniture—or better still, furniture for new uses and needs. I was amused by the humorous and ironic entries, and only sorry that we couldn't mention them because they were not complete, or their presentation was so poor that we could not understand them as 3-dimensional objects.

Paul Haigh is an architectural, interior, and furniture designer, and partner in the firm of Haigh Space, New York.

Margaret McCurry is an architect and furniture designer, and a partner in the firm of Tigerman Fugman McCurry Ltd., Chicago.

Stuart Wrede is an architect, historian, and a curator in the Department of Architecture and Design, The Museum of Modern Art, New York.

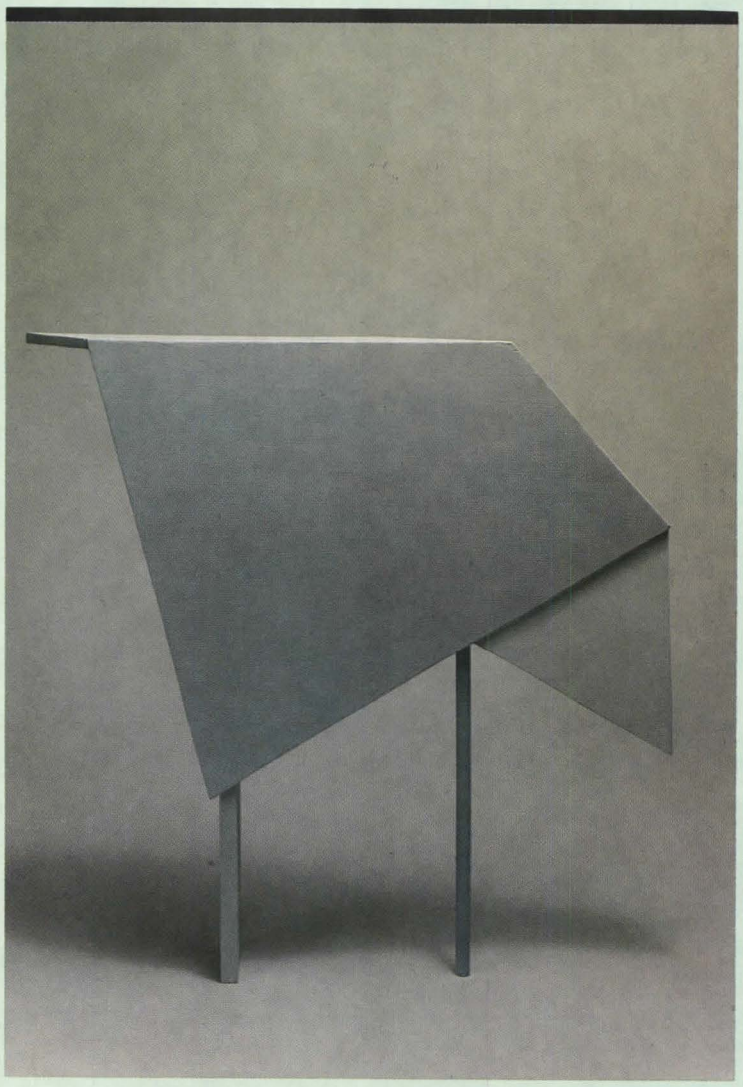


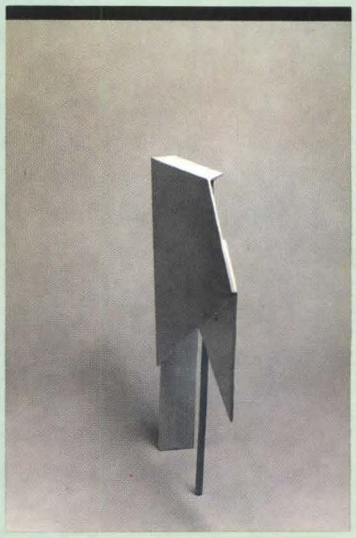
Perry A. King is an industrial, furniture, and interior designer, and partner in the firm of King/Miranda Associates, Milan.

Photos: Kerri Pickett

CITATION

Sarah Graham
Angelil/Graham Architecture
Boston, Massachusetts

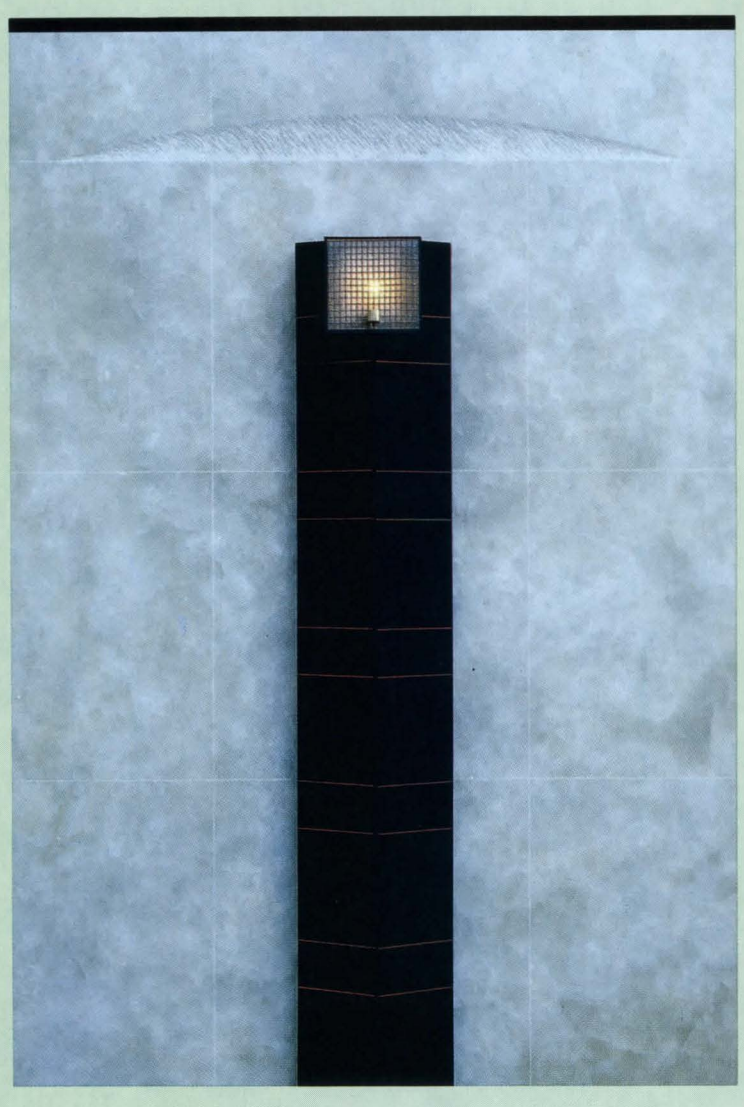


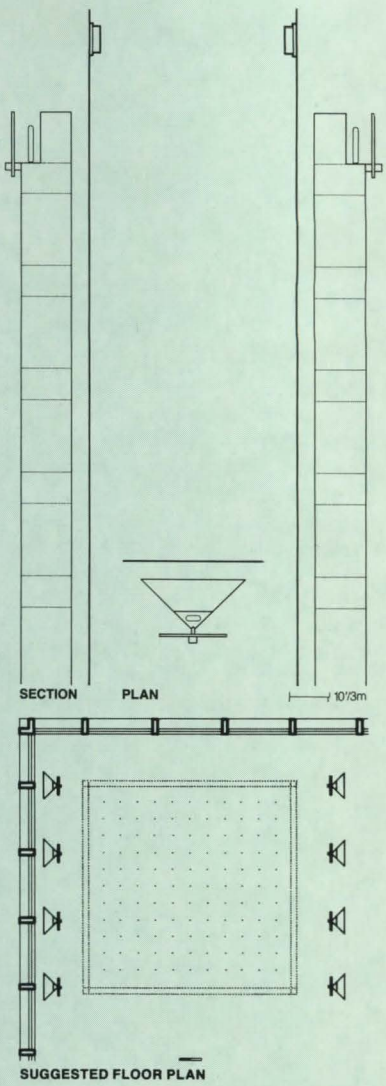


Project
The table, composed of two legs, a top, and folded vertical planes, is made of white-and-gray-painted plywood, and measures 28 inches high, 28 inches wide, and three inches deep. The Cubist still life painting represents space as occurring in two dimensions with multiple reference points. This table has been brought back out of two-dimensional space and made only slightly three-dimensional. Perspectival vanishing points occur over more than one plane. The investigation involves multiple and simultaneous representations of space.

Jury comments
Wrede: It's not actually a table; it's a sculpture.
Stumpf: I like this . . . even if it supported something as simple as a candle. It is a transitional kind of furniture.
Haigh: In that Cubist tradition, it's a nicely transformed table. It's not really a functional discussion; the table could be used if you really wanted to, but it's really . . . just elegantly transformed.
Wrede: It's a wonderful, ambiguous piece in that sense.
Stumpf: Which is a legitimate thing for a piece of furniture to be. It is a broad definition of function, but it is fine. I can see having one of those somewhere, with a cat sitting on it or something—a pretty trim cat.

Sava Cvek
with Shahin Barzin
Newton, Massachusetts





Project
A standing light fixture, 76 inches high, 18 inches wide, and 12 inches deep, veneered with black marble tiles. The shade can be made of different materials, such as translucent marble, etched glass, or perforated metal sheets.

Jury comments
McCurry: It looks very elegant.
Wrede: What is this little arch floating above it? Is it pure effect?
Haigh: It's part of the wall. The light is considered in terms of architecture through a series of placements in buildings. I like the idea that it's considered in context.
McCurry: Yes, it's one of the nicest things we've seen.
Haigh: I don't think this is *the* original lighting idea by any means, and I think many people have tried lighting through the translucence of different quality materials, which this suggests . . . What I do like about this piece is that it was the only light that talked about being in a piece of architecture . . .
Wrede: Haven't similar things been done before?
McCurry: Not exactly in that form. There is an elegance of the proportion . . . and of the materials. I haven't seen one as handsome as that.

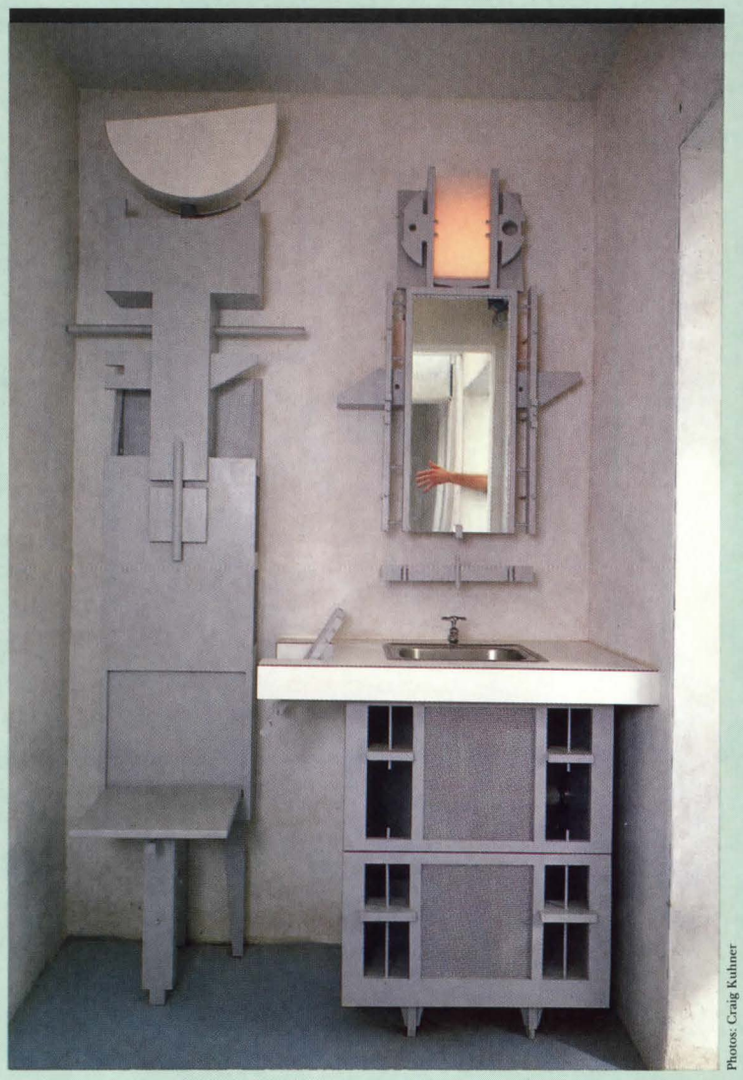
HONORABLE
MENTION

Thomas Hucker
Charlestown, Massachusetts

Project
A side chair, 29½ inches high, 46 inches wide, and 19 inches deep, of gray-lacquered plywood with solid mahogany edge caps, and a solid wenge wood base. The chair, which is intended for limited production, is based on a traditional Chinese system of back-slat lumbar support; the height of the back is intended for optional elbow support. The chair offers partial "framing" of the seated occupant from the surrounding environment.

Jury comments
Wrede: I find it formally extremely elegant. I can't guarantee how it would feel to sit in, but it has real presence.
King: It's a difficult one, isn't it? It's heavy, but it is one of the most original things we've seen here.
McCurry: It's a chair as wall.
Wrede: Well, I would say that it's formally elegant . . . formal elegance achieved with a real economy of means. It has a kind of totemic, monumental quality.
Stumpf: I think it's so formal . . . Well, comfort's an issue.
Haigh: [It looks] very, very uncomfortable to get out of.
McCurry: It's one of those hallway chairs.
Wrede: But it also suggests a kind of primitive, tribal seat.
Haigh: I just don't like it. I don't like anything about it.

J.P. Maruszczak
Jay Kline, fabricator
Fort Worth, Texas



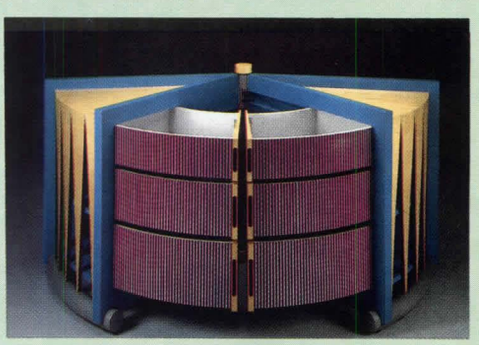
Photos: Craig Kuhner

Project
Domestic Totems, 6½ feet tall and 2½ feet wide, built of simple wooden members, are an ensemble of characters for the enjoyment and animation of a pool/cabaña setting. Their respective roles are defined by four pool-side activities: dressing/undressing; washing/drying; preparation/serving; storage/sundries. While in this particular instance the furniture was designed in situ (an open-air cabaña), they can be seen as prototypes for freestanding or mobile objects in counterpoint to the predominant horizontality of the Texas landscape. The objects suggest the mobility of outdoor furniture.

Jury comments
Haigh: I like this one. I wish we had some really good photographs of it.
McCurry: I find the whole notion very peculiar. There's a wheel on the sink . . . it's perverse . . . I don't think it's totemic enough. The drawings say something about it, but the actual pieces don't say something the way the drawings do. And I think that is because of all those parts. If you take any one piece away, you lose the series of totems; and that's why I find it a slightly throw-away commentary.
Stumpf: The presentation kills it, first of all, but I am intrigued by the idea.
King: Can we go on record as saying that there might be more than meets the eye, more there than the presentation has shown?
Haigh: What is nice about this for me is that it takes that mundane situation where we see so many accepted, ready solutions, and, just by challenging it with an idea, you can put a new disposition on mirror light, sink, storage, etc. . . .
Stumpf: It also looks like it's possibly affordable fun. And the other thing is, to me, that it would accept clutter.

HONORABLE
MENTION

Todd White
Charlestown, Massachusetts



Project
A chest of drawers, 72 inches long, 30 inches wide, and 36 inches high, of lacquered plywood, bird's-eye maple veneer, aluminum, and bronze. This piece was designed to be placed against the wall or out in the room, but it can also be closed and rolled into a corner for more compact storage. Both shells and drawers hinge off the center post. The hinge, made of bronze bushings and a stainless steel pin, allows the drawers to remain perfectly horizontal when open. The drawers are visible through the case, and the stripes produce an optical blur effect when the drawers are open.

Jury comments
King: I think that's one of the most elegant things we've seen.
Wrede: I'm bothered by these triangles. It looks like the piece might be, in fact, more elegant without them. . . . they are totally unrelated to the piece.
McCurry: They're telling you that it's in segments, that it moves.
Wrede: You could have done it in segments, but when you do it this way, you're doing a gesture too much.
Haigh: I disagree with you. Formally it has come out of the idea of segmentation from the center.
Stumpf: I'd agree with that. What I found very playful about it is that it is a box within a box.
Wrede: It's a 90-degree angle; presumably it's a corner piece, but if you want to get at the drawers, you're going to have to pull it out. It's two wedges, as I read it.
McCurry: It's not a corner piece; it's a wall piece.
Wrede: But if you put it on a flat wall, it seems awkward.
King: It transforms from a right angle to a half-circle. I think the thing that's appealing is that there is a level of diversion about it . . . You know you've got to partake of that object; it's not static, and that's O.K.

HONORABLE
MENTION

Laurie Ann Campbell, Creator/designer
Joe Hastings, Codesigner/ fabricator
Brenda Schlegal, Silversmith/ sculptor
Walnut Creek, California

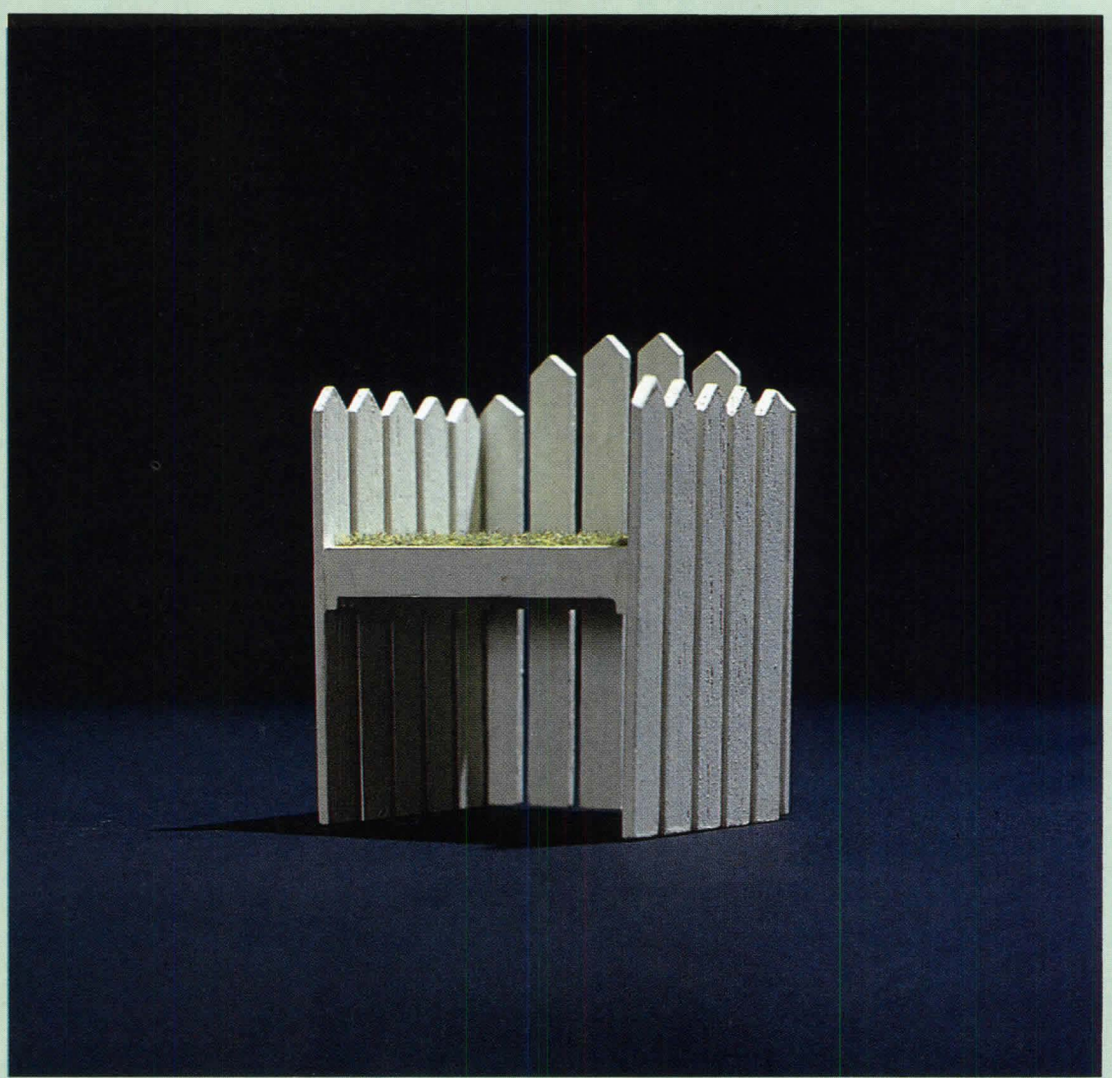
Project
A table, 29 inches high and 27 inches in diameter, of ebony, with triangular-section legs and cast-silver ornament. The tops are heads of Medusa; the feet are human, entwined with snakes. The table, which addresses the issue of superior craftsmanship and materials, is classified stylistically by the designer as Egypto-Roman Contemporary.

Photos: Laurie Ann Campbell

Jury comments
McCurry: Is there only one head that shows and the others are sort of tucked under?
Haigh: I think they're all on the same perimeter.
McCurry: Well, that would be just wonderful if just one head came out and the others were hidden.
Wrede: I recognize its skilled craftsmanship, but beyond that it doesn't do anything for me. I find it a very eclectic, rather boring piece.
King: The only reason I want to keep it in is just to talk about the quality of the workmanship. It's extraordinary, with its human feet.
McCurry: But I don't think there's anything wrong with eclecticism in and of itself.
Wrede: It's how it's done.

HONORABLE MENTION

Stomu Miyazaki
Jackson Heights, New York

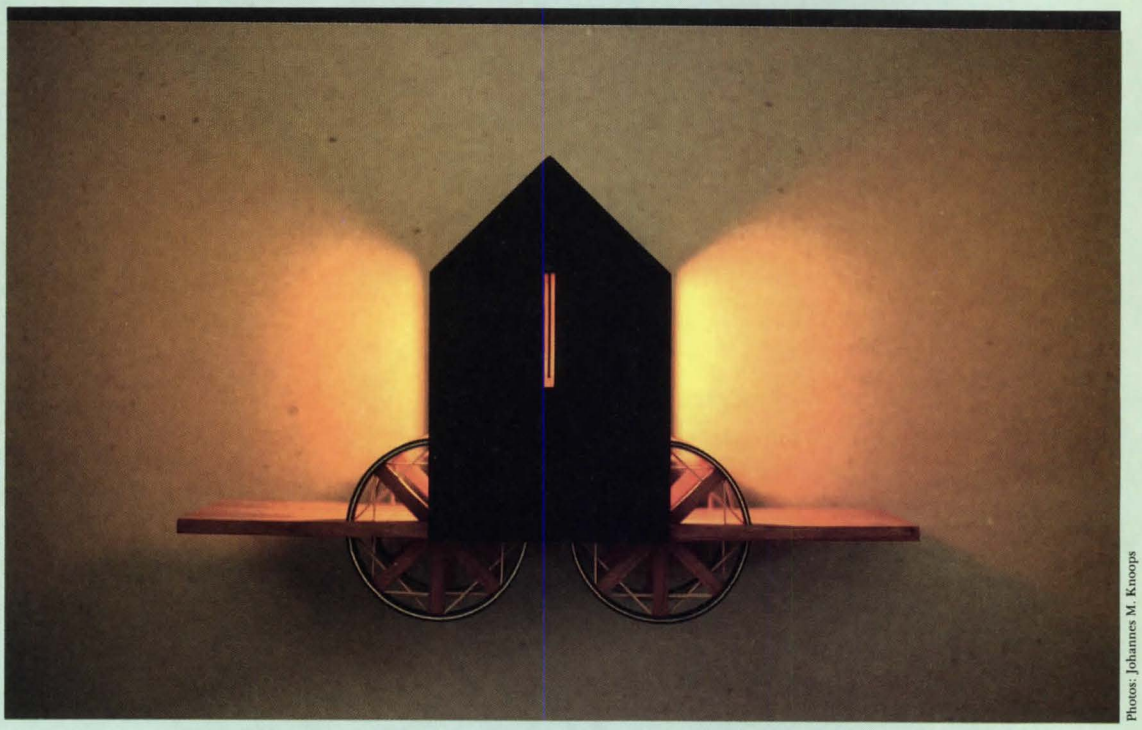


Project
A chair, 30 inches high, 23 inches wide, and 20 inches deep, of white painted wood, with a seat of natural or artificial grass. Part of a series of designs called Narrative Furniture, this chair pays homage to the American Dream, providing psychological communication with form, and allowing the viewer to create his or her own story. The chair can also be used as a planter.

Jury comments
Wrede: It's not that it's naïve; it's more than one might expect. It's very sophisticated . . . It's a low-key, very sophisticated commentary.
King: It's a one-liner, but it makes me smile.
Wrede: It's a formally elegant one-liner . . . It's simple, with a very strong metaphoric sense at the same time. It refers to a sort of past culture without being sentimental.
McCurry: It's a wonderfully whimsical piece and I agree about the metaphors, and I think maybe we're all too fond of it because it says something so simply.
Stumpf: It is very direct.

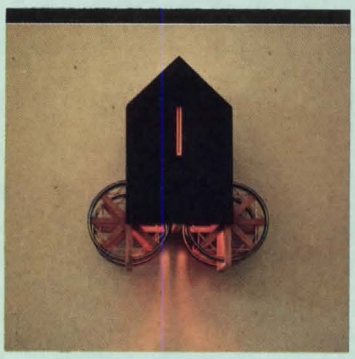
HONORABLE
MENTION

Johannes Marinus Knoops
Brooklyn, New York



Photos: Johannes M. Knoops

Project
A lamp, 9¾ inches high and 6 inches wide, not including the 9-inch doors, made of cherry, and black-dyed and natural bass wood. Structured around its light source (an incandescent bulb), the fixture serves as a device to regulate the light's orientation. Such manipulation is achieved by means of two doors. In the up position, the doors direct light downward; when turned up, the doors reflect the light up.



Jury comments
McCurry: I just liked it very much. I've seen so many sconces that were Roman or Deco or something. This was just whimsy and fun.
King: I think that's very nice, a humorous and friendly little thing.
Wrede: This little house lamp has a kind of vernacular, found quality about it . . . I would find it quite charming if I found it in an antique store up in Vermont. As a kind of very self-conscious creation for a furniture competition, though I find it appealing, I'm not convinced that it merits being picked as one of nine or ten . . . What do the wheels do?
King: They're the pivot [for the doors]. They seem to be a very important part of the function of that. They give it a sort of whimsical air, that friendliness that it's got. I quite like that.
Haigh: So, in fact, it's not like a vernacular referencing system; it's part of the function of the light. These flaps just come down under those big wheels.
Stumpf: It's very mystical, like looking at a house on a dark night, out in the country.
Wrede: Can you imagine this as a system of sconces in your house? I mean, it really functions as one object, as a sculpture, not as a lamp that would be used over again. If you had one in your house, and I had one in my house, that would be one too many.
McCurry: I still find it a wonderful, simple house for a light.

© Rick Alexander

P/A Technics
Machines for Working

High-Tech laboratories are in high demand. They require that the architect understand not just their design, but the specific research activities they serve.

IN the loose parlance of the marketplace, "high-tech" is used for anything from the description of a stylized appearance for furniture to a buzzword in an entrepreneur's business plan. But to a growing number of U.S. workers and businesses, as well as to many architects, the phrase has a rather more distinct meaning.

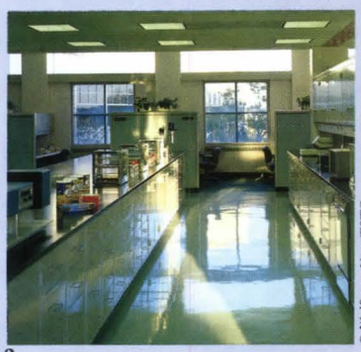
The U.S. Bureau of Labor Statistics defines high-technology industries as those in which expenditures for research and development are at least twice as great as the national industry average of 3.1 percent of annual sales. By this standard, makers of aircraft and aerospace systems, military equipment, chemicals, pharmaceuticals and electronics are high-technology industries. But further distinctions among high-technology business are helpful, because they reflect the kinds of facilities these businesses require:

- ***Scientific and technological*** companies are engaged primarily in invention and, to a lesser extent, in innovation, which is the process of bringing inventions into the marketplace. Because a large majority of research and development expenditures in U.S. industry are aimed at improving the technical basis of existing products and processes—not at inventing new ones—relatively few businesses and laboratories fall strictly into this category.
- ***Technology-based*** companies develop and manufacture products from existing processes, practices, and equipment; their labs are meant to support a commercial program for the diffusion of existing technology. A growing number of businesses—even among relatively mature industries, such as food-processing, which previously had relatively few "high-tech" trappings—fit into this category, which most closely matches the definition used by the Bureau of Labor Statistics. As often as not, such facilities are used for testing and manufacturing under highly controlled conditions.
- ***Technology-related*** businesses sell, install, or service fully developed systems and services. The electronics and communications industries figure prominently here, as do certain engineering and manufacturing operations.

All of these industries require more or less exacting environments in which to carry out programs of research, development, testing, service, and manufacture. For these businesses, the phrase high-tech is redundant: Nearly any lab built today involves processes, techniques, and equipment that are critical and complex.

If it seems ("seems" because nobody actually keeps statistics on the subject) that more such private laboratories are being designed and built in the U.S. today than ever before, there are several good reasons why this might be true:

- Military defense expenditures are rising, and the defense establishment is a generous patron of at least some kinds of technical research and development;
- U.S. companies are expanding into new domestic and foreign commercial markets that increasingly demand complex and highly technical processes;
- For better or worse, many states and municipalities, especially in the industrial "rust-belt" of the Northeast and Midwest, have pegged future hopes and plans on high-technology industries and they have extended generous develop-



© Wolfgang Hoyt/ESTO

2

F.W. Nardin

3

Source: Haines Lundberg Waehler

Different Types of Laboratories

In the *electronics* industry, two challenges are paramount. First are extensive clean room requirements—often to achieve cleanliness levels of "class 100" or below. At the same time, needs for informational networking require horizontal utility channels for information distribution. Space flexibility is also highly valued in most electronics labs since open electronics facilities do not require high-density piped utilities but do require a great deal of interchangeability of equipment.

***Pharmaceutical* research is the most heavily regulated. As a result, a direct relationship between facility design and operation is essential. Pharmaceutical laboratories must, at the same time, reflect the need for close communication between various disciplines. This is especially challenging because of the highly stratified nature of the drug development process from discovery through research into efficacy and safety and on to the manufacture of clinical and formulation characteristics for each drug. The pharmaceutical process also demands a special interchangeability of spaces.**

The design of *chemical* laboratories is increasingly controlled by the objective of assuring the quality and safety of both internal and external environments. Chemical R&D facilities also face an increasing need for piped utilities to service automated equipment such as gas chromatographs. The increasing size and availability of channels to move utilities to locations where high-cost equipment is being located has become a top priority. These channels must also accommodate increased quantities of air to provide for growing hood requirements. Energy considerations in these labs are also particularly important in light of the high containment requirements of these facilities. Beyond these needs, traditional patterns of space allocation and organization are usually still acceptable for most basic chemical research.

***Biotechnology* requires intense energy utilization because great proportions of these research areas are operated 24 hours a day, including animal facilities that require special environmental conditions. The strenuousness of safety precautions in biotechnology environments is not generally as great as for chemical research, but the need for high levels of containment to create isolation suites still creates substantial requirements for air and the treatment of air, solid waste and liquid effluents.**

Research facilities for *consumer products* companies require the highest degree of integration between basic research and process development, since technological innovation, rather than basic scientific research, is the primary developing force. Process development research of the kind most consumer product companies conduct depends on the successful interaction between scientists, engineers, and marketers. In addition, food and consumer product research requires facilities for public testing of packaging, as well as taste and color selection. A completely different type of environment is required for these testing areas, in an otherwise scientific and technical facility.

Designers of laboratory buildings are challenged to provide attractive work surroundings in settings that require extensive servicing, exacting environmental control, and a high degree of adaptability to potential future needs. A two-story interior atrium (1) provides ample sunlight and circulation through administrative, office, and clerical portions of the Research Triangle Park Engineering Building, by Clark Tribble Harris & Li. Adjacent modules house a semiconductor laboratory and computer facilities. Offices for researchers at the Pfizer Central Research Building by CUH2A (2) show a characteristic pattern; offices are placed on the periphery, close to sunlight and air, while laboratory spaces, which often house light-sensitive equipment, are kept to the interior. Interstitial floor spaces (3) have grown in size and complexity, responding to needs for improved access and frequent modification. Services are supplied to lab areas only when and where needed.

ment incentives to such companies;

- U.S. corporate tax policy has favored, by credits and other means, business spending on research and development, leading to new investments in laboratory facilities; and
- Federal regulations and standards governing practices for pharmaceutical, food, and medical laboratories have rendered some older facilities obsolete, adding new pressures on businesses seeking product approvals.

By all accounts, research and development is a big business. In 1985, U.S. industry is estimated to have spent $100 billion on research and development, with a projected annual growth rate of 14 percent. On top of these factors, new knowledge and discovery have combined with new styles of research (and a new generation of researchers, with changed priorities and new interests) to call for laboratories that are at once responsive to highly specific, often conflicting needs, and to inevitable pressures for future change and building expansion.

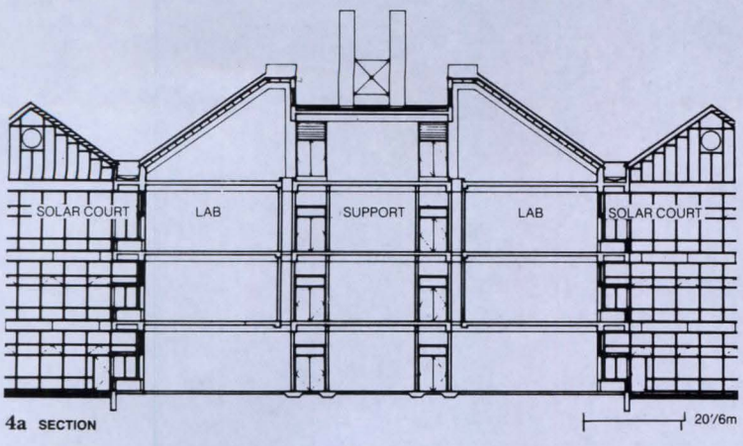
A useful discussion about laboratories must quickly proceed to the specifics of purpose and use. Three generic types of high-technology laboratories and manufacturing environments, ranging from the simpler to the most complex, reveal important distinctions.

High Spec

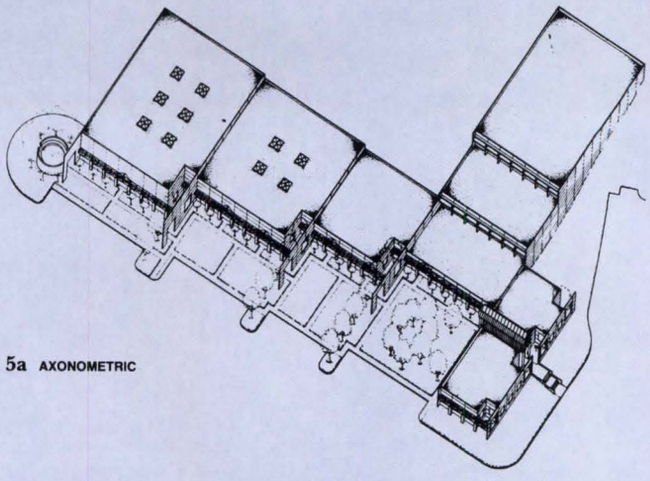
The "business incubator," or a recent variation, the "innovation center," is an increasingly familiar feature on many university campuses and more recently in many public and private developments. A study by the Congressional Office of Technology Assessment shows that state-supported business incubator programs jumped from 12 to 38 between 1981 and 1983, and have nearly doubled (some states now having more than one such program) over the past three years. Industrial innovation programs have their roots in National Science Foundation grants issued in the mid-1970s to universities, but now many such enterprises are run outside of university settings. This includes a growing number that are privately funded, in which the sponsor takes an equity position in the businesses being grown.

The main idea is to provide facilities sufficient to attract or to foster new high-technology businesses, generally by means of three strategies, each with design implications:

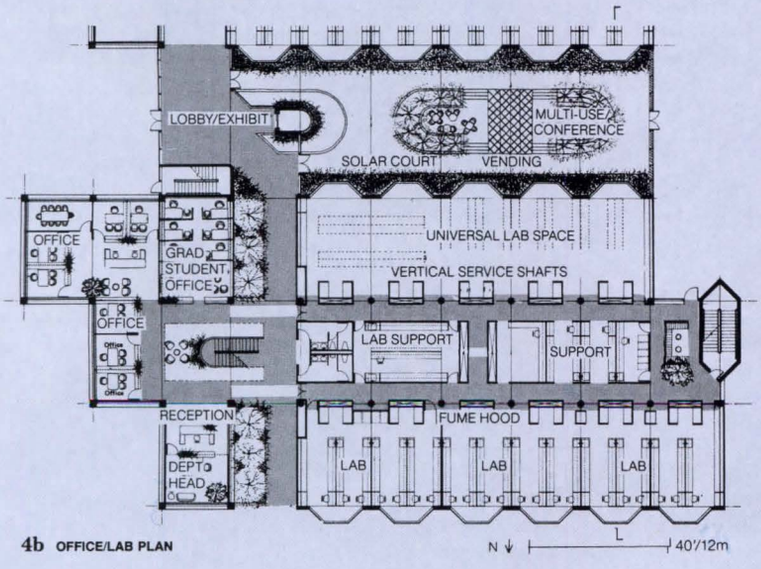
- ***Shared services.*** Tenants are offered access to computing, financial, management, and communications services. In some cases, laboratory environments are shared also. The advantage is supposed to involve economies of scale, so designs must anticipate and accommodate multiple users.
- ***Below market-rate space.*** Part of the nurturing involves subsidy for the costs of startup, meaning that the rent charged for the space is often below what it costs to build and service. The pressures are intense to keep costs to an absolute minimum.
- ***Access to unique talents, skills and facilities.*** A primary inducement is often proximity to a specially qualified workforce or to a unique nearby facility, such as an extremely powerful computer or a highly specialized research or testing facility. In this sense, the incubator may not be a laboratory as much as a technically sophisticated meeting ground.



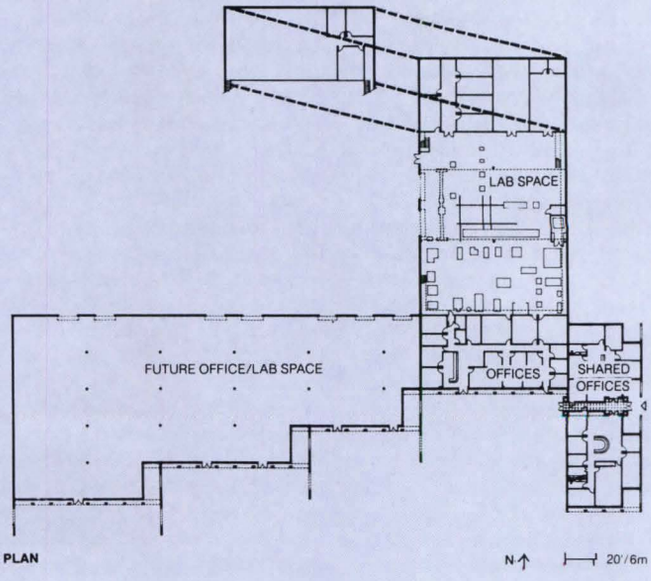
4a SECTION



5a AXONOMETRIC



4b OFFICE/LAB PLAN



5b PLAN

The chief characteristic of the business incubator—and often the feature that makes it most troublesome to the designer—is its speculative nature; the exact occupancy is frequently unknown when the space is designed and built. Spaces and associated servicing systems must be extremely flexible, not least because there can be a high rate of turnover among tenants; some fail as others succeed and outgrow the incubator. The maxim voiced by some designers, that laboratories must be designed from the inside out, cannot be applied to these essentially speculative incubators. Here the search is for what has been called the low-cost, permissive shell and highly flexible, fully demountable interior systems. It's universal space with a vengeance.

Built-in versus furniture-based service systems is an issue for all types of high-tech laboratories, but is perhaps most deeply felt with this type. Furnishing systems for laboratories and for high-tech manufacturing environments have become more permissive and easier to uncouple from the building itself. Influenced in part by federal tax policy, which extends favorable depreciation treatments to certain types of interior building fixtures and systems, the costs of the exterior envelope and structure have dropped steadily in relation to the costs for interior furnishings, from about half in the 1950s to roughly a quarter today, according to one estimate.

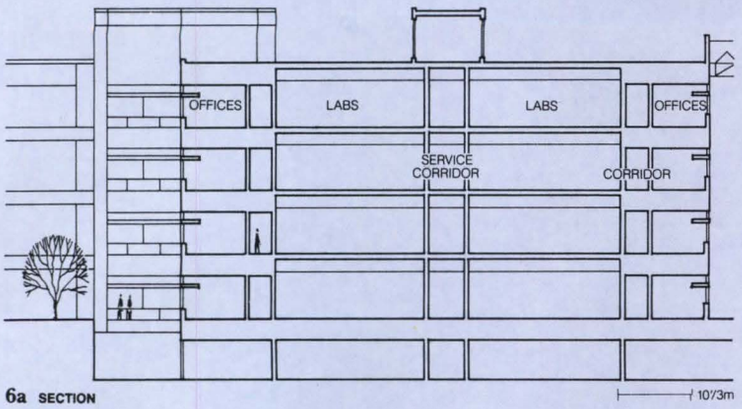
Developments such as packaged "controlled environmental process stations" (CEPS) and packaged clean room assemblies using high efficiency particulate air (HEPA) filters mean that less reliance is placed on the building itself to provide interior servicing. The space can be outfitted and upgraded in accordance with particular needs and changes in those needs. One can envision an era in which interior furnishings for labs will entail self-contained, fully movable capsules. This would be advantageous for many types of laboratories and high-tech factories.

High Mech

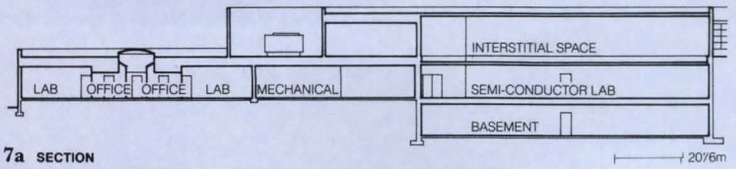
While they are not quite true laboratories, high-technology manufacturing environments are characterized by many of the same imperatives. Foremost are competing demands for extensive environmental servicing and for almost limitless adaptability to shifting spatial needs. This is most apparent in high-technology manufacturing facilities that must accommodate large, sensitive equipment that is being tested, made, or used to conduct diagnoses, tests, and experiments. Similarly, such buildings must not only house known apparatus, but they must also permit removal or installation of future equipment while manufacturing and laboratory work continues. Limiting vibration, dust, toxic or flammable materials, and fumes are the principal challenges.

The seminal designs for modern laboratories from the 1960s by Louis Kahn and Eero Saarinen signaled the beginning of architectural experiments that continue to be played out both in labs and in high-tech manufacturing buildings, but with distinctive new wrinkles. Today's so-called "open field" designs, similar in concept to open office landscaping, represent an enhancement of principles embodied in Kahn's distinctions between served and servant space, as well as his develop-

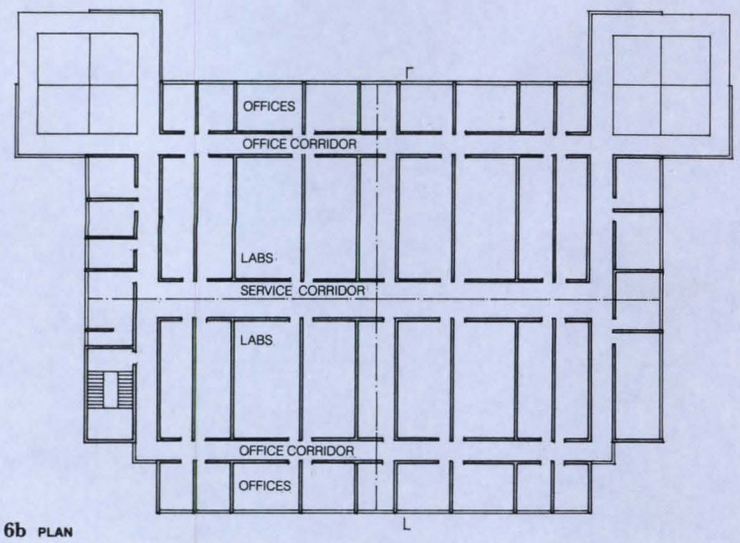
University-based technology innovation centers and so-called "business incubators" reflect an emphasis on shared facilities and seem to strive also for high-technology appearance. Oklahoma State University's 21st Century Center for Agriculture and Renewable Natural Resources, by The Architects Collaborative (4a, b), houses labs, offices, and other facilities for biochemistry, entymology, plant pathology, geology, and microbiology. The center encourages multidisciplinary research with an orientation to the future. Demands for flexibility led to a scheme involving vertical service shafts along the perimeter and internal support areas. The first stage of Washington State University's Research and Technology Park, by Taber/Chaitin Architects (5a, b), is not an extensively serviced facility; because the ultimate tenancy is not known at the outset, the building must be able to accommodate a wide variety of possible systems, and must also provide for shared use of legal, financial, advertising, and marketing services.



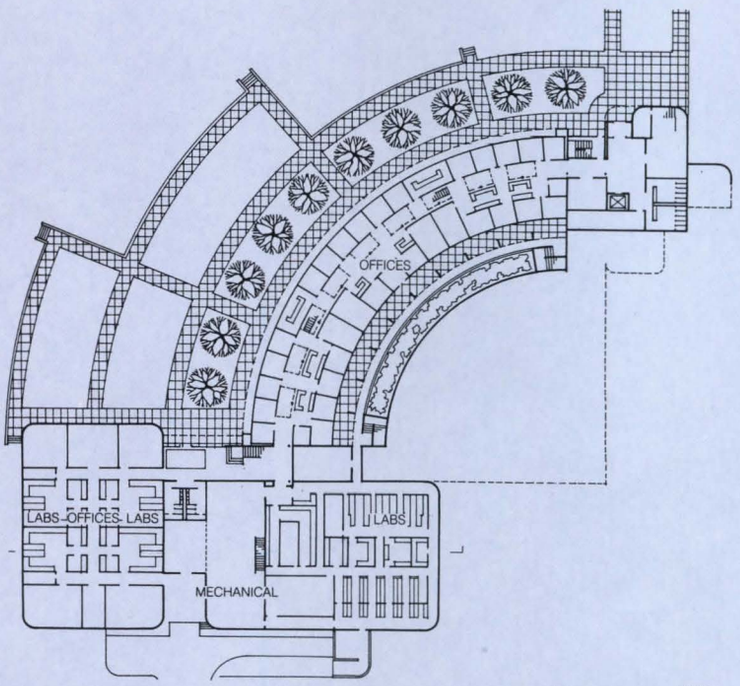
6a SECTION



7a SECTION



6b PLAN



7b PLAN

Flexibility and adaptability are key issues in laboratory building design, encompassing responses to such needs as future growth, reconfiguration and interchangeability of lab furnishings and equipment. There are wide variations in ways to achieve these ends. Vertical service towers link a series of labs, surrounded by perimeter offices in the Austin Research Park by CRS/Sirrine (6a, b). Echoing patterns established in such early lab buildings as the Salk Institute, "served" areas are separated from "servant" areas. The Research Triangle Institute Engineering Building by Clark Tribble Harris & Li (7a, b) houses a semiconductor laboratory (to right at the lower end of the arc in the plan) linked with administrative offices, conference spaces, reference libraries, and other labs. Servicing is integral to the structure. The semiconductor lab is serviced by an interstitial room above and a support room below. Strict separation of the lab from other building areas eases problems of maintaining cleanliness and vibration isolation.

ment of interstitial floor spaces. Following experience with relatively cramped and inaccessible service floors in earlier buildings, interstitial floors in extensively serviced manufacturing environments now assume dimensions nearly equal to those of occupied floors.

Newer generation interstitial spaces are designed to permit utilities and service systems to be introduced anywhere in an open space, but only when and where needed. Lines and services are not extended to every conceivable area as a part of the initial installation, because costs of doing so are simply too high. Instead, aided by larger and more flexible interstitial floors, services are distributed as needed.

There is also increased pressure to keep service personnel and technicians well away from sensitive lab and manufacturing environments, and to assure that changes in servicing of one area will not disrupt the continuity of environmental conditions in another. Hence the increasing emphasis on modularity and interchangeability in servicing systems. If this concern for maintaining stable, controlled environments is vitally important to technology-based operations, such as microcircuitry manufacturing, it is paramount in buildings that house even more sensitive activities.

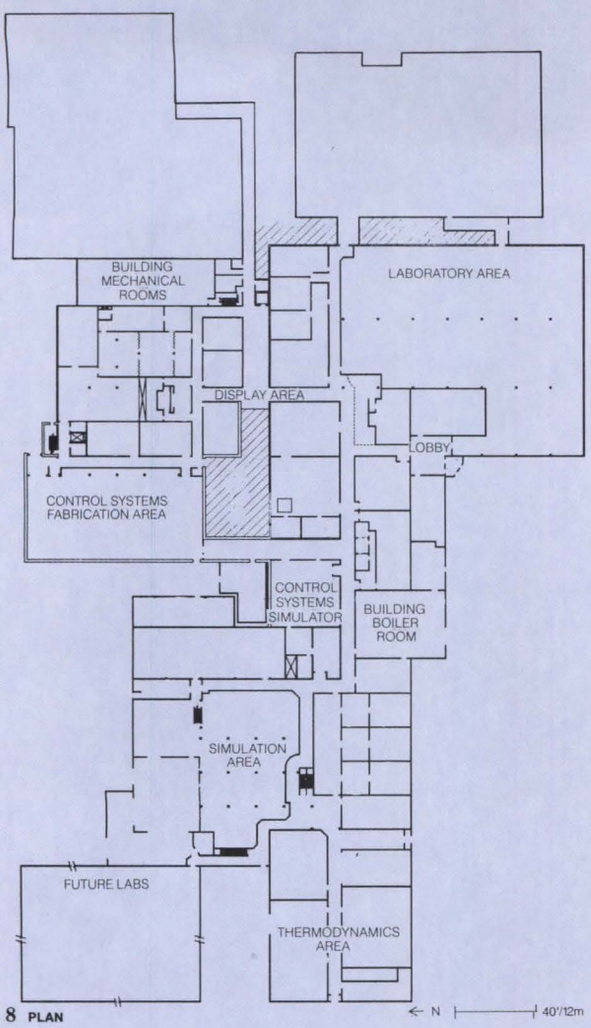
Food and Drugs

By far the most complicated and exacting laboratory environments are those that involve work with pharmaceuticals, food products, and other highly sensitive or closely regulated materials and processes. There is tension in these buildings among four principal factors: the requirements and preferences of scientists, technicians, and service personnel; the demands imposed by experiments, equipment, and processes; the priorities of the sponsoring organization; and the inevitable need for adaptability to future needs.

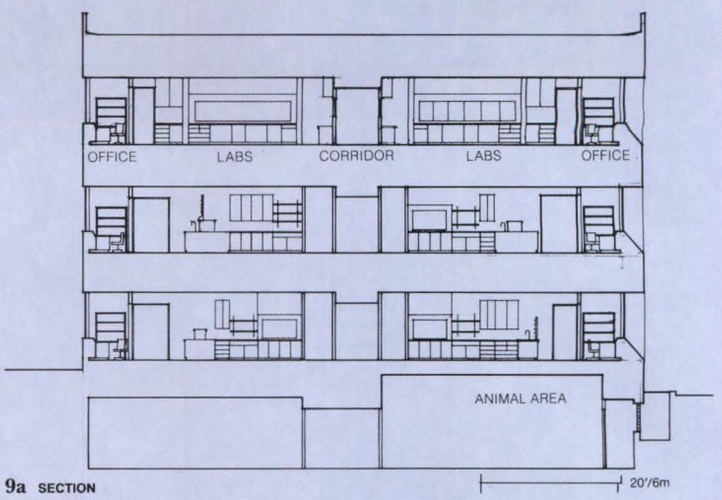
These tensions are reflected in the points of view expressed by various designers. Asserting that scientists will no longer accept working at small, isolated benches, some stress the importance of such amenities as natural light and design features that promote exchange and a collegial atmosphere. Many chemical and pharmaceutical companies stress the beauty of their laboratory settings and emphasize such elements as physical fitness centers and jogging tracks in efforts to attract and keep employees. Other designers, however, remark on the essential futility of efforts to provide natural light and a sense of openness in laboratories, noting that many researchers wind up blocking off the windows and doors because equipment and materials can be very light sensitive. Dark, relatively vibration-free basement space is in greatest demand in many older lab buildings.

In part for these reasons, but also in order to facilitate distribution of critical lab services through corridors, many schemes tend to place office areas (an increasingly important part of the researcher's environment, often required to accommodate computer equipment) toward sunlight and air on the building perimeter, adjacent to internal lab spaces that can be closed off. These layouts tend also to support dual corridors—one in the center for service and another on the periphery for researchers.

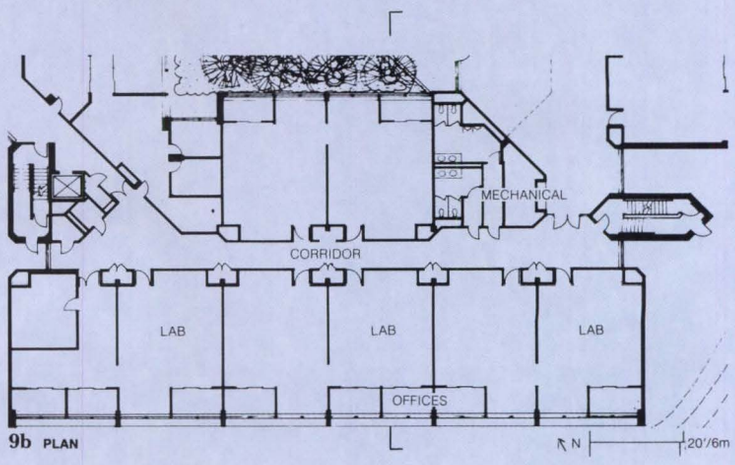
Product development environments are used in-



8 PLAN



9a SECTION



9b PLAN

creasingly to simulate the environment of the end user or customer, as in the case of a food company that investigates how a particular food product responds when subjected to variations in handling and treatment. Taste, appearance, consistency, and other physical and chemical properties may be evaluated repeatedly in conditions that seek to replicate end-use conditions. Thus, many labs must accommodate scientific and technical equipment and instrumentation, as well as conventional household or office appliances.

The safety of laboratory employees and the integrity of experiments, subjects, and substances are major issues. The "Good Laboratory Practice" rules issued in 1976 by the Food and Drug Administration have heavily influenced contemporary laboratory design. Among other things, the FDA rules require strict separation and sequencing of certain experimental functions and substances to avoid possible contamination. Separate circulation areas for professional and service staffs are often essential.

Thus, in labs that must conform to FDA rules (and this means almost any company involved in the manufacture of foods or drugs that require FDA approval), the quest for spatial flexibility is tempered by the need for a rather fixed "barrier" type of design. For example, separating animal populations and toxic substances from people and from one another can be crucial. A single animal study can involve 600 to 800 animals, watched for two to three years, with as many as 4000 observations per animal, so the investment is large. Again, high-tech lab buildings must be capable of adapting in one area without causing the disruption of ongoing work and experimentation in another area.

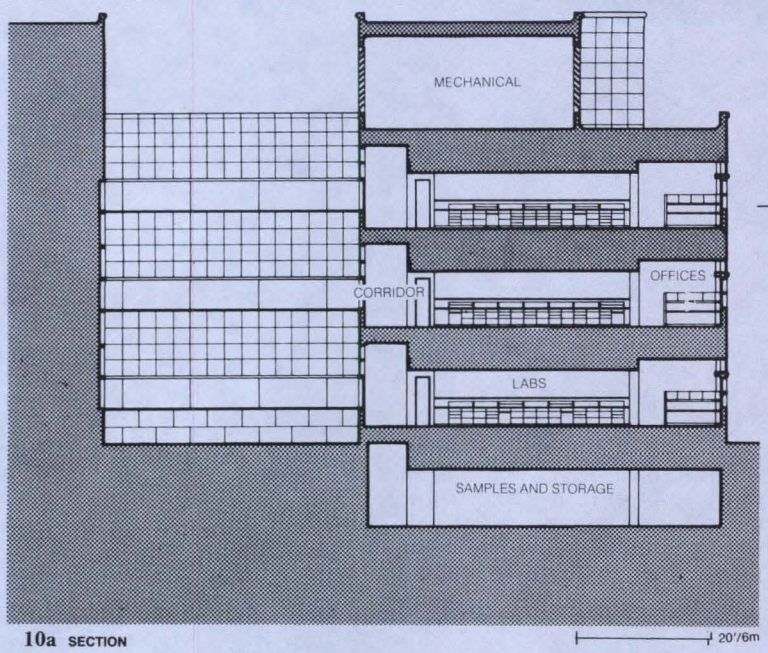
Many believe it's important also for lab designs to promote interaction and communication among researchers from differing disciplines and between researchers and administrative, product development, and marketing personnel. Even circulation corridor widths (five feet being too narrow; people won't stop and chat) are key, but such elements as coffee lounges, libraries, "conversation atriums," cafeterias, and conference areas now figure prominently even in the most complex and sensitive laboratories.

Some designers cite an inherent resistance among researchers to vertical schemes, possibly because so many are accustomed to working in the "temporary" single-story lab buildings that were built on university campuses and at national labs during and shortly after World War II. Some report difficulty in convincing researchers that it's faster and easier to go up 15 feet than it is to walk 200 feet down a hall, but also express surprise at how opinionated and well-informed many scientists are about architectural principles and about lab building precedents. The message is clear: all researchers have strong attitudes about the kinds of space and facilities they want, and they know how to express them.

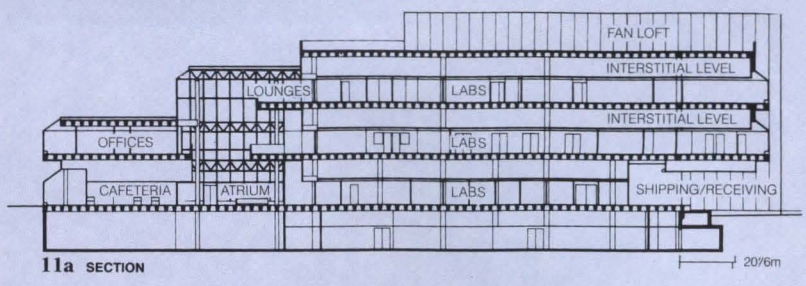
The Bottom Line

Many kinds of laboratory environments, for purposes ranging from automotives to zoology, are built for industry. The line is increasingly blurred between invention and straight manufacturing, at least in terms of the technical requirements imposed on the buildings that house the activities. In

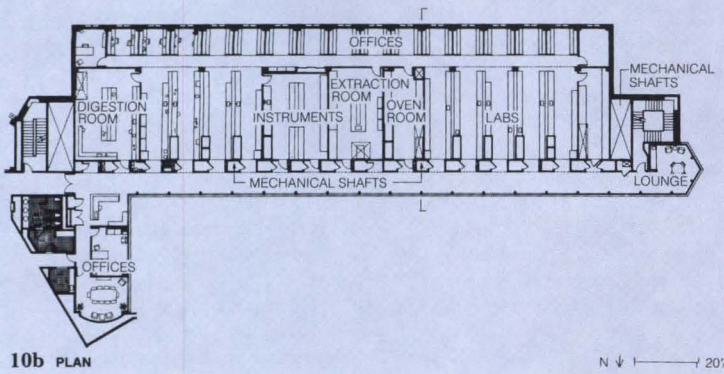
The direct influence of the program on laboratory space is evident in Grumman's Plant 14 Engineering Development Center by GSGSB Architects (8). Complex, widely different requirements for the design and development of early-warning military aircraft and systems have led to a maze of special spaces and facilities under one roof. Security requirements and the need to isolate certain areas from others also add to the building's complexity. Still, the facility is designed to permit reconfiguration in response to rapid technical advances and frequent changes in aircraft componentry. The Pfizer Central Research Building by CUH2A (9a, b) has many attributes of a small college campus, including an auditorium, libraries, and pleasantly landscaped outdoor areas. Critical functions are separated vertically, with animal areas on the basement level and other lab areas on the floor above. Fixed, double-loaded corridors between biology labs provide secondary service distribution.



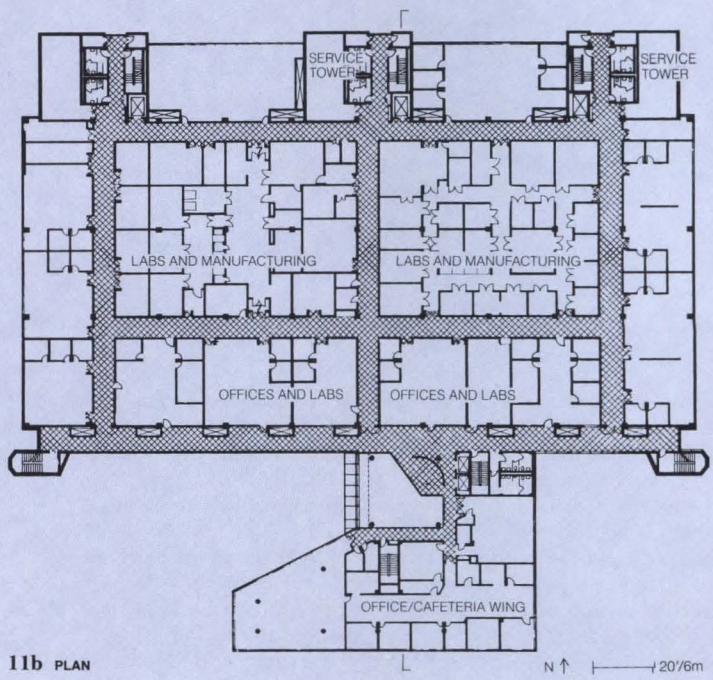
10a SECTION



11a SECTION



10b PLAN



11b PLAN

Circulation—for professional researchers, for service personnel, and for service systems—can be the foremost challenge in laboratory design. Deep interstitial floor spaces are placed below laboratories in the Nabisco Brands Robert M. Schaberle Technology Center by CUH2A (10a, b), while separate corridors serve public and staff circulation. Labs can be closed off from both corridors. Mechanical shafts rise from the service floor outside the lab areas, carrying whatever services are required. Relatively fixed elements, including stairs and toilets, are independent of the structure housing the labs. Spaces for gathering and socialization among researchers also figure prominently in the building. Strict requirements for separation and containment of materials and experiments are reflected in the highly compartmentalized and sequential plan for the Schering-Plough Pharmaceutical Development Facility by Haines Lundberg Waehler (11a, b). Here, too, relatively fixed elements are kept apart from the lab portion of the structure.

touching only on three types, it can be seen that each has its own particular requirements and driving forces. Judging from nationwide experience since 1960, the average useful life span of a laboratory building may be as little as 10 years, and no more than 20 years.

Alex Brouwer, president of Ewing Cole Cherry Parsky, notes several emerging scientific and technical developments that may point to further sweeping changes in the forces that shape such facilities:

- The growth of global information networks may lead to a reduction in the duplication of scientific effort, leading to labs that are extremely specialized and truly one-of-a-kind;
- Humans performing certain lab functions may be replaced by robots and remote computer-based monitoring and control systems, meaning that more facilities will operate around the clock and may be less influenced by the need to protect people or to neutralize possible human effects on experiments;
- Certain kinds of medical and biological research involving animals may be accomplished by means of computer modeling and simulation, reducing the need for the expensive measures that are needed for the proper care of animal populations in experimental environments; and
- The growth of space-based research and development could lead to a boom in extraterrestrial lab construction, with a whole new set of design issues and imperatives.

The field of Laboratory design resonates with a point of view expressed by William Higgins, of The Architects Collaborative: "You need to know what the researchers do, and how they do it. You've got to be aware of what drives their field and the work that they do, now and—to the extent you can—in the future." Martin D. Raab, of Haines Lundberg Waehler, advocates interviews with at least 15 percent of laboratory employees as a part of the predesign planning process.

Even if answers about the future are more than likely to be, "we just don't know," this is an answer to which laboratory designers can and must respond. ***Thomas Vonier, AIA*** ■

The author is an architect in Washington, D.C., and that city's correspondent for Progressive Architecture.

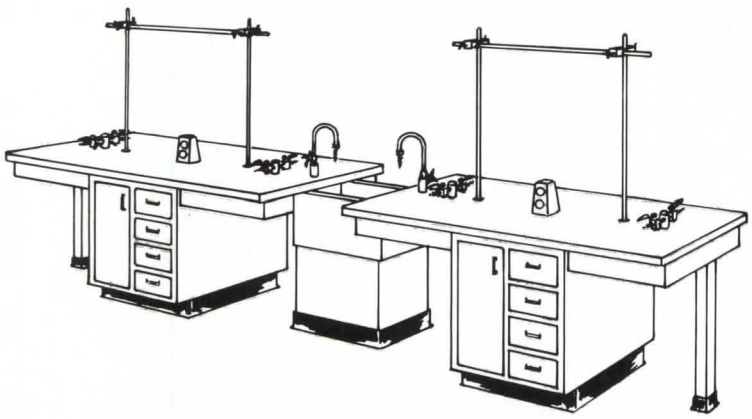
Acknowledgements

The author wishes to thank the following organizations for valuable assistance in providing information for this article: The Architects Collaborative; Clark Tribble Harris & Li; Haines Lundberg Waehler; Ewing Cole Cherry Parsky; CUH2A; Geddes Brecher Qualls Cunningham; Washington State University Research and Technology Park; Halo Lighting; GSGSB; Taber/Chaitin Design; CRS/Sirrine.

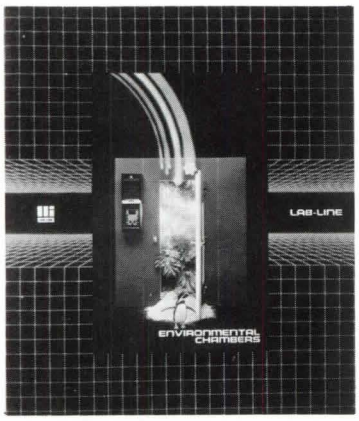
Further Reading

The College of American Pathologists, in cooperation with the AIA, has published a handbook on one type of lab: *Medical Laboratory Planning and Design* (CAP, 5202 Old Orchard Road, Skokie, Illinois 60077-1034). A new general reference book is *Design for Research* (Susan Braybrooke, ed. John Wiley & Sons, New York, 1986).

Technics-Related Products



Science Laboratory Assemblies brochure shows equipment for schools, hospitals, and industrial laboratories. It includes base, wall, and freestanding cabinets, fume hoods, tables, sinks, chemical-resistant tops, and plastic surfaced casework for institutional projects. The 60-page catalog shows how cabinets are constructed and provides a chart of finishes available. American Desk, Taylor Div.
Circle 253 on reader service card



Environmental Chambers catalog features reach-in and walk-in environmental chambers and options. The 28-page catalog also includes plant growth incubators, classroom environmental chambers, and laboratory casework. Lab-Line Environeers, Ltd., Div. of Lab-Line Instruments, Inc.
Circle 254 on reader service card

Colorlith® laboratory work tops of fiber-cement are durable, stain resistant, economical, and attractive. They are formed from calcium aluminum silicate, reinforced with selected fibers, and chemical-resistant pigments and fillers. For use as laboratory work surfaces, shelves, and fume hood bases and liners, the panels are available in a range of earth tones. Panels are 4′ x 8′ and ¼, ⅜, ½, ¾, 1, and 1¼ inches thick. Manville.
Circle 255 on reader service card

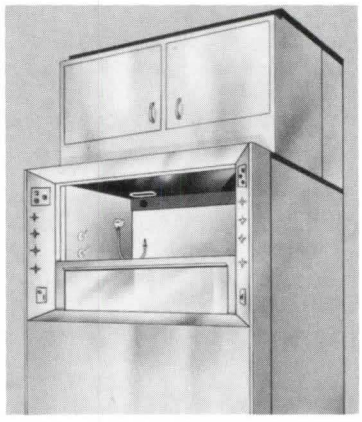
Laboratory casework catalog covers instructors' desks, some with built-in sinks; science tables to accommodate up to four students each; and service islands with sinks. Tables, mobile storage units, and a portable fume hood are also included. The 16-page catalog describes and illustrates the products and provides specifications. Campbell-Rhea Manufacturing, Mohon International, Inc.
Circle 256 on reader service card

Intelligent Scanning Alarm IA15 can monitor a variety of sensors, log the data, set off alarms, and report probe readings and alarm conditions. One IA15 can monitor the temperature in ultrafreezers, incubators, or greenhouses, the pH in reaction or cell culture vessels, the CO_2Air supplies to CO_2 incubators, and at the same time function as a security alarm. Each probe is individually programmed in a menu-driven question-and-answer fashion. Rees Scientific Corp.
Circle 257 on reader service card

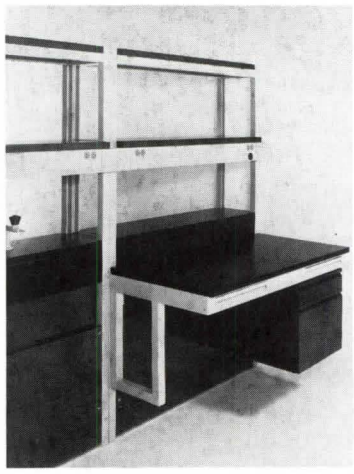
Stainless steel furniture for hospital, laboratory, and medical offices is described and illustrated in a 28-page catalog. There are floor and wall storage cabinets, tables, instrument stands, and accessories. Union Metal Fabricators, Inc.
Circle 258 on reader service card

Controlled environment equipment catalog describes products for use in scientific experiments and research. Although much of the equipment is used for plant growth experiments, the catalog includes incubators and environmental and tissue culture rooms and lists options available to meet specific requirements. Conviron Systems of America.
Circle 259 on reader service card

Glasguard-15™ fume hood liners are resistant to chemical attack and have a flame-spread rating of 15 according to ASTM E84 standard. They are made of fiberglass-reinforced polyester and are asbestos-free. A four-page folder provides charts of physical and flame-resistance properties and results of chemical testing. The Glastic Company.
Circle 260 on reader service card



Laboratory furniture, equipment, and casework catalog has drawings, photos, and descriptions of a variety of cabinets, tables, countertops, sinks, desks, carts, and accessories. Detail drawings show construction of cabinets, which are made from lead-coated steel to inhibit corrosion. Doors are of double construction with sound-deadening filler, and doors and drawers close against rubber bumpers for quiet operation. Duralab Equipment Corp.
Circle 261 on reader service card



The Labmarc™ system is modular, movable laboratory furnishings designed for flexibility. The system is based on a central, self-supporting utility spine that carries plumbing, wiring, and other essential services. Adjustable benches or tables can be attached to the spine unit, with drawers or cupboards suspended underneath, and sinks integrated into the work surface. The system also includes fume hoods, safety stations, and equipment storage and drying cabinets. Labmarc.
Circle 262 on reader service card

Fume hood systems, available in lengths from 3 to 100 feet, use outside air to save conditioned air, at low velocity to eliminate air turbulence. They are designed so that blower, ductwork, and hood interior do not need manual cleaning. Use of outside air eliminates the need for additional heating and air-conditioning equipment. Lab Fabricators Co.
Circle 263 on reader service card

***Contempra* laboratory furniture** consists of wood and plastic-laminate modular units for industrial, clinical, educational, and research fields. There are cabinets, wall and floor cases, fume hoods, tables, workstations, student lab centers, safety equipment, and accessories in a variety of wood finishes, laminate colors, styles, and price ranges. Fisher Scientific.
Circle 264 on reader service card

SALUTE·TO·STYLE

Style. Nobody has it like Satinesque® Designer Supplement Vol. III.
Eight color groups coordinate with ease, and find stylish companions
in Guard® 54-inch fabric-backed vinyls, borders and fabrics.
Please your most style-conscious clients and yourself
with Satinesque® Designer Supplement Vol. III.
and Guard®. Both meet and exceed all architectural specs.
You can be sure of quality and service because it's Satinesque® and Guard®.

Satinesque®
DESIGNER SUPPLEMENT VOL. III

COLUMBUS COATED FABRICS
Division of Borden Chemical, Borden, Inc.• 1280 North Grant Avenue • Columbus, Ohio 43216

Circle No. 340 on Reader Service Card

COPPER COMES OF AGE

Copper comes of age! Alumax offers a wide range of simulated copper coatings. The selection includes Metallic Copper (non-ageing), Ageing Copper, Pre-Aged Copper, Patina Green and 16 oz. Pure Copper. Call or write today for complete specifications.

ALUMAX

BUILDING SPECIALTIES DIVISION

P.O. Box 163 • 227 Town East Blvd.
Mesquite, Texas 75149 • (214) 285-8811

Circle **No. 320**

RASPBERRY ROSE.

Just 1 of 1001 PANTONE® Professional Color Guide colors.

Now there's a separate PANTONE color system for *your* world of color.

Where the PANTONE MATCHING SYSTEM serves printing and the graphic arts, the PANTONE Professional Color System now provides the broader palette required for fashion, cosmetics, architecture, furnishings, textiles.

Selected from every field of design, each of its 1001 colors is described by PANTONE Name (in six languages) and Number. So whether you're specifying, verifying, or simply communicating color, with the PANTONE Professional Color Guide you can do it precisely and accurately — even by phone.

And for just $125†, it can make your world a lot more certain.

† Suggested retail price.

Guide includes a color selector and a color specifier.

PANTONE®

55 Knickerbocker Road, Moonachie, NJ 07074
Available from your artist material dealer or direct from Pantone, Inc.

Please send me _____ copies of the PANTONE Professional Color Guide @ $125 each, plus $6.00 shipping and handling. NO OPEN BILLING! NJ Residents please add 6% sales tax.

Name _____

Company _____

Address _____
(WE CANNOT SHIP TO POST OFFICE BOX NUMBER)

City _____ State _____ Zip Code _____

Toll FREE credit card ordering:
1-800-222-1149 (NJ 201-935-5500)

☐ Amer. Exp. ☐ Diners Club ☐ Visa
☐ MasterCard ☐ Full Payment enclosed

Card No. _____ Exp. Date _____

Signature _____

NOTE: NOT INTENDED FOR SPECIFYING PRINTING INK COLORS.

Circle **No. 382** on Reader Service Card

*Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials. Process color reproduction of PANTONE®-identified colors may not match solid color standards. Use current PANTONE Color Reference Manuals for accurate color.

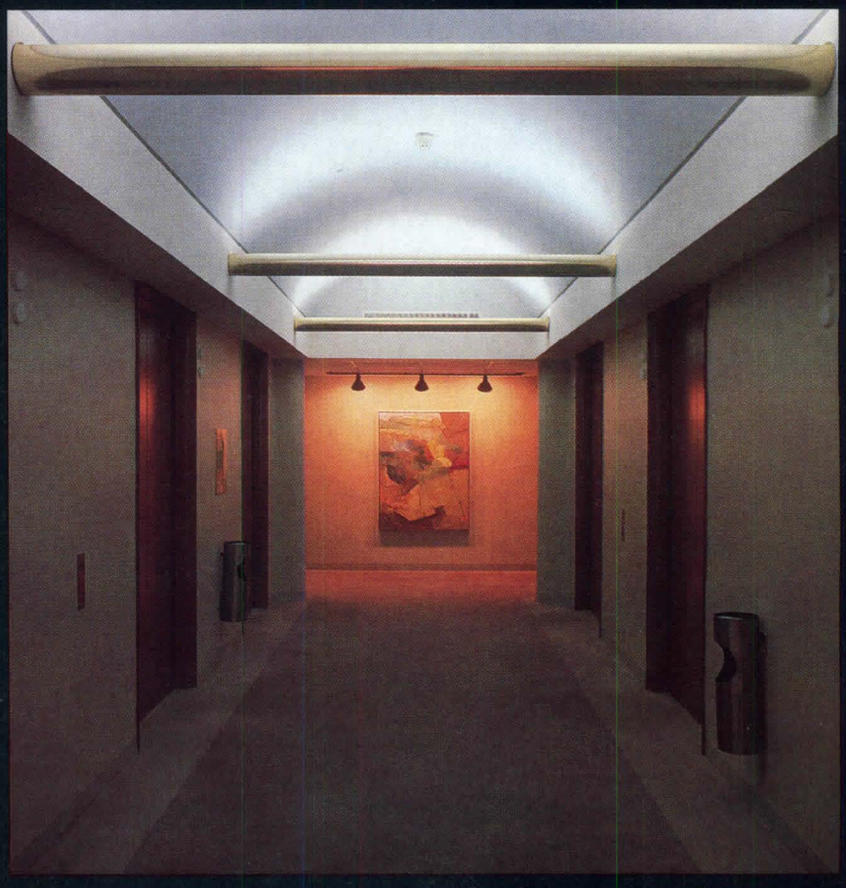
ENLIGHTENING.

Impeccable form.
The significance of attractive, functional lighting cannot be underestimated. The Integralite Designer Series from JW Lighting is designed with this in mind. Serving not just as illumination, but as part of the overall interior design, these imaginative linear lighting concepts help complete the image and mood of the space.

Whatever environment you seek to create, the Integralite Designer Series' variety of styles and colors reflect an understanding of the importance of lighting design to any setting.

Superior function.
From entryways to executive suites, from corridors to conference areas, energy-efficient Integralite designs fit virtually any lighting need. A variety of extruded aluminum architectural profiles and a complete assortment of connectors, diffusers and mounting arrangements provide maximum design flexibility—ensuring that form is not forgotten.

Call or write today for a free, full-color brochure on the Integralite Designer Series. We think you'll find our approach...enlightening.



1-800-255-9520
1-800-833-8371 (In Texas)

JW LIGHTING, INC.
Subsidiary of Kidde, Inc.
KIDDE
INTEGRALITE DIVISION
P.O. Box 45919
Houston, Texas 77245

INTEGRALITE
Designer Series

It won't be long now.

For leasing information,
call Len Lemlein at 212/486-5252.

Circle **No. 360**

Serif Collection by Baker Furniture
The contemporary elegance of this seating group by William Sklaroff is enhanced by handcraftsmanship, fine tailoring and a selection of exclusive Baker fabrics. For more information on corporate design and custom projects and all the Baker Executive Office Collections, write or visit our national contract showroom, Suite 917, The Merchandise Mart, Chicago, Illinois 60654. Phone (312) 329-9410. Or contact any of our showrooms listed below.

Baker Furniture
CONTRACT DIVISION
A North American Philips Company

Showrooms in: Atlanta, Cleveland, Dallas, Dania, High Point, Houston, Los Angeles, New York, Philadelphia, San Francisco, Seattle, Troy and Washington D.C.

Circle No. 329 on Reader Service Card

NEOCON 18

Photos, Courtesy Chicago Historical Society

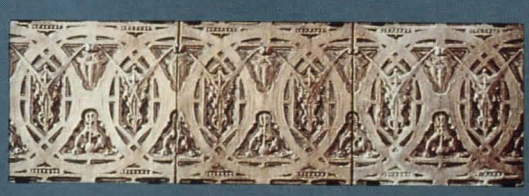
NEOCON 18, the international contract furnishings market and congress on environmental design, takes place June 10–13 at the Merchandise Mart in Chicago. Among the many seminars and workshops that accompany the market, there are several with an architectural interest, including seminars on Modernism, fantastic architecture, regional design, and design for health care. Another architectural highlight is the Architects Luncheon, on Friday, June 13, where the Chicago Architectural Award will be presented to Charles Correa, Charles Correa Architects, Bombay, India; Mario Botta, Architect, Lugano, Switzerland; and Cesar Pelli, Cesar Pelli & Associates, New Haven, Conn.

In addition, a number of architecture- and design-related exhibits will be open at museums and galleries in Chicago during June. The Mies van der Rohe Centenary exhibition, originating at the Museum of Modern Art in New York, will be at the Museum of Contemporary Art. Two related shows, one on Mies as educator and another on the Bauhaus, are at the Illinois Institute of Technology and the Museum of Science and Industry, which also hosts *Made in Germany*, an exhibit of German furniture. At the Mart, the Aga Khan foundation will sponsor *Islamic Architecture*.

As in past years, the showrooms in the Mart will be complemented by the displays of contract furniture manufacturers from outside the United States in the NEOCON International Pavilion at the Expocenter/Chicago, across the street from the Mart.

Please consult the following guide for details of time and place for seminars and workshops.

Polychrome terra-cotta ornament (top), Henry Babson house, by Adler & Sullivan, from David Norris Collection. Stock terra-cotta block (left) and section of terra-cotta frieze (below) by Frank Lloyd Wright, both from Mr. and Mrs. Timothy Samuelson Collection.



WalltoWall

Floor-to-Ceiling, One Solution, Most Appealing. Trendway this NEOCON.

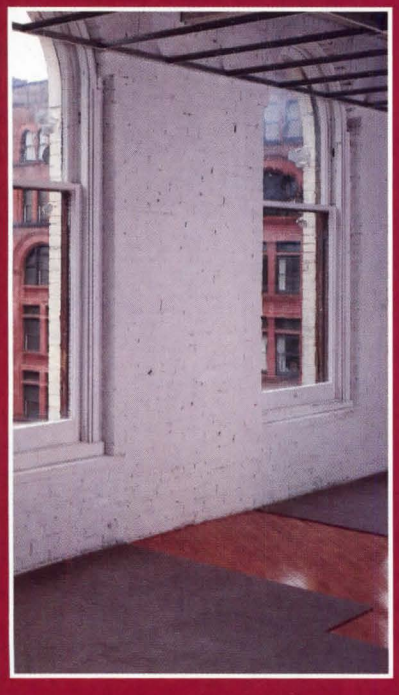
Trendway invites you to witness the marriage of office construction and office furnishings this NEOCON. Start-to-finish, floor-to-ceiling, wall-to-wall, Trendway offers the ease, simplicity, and beauty of an office interior system that you can build with . . . and upon.

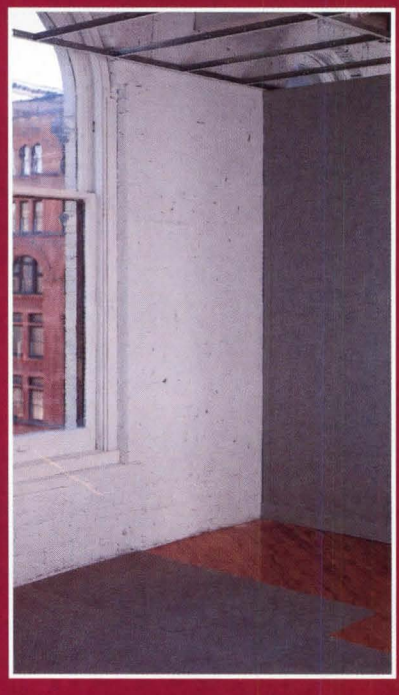
Visit the all new Trendway National Showroom this NEOCON. Space 1086, The Merchandise Mart, Chicago, June 10-13.

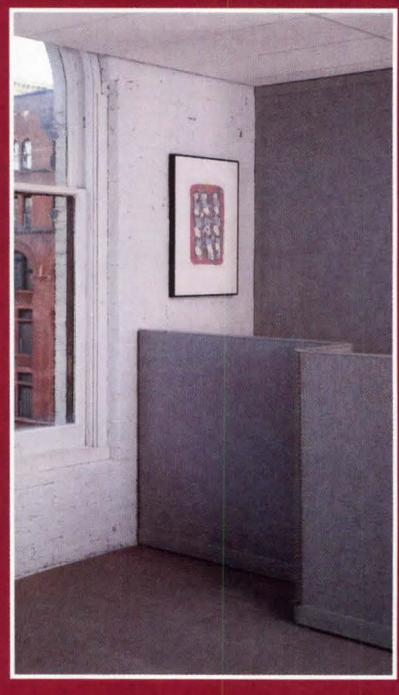
Floor-to-ceiling, wall-to-wall, the best solution, over all, is Trendway, P.O. Box 1110, Holland, Michigan 49423.

TRENDWAY™

Private and Open Office Environments





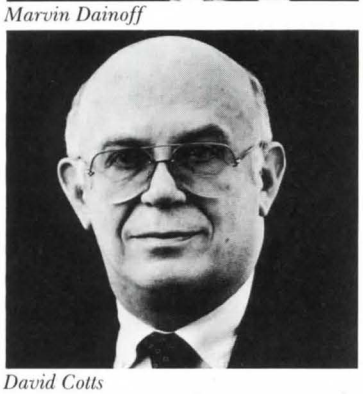


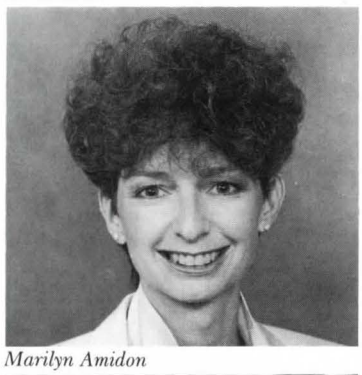
Seminars and Workshops

Tuesday, June 10

9:00 A.M. Workshop
"Floor Covering: The Designer's Informium."
Sponsored by the ASID Industry Foundation.
10:30 A.M. Workshop
"A New Industry Perspective: Beyond the Dealer's Standard In-house Design Service."
Marilyn Amidon, Director of Design, Thomas W. Ruff Co. of Florida, Maitland; Glenda Wilcox, Director/Business Design Group, Business Interiors, Boston; Ralph Perers, President, Contract Furnishings Council, Moderator.
2:30 P.M. Workshop
"A Framework for Transition: The Dealer and Facility Management Professional Explore a New Working Relationship."
David Cotts, Chief of Building Maintenance & Repair, The World Bank, Washington, D.C.: Diane McKnight, Facility Manager, Gannett Co., Rosslyn, Va.; Robert Morrow, President, Facilities Systems, Chicago; Stephen Parshall, Vice President of Research, CRS/Sirrine, Houston. A. John Dodson, Governor, Contract Furnishings Forum, Moderator.
4:00 P.M. Seminar
"Ergonomics in the Office: The Need for User Awareness."
John J. Connell, Executive Director, Office Technology Research Group, Pasadena; Dr. A.C. Mandel, TARBAEK, Denmark; Dr. Marvin Dainoff, Dept. of Psychology, Miami Univ., Oxford, Ohio. Rani Lueder, Human Factors Specialist, Humanics, Agoura Hills, Calif., Moderator. A BIFMA video on the subject will be shown.


Marvin Dainoff


David Cotts


Marilyn Amidon

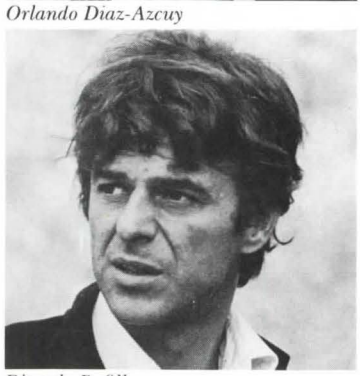

Rani Lueder

Wednesday, June 11

8:30 A.M. Seminar
"Service America: Marketing the 'Invisible Product.' "
Dr. Karl Albrecht, Consultant and Author, San Diego, will give the keynote address.
10:30 A.M. Workshop
"Adaptive Reuse Update: The Challenge of Recycling Interior Space Continues."
Herbert McLaughlin, Sr. Partner, Kaplan/McLaughlin/Diaz, San Francisco; Bartholomew Voorsanger, Partner, Voorsanger & Mills Associates, New York.
2:30 P.M. Workshop
"New Findings in Illuminating the Workspace: Solving the Unforeseen Problems of Task and Ambient Lighting."
Gary Steffy, IES, IALD, President, Gary Steffy Lighting Design, Ann Arbor; LeMar Terry, Chief Designer and Sr. Partner, Terry Chassman & Associates, New York.
2:30 P.M. Workshop
"Future Planning in the Automated Office."
4:30 P.M. Seminar
"The Leading Edge in Corporate Office Design: Setting the Trends."
Charles Pfister, President, Charles Pfister Associates, San Francisco; Orlando Diaz-Azcuy, VP & Principal, Gensler & Associates, San Francisco; Sally Walsh, Designer, Houston. Roz Brandt, Chairperson, AIA Interiors Committee, Moderator.
4:30 P.M. Seminar
"Visionary Architecture: The Work of Ricardo Bofill/Taller de Arquitectura."
Ricardo Bofill, Taller de Arquitectura, Barcelona.


Charles Pfister

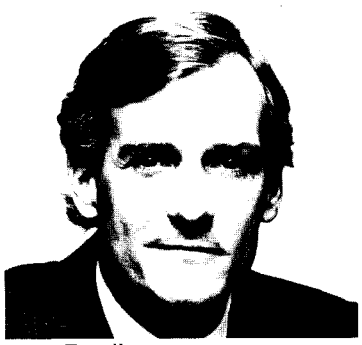

Orlando Diaz-Azcuy


Ricardo Bofill


Roz Brandt

Thursday, June 12

8:30 A.M. Seminar
"Planning the Corporation for the 21st Century: A Strategy for Growth."
Joseph Dionne, Chief Executive Officer, McGraw-Hill Corporation, New York.
8:30 A.M. Seminar
"Product + Design: Image is What Sells." James E. Terrell, President, Hambrecht Terrell Interiors, New York; Lella Vignelli, Executive Vice President, Vignelli & Associates, New York; Richard Himmel, Interior Designer, Lubliner & Himmel Corp., Chicago.
10:30 A.M. Workshop
"A Dramatic Challenge for the Healthcare Industry: The Design Conscious Facility."
Richard F. Hansen, President, Hansen, Lind, Meyer, Iowa City; Emily Malino, Vice President, HOK, Washington, D.C.; James Walter, VP Construction and Design, Humana Corp., Louisville. James Hamill, Chief Executive Officer, Columbus-Cuneo-Cabrini Medical Center, Chicago, Moderator.
10:30 A.M. Workshop
"Corporate Art in the Office: Assembling the Total Collection."
Pari Stave Choate, Curator, Equitable Real Estate Group, New York; William Krebs, Sr. Vice President, Interspace, Inc., Philadelphia; Sarina Tang, President, Art Options, New York.
Noon Luncheon
"The Genesis of a New Corporation: Diamond Star Motors."
G. Glenn Gardner, Chairman of the Board, Diamond Star Motors, Sterling Heights, Mich., will give the keynote address.
2:30 P.M. Workshop
"Hospitality Design: The New American Theatre."
Howard Hirsch, Chairman, Hirsch/Bedner, Santa Monica; Bartholomew Voorsanger, Partner, Voorsanger & Mills Associates, New York; Spiros Zakas, Director of Design, Zakaspace, New York.
4:30 P.M. Seminar
"Productivity: A Dialogue for the Future."


James Terrell


Lella Vignelli

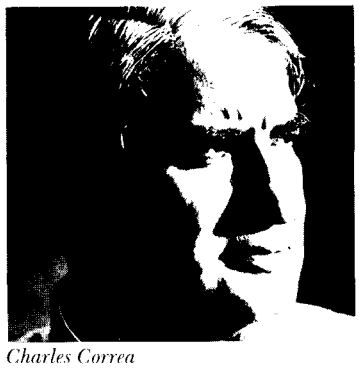

Sarina Tang

T.J. Springer, Ph.D., President, Springer Associates, St. Charles; Steven Sauters, Chief, Motivation & Stress Section, NIOSH, Cincinnati; Dr. Franklin Becker, Dept. of Human Ecology, Cornell University, Ithaca. Jim Dailey, President, Dailey's Office Productivity Center, Little Rock, Moderator.
4:30 P.M. Seminar
"International Translations: Pluralism in Europe, Asia and North America."
Mario Botta, Switzerland; Charles Correa, India; Cesar Pelli, United States. John Busby, President, American Institute of Architects, Washington, D.C., Moderator.

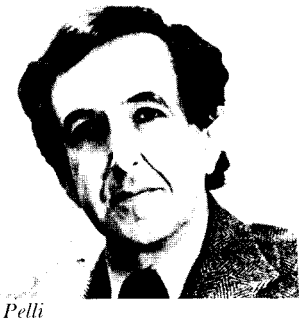
Friday, June 13

8:30 A.M. Seminar
"The Architecture of Fantasy and Imagination: Expressionism in Today's Design."
Charles Moore, Principal, Urban Innovations, Los Angeles; Tomas Taveira, Architect, Lisbon. Donald Hackl, President-Elect, AIA, Moderator.
8:30 A.M. Seminar
"Higher Creativity: The Process of Design."
Willis Harman, Ph.D., President, The Institute of Noetic Sciences, Sausalito, Calif.; Philippe Starck, Furniture Designer, Paris.
Noon Luncheon
Chicago Architectural Awards Presentation.
Charles Correa, Charles Correa Architects, Bombay; Mario Botta, Architect, Lugano; Cesar Pelli, Cesar Pelli & Associates, New Haven. John Busby, AIA President, will give the keynote speech.
3:00 P.M. Seminar
"The International Symposium on Modern Architecture: The Year of Mies."
Mario Botta, Switzerland; Charles Correa, India; Charles Moore, United States; Cesar Pelli, United States; Tomas Taveira, Portugal; Ricardo Bofill, Spain.


Charles Moore


Charles Correa


Mario Botta


Cesar Pelli


JG
Formes
Versatility of form
Dimensional flexibility
Simplicity for specification
Adaptability to change
Formes . . . the building blocks
for tomorrow's office landscape.
JG Furniture Systems, Inc.
Quakertown
Pennsylvania 18951
215.536.7343
Circle No. 362

Ethospace® Interiors Nobody else makes it.

1985
Ethospace® interiors combines systems responsiveness with architectural permanence for increased lifetime value.

When you specify this product,

we specify this promise:

100% trade-in value on Ethospace wall frames,

plus a warranty and guarantee package unprecedented in the industry.

The Herman Miller Promise℠ Nobody else makes it.

The Herman Miller Promise℠

- **Five-year product warranties***
- **Quality audits after project installation***
- **Trade-in allowances on systems product: 20% value on Action Office® product, 100% value on Ethospace® wall frames***
- **Guaranteed move-in dates***

1986
The Herman Miller Promise℠ raises the customer's experience to new levels of satisfaction.

*Is there a catch?

No, but there are fair and reasonable conditions.

We are so confident that you will be satisfied with the terms that we have set our fine print in large, readable type.

For product (and Promise) information, call 800 851 1196. Within Michigan, call 616 772 3440.

Or write Herman Miller, Inc., Zeeland, Michigan 49464.

Circle **No. 380**

herman miller

s e n s o r

Steelcase announces the Sensor™ chair.

It senses the body's need for comfort and responds intuitively, as though it were alive.

Sensor. An unobtrusive application of high technology for today's office environment.

For information about the new Sensor chair, visit one of our Regional Offices or contact your Steelcase representative. Steelcase Inc., Grand Rapids, Michigan 49501.

Circle **No. 389** on Reader Service Card

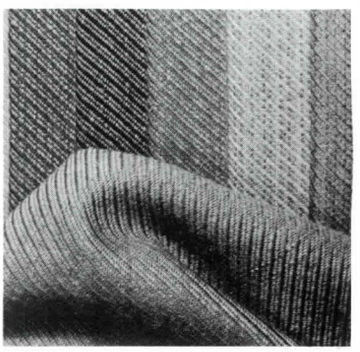
Steelcase

The Office Environment Company

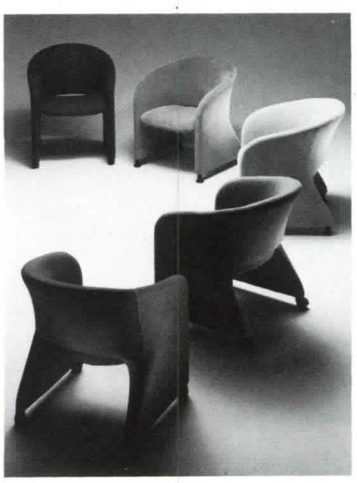
Products

Adden Furniture
The Roommate Collection is a complete line of solid oak furniture for school and hospital residences. Beveled drawer pulls create a slick, contemporary look, while additional cross-bracing adds structural strength.
Circle 100 on reader service card

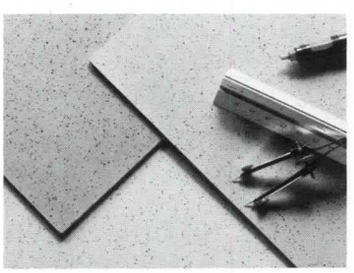
Alma Desk
The 5800 Series offers transitional styling for the executive office. The series features solid mahogany and bookmatched veneer, with a complete line of office furniture, designed by Robert Shier.
Circle 101 on reader service card



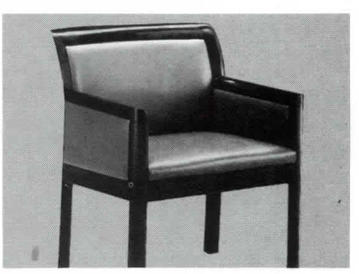
Arc Com
Wool Manet, suitable for use as an upholstery, wallcovering, or panel cloth, is a 100 percent wool twill available in 17 colors.
Circle 102 on reader service card



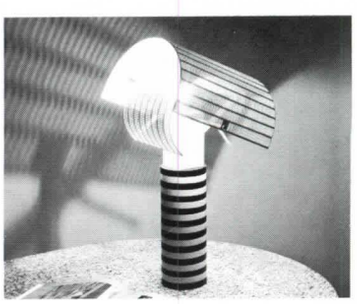
Arconas
Flora is a collection of chairs designed by Conrad Marini. They are intended for use as dining and lounge chairs in hotels, hospitality suites, and offices, and can be upholstered in a variety of fabrics and leathers.
Circle 103 on reader service card



Armstrong
New for NEOCON is Stonetex, a 12″ x 12″ vinyl composition tile. Stonetex is visually similar to quarry tile, but does not require grout. It is available in a wide range of colors, including pastels.
Circle 104 on reader service card



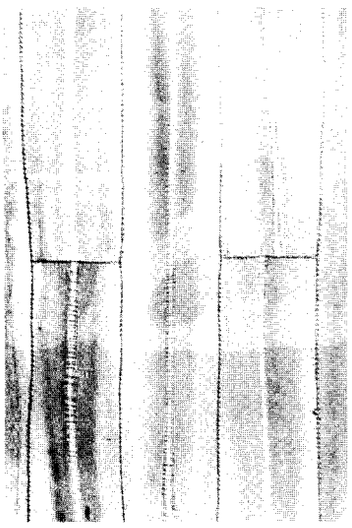
Artec
The Carrington Collection of executive seating, designed by Earl Koepke, offers comfortable ergonomic design in ten models, including swivel-tilt and side chairs in executive and management styles.
Circle 105 on reader service card



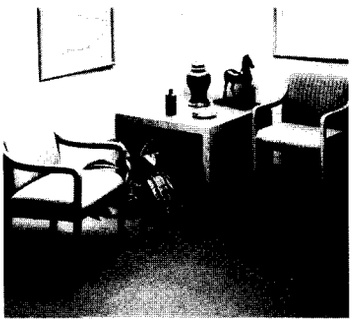
Artemide
The Shogun floor lamp, designed by Swiss architect Mario Botta, has an adjustable diffusor of white-painted metal and a black-and-white-striped metal base.
Circle 106 on reader service card

Atelier International
A new addition to the Duo and Uni chair collections, is the Duo Armchair, also designed by architect Werner Toffoloni. It is available in a variety of matte or high-gloss finishes.
Circle 107 on reader service card

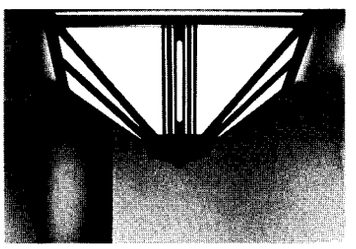
Baker Contract
Three new Georgian credenzas and a desk are available as part of the Express Program. The new pieces offer matched French walnut veneers, detailed cross-banding, inlay, and authentic period hardware.
Circle 108 on reader service card



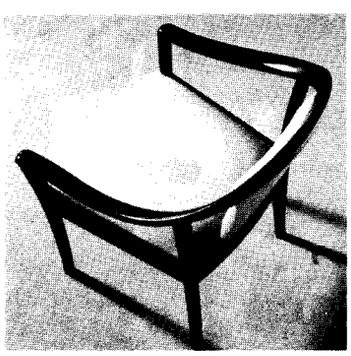
Gretchen Bellinger
Ausable eelskin, named after a gorge in the Adirondack Mountains, is part of the Adirondack collection. Made of individual eelskins sewn together, Ausable is available in five colors.
Circle 109 on reader service card



Bigelow
Newport II is a cut-pile commercial carpet of dense twist pile with pencil-point definition. Made of Antron III nylon, it is available in 32 colors.
Circle 110 on reader service card

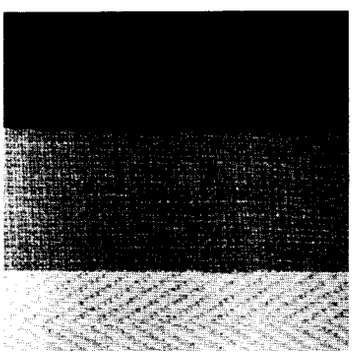


Boyd Lighting
Glasgow, a ceiling fixture by Jack Mitchell, recalls the work of Charles Rennie Mackintosh. The lamp, made of wood with translucent panels of white flashglass or silver mica, is available in a black lacquer or white-limed finish.
Circle 111 on reader service card



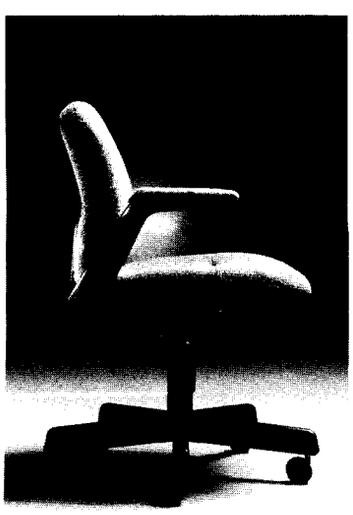
Brayton
The Classic Designs in Wood line is now part of the Fast Track program, Brayton's new, flexible quick-ship program.
Circle 112 on reader service card

Brueton
The Radial Desk is an addition to the Radial Series. Designed by Stanley Jay Friedman, the desk features a double radial edge with a stainless steel reveal.
Circle 113 on reader service card



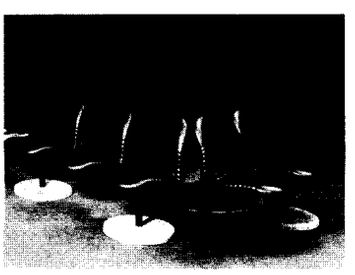
L.E. Carpenter
The Softech System from Vicrtex offers seven wallcoverings and a choice of panel and seating fabrics in 176 colors.
Circle 114 on reader service card

Corry Jamestown
The 1000 System is a total modular furniture system offering panels, components, and free-standing furniture to meet modern office needs.
Circle 115 on reader service card



Cole Business Furniture
The Biscaro chair, named after designer Thomas Biscoe, offers an inflatable lumbar support. This amenity benefits shorter people, those with back problems, and those who spend a lot of time sitting.
Circle 116 on reader service card

Cramer
Panda seating offers an ergonomic design which allows arms and backrest to tilt while the seat remains still. It is available in five models with numerous options.
Circle 117 on reader service card



Cumberland
Subito consists of a two-seat unit and a three-seat unit, joined by a black lacquer table. The table swivels, allowing the units to assume different configurations. The bases are marble.
Circle 118 on reader service card

Etched Brass, Etched Pewter, Polished Brass, Polished Chrome. A unique and versatile line of durable metal laminates.

Scratch resistant, stain proof and easily tooled, Lunstead Metals have been specified worldwide in restaurants, banks, hotels and residences.

The applications are up to your imagination.

Available on ten day quick-ship delivery.

For the Lunstead representative nearest you, contact Lunstead Designs, Inc.
8655 S. 208 St.
Kent, WA 98031
206 872-8835
Telex 32 0195

Circle **No. 374**

The sole

Presenting carpet of Antron Precedent™ carpet that looks newer, longer than any other.

Acknowledged Industry Leader New	Antron Precedent New
400,000 traffics	400,000 traffics
1,000,000 traffics	1,000,000 traffics

Finally, there's a carpet fiber system that's a step above all others: Du Pont ANTRON PRECEDENT. Because carpet of ANTRON PRECEDENT looks newer *up to two times longer* than any other carpet.

We've proven it. In a side-by-side test held in a busy New York City university, more than a million people walked across two contract carpets: one made of Du Pont certified ANTRON PRECEDENT, the other an equal construction of the acknowledged industry leader.

survivor.

Take a close look. Not only did the carpet of ANTRON PRECEDENT excel in soil and stain resistance; it also succeeded in retaining its original look and texture longer.

In the revolutionary system behind ANTRON PRECEDENT, state-of-the art hollow filament fibers are combined with DuraTech,® an advanced commercial treatment based on the latest in Teflon® carpet protector technology. This, along with stringent Du Pont construction specifications, is what sets ANTRON PRECEDENT apart.

DU PONT Approved Carpet of ANTRON PRECEDENT Contains DuraTech™

So, for a carpet that will stand up better, specify one backed with Du Pont's signature of quality, the quality "Q".

Find out how your next carpet project can outlive more soles, with ANTRON PRECEDENT. Call us today at:

800-448-9835

DU PONT

REG. U.S. PAT. & TM. OFF.

Circle No. 344

WE DON'T KNOW WHO WILL WIN OUR $10,000 DESIGN COMPETITION. BUT WE KNOW WHO WON'T.

One of Haworth's most exciting design ideas was the creation of a wood system that can actually be mixed and matched with our standard furniture system. In almost any way you can possibly imagine.

What better reason to hold our first-ever design competition.

It's open to architects and design professionals, upper level design students, and recent graduates. You'll be asked to design a unique work environment in the Pantheon (that's right, in Rome) using Haworth furniture systems.

Finalists will be flown to our awards presentation in New York. Where we'll hand out a first prize worth $10,000.

The winner will also be featured in full page ads in top international trade publications. (Of course, if your entry resembles this guy's, it may only be featured in an ad like this.)

For more details, call 1-800-442-9678, Ext. 567. And we'll send you an entry kit.

HAWORTH®

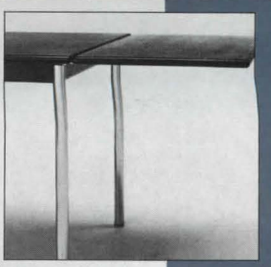
They're built.

Entries must be postmarked by July 31, 1986.

"Every time something can be used for several purposes, it is a simplification."

Designers Rasmussen and Rolff bring simplicity of design and a tradition of craftsmanship in wood to their 2R Table System, Domore's definitive answer to conference needs throughout the office.

"Through our work in design and the furnishing of offices, conference rooms, training facilities, and dining areas we discovered how difficult it was to find furniture adaptable to the various functions required throughout the office. Furthermore, we found that it was wishful thinking to find furniture which could be changed and mixed according to the varying requirements. Especially in the conference and dining areas there was great need for flexibility. This was the foundation for the task which we put to ourselves." The result is a table system consisting of three top shapes: round, rectangular and square; interleaves; extension leaves and a few pieces of elegantly ingenious hardware. With these simple components it is possible to build conference tables for six, twenty six, or more; turn desks into dining tables; bring design consistency and interchangeability to tables in offices, dining areas, training and seminar rooms. And best of all you don't need a team of trained mechanics to do it. 2R components are light, uncomplicated, easy to put together and easy to take apart. Interleaves and extension leaves can be efficiently stored when not in use. The final good news is that 2R materials and construction are unsurpassed. Legs, in black or satin chrome, are fine brushed aluminum. Catalyzed finishes are provided for durability and unexcelled appearance in 16 wood tones from light maple to ebony. A wide variety of laminate tops encased in a solid wood trim are also available. The tables boast one of the simplest, soundest hardware systems available.



2R adds up to the only table system on the market that works in all areas of the office. Rasmussen and Rolff mastered their task.

"To make things uncomplicated is a goal in itself."

The 2R Table System offers storage units to complement table components.

For further information contact customer services.

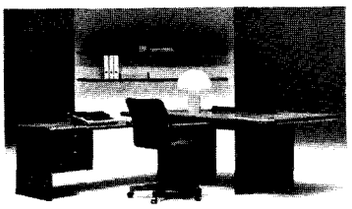
Circle **No. 348**

The Rolff and Rasmussen 2R Table System.

Design: Bonnell Design Associates, Inc.

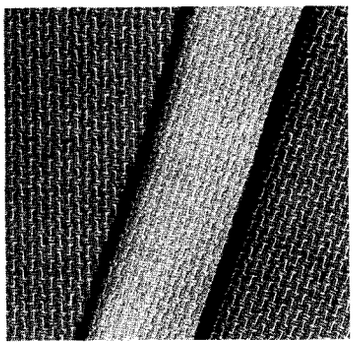
Domore

omore Corporation, 2400 Sterling Ave, PO Box 1289, Elkhart, Indiana 46515, Tel 219 293 0621
owrooms in Chicago, Dallas, Los Angeles and New York. (New York opening in summer of 1986.)



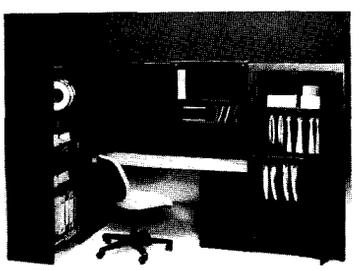
Davis
The Beta Desk Series completes the Beta Line to create a Total Corporate Package from Davis. The desks are available as modular units for greater flexibility.
Circle 119 on reader service card

Deschemaker
The Canadair Collection of fireproof contract fabrics includes two jacquard weaves, Equinox and Solstice; both are available in six colors.
Circle 120 on reader service card



Design Tex
Luminescence is the first in a series of highly styled wool upholstery fabrics in jewel tones, and is available in 20 colors.
Circle 121 on reader service card

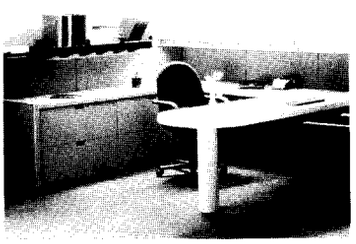
Domore
The Barto chair, designed by Richard Schultz, is an office chair intended to offer both ergonomic comfort and elegance. It is available in high- and low-back executive versions, and an operator model.
Circle 122 on reader service card



Executive Office Concepts
Datalink is an expandable system of modular components that can expand in any direction. It is available in wood veneer or laminate finishes.
Circle 123 on reader service card

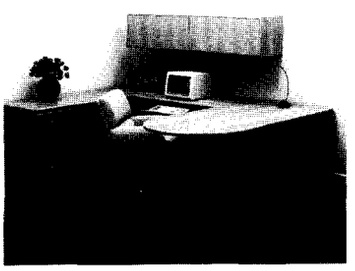
Fixtures
Delos is a group of seating and lounge furniture designed by Manfred Hermann for executive use. The frame and arms are of chrome, rubber, and epoxy, with upholstered seat and back in leather or fabric.
Circle 124 on reader service card

Forms + Surfaces
Neoparium 8 crystallized glass is a new material for architectural surfaces. The crystallization process doubles the strength of the material, imparts even coloration, and creates a smooth, high-gloss surface.
Circle 125 on reader service card



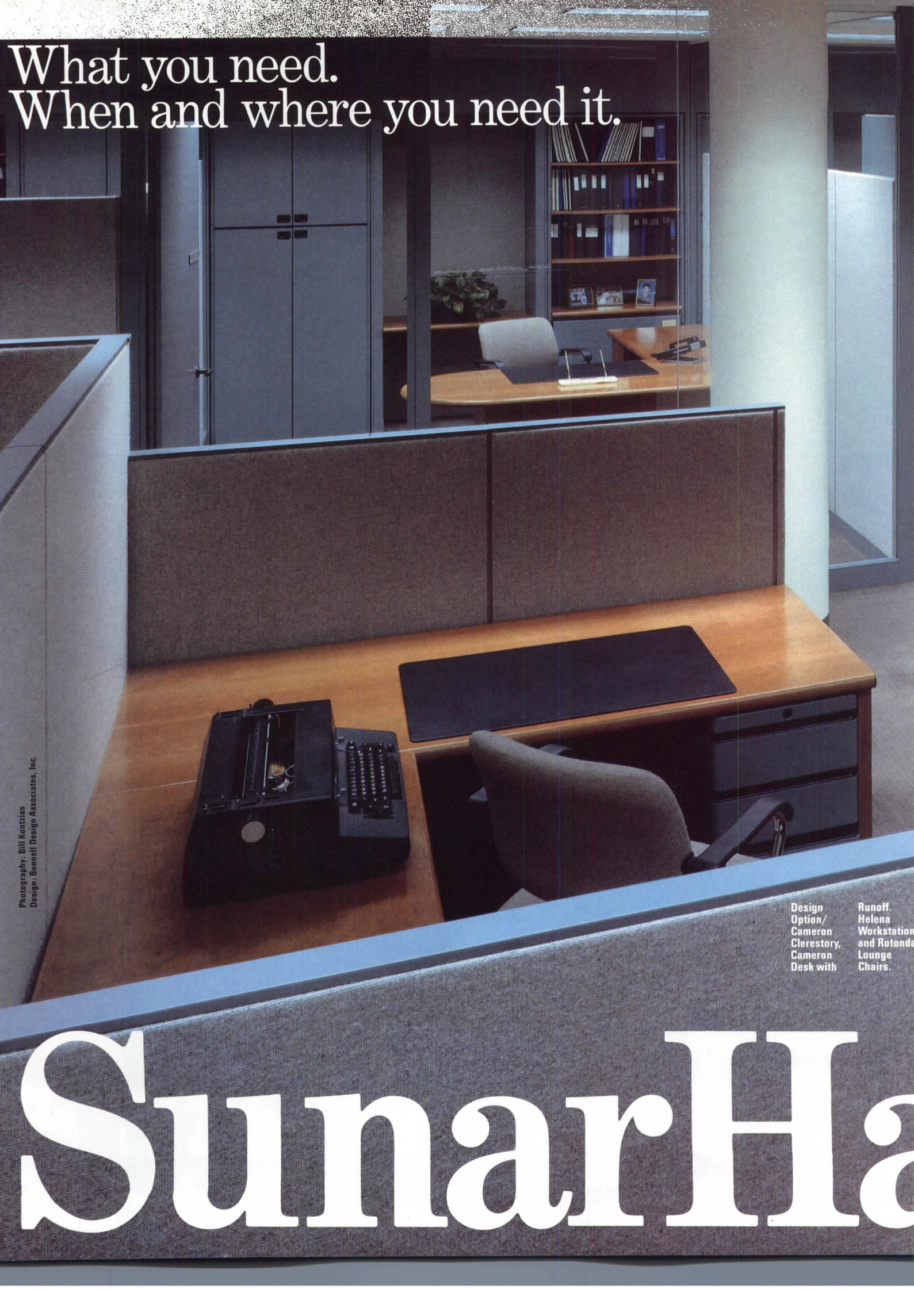
Gunlocke
Spectra, a new finish option for the Gunlocke Panel System, will be on display at NEOCON. The new finish, available in a wide variety of colors, adds flexibility to the wood-based GPS.
Circle 126 on reader service card

Harden Contract
Every piece in the Contract Collection is crafted from solid cherry, and offers hand-carved detailing and raised-panel construction.
Circle 127 on reader service card



Hardwood House
The T/4 Desk System offers low-profile, freestanding components with racetrack runoffs, personal computer cabinets with roll-out shelves, and adjustable keyboard trays in a variety of finishes.
Circle 128 on reader service card


Brunschwig & Fils
75 Virginia Road, North White Plains, New York 10603 Through architects and interior designers.
LA PÊCHE: wool damask. Designed by Raoul Dufy
Circle No. 331 on Reader Service Card


What you need.
When and where you need it.
Photography: Bill Kontzias
Design: Bonnell Design Associates, Inc.
Design Option/ Cameron Clerestory, Cameron Desk with Runoff. Helena Workstation and Rotonda Lounge Chairs.
SunarHa

Headquarters
United Jersey Banks
Princeton, New Jersey

"If you define an integrated interior as one where the programmatic needs are integrated into the architectural conditions, so that the lights and the ceilings and the full-height elements are all working very closely together, then I would say that United Jersey Banks is a case in point."
Barbara Weinstein, The Hillier Group.

May we send you our brochure *United Jersey. The fast-moving bank.*

SunarHauserman
5711 Grant Avenue
Cleveland, Ohio 44105

SunarHauserman
One Sunshine Avenue
Waterloo, Ontario
Canada N2J 4K5

Circle No. 399

userman

Call Us On The Carpet.

Call us on the office carpet, the hospital carpet, the school carpet. Call us on any carpet for any commercial environment. Call us anytime with any request. When you call Lees, you reach people who have the answers on products, samples, installation methods, local service and more.

Now that we're a separate all-contract company, we're giving you lots of reasons to call us. With our expanded field support staff, we'll be close at hand to help you turn designs on paper into carpet.

As the world's largest maker of commercial broadloom and modular carpet systems, we offer hundreds of colors, coordinates and custom programs. We've added hardback carpet tile systems in advanced generation Antron® nylon by DuPont with soil and static protection built in. And our modular systems are performance guaranteed for ten years.

For brochures, test data, specifications call toll free 800/523-5647. From within Pennsylvania, call collect 215/666-9426.

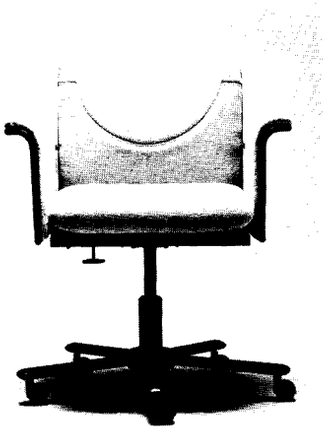
Lees Commercial Carpet Company

A Division of Burlington Industries, Inc.
King of Prussia, PA 19406

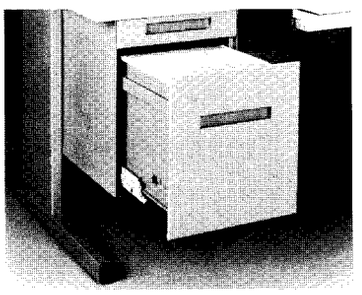
Circle **No. 370**

Modular carpet systems by Lees in over 200 colors and patterns. Photography: Fred Schenk. ©1985 Burlington Industries, Inc.

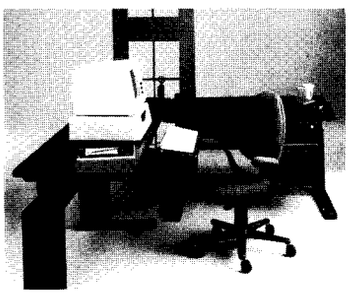
CRAFTED WITH PRIDE IN AMERICA



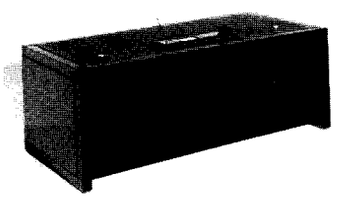
Harter
The D Collection is an addition to the HarterMartinStoll Collection, from the German design team of Martin Stoll. The D Collection was created with the collaboration of Arno Votteler, of the Institure of Furniture Design in Stuttgart.
Circle 129 on reader service card



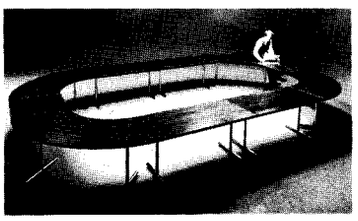
Haskell
Hanging Drawer Units offer versatile storage and install easily under most worksurfaces. They are available in over 85 sizes and drawer arrangements and 33 standard colors.
Circle 130 on reader service card



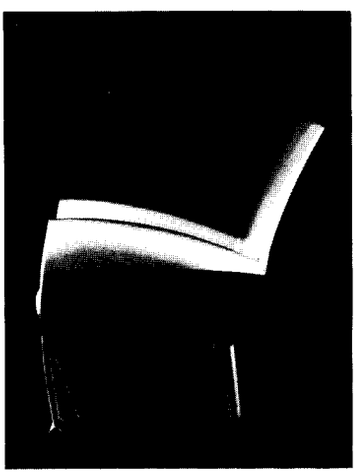
Haworth
The ES collection of electronic support furniture offers four new corner worksurfaces to make more efficient use of space, as well as a new series of trim colors.
Circle 131 on reader service card



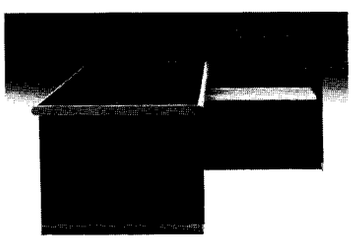
Helikon
The Stamford Collection, designed by Donald Brinkmann of Gensler & Associates/Architects, features raised side panels of mahogany, framed in exotic wood veneers. The collection includes executive desks, credenzas, and tables.
Circle 132 on reader service card



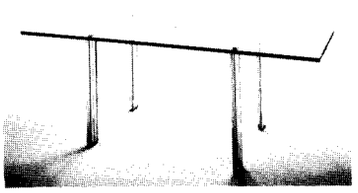
Howe Furniture
The Alliance table system allows maximum flexibility with an array of interchangeable connecting components that can be combined in a number of ways to suit almost any situation.
Circle 133 on reader service card



ICF
New for NEOCON is a group of furniture designed by Philippe Starck, France's enfant terrible of furniture design. Among the pieces to be introduced are the Richard III lounge chair and the President "M" table, designed for Francois Mitterrand's private quarters in the Elysée Palace.
Circle 134 on reader service card

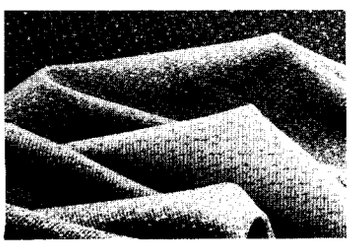


iil
Designed by Manfred Petri, the Mobila Series is the winner of a 1985 IBD Gold Award. Mobila offers a range of pedestal and table desks with matching credenzas, and trolleys for a variety of functions.
Circle 135 on reader service card



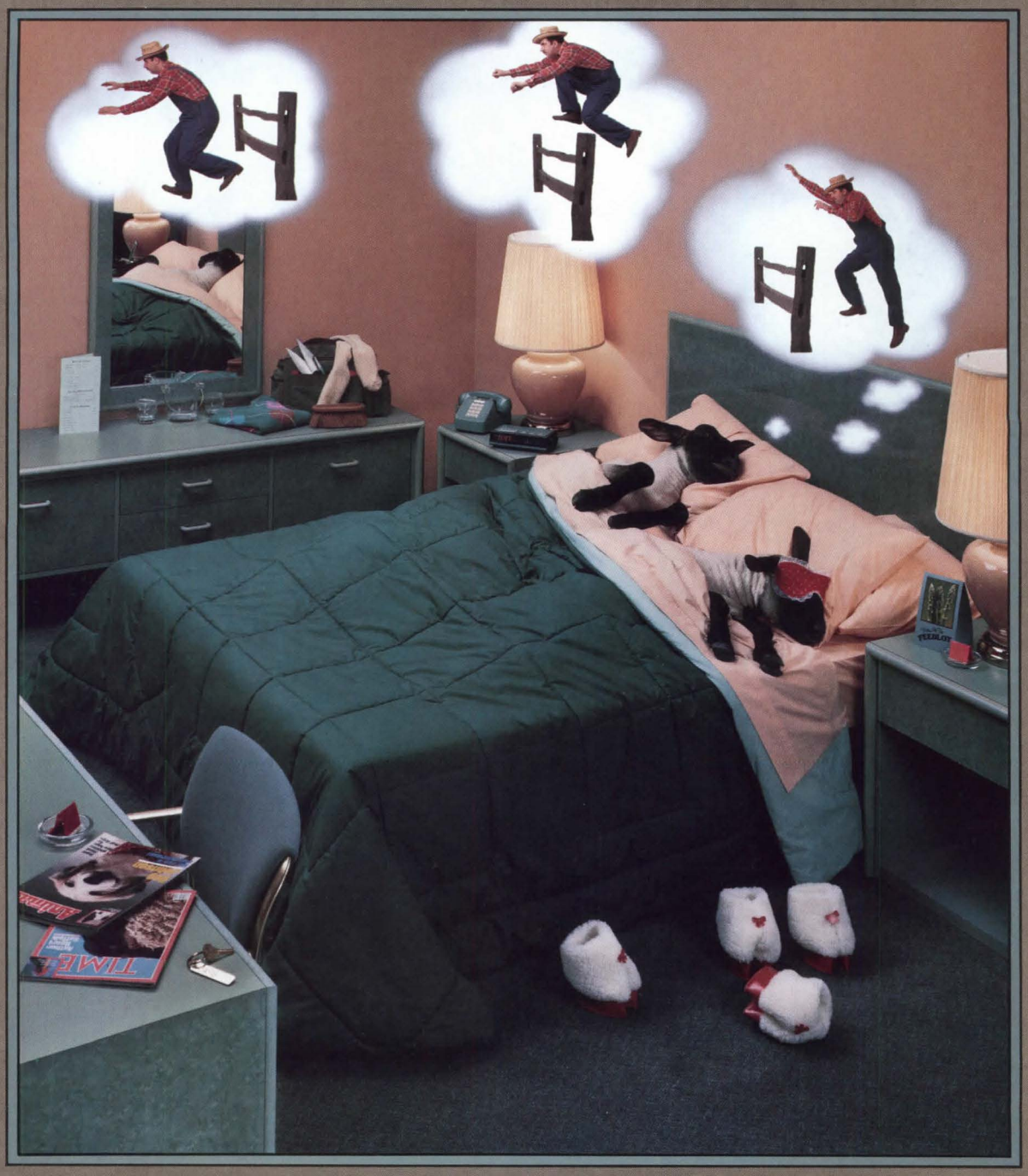
Interna Designs
The Teso table, designed by architect Renzo Piano for Fontana Arte, is made of natural crystal. It is available in several sizes for use as a dining table, coffee table, or desk.
Circle 136 on reader service card

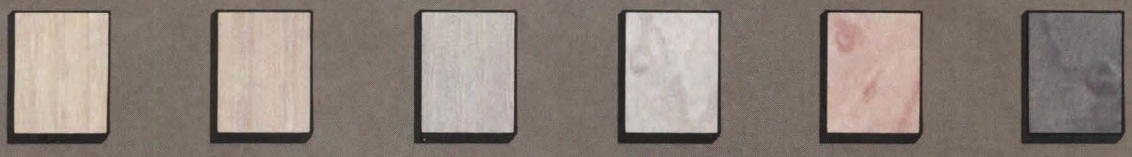
JG Furniture Systems
The Cabar chair, designed by Roger Webb, is a stacking, upholstered armchair constructed of contoured plywood. The chair, which can also be ganged, is available in a variety of fabrics.
Circle 137 on reader service card



Adam James Textiles
Designed by Laura Deubler Mercurio, the Polyphonics Collection features two different weaves. Jazz, in 24 different colors, offers a combination of heather, solid, and multicolor yarns, while Serenade, available in 21 colors, is a blend of solid and heather yarns.
Circle 138 on reader service card

This is Nevamar





FAUX BOIS. Count on Nevamar for woodgrain laminates you've only dreamed of in the past... the exclusive new Faux Bois collection. Specially tinted woodgrains created with designer input. Six for now. But others are sure to follow. Don't be sheepish. Take the lead. For samples, call 1-800-638-4380. In Maryland call 301-569-5000. Nevamar Corporation, Odenton, Maryland 21113.

NEVAMAR™
DECORATIVE LAMINATES

Circle No. 415

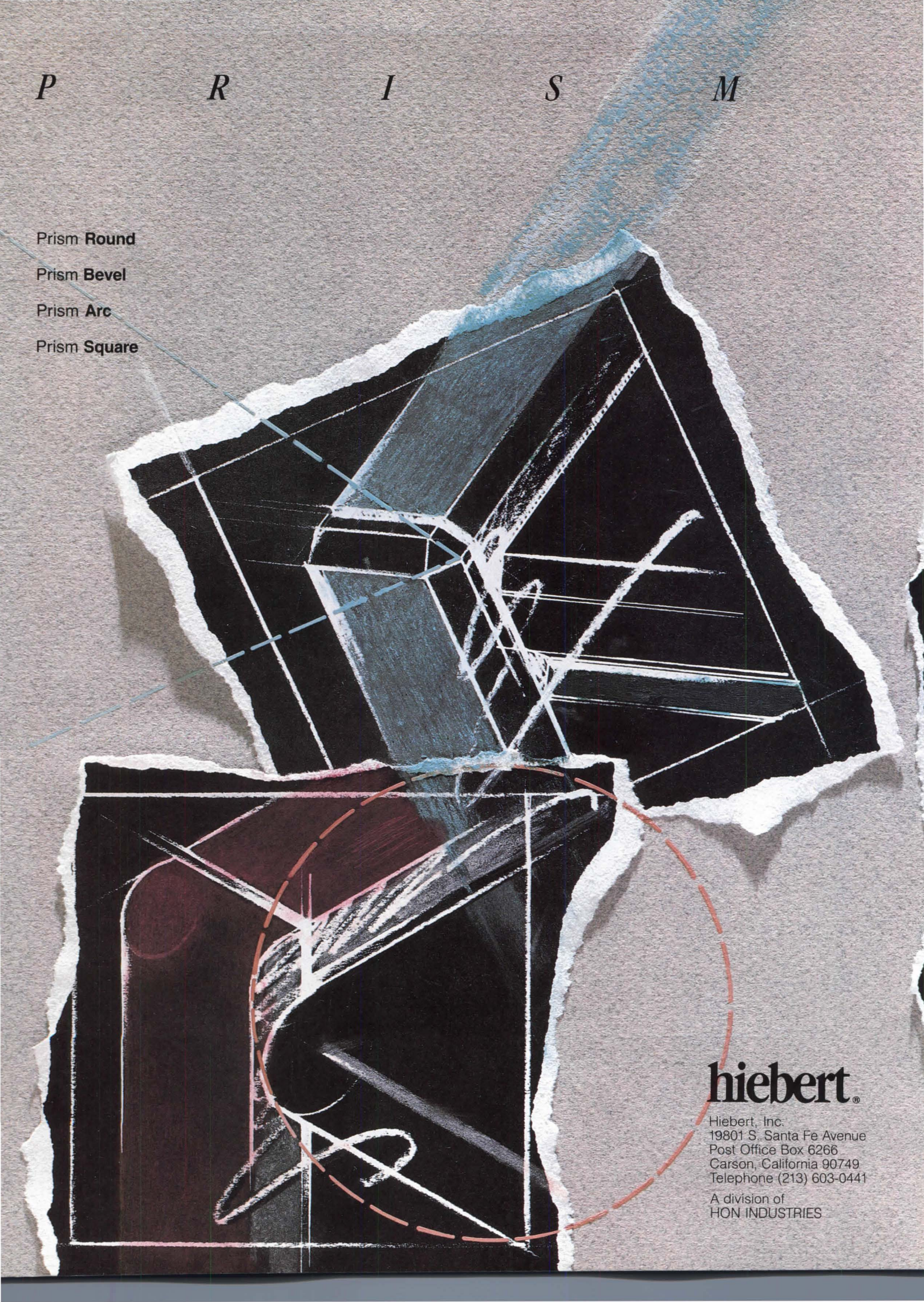
P R I S M

Prism **Round**

Prism **Bevel**

Prism **Arc**

Prism **Square**



hiebert.®

Hiebert, Inc.
19801 S. Santa Fe Avenue
Post Office Box 6266
Carson, California 90749
Telephone (213) 603-0441

A division of
HON INDUSTRIES

S E R I E S

New Details

New Colors

New Possibilities

Four New

Furniture Systems

By Hiebert

Karastan exhibits great grace under pressure.

It's not how good a carpet looks when it's new that's impressive. It's how good it continues to look over the years.

So Karastan's Lehigh carpet was woven on our advanced Kara-loc® II loom, creating an exceptionally dense, stable surface.

The design, a solid background of ultra-dense cut and loop pile, will retain its texture for years.

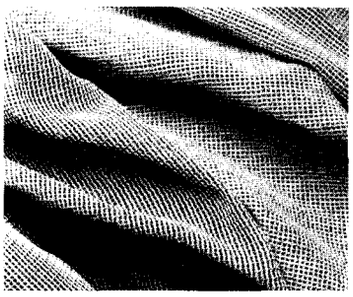
The fiber, ANTRON® nylon, provides soil-concealing easy care, durability, and built-in static-control.

Practicalities aside, Lehigh is also available in 19 elegant Karastan colors.

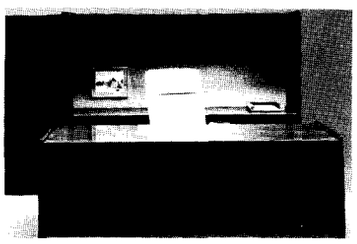
So bring on your high heels and wet galoshes. Track in your mud. We can take it. For years.

Karastan®

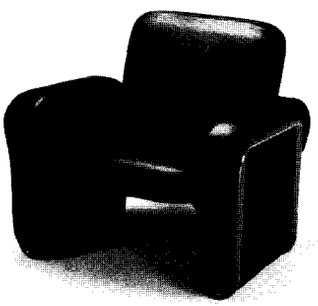
Karastan Rug Mills, a Division of Fieldcrest Mills, Inc.



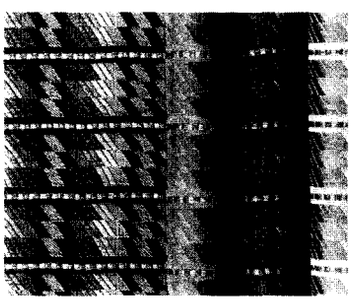
KCR
Architectural Grid I offers a small grid pattern for use in casement drapery. It is inherently flame-retardant and is available in standard and custom colors.
Circle 139 on reader service card



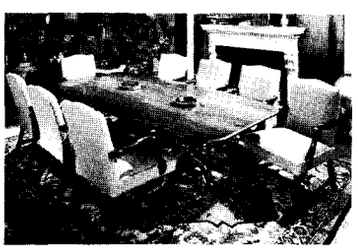
Kimball
New for NEOCON is the refined version of the 7500 Series executive workstation group. It is now available in oak with two new finishes, as well as new lacquer finishes on walnut.
Circle 140 on reader service card



Kinetics
The 200 Plus series, featuring single-, two- and three-seat models, brings a new degree of comfort to contract seating. Designed by James Haywood, the series is available in the complete Kinetics fabric program with a choice of 20 frame colors and chrome finishes.
Circle 141 on reader service card



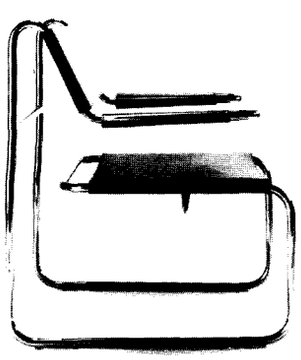
Kirk-Brummel
Wotan is a woven blend of wool and viscose, whose pattern recalls the designs of the Wiener Werkstatte. Imported from West Germany, it is available in five colors.
Circle 142 on reader service card



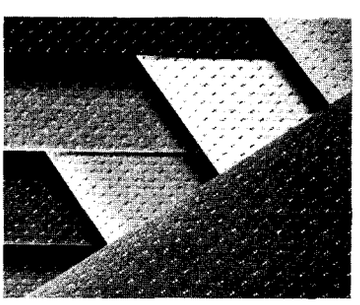
Kittinger
Three conference room tables, part of the Georgian Collection, are new for NEOCON. Two feature boat-shaped tops, while the third has a round top. All tables are mahogany and mahogany veneer with nose moldings.
Circle 143 on reader service card

Knoll
The Morrison System, designed by Andrew Morrison, is a flexible office system easily adapted to all workplace functions. It offers a comprehensive range of components, based on a 6-inch module, to create both open office plans and freestanding furniture.
Circle 144 on reader service card

Krueger
Krueger expands its Com System product line with new colors, storage options, and a new easy-access electrical system for panels and beams.
Circle 145 on reader service card

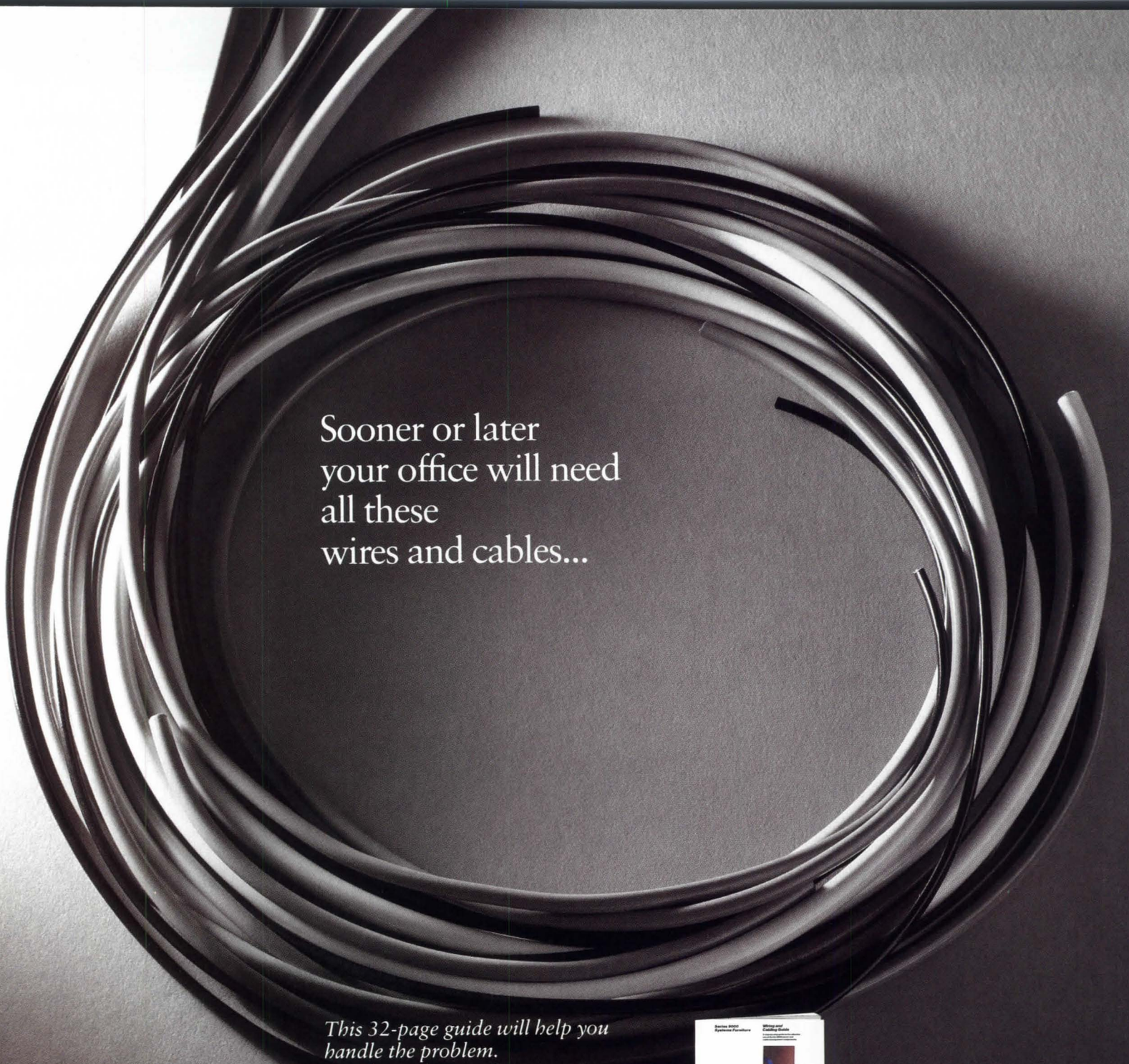


Jack Lenor Larsen
Designed by Werner Blaser, the Blaser Chair offers cantilevered steel construction on a sled base, with leather upholstery, and is available in a range of finishes.
Circle 146 on reader service card



Lee Jofa
Coach Frise, a new addition to Lee Jofa's COM Collection, offers the durability of a frise weave updated by a nondirectional mini-pattern inspired by a late 19th-Century motif. It is available in eight colors.
Circle 147 on reader service card

Lunstead
The Signature series is a line of transitional desks, credenzas, and superstructures, hand-made by individual craftsmen, and submitted to a rigorous quality-control program.
Circle 148 on reader service card



Sooner or later your office will need all these wires and cables...

This 32-page guide will help you handle the problem.

It shows how easily you can use systems furniture to deliver electric wires and data/telecom cables to every point of need throughout the office.

It also takes the mystery out of wire and cable management – starting with a brief look at building distribution systems and today's complex computer cabling requirements.

For your free copy, contact your Steelcase Dealer or Steelcase Regional Office. Or dial toll-free 1-800-447-4700. Steelcase, Inc., Grand Rapids, MI 49501.

Steelcase

The Office Environment Company

Circle No. 392 on Reader Service Card

OUR BIGGEST BURST OF

For samples, call Zip Chip, 1-800-524-0159 (In N.J. 1-800-624-1914).

CREATIVE ENERGY EVER.

Never before has Formica Corporation introduced so many exciting surfacing ideas at one time. 52 new colors, patterns and products from across the country and around the world. Each created to give you the competitive edge in your next design.

New Colors. We've added 20 new colors to Color Trends™ '86 for a total of 42 colorways. These, combined with the 72 colors permanently available in The Color Grid® system, brings our solid color collection to 114.

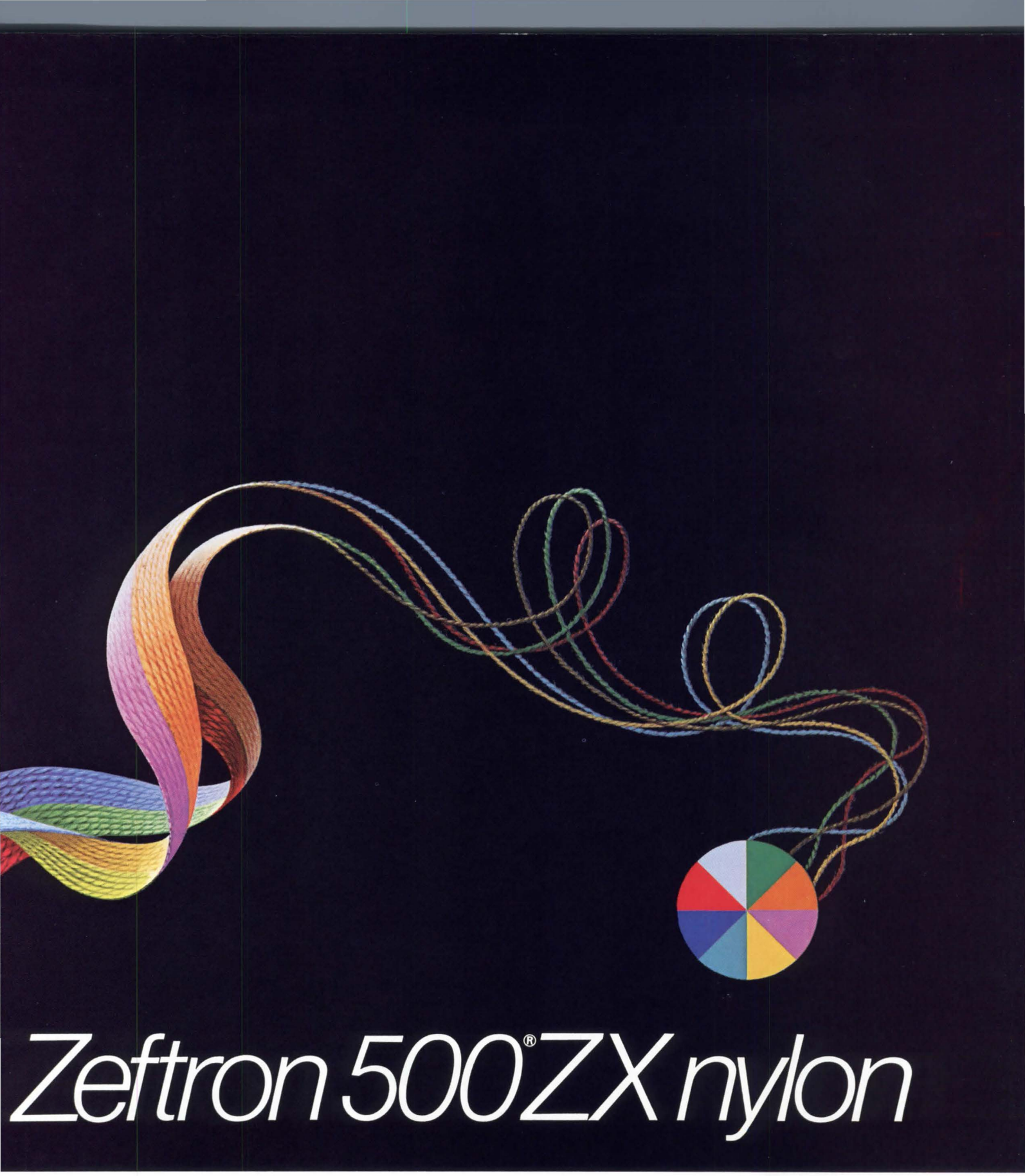
New Patterns. We have added Blackstone, a handsome black granite design and Birdseye, in Vanilla, Folkstone, and Copper Rose. The Premiere Collection, drawn from our international resources in England and France, include: Dust Patterns, in Stardust and Firedust. Stripes, in 18 striking designs. Lacque Metallique,™ hand-made laminates in Bronze, Copper, Patina and Mandarin. So if you're looking for innovation, look to Formica Corporation. We're always bursting with new ideas.

FORMICA® BRAND products

Circle **No. 376** on Reader Service Card

The fiber of St. Francis (SKHHP prescribed anti-microbial Zeftron 500® ZX nylon). Healthy fiber for St. Francis Hospital? Smith, Korach, Hayet, Haynie Partnership came up with the solution. Anti-microbial Zeftron 500 ZX nylon carpet tiles

Zeftron 500® is a registered trademark owned by BASF Corporation

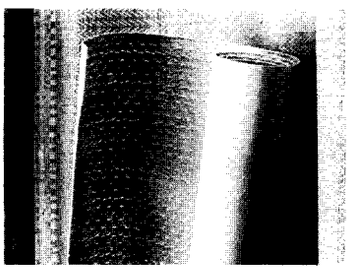


that resist germs, wear-marks, wheel-marks. Solution-dyed Zeftron 500 nylon is sun-resistant, bleach-proof. Its vibrant depth of color makes St. Francis in Miami Beach, Florida seem more like being at home than being in the hospital.

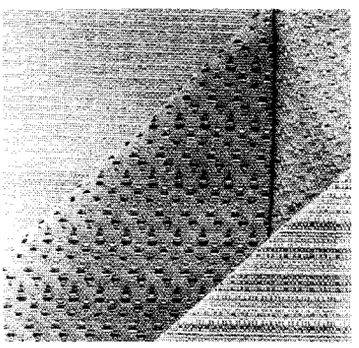
BASF Corporation
Fibers Division

BASF

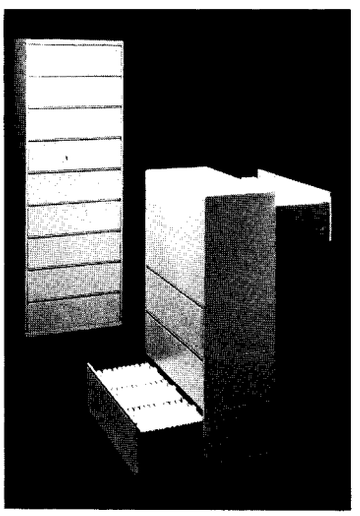
Circle **No. 328** on Reader Service Card



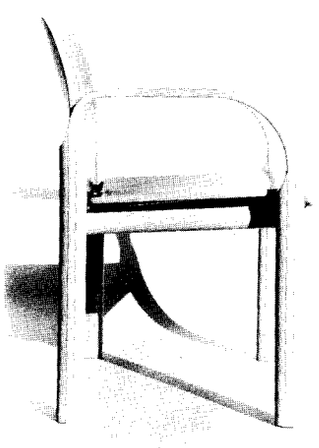
J.M. Lynne
The Natural Textures collection, winner of a 1985 Roscoe Award, will be featured at NEOCON. The collection offers a large selection of washable fabrics, with durable construction and a Class A fire rating.
Circle 149 on reader service card



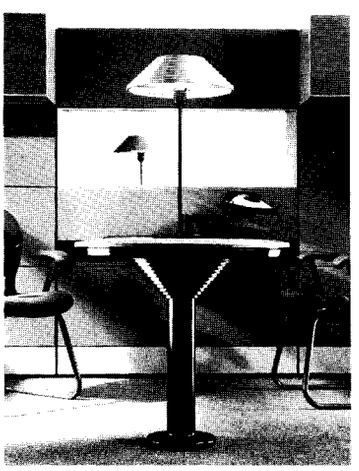
Maharam
Safety Series II is an upholstery fabric offering five patterns and 91 colors in a flame-retardant blend of modacrylic and nylon.
Circle 150 on reader service card



Meridian
The Stackable Storage System is a collection of modular, heavy-gauge steel file cabinets. Options include five standard heights; custom combinations are also available.
Circle 151 on reader service card

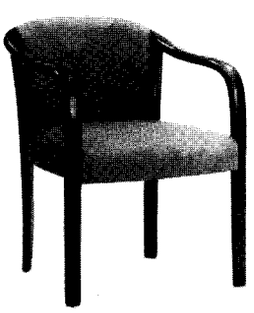


Metropolitan
The Fyn chair, designed by Brian Kane, is available with a wood frame in a variety of finishes. Matching wood seats, cane seats, and upholstered seats and backs are optional.
Circle 152 on reader service card

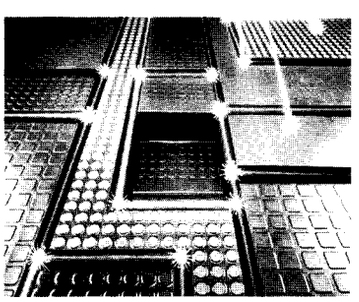


Herman Miller
The Ethospace® system, designed by Bill Stumpf, in collaboration with Jack Kelley, offers a combination of modular flexibility and architectural permanence.
Circle 153 on reader service card

Modern Mode
The Stratus System, designed by Norman Cherner, is a highly versatile, horizontally designed open-plan office system, available in 15 new lacquer finishes.
Circle 154 on reader service card

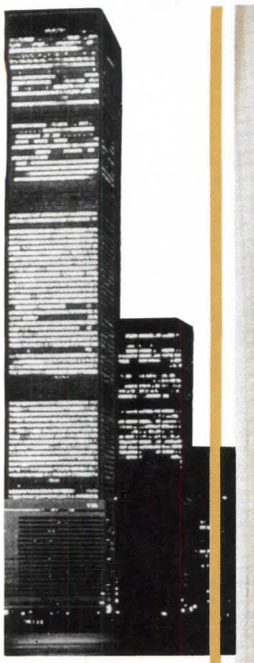


Mueller
The Maria chair is an occasional chair available in a wide range of finishes and fabrics, including leather. It offers a deep, wide, webbed seat for seating comfort.
Circle 155 on reader service card



Nora Flooring
The Norament System is a coordinated line of 100 percent synthetic rubber flooring. It is slip, burn, and chemical resistant, as well as continuously self-waxing. Norament is available in a wide range of colors and patterns.
Circle 156 on reader service card

Nucraft
New for NEOCON is a complete line of conference tables, as well as computer and video furniture.
Circle 157 on reader service card



Luxurious Wool for the executive suite.

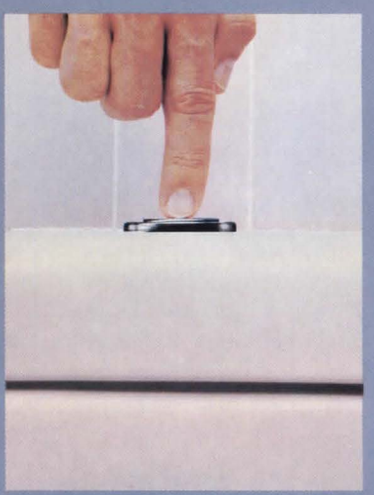
These new casements are additions to our CEO Collection.

155 East 56th St.
New York City.
Atlanta/Boston
Chicago/Dallas
Denver/Houston
Laguna Niguel
Los Angeles/Miami
Philadelphia
San Francisco
Seattle/Troy
Washington,D.C.

STROHEIM & ROMANN, INC.

Circle **No. 391** on Reader Service Card

DESIGNS THAT FLUSH OUT THE COMPETITION.



Villeroy & Boch believes that beautiful buildings deserve beautiful bathrooms. Our exquisite designs and European craftsmanship make our plumbing fixtures the perfect choice.

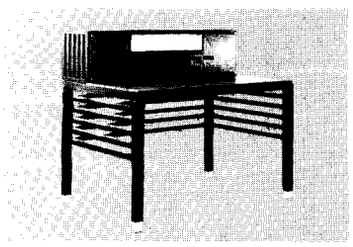
When it comes to specifying your next job, go beyond the standard with Villeroy & Boch. A source of supply for over 200 years.

Water Closet: Colani II
Wall Tile: Colorflex Series
Floor Tile: Piccolo Series

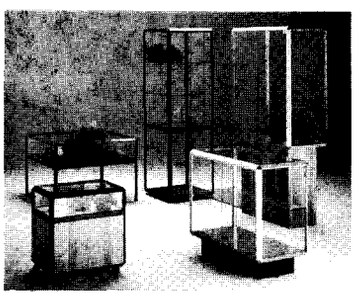
Villeroy&Boch©
A Tradition of Untraditional Design.

For information on our ceramic tiles and plumbing fixtures, write Villeroy & Boch, I-80 at New Maple Ave., Pine Brook, NJ 07058.

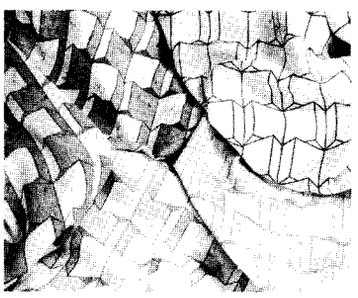
Circle No. 410 on Reader Service Card



Pace Collection
The K Desk, designed by architect Steven Holl, is available in natural or ebonized ash, with a leather top. The legs are finished with a patinated brass cap, and the panel of sandblasted glass is backlighted for dramatic effect.
Circle 158 on reader service card



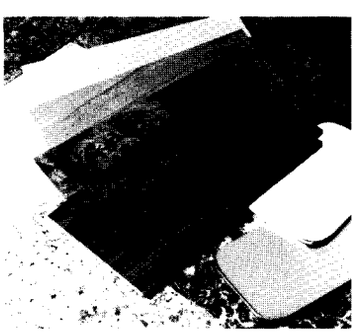
Peter Pepper Products
New for NEOCON are freestanding, table-top, or wall-hung display cases for showcasing important objects. The collection is available in 36 sizes and configurations, and several anodized aluminum finishes.
Circle 159 on reader service card



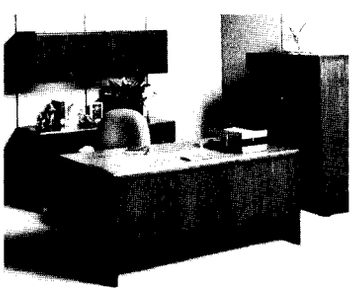
Ben Rose
Schematix is a collection of hand-screened prints designed by Rob Rose. Layout and Layout Linear, two designs from the group, are available in three colors, with a 4-inch pattern repeat.
Circle 160 on reader service card

Scalamandré
Crema is a 65 percent rayon chenille and 35 percent cotton blend, with a metallic sheen. Intended for upholstery use, it is acrylic-backed and available in eight colors.
Circle 161 on reader service card

Schafer Bros.
The Synchro-Sit chair series offers advanced ergonomic design to increase efficiency and productivity. It is available in five models and a variety of upholstery and finish options.
Circle 162 on reader service card

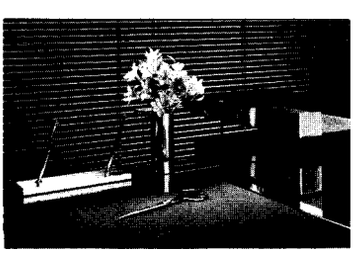


Scope Furniture
Scope introduces an option program for NEOCON, including many new choices in woods, metal finishes, polished stone, and 120 Imron colors.
Circle 200 on reader service card

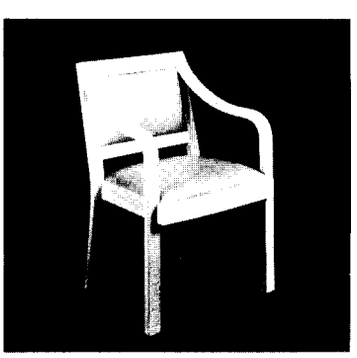


Shaw/Walker
The Woodwind Collection offers freestanding wood furniture and open-plan systems components, which are compatible with the Tempo 3 Radius system for greater flexibility.
Circle 201 on reader service card

Shelby Williams Industries
A new table from Shelby Williams Industries is suitable for a number of different uses. Made of brass and glass, it is available in three sizes.
Circle 202 on reader service card



Smokador
The Executive Privilege series offers polished, antique, and satin finish bronze desk accessories. The collection also features low-profile consoles and computer printout-sized letter trays.
Circle 203 on reader service card



Karl Springer
The Regency armchair, new for NEOCON, is available in a range of finishes and upholstery, including lacewood veneer, with leather seat and back.
Circle 204 on reader service card

Stark Carpet
The Paradiso Marble Collection, from Stark Carpet, offers earth-toned marble tiles, 3/8-inch thick and 12 inches square, for interior use.
Circle 205 on reader service card

Tarkett recaptures the magic of the Impressionists!

New vinyl composition floor tile coordinated with cove base and accent strips.

From the palette of 19th century Impressionists comes dramatic dabs of post-modern colors blended on 12" tiles. Expressions—tiles that accent the dominant color of their environment. Tiles that can be mixed-and-matched. Different colors can be blended to suggest traffic flow patterns, define boundaries, create rooms, and integrate complex areas. The possibilities are almost endless; the results are always outstanding. And, the added beauty of coordinated accent strips and cove base create wall-to-wall excitement no other floor tile can match. Introduce yourself to the innovative flexibility of Expressions and create your own flooring masterpiece.

For information and samples call 1-800-225-6500 USA and Canada.

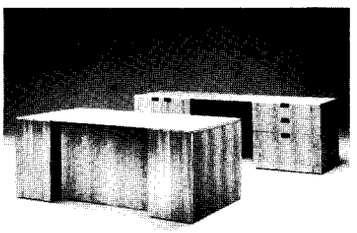
THE Expressions™ COLLECTION by Tarkett®

Tarkett Inc.
P.O. Box 264
Parsippany, NJ 07054

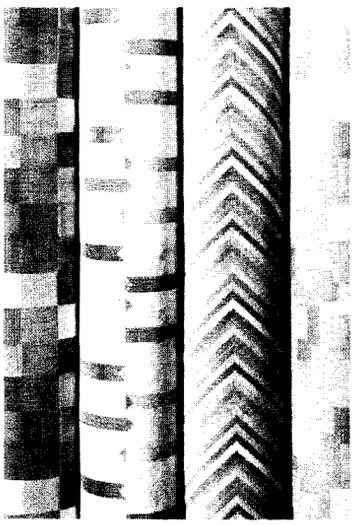
The world's most experienced flooring company.

Circle No. 401 on Reader Service Card

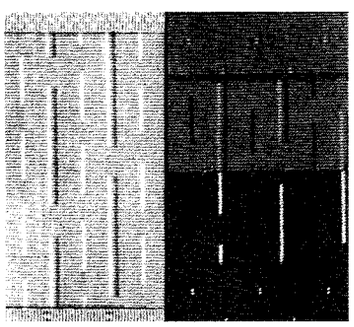
Stendig
The Auretta dining-height armchair, by Paolo Piva, is an addition to the lounge seating series that includes Aura and Salzburg. It is available in fabric or leather with contrast welting and leather-covered legs and hand-grip.
Circle 206 on reader service card



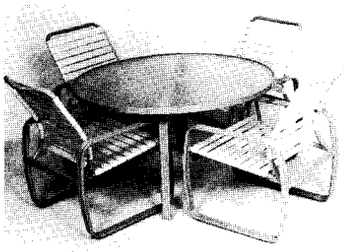
Stow & Davis
The 1000 Series, designed by Robert Taylor Warren, incorporates wood detailing into a desk and credenza collection to accommodate the electronic office.
Circle 207 on reader service card



Stroheim & Romann
The Harmony Collection is a group of fabrics featuring checkerboard, linear, flamestitch, and patchwork patterns, which can be used separately or in combination.
Circle 208 on reader service card



Top Grade Carpet
Micro-Point is a high-performance jacquard loop carpet of Du Pont Antron III nylon. The carpet is available in three patterns and 11 colors.
Circle 209 on reader service card

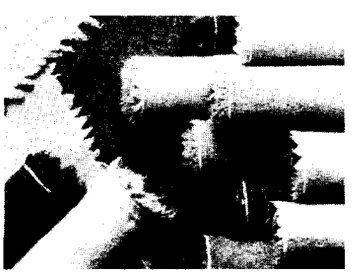


Tropitone
Kapalua II features a curvilinear design with webbed seats. The straps are of washable, nonporous vinyl for comfort and durability.
Circle 210 on reader service card

Tuohy
Primera shelving offers a series of modular and freestanding components specifically designed to coordinate with Primera tables and casegoods. All units are available with or without doors.
Circle 211 on reader service card

Vecta Contract
The Kelly chair, designed by William Raftery, is a fully upholstered management chair with ergonomic benefits. It is available in high-back and standard height models.
Circle 212 on reader service card

Vitra Seating
The Persona Corporate chair, designed by Mario Bellini, is available with upholstery custom-dyed in company colors; or with the corporation logo woven into the fabric as a design element.
Circle 213 on reader service card



Westinghouse
Saxony Fabric, a heathered flannel in a variety of shades, was designed especially for Westinghouse Furniture Systems. It is an addition to the Wes-Tone fabric system, and is color-compatible with other Wes-Tone elements.
Circle 214 on reader service card

Marquésa® Lana
leading the way

NOW CARPET, CONTRACT UPHOLSTERY, AND WALL COVERING FROM ONE YARN SYSTEM...

The complete interior yarn is...Marquesa Lana. Now you can design a room, office, or an entire building using the one yarn that offers you all the options. Marquesa Lana is beautiful, durable, and stain-resistant. Marquesa Lana is a color-fast yarn that preserves it's handsome appearance throughout years of service.

Marquesa Lana...Leading the way.

Now with Scotchgard® Protector

A-2-86

AMOCO

Amoco Fabrics and Fibers Company makes fibers and yarn, not finished carpet.
Marquesa® Lana is the registered trademark for bulked continuous filament olefin yarn produced by Amoco Fabrics and Fibers Company.

Amoco Fabrics and Fibers Company
900 Circle 75 Parkway N.W.
Atlanta, Georgia 30339

Circle No. 420 on Reader Service Card

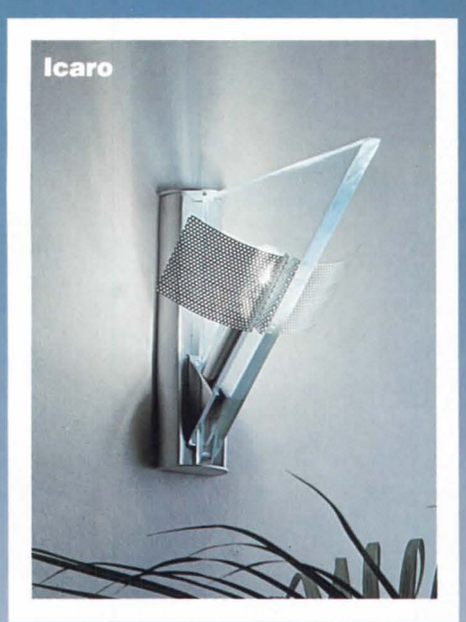
Artemide

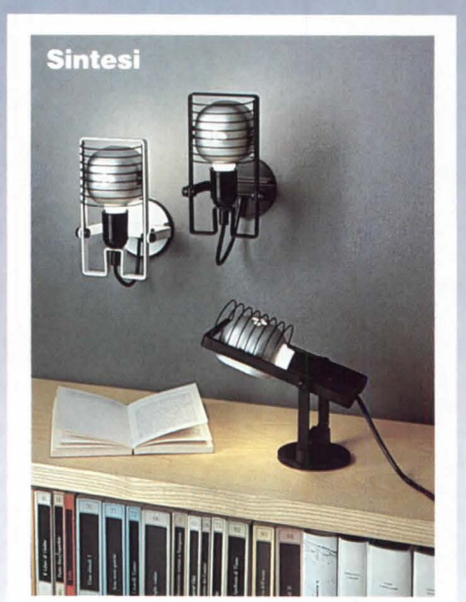
Sales Headquarters:
Artemide Inc.
150 East 58 Street
New York, New York 10155
Telephone: 212/980-0710

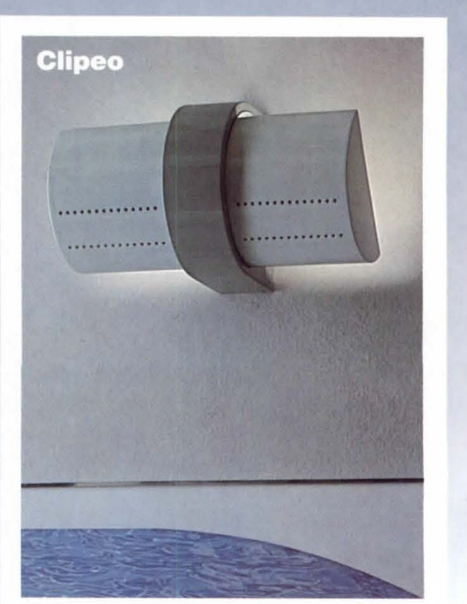
Regional Offices:
Chicago
Telephone: 312/644-0510
Dallas
Telephone: 214/747-6060
Houston
Telephone: 713/623-2284
Los Angeles
Telephone: 213/659-1708
Miami
Telephone: 305/925-3311

Wall fixtures from Artemide

No matter what kind of wall you have, Artemide has a wall lamp for you.







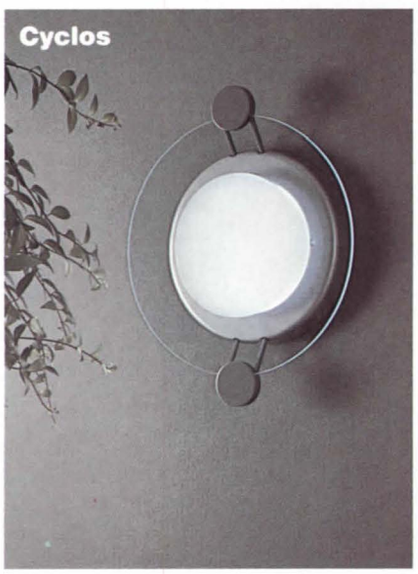
Up Against the Wall

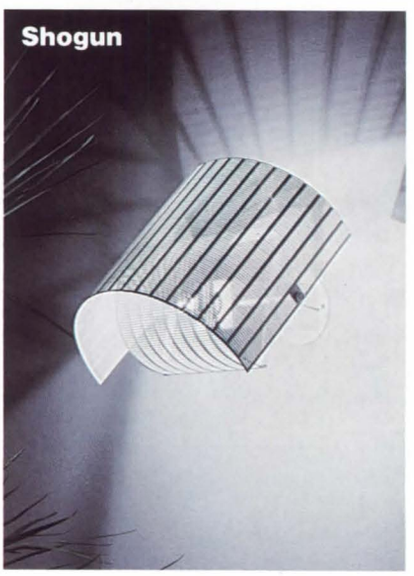
The Artemide lighting collection includes designs that enhance any environment, from home to office, from restaurant to retail shop. Incandescent, fluorescent and halogen fixtures are available; the applications are limited only by your imagination.

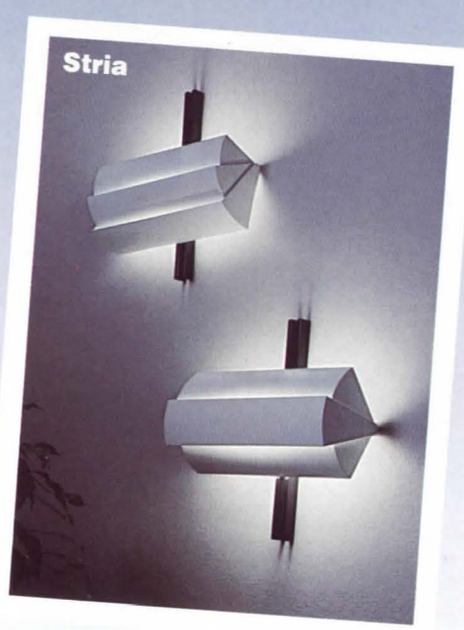
Ernesto Gismondi, Mario Botta, Carlo Forcolini, Michele De Lucchi, Vico Magistretti and Gianfranco Frattini are among the designers who have created wall lamps for Artemide. Doesn't your wall deserve an Artemide lamp?

The wall lamps shown here, and the complete Artemide lighting collection are on view in the Artemide showroom nearest you. To receive a free color brochure, write Artemide on your letterhead, or circle number **416.**

UL® Listed







To Measure Building Quality, Take the Back Stairs.

When you enter any building, go to the interior stairs. That's where you'll see and feel the building's quality up close. The stairs' design, strength, accuracy of fit, and overall appearance say more about the building than all the brochures, models, and renderings ever will. The stairs are seen and used every day by the people who count the most — the occupants. How will they perceive your building?

For over thirty years, the American Stair Corporation has been helping architects and contractors. Innovative products and modern design concepts are just part of the American Stair story. The *major* factor is quality.

Leading architects have found that exit stair systems from American Stair fit well with their designs. They have incorporated Speed Stair® in many award winning buildings.

For modern high quality stairs, go beyond the old "industrial" look of traditional fire stairs. Take advantage of the Early Design Development Service℠, exclusively from American Stair Corporation. Join the thousands of architects who have used American Stair products. We'll put our expertise to work for you, giving you more time to work on the more challenging and creative tasks.

Get your copy of "An Architect's Guide to Designing Stairs," the informative worksheet that organizes stair design efforts.

Call today! 1-800-USA-STAIRS.

American Stair

American Stair Corporation
One American Stair Plaza
Willow Springs, Illinois 60480
800-USA-STAIRS/800-872-7824

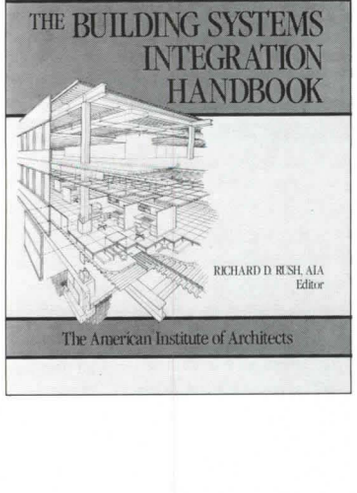
Circle **No. 322** on Reader Service Card

Books

The Building Systems Integration Handbook, ***edited by Richard Rush. The American Institute of Architects, John Wiley & Sons, Inc., New York, 1986, 450 pp., illus., $89.95.***

Housing As If People Mattered, Site Design Guidelines for Medium Density Family Housing, ***by Clare Cooper Marcus and Wendy Sarkissian with Sheena Wilson and Donald Perlgut. The University of California Press, Berkeley, 1986, 336 pp., $55.00.***

Behavioral Issues in Office Design, ***edited by Jean Wineman. New York, Van Nostrand Reinhold, 1986. 364 pp., $40.00.***



Vers Une Integration

"What's the big deal?" was this reviewer's initial impression of *The Building Systems Integration Handbook* after scanning flyleaf and publisher's blurb. It required reading almost half the book to fully realize its implications. This was not because these are not stated clearly at the beginning, but because the idea of "integration" appears to be so deceptively simple.

The authors of this book were themselves integrated. The book is the combined work of consultants, reviewers, panelists, authors, assistants, contractors, and four primary panelists: Joseph Loring, John Pile, Irwin Cantor, and the late Bill Caudill. The project was sparked, managed, and massaged by Richard Rush.

The authors (all of them) state as their intention "to do for building systems integration what Graphic Standards did for building systems." They did.

Graphic Standards and Sweets Catalogs have been landmarks in the practice of architecture for over half a century. Their popularity has been due, in no small measure, to the industrialization of architectural components and architectural design. Rush and his group propose a professional development beyond industrialization. If "God is in the details" of industrial building, He or She, will be in the integration of post-industrial architectural components.

With the computer now embedded in every facet of our technologies and our personal lives, the *Zeitgeist* of our time is clearly shifting. This book proposes that architects turn their attention from industrial products to the full consequence of their assembly.

Building integration is difficult to define, and for good reason. We all think we know what it is. But do we? A shift of vision, similar to that proposed 15 years ago by Richard Bender[1] describing the industrialization of building, is essential. He wrote, ". . . an optical illusion, familiar as a parlor trick, in which as one looks at the drawing of a familiar object, suddenly changes. A vase becomes two faces. Once you see the faces, it is hard to see the vase again. Your mental set shifts, and suddenly you see things in a new and unexpected way." A shift of vision is proposed in *The Building Systems Integration Handbook* (BSIH), but this time the move is from industrialization to integration. Once the reader realizes what is meant, and most will not be as slow as this reviewer, they will see the act of building design quite differently.

Of course all buildings are integrated but integration is rarely conscious. Design criteria are specific to the building as an entity. The author's premise is that the architect's ability to produce building systems integration is a measure of his and her professional ability. Integration is the creative exercise of assembling the building, or design. As Le Corbusier once said of his "Modulor," it will not make good design automatic, only bad design more difficult.

The authors, panelists, writers, and consultants state they have furnished a clear definition of the concept of "integration." However, they concede, other definitions are possible and eventually will be formulated. But, for the moment, in the absence of competition, they propose "the act of creating a whole functioning building containing and including building systems in varied combinations." A system is defined as a coherent set of physical entities organized for a particular purpose.

The book is organized into seven parts: An Introduction, outlining the concept of building systems integration; A brief roundtable discussion with Cantor, Caudill, Loring, and Pile with Rush moderating and directing; Case Studies of 19 buildings in which Robert L. Miller discusses each in terms of building systems integration. This is in effect a clear illustration of what the book is about through examples; Generic Examples—In this section, Thomas Vonier refines the concepts by presenting 15 generic examples of building systems integration in his well-researched and clearly written fashion; Products, written by Barbara Heller and Doris King, describes 25 building elements giving excellent, well-illustrated data along with materials, methods, and pitfalls; Volker Hartkopf, Vivian Loftness, and Peter Mill break down building performance criteria on the basis of "performance mandates." This is a continuation of their heroic and valuable effort to define and clarify the building process that has proven so valuable in the field of building diagnostics and a recent ASTM document; Integration Theory in which the work of the AIA task force that reviewed and helped guide the work is discussed by Stubbs and Rush. Integration theory is summarized and once again, clearly, almost painstakingly, reaffirms the ideas proposed in the introduction and elaborates upon them.

Building systems were divided into four categories—structure, envelope, mechanical, interior—with five levels of integration including remote, touching, connected, meshed, and unified. The diagram of integration (BSIH matrix) is based on the tetrahedron with each vertex denoting a building system. This graphic device is used throughout the book.

The effort of the authors, panelists, and consultants was to create a clear, simple, universal vocabulary to define integration, situations, and choices. If architects can do this in their work, they reasoned, they should be able to describe these skills to their clients.

Drawings by Darrell Downing Rippeteau are exceptionally fine. Photographs are well chosen and clear. The authors stated intention of doing for building systems integration what Graphic Standards did for systems building surpasses Graphic Standards in graphic clarity. The book is a happy marriage

between the publisher, John Wiley and Sons, and the AIA.

The subject of the book is creativity, from interior design to mechanical rooms, with the building façade a mirror of successful integration, as good nutrition is reflected in the appearance and function of a healthy body.

The book is about design, but as we all know, design is notoriously difficult to define. Design engineers calculating space frame connections, mechanical engineers sizing ducts, tradesmen tying rebars, decorators picking drapery colors, and façade inventors all consider themselves designers. Apparently BSIH agrees and includes them all.

To place this book in historic context in relation to Sweets Catalogs and Graphic Standards, we could use the excellent metaphor Mike Crosbie[2] proposed in comparing the intent and purpose of architectural books of the past.

One of the earliest books, Price's *British Carpenter,* appeared in 1733. It included easily understood plates illustrating the "most approved" methods of connecting timbers. It also showed domes, staircases, and a supplement on Palladian orders. But English books did not suit American practice. Asher Benjamin was probably the first to translate English books to American building needs. His books, Crosbie says, were much like "cookbooks," offering ingredients for a complete building but flexible enough to accommodate local tastes. These books stressed mechanics, science, and stylistic treatment of buildings.

But building practice was changing. Steam-powered sawmills produced milled lumber and nails were machine-made. The "balloon frame," a new framing system, was invented. Building assembly became simpler, faster, and the product lighter. Prefabricated buildings were sent around the world. Peterson says that shortly after the discovery of gold in California in 1848, entire prefabricated towns were shipped to the goldfields.

Building assembly was reduced to elemental steps, and the labor involved required a much lower level of skill. Architectural education and the appearance of professional architects drastically changed the content and intent of American architectural books. They were no longer addressed to carpenter builders, as one colleague to another, but as the professional architect instructing carpenters and demonstrating his talents to clients. These books Crosbie likened to "menu-style" books. They contained plans, elevations, perspectives, and a variety of surface and finish treatments.

By mid- and late-19th Century, catalogs of building elements from the simplest roofing plate to entire cast-iron building façades, the forerunners of today's Sweets Catalog, appeared. The result was uniformity of architectural style from coast to coast. The complex craft and art of building was simplified to assembly, like today's cake and biscuit preparations that add water and mix.

The consolidation of capital, knowledge, information, and its dispensation took place during the latter part of the 19th Century. Business, industry, and the professions changed. Monopolies were established, building codes and professional ethics proposed, fees set and regulated, architectural services advertised. Architects were trained in universities, and architecture books catered to these changes. Building design, before the legal distinction between architect and builder was defined, was never the predominant consideration of the carpenter builder's work. Carpenter and client both knew what a house was; they discussed size and site. After industrialization, the architect's role was dispenser of a marketable commodity—design. He, and eventually she, exerted firm control over design matters.

Architectural books changed from repositories of on-site building data into presentations and settings for home life. The architect's attention moved from the art of building to orchestrating the various processes that resulted in a completed structure. Sweets Catalog and Graphic Standards were introduced in the 1930s and became the complex menus they are today.

We light the American dream

NATIONAL AWARD-WINNER
Houston, Texas
INNOVATIONS IN HOUSING
DESIGN COMPETITION

You design the American dream, and we light it. Modest homes for young families or luxurious custom homes..a shopping mall, hotel, restaurant, museum, or corporate headquarters...it's all part of the dream. Architects play an important role in its realization, and we take a great deal of pride in the supportive role we play.

We build our pride into all our products. We offer architects the largest selection of residential and commercial fixtures...including track and recessed lighting, fluorescents, outdoor lighting, 'non-destructibles', HID...and more! It's all quality Progress Lighting, helping to make the dream you design...a reality.

PROGRESS LIGHTING

KIDDE Subsidiary of Kidde, Inc. Box 12701 Philadelphia, PA 19134

Circle **No. 384** on Reader Service Card

But building design and delivery is once again changing, and changing very rapidly. The cookbook for hand-made buildings held sway for perhaps a century. Menus of architectural taste in mass-produced products lasted equally long.

The technical change in the proliferation of computer applications, which has increasingly dug into the entire range of end user devices, both technical and personal, has taken place in less than 20 years.

What Rush and his integrated authors propose is the next step in the building process, and they have given us an appropriate book. Using Crosbie's metaphor, we might say that from cookbook to menu we now move to nutrition. This includes cookbook and menu but also much more. Nutrition verges on science. Cookbooks are aids to skillful cooking, menus are aids to technical planning of meals, but nutrition considers food abstractly as an essential ingredient of human health.

Quite different foods may have the same or equivalent nutritional worth. When we specify nutritional values we describe essential food elements. Nutrition is to food what performance specifications are to design. *The Building Systems Integration Handbook* places the technology and design of buildings in the context of building performance, bringing us one step closer in the move from building lore to building science. This is a step, this reviewer is convinced, that architects must take to preserve their rights and integrity as design professionals. ***Forrest Wilson*** ■

The reviewer is Director of Doctoral Studies, Department of Architecture and Planning, Catholic University of America, Washington, D.C.

1. A Crack In The Rear-View Mirror: A View of Industrialized Building, *VNR, NY, 1973.*
2. *"Cookbooks to Menus, The Transformation of Architectural Books in 19th Century America,"* Material Culture, *Fall 1985.*

Housing for People

Housing As If People Mattered is a guide to site design for medium density housing, and it is unlike most such guides. It offers neither the breezy, impressionistic coverage often given the subject by site designers nor the dense, jargon-filled prose that sometimes accompanies the recommendations of social scientists. Instead, the book contains 254 guidelines that are well written, amply illustrated, and easily used, with listings of the various responses a designer might make to each recommendation. The guidelines deal with everything from the form, image, and orientation of buildings to the use of open space by children and adults of various age groups.

The authors state in the preface their biases in favor of the needs of children, working parents, and the handicapped. And they acknowledge that their findings, the result of studying approximately one hundred family housing developments, apply mainly to English-speaking, developed countries. Those qualifications, though, in no way diminish the value of the book, not just as a tool for housing designers, but as a model for design guides. ***Thomas Fisher*** ■

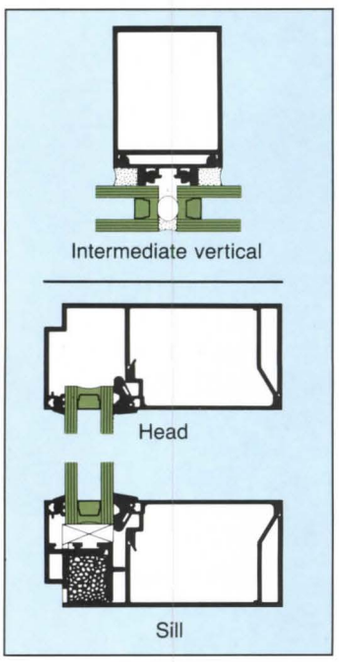
Office Design

Near the end of *Behavioral Issues in Office Design,* editor Jean Wineman identifies four requirements that reappear in most of the research: "individual choice and control; environmental diversity; worker participation; and closer liaison between (sic) professionals in the field."

The need for individual control is most strongly related to control over ambient conditions such as lighting, heating, and cooling. Research also shows that a diversity of status indicators, despite efforts at making the workplace more egalitarian through open office landscape, still counts to most workers, as does participation in decisions about offices.

The book indicates several areas in which more research is needed, including the effect of the office on worker health and of specific environmental factors on productivity. But the book makes clear the need for greater worker control and participation and the conflict that exists in companies that want greater productivity from employees and yet cannot make the organizational changes necessary to bring it about. ***Thomas Fisher*** ■

Structural Silicone Glazing System from United States Aluminum Corporation



United States Aluminum Corporation is now offering the Series SG 450 Structural Silicone Glazing Ribbon system engineered for low and high rise glazing projects.

Design Features

- Two-sided structural silicone support
- Inside or outside glazing
- Provision for ¼″ and/or 1″ glazing
- Reusable injection molded nylon twist-in and twist-out temporary glass retainers
- Optional thermally broken profiles
- Simple stacking erection and glazing
- Low profile 90° and 135° inside and outside corners
- Intermediate horizontals (outside glazed only)
- Continuous sill gutters with baffled weeps for optimum water performance
- Certified performance test for air, water, and structural

Available in clear, bronze, or black anodized finish or custom painted to architects specifications.

United States Aluminum *gives* you over 25 years of proven quality.

For complete information, call 1 (800) 527-6440 or write:

United States Aluminum Corporation

Manufacturing Facilities

3663 Bandini Blvd.
Vernon, California 90023
Telephone (213) 268-4230

200 Singleton Drive
Waxahachie, Texas 75165
Telephone (214) 937-9651
or (214) 299-5397 metro

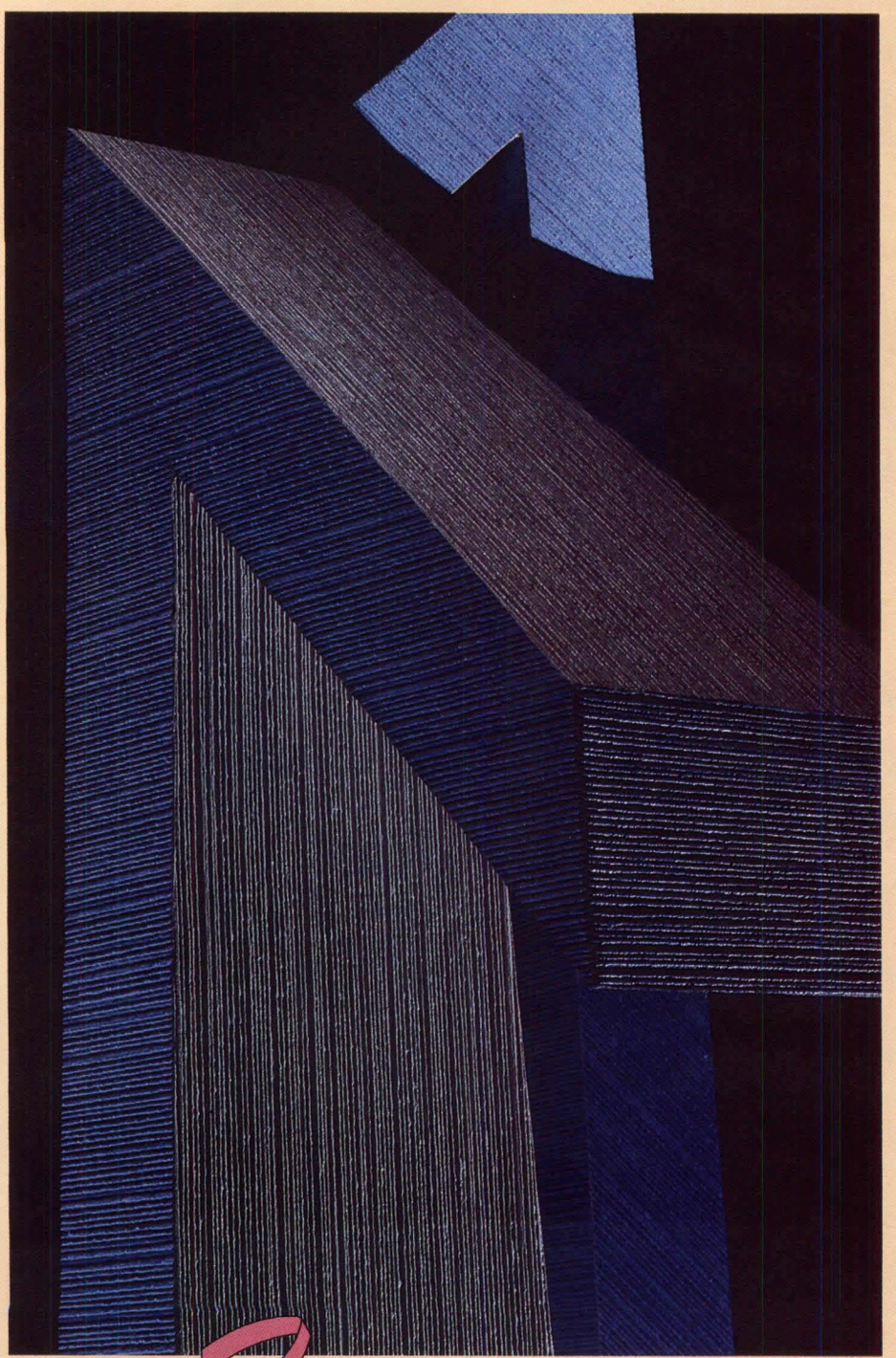
6969 West 73rd Street
Chicago, Illinois 60638
Telephone (312) 458-9070

720 Cel-River Road
Rock Hill, South Carolina 29730
Telephone (803) 366-8326

Subsidiaries of International Aluminum Corporation

Circle **No. 404** on Reader Service Card

CATCH A PIECE OF THE SUN.



COLOGNE

The beginning of great days in contract vinyl wallcoverings.

Sunwall 54.™

Beams of light in durable fabric-backed vinyls. Type I, Type II, and Tedlars®. Meeting or exceeding all architectural specifications.

Rich textures and coordinating patterns—in weights most commonly specified.

Bright new arrays of colors—with exciting accent shades.

And to further broaden design horizons, a distinctively-textured series of companion coverings. Sun-Tex.™ Textures.

From the energetic source.

Sunwall 54.
VINYL WALLCOVERING

BORDEN®

Sunwall of America™
Division of Borden Chemical, Borden, Inc.

3044 Northwoods Circle
Norcross, GA 30071-1525
(404) 447-5212

Chicago
(312) 885-0540

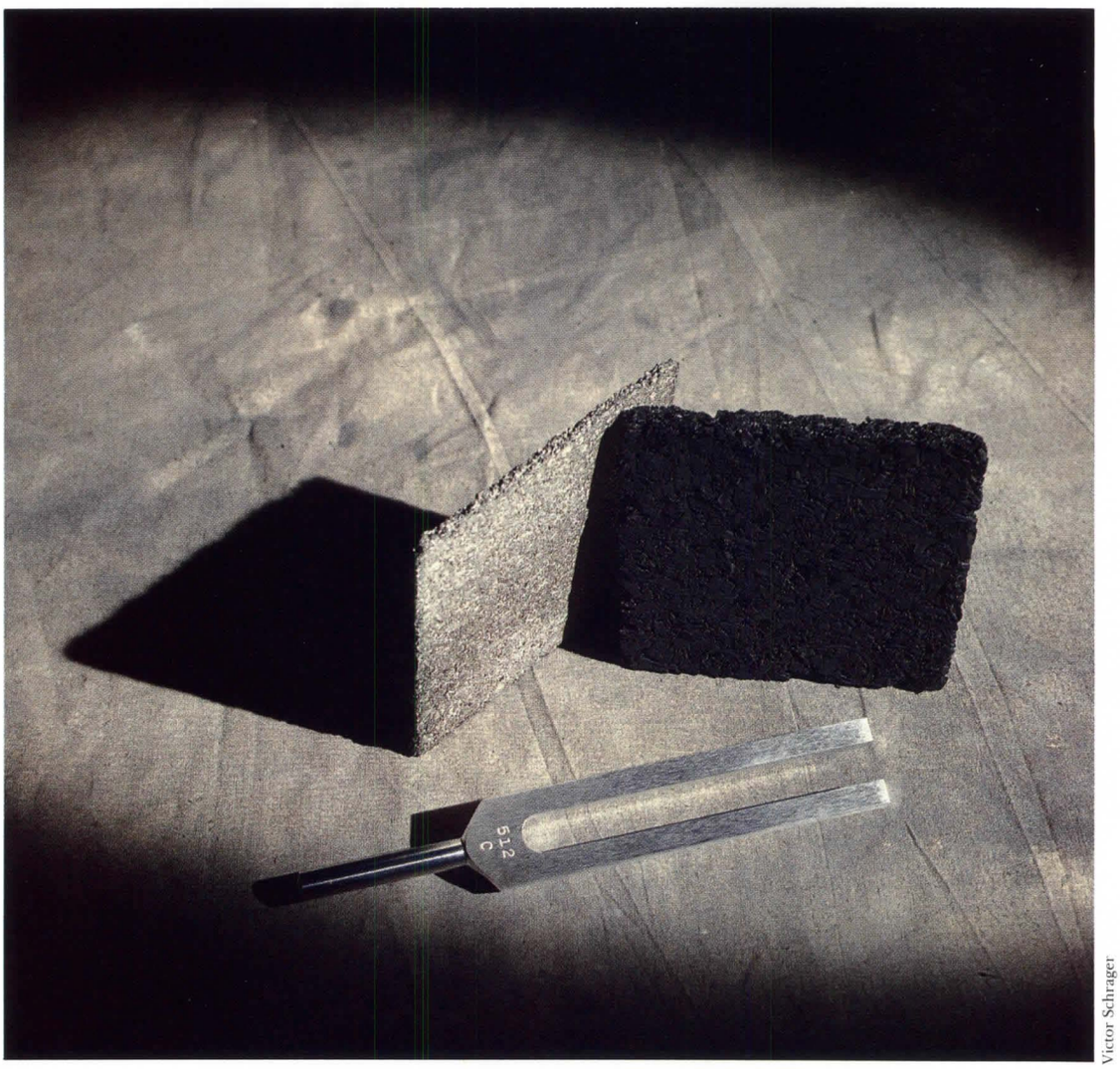
Los Angeles
(213) 266-0330

Dallas
(214) 747-9011

Philadelphia
(215) 757-3787

Circle **No. 339**

New Products and Literature



Victor Schrager

Rask sintered iron plate, developed by Nippon Rask Company of Japan offers a new alternative for sound absorption, sound insulation, vibration absorption, thermal conductivity, and electromagnetic shielding. Produced from cast iron sheets, the material has a porous surface structure and a dense interior.

In many building applications, the material is lighter or less bulky than materials now generally used. In some areas, it offers exceptional performance—in low-frequency sound absorption, for instance, in efficient heat exchange, and in fire resistance.

AlumiRask, a comparable material made from aluminum, has similar properties, but is far lighter. PULNiX America, Inc.

Circle 220 on reader service card

Deep Relief ceramic tiles can be used for exterior or interior installations. The glazed and high-fired tiles are available in several designs and in 11 stock colors. Custom colors are available with minimum orders of 1000 tiles and an additional service charge. The firm will also work with clients to develop designs, corporate logos, and special glazes. M^2 Designer's Studio.
Circle 221 on reader service card

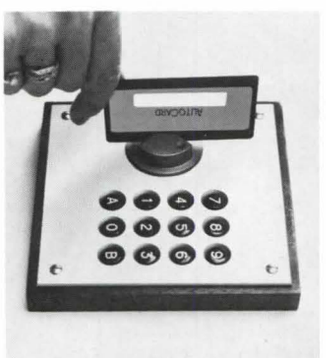
Sentrex™ Swing Door System has infrared sensors on each side of the door frame to detect presence, not movement. Since no guard rails, door bars, or control mats are required for its operation, entrance clutter is removed. Magic-Swing operator, which opens and closes the door upon command from the Sentrex System, features a computerized Pozi-Trac encoder to calculate exact door position at all times. An emergency release allows manual operation of the door in the event of a power failure or other emergency. Stanley Magic-Door, Div. of The Stanley Works.
Circle 222 on reader service card

Classico® concrete paving stone imitates natural stone. The five shapes provide for a strong structure and a smooth overall appearance. It is recommended for pedestrian areas and areas with low vehicular traffic volume. Paver Systems, Inc.
Circle 223 on reader service card

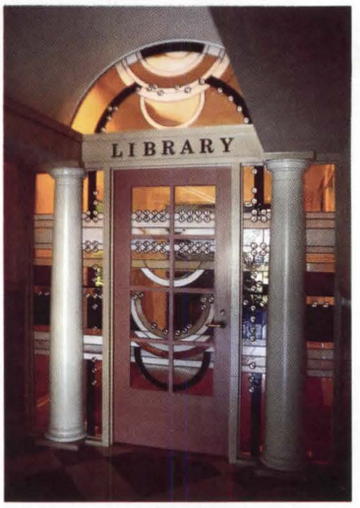
Dri-Dek floor system of polyvinyl chloride interlocks to create a portable surface of any size. The 12″ x 12″ x 9/16″ perforated units snap together quickly to install in minutes. Colors are yellow, gray, blue, black, tan, and red. Accessories include a 12″ x 2″ beveled edge piece to be used as a safety border and a 2″ x 2″ corner. Soli-Dek, also 12″ x 12″ x 9/16″, provides a solid surface for use in dry areas. Kendall U.S.A.
Circle 224 on reader service card

Insul-8 skylights of twin-wall construction have eight times the impact resistance of acrylic, 200 times that of glass, according to the manufacturer. The material will not ignite or spread flames. There are two styles: Model F is a four-inch insulated flush-mounted unit; Model C is a two-inch insulated or noninsulated curb-mounted unit. Both are available in 2′ x 2′ and 2′ x 4′ sizes. Polygal USA.
Circle 225 on reader service card

Amofoam-SL extruded polystyrene insulation board has a shiplap edge to help decrease air infiltration. The edges fit together snugly at the seams with a decrease in air infiltration equal to ordinary tongue-and-groove products. It is available in several sizes and thicknesses to meet a variety of insulation needs. Amoco Foam Products Co.
Circle 226 on reader service card



Autocard high-security programmable card reader system controls access through gates, doors, and turnstiles. The cards contain a unique personal code incorporating noncorruptible infrared coding technology. They can be ordered with I.D. photographs, pocket clip-ons, and custom printing. Autocard is available in three stand-alone models with memory for 300, 600, or 2500 card capacity. An optional printer is available to record all entries, with time and date of each transaction. Auto-Matic Operators.
Circle 227 on reader service card



Sidelites, door, and transom by Shelley Jurs for Larkspur, Calif., main library.

'The Guild: A Sourcebook of American Craft Artists' is a source of craftspeople for architects, interior designers, and other design professionals. It consists of full-color composites of the work of 320 artisans in 13 distinct categories. Some have production lines; many produce limited editions of their work. All do individual commissions and work with designers and architects. *The Guild* will be updated annually. Copies, at $75 each, are available from Kraus Sikes, Inc., 19 E. 95 St., New York, NY 10128.

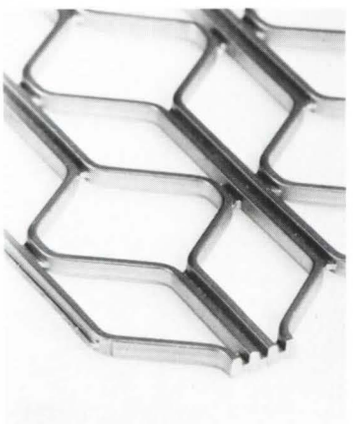
Fibertite single-ply roofing membrane is an ethylene interpolymer alloy made from Du Pont Elvaloy resin modifiers and Dacron polyester fiber. Using Elvaloy as a modifier results in an alloy that is durable in harsh environments and resistant to rain, wind, ultraviolet radiation, and temperature extremes. The material will not shrink or become brittle from plasticizer migration. Seaman Corporation, Shelter-Rite Div.
Circle 228 on reader service card

'The Designer Software Series'™ structural analysis and design templates for wood-frame building projects save analysis, calculation, and structural member design time for architects, engineers, and other building design professionals. *Volume I—Gravity Load File* includes templates for determining gravity loading criteria and the analysis/design of wood rafters, floor joists, various beam configurations, and support posts. *Volume II—Lateral Load File* includes templates for determining lateral loading criteria and the design of horizontal diaphragms and shear walls. Sheehan and Associates.
Circle 229 on reader service card

Phoenix aluminum door frame meets or exceeds ASTM E-152, UL 10B, NFPA 252, CSFM 43.7, UBC 43.2, and CAN 4 S-104 specifications for 90-minute rated assemblies. It is a free-standing bimetal system of 16-gauge steel subframe and aluminum alloy outer frame. Units utilize single doors up to 4′ x 8′ x 10½″ and double doors up to 6′ x 8′ x 10½″. Finishes are clear, bronze and black anodized, and a variety of electrostatically applied baked-on paint finishes. Alumax/Magnolia Div.
Circle 230 on reader service card

The LP 3700 Plotter can do small check plots or produce a high-quality drawing on larger media for presentations. Media size is continuously adjustable up to full-size E drawings. The plotter can use either cut sheet or roll stock to a maximum size of 37½″ x 81″. Plotting speed is selectable from one to ten axial inches per second. Ioline Corp.
Circle 231 on reader service card

'The Timeless Beauty of Cast Stone' describes the use of cast stone for repairing or restoring eroded or deteriorating stonework. The eight-page color brochure shows a cast stone finial on a church in Bloomfield, N.J., replacing one of four 16th-Century natural stone finials that were carved in Naples. W.N. Russell and Company.
Circle 232 on reader service card



Amplimesh grilles made from aluminum are suitable for interior and exterior use. As door grilles replacing burglar bars, they are attractive yet provide a measure of safety. Many patterns lend themselves to a variety of grille applications. McNichols Company.
Circle 233 on reader service card
(continued on page 186)

WHY COAT STAINLESS STEEL?

As nearly all architects are now aware, TCS (Terne-Coated Stainless Steel) is chrome-nickel stainless coated on both sides with an 80% lead/20% tin alloy.

But the question may still remain as to why any coating of stainless is desirable.

In the first place, the application of such a coating creates an end product which is demonstrably superior to both stainless and copper in durability and corrosion resistance. Secondly, TCS weathers to an attractive and uniform warm gray. Stainless, on the other hand, retains its original bright finish indefinitely, while the weathering of copper has been highly unpredictable in recent years. TCS also solders perfectly without special preparation whereas copper must be pretinned, and stainless requires a time-consuming and relatively costly procedure to obtain a leak-proof joint. Furthermore, TCS, unlike copper, is neutral toward other metals.

Expressed in the simplest terms, where roofing and weathersealing are involved there is no standard architectural metal available in the world today, including stainless and copper, which can match TCS in its performance characteristics and built-in safeguards against failure.

TCS

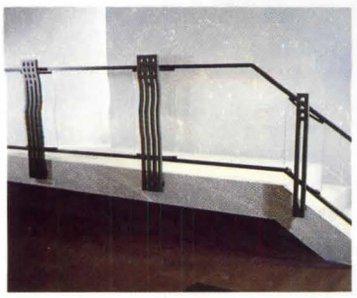
TERNE-COATED STAINLESS STEEL

FOLLANSBEE

FOLLANSBEE STEEL CORPORATION • FOLLANSBEE, WEST VIRGINIA 26037

Call us toll free
800-624-6906
In West Virginia, call collect, 527-1260

Circle **No. 350** on Reader Service Card



Disc, Glasgow (shown), and Metro glass railing systems are stanchion-supported handrails with intermediate glass panels. Both stanchions and railings are constructed with no visible connections. The stanchions are side-mounted for easy installation. The aluminum alloy components are finished with Duranodic, Tnemec, or nylon powder coatings. Glass is one-half-inch tempered plate. Livers Bronze Co., Inc.
Circle 234 on reader service card

Lumiflon™ fluoropolymer resins, developed by Asahi Glass for use in high performance paint and coatings applications, provide a weather-resistant finish that retains its original appearance for many years. These products cure at ambient temperatures, allowing architects more flexibility and making maintenance easier and less costly. Lumiflon resins are soluble in most solvents and can be applied by spraying, brushing, dipping, or rolling. They adhere to a wide range of substrates. ICI Americas, Inc., Chemicals Division.
Circle 235 on reader service card

Polaris SL surgical light, 34-inch diameter, is designed to be used alone or in combination with the 22-inch Polaris. It is exceptionally shadow-free and requires relatively little repositioning during operations. Light from eight lamps is blended and directed to the surgical site with consistent color rendition. Intensity is adjustable up to 9000 footcandles, and the passive heat pump principle directs heat away from the patient and the surgical team without mechanical devices. AMSCO/American Sterilizer Company.
Circle 236 on reader service card

Upholstery book, designed to use limited shelf space in designers' libraries, offers nine upholstery fabrics, most of which are 100 percent wool or wool blends. Grouped in this collection are Jazz, Firth, Concerto, Opera, Deep End, Grand Prix, Savoy, and Festival. Ben Rose Incorporated.
Circle 237 on reader service card

Geotech vinyl wallcovering, designed by Patty Madden, consists of five textured patterns in more than 40 color-coordinated colorways. The wallcoverings are 36 inches wide and have a Class A fire rating according to ASTM-E-84. Innovations in Wallcoverings, Inc.
Circle 238 on reader service card

A shutter brochure illustrates in color and describes several shutter styles, shutter doors, panel doors, and shoji panels. It provides specifications and installation details and shows slat profiles and hardware available. A color chart is included in the brochure. Pinecrest.
Circle 239 on reader service card

Seating/planters provide seating for areas such as shopping centers. Benches are either oak or redwood around a fiberglass planter that can contain either live or man-made foliage. The units are available in 24 standard colors. Pouliot Designs Corp.
Circle 240 on reader service card

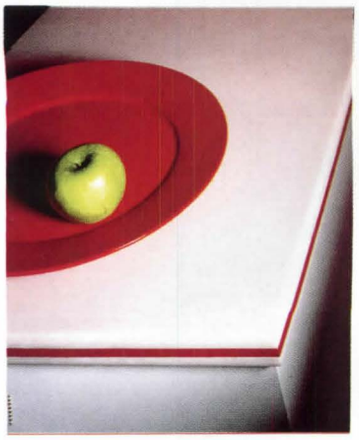
Therm-O-Lite retrofit windows transform or convert single-glazed windows into energy-efficient insulating windows. These permanently installed interior vinyl-framed windows retain hot or cold air and reduce condensation and ice buildup. They are available in stationary and operable styles and are removable for easy maintenance. Therm-O-Lite, Inc.
Circle 241 on reader service card
(continued on page 188)

AND ON. WE'VE ROLLED OUT OVER 200 MILLION SQ. FT. SO FAR. U.S. Intec is the world's largest producer of A.P.P. modified bitumen. And for very good reasons. Our Brai roofing and waterproofing is easy to install and impossible to beat. Membranes are torch applied, requiring small crews and less time. It's proven to withstand virtually all climatic conditions. Brai fits the project, the timetable and budget. And comes with warranties for up to 12 years. Talk to our people in the field. Use our toll-free number and a regional representative will contact you. We're rolling.

u.s.intec/
brai
We're on a roll

P.O. Box 2845 ☐ Port Arthur, Texas 77643
Regional Offices
Fort Worth, Texas ☐ North Branch, N.J.
Texas 1-800-392-4216 National 1-800-231-4631

Circle **No. 405** on Reader Service Card



2000X Cast Marble is a durable material with a satin finish. It offers wear resistance, is easily cleaned, and resists the effects of high temperatures, boiling water, heavy impact, chemicals, and cigarette burns. The material, with homogeneous color throughout, can be cast as counters or molded into sinks, bathtubs, shower bases, and other forms. Standard colors are white, tone-on-tone beige, and white with beige graining. Special order colors are jonquil, rosea, and blue ice. Formica Corp.
Circle 242 on reader service card

Railings of tubular molded nylon over a steel core are aesthetically pleasing, yet strong and tough, durable, yet smooth to the touch. They are available in two diameters and a choice of 15 fade- and scratch-resistant colors. The railing system combines with trim and other elements from Normbau's nylon builders hardware. Applications include areas for the handicapped, schools, hospitals, offices, shopping malls, nursing homes, and residences. Normbau, Inc.
Circle 243 on reader service card

Water System I provides complete, sodium-free nonchemical water conditioning and pure water in one package, according to the manufacturer. The first phase takes the place of salt-additive water softeners to condition water without adding sodium. The second and third phases trap sediment, remove heavy metals, chlorine compounds, and pesticides, and provide 99.75 percent bacteria-free water. The conditioner needs no service except for replacement of Phase 1 and 2 cartridges twice a year. Aqua-Flo, Inc.
Circle 244 on reader service card

Stairways and Stair Parts brochure provides guidelines for stairway planning. The 12-page catalog illustrates newel posts, newels, balusters, railings, and other stairway components. A stair manual included with the catalog provides starting and landing details, rise and run tables, and information required to build durable, dimensionally correct stairways. Morgan Products Ltd.
Circle 245 on reader service card

Prefabricated ceramic tile panels, described in the brochure "Construction with Ceramic Tile Panelization," offer an attractive, lightweight, durable wall system at a cost saving over competitive exterior systems. The brochure discusses possible applications for the panels and the techniques used in panel construction. They consist of metal lath framed in steel studs and covered with a base coat of latex-modified Portland cement to which the tile is affixed. H.B. Fuller Co. Building Products Div.
Circle 246 on reader service card

The LGB commercial atmospheric gas boiler is available for water or steam in 18 sizes, with net I-B-R water ratings from 457,400 to 2,013,900 Btu/hr; 1645 to 7490 square feet steam. A six-page technical brochure has complete descriptive information and specifications on the boiler, which has an operating efficiency of 81 percent. The brochure highlights the boiler's design features and has complete I-B-R ratings, dimension drawings, a table of standard control tappings, and diagrams of recommended piping connections. Weil-McLain.
Circle 247 on reader service card
(continued on page 190)

STEP UP TO E SIZE

Houston Instrument's new E size DMP-56 delivers the precision, throughput, and reliability you require from a drafting-intensive plotter. The DMP-56 also gives you the flexibility to handle 18 different drawing format sizes ranging from 8½ × 11 inches to 36 × 48 inches.

The DMP-56 was designed for any application calling for crisp, clean graphics—whether it's architectural floorplans, mechanical designs, electrical schematics, or overhead transparencies. Because of its media-size adjustment mechanism and automatic media-size sensing feature, the DMP-56 quickly and efficiently responds to your changing format requirements. This high-performance plotter can produce standard (A through E), metric (A4 through A0), oversize (A4 through A0), and Architectural C, D, and E drawings.

The DMP-56 is a professional drafting plotter that draws on the established track record of Houston Instrument's very successful DMP-51/52 and DMP-51/52 MP plotters—plotters that redefined the standard for price, performance, and quality.

Immediately compatible with hundreds of computer-aided design and graphics software packages through our powerful DM/PL™ command language, the DMP-56 also gives you a precise resolution of .001 inch and a maximum plotting speed of 17 inches per second. And, because it uses a standard RS-232-C compatible interface, the DMP-56 can operate with virtually any computer on the market.

The DMP-56 also delivers features you'd expect only from more expensive* plotters—such as quiet servo drive, and an easy-to-use front-panel control. Combine these standard features with the well-known Houston Instrument reliability and support and you have a superior plotter at a reasonable price.

In terms of throughput, performance, price, and quality the DMP-56 is the professional graphics tool you need. For more information, call 1-800-531-5205 (512-835-0900 if in Texas), or write Houston Instrument, 8500 Cameron Road, Austin, Texas 78753. In Europe, contact Houston Instrument, Belgium NV., Rochesterlaan 6, 8240 Gistel, Belgium. Tel.: 32-(0)59-277445. Tlx.: 846-81399.

*U.S. suggested retail price is $5,995. Pricing subject to change.
DM/PL is a trademark of Houston Instrument.

houston instrument
A Division of AMETEK

Circle **No. 358** on Reader Service Card

Wallcoverings from the Guard® collection being reintroduced are Nepal; Casabelle and Djakarta-L sisal inspired designs; Hopsacking hemplike weave; and Gunny, a burlap pattern. Nepal and Casabelle are available in 27 colors; Djakarta-L and Gunny are available in 30 shades; and Hopsacking comes in 40 colors. All are 54 inches wide. Columbus Coated Fabrics, Div. of Borden Chemical.
Circle 248 on reader service card

Trac-Master® mini-spotlights, using 12-volt MR16 lamps, allow precise beam control, and have excellent color characteristics and energy-saving capabilities. The group includes five distinctive styles: open back, notch back, round back cylinder, cube, and an adjustable pendant. Finishes are white, black, gray, polished brass, and polished chrome. Accessories include barn door and snoot attachments and color filters. Juno Lighting.
Circle 249 on reader service card

'Dock Seal and Shelter Selection Guide' presents a line of tough, durable seals and shelters for truck and rail loading docks. The eight-page catalog details four basic product groups: seals, rigid frame truck shelters, spring-loaded truck shelters, and rail shelters. Handy reference charts simplify selection. Tufseal Corporation, Subs. of Kelley Company, Inc.
Circle 250 on reader service card

The Cycle-Let® System treats wastewater in office parks, shopping centers, schools, industrial parks, and similar facilities, and recycles the purified liquid for use as flush water. The Cycle-Let system can reduce water use and wastewater discharge by 95 percent. The technology has enabled development in areas where it might otherwise be prevented because wastewater disposal facilities are unavailable or inadequate. Thetford Systems.
Circle 251 on reader service card

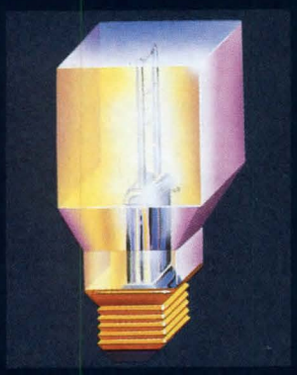
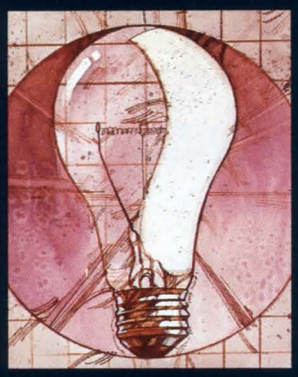
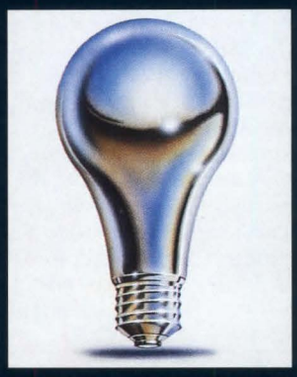
Onyx railing fittings are made from translucent stones quarried in the foothills of the Himalayas. They are individually hand turned and polished and are available for use with two-inch brass, chrome, KolorTube, or Designer-Tube tubing. Color ranges from light green to brown and green. Ship'n Out, Inc.
Circle 252 on reader service card

Building Materials

Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.

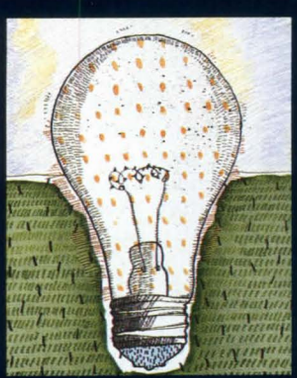
Middleton Inn, Charleston, S.C. (p. 83). *Architects: Clark & Menefee (formerly W.G. Clark), Charleston.* Cast-in-place concrete: Giant Cement; steel reinforcement: Florida Steel. Brick and cmu cavity wall: Richtex (brick); Concrete Products (block). Wood trusses: Alpine Engineered Products. Wood flush siding and trim, interior cypress paneling, wood lower doors, windows and ash paneled ceilings: Montgomery Woodworks. Ceramic tile: American Olean. Operable windows: Andersen Corp. Glass block: Pittsburgh-Corning. Hollow metal doors: Ceco Corp. Flush wood doors (ash): Ipik Door. Brick paving: Southern Brick Co. Carrara marble: Westchester Marble & Granite. Select red oak floors: ZineGraf Hardwood Co. Painted stucco: Ball. Gypsum board: United States Gypsum. Single ply EPDM: Gates Engineering. Bentonite: American Colloid. Silicon sealants: General Electric. Rigid Styrofoam board insulation: Dow Chemical. Fiberglass batts: CertainTeed. Terra-cotta chimney pots: Gladding-McBean. Dampers: Vestal. Paint: Sherwin-Williams. Hardware: Hager (full mortise spring hinges); Stanley, Schlage (pivot hinges); Rixson-Firemark (floor closers); Knape & Vogt (rolling door
(continued on page 192)

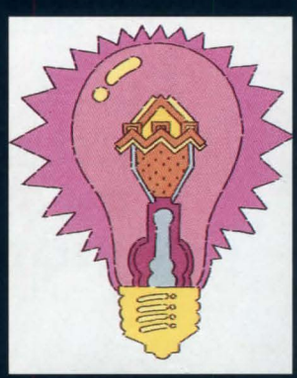
C A L L F O R E N T R I E S










No matter how bright the idea, no two people will interpret it in exactly the same way. Consider, for example, the idea of using polyvinyl chloride (PVC) as an architectural material. More familiarly known as vinyl, PVC's light weight, durability and flexibility make it adaptable for a variety of applications. But how it can be used is what makes it exciting.

That's why we're sponsoring a design competition for new uses of PVC in architectural applications. Interior or exterior, structural or decorative, original or retrofit.

Our national competition is open to all architects, designers and architectural students interested in creating designs for PVC products. Team submissions will be accepted. The creator of the winning design will be awarded a $1,500 honorarium. Two honorable mention winners will each be awarded with a $500 honorarium.

Turn your interpretations of PVC as a building material into bright ideas.

For more information and competition guidelines, circle the reader service card number or write to:

Wolverine Technologies Inc.
Design Competition
P.O. Box 1864
Ann Arbor, MI 48106

Wolverine Technologies Inc.

Circle No. 418 on Reader Service Card

hardware); Pemko (thresholds); Baldwin (hooks, bolts & pulls). Dishwasher: Hobart. Guest room refrigerators: U-Line. Fire alarm equipment: Simplex Time Recorder. Office spiral stair: Boston Design Corp. Marble risers and treads: Westchester Marble & Granite. Custom steel handrails: Able Iron Works. Lighting: Leviton (exterior); Halo, Leviton (interior). Custom tile tubs: H. Tezza. Lavatories and water closets: American-Standard. Tub/shower scald guard: Delta Faucet. Showerheads: Speakman. Bathroom accessories: Bobrick. Water fountains: Halsey Taylor. Electric heat pumps: Carrier Corp. Sewage treatment plant: Hydrosystems. Braided rugs: Schumacher. Wall, floor, and desk lamps: Nessen Lamps. Custom furniture: Dian Boone, design; JMO Woodworks, Montgomery Woodworks, fabrication. Sofas: Metropolitan. Chairs: Lombard, Lowenstein. Fireplace accessories: Middleton Place blacksmith Luther Ramsey. Wood louvered shutters: Joanna Western Mills. Chair & sofa fabrics: Boris Kroll. Custom rugs, pillows, and bedspreads: Dian Boone Interior Design; Manuel Canovas, Clarence House (pillows); Schumacher (bedspreads).

Residence Hall, Mt. Sinai Medical Center, New York (p. 104). *Architects: Davis, Brody & Associates, New York.* Brick: Merritt Brick Co. Aluminum windows and doors: Zimmcor. Hollow metal doors: Biltrite. Hollow wood doors: Paniflex. Wood floors: Circle Floors. Vinyl tile: Armstrong. Ceilings: sprayed acoustical paint. Roofing: rubber. Polyurethane sealant: Dymeric. Polystyrene insulation: Dow. Partitions, gypsum board on metal studs: Gold Bond and Marino Industries. Coating, aluminum canopy and windows: Kynar 500. Interior paint: Benjamin Moore. Locksets and door closers: Corbin. Kitchen equipment: Magic Chef. *Intercom:* Federal Pacific. Alarms: Ademco. Elevators: Westinghouse. Lighting: National and Puritan. Bathroom fixtures: American-Standard. Fittings: Eljer. Bathroom accessories: Accessory Specialties. Heating and cooling units: Friedrich. Corridor carpet: Milliken. Blinds: Levolor.

Brandeis Hillel Day School, San Francisco (p. 106). *Architects: DiNapoli/Berger, Berkeley, Calif.* Roof trusses: Truswal Systems. Exterior cement plaster: Peerless Stucco. Aluminum-framed windows: Torrance. Aluminum-framed, wire-glass skylights: Permaline Industries. Hollow metal doors: Stiles Custom Metal. Roll-up steel door: Cookson. Sandstone paving: Mesa Stone. Carpet: Bentley (100% Antron). Vinyl tile: Armstrong. Acoustic tile: Armstrong. Built-up roof: Bird & Son. Fiberglass membrane sealants: Flintkote Monoform. Insulation, fiberglass batt: OCF. Metal toilet partitions: Knickerbocker. Acrylic masonry paint: Kelly Moore. Interior paint: Dunn Edwards. Hinges: McKinney. Lever locksets: Lockwood. Door closers: Norton. Panic exits: Von Duprin. Telephone system: NEC. Smoke detector system: Faraday. Signage: Vomar Products. Chalk and tack boards: Nelson-Adams. Light standards and recessed soffit lighting: Prescolite. Fluorescents, surface-mounted: Wellmade. Restroom sinks: Just Manufacturing. Faucets: American-Standard. Flush valves: Sloan-Royal. Restroom accessories: Bradley Corp. Sprinklers: Viking. Hot water baseboard heating: Sterling. Work stations, shelving: Continental Desk. Desks, tables, chairs: Virco. Blinds: Levolor. Skylight shades: Joanna Mills, Western.

House extension, New York (p. 108). *Architects: Conklin Rossant, New York.* Exterior pavers: Belden Stark. Interior floors, marble tile: Rocamat (France). Waterproofing: W.R. Grace, GRM 500. Concrete masonry paint: Sonneborn. Interior paint, flat and satin oil: Glidden. Door hinges: Baldwin Brass. Refrigerator: Traulsen. Dishwasher: Thermador. Range: Garland. Food processor, counter-top: NuTone. Interior lighting: Lightolier. Water closet: American-Standard. Kitchen faucets: Delta. Bathroom plumbing fittings: Mamoli (Italy).

BOTTOMLINE BRILLIANCE.

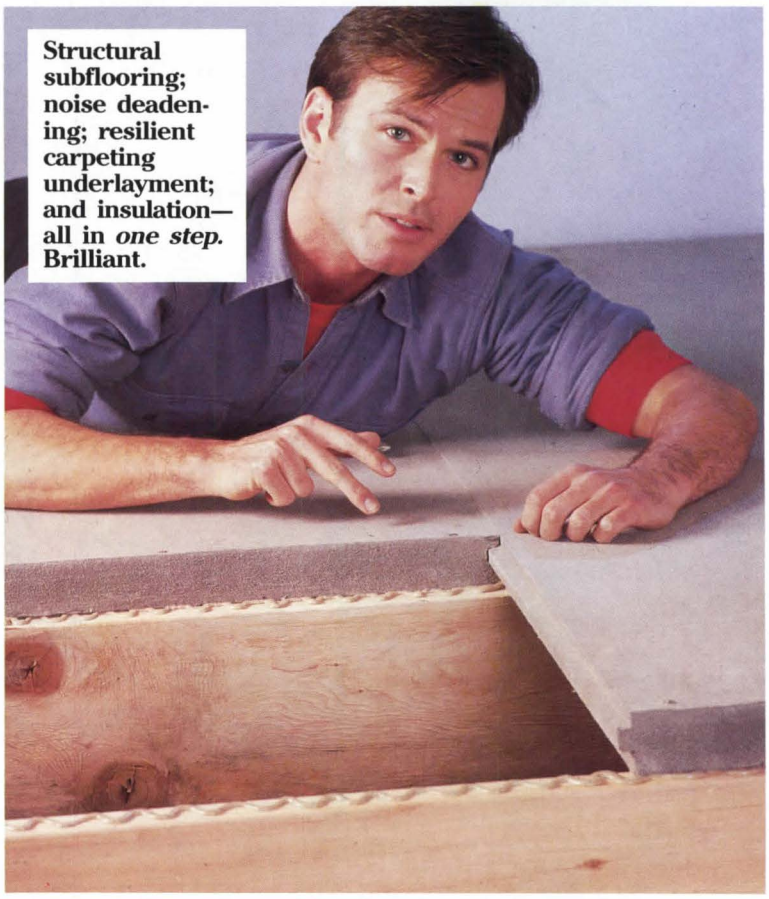
Turn subflooring into a *smart* flooring system in one step with environmentally safe Homasote 4-Way® Floor Decking.

Smart architects have discovered that ordinary, hard, noisy, non-insulating wood subfloors are beneath them.

And they've found a better, smarter, more ingenious alternative: the Homasote 4-Way® Floor Decking System.

Better, because it's *more* than just a structural subfloor.

It provides resilient carpeting underlayment. Adds up to R/4.5 insulation (six times the value of 5/8" wood subflooring). And deadens noise (system test ratings*: IIC-72; INR21; STC 50).



Structural subflooring; noise deadening; resilient carpeting underlayment; and insulation—all in *one step.* Brilliant.

Smarter, because it's 100% environmentally safe, with absolutely *no* asbestos or formaldehyde additives. And it installs in one step.

MATERIAL SPECIFICATIONS

Nominal Thickness	Nominal Size	Weight/ Sq. Ft.	Joists
1-11/32"	2' x 8'	3.0 lb.	16" o.c.
1-3/4"		4.1 lb.	24" o.c.

More ingenious, because this added performance helps fully satisfy the demands of today's energy and quality conscious construction buyer.

Build this proven bottomline brilliance into *your* next commercial or residential job.

For full details, and free sample, call (609) 883-3300. Or write:

*Kodaras Acoustical Lab. Test Report 370-14-66; 370-17-66.

homasote COMPANY

P.O. Box 7240, West Trenton, New Jersey 08628-0240

SMART ARCHITECTS CHOOSE HOMASOTE.

5662

Circle **No. 357** on Reader Service Card

SADDLEBROOK

A WORLD-CLASS RESORT

Now offering Florida residences and investment condominiums

Few Florida communities promise the rich selection of residential designs and solid real estate investments found at Saddlebrook, the Golf & Tennis Resort near Tampa.

From stylish single-family homes and investment condominiums to home-sites for custom-designed executive residences, golf-front living was never better...or smarter.

Call or write C&A Investments, Inc. at Saddlebrook Resorts, Inc. Offer not valid in states where prohibited by law.

What could be more intelligent than a resort condominium that generates income...as well as personal enjoyment? You'll find both at Saddlebrook.

All homes come with complete maintenance services, 24-hour security as well as a membership to the Saddlebrook Golf & Tennis Club with its 36 holes of golf designed by Arnold Palmer, 17 tennis courts and expansive Superpool complex, luxurious spa and fine dining.

Saddlebrook

The Golf and Tennis Resort

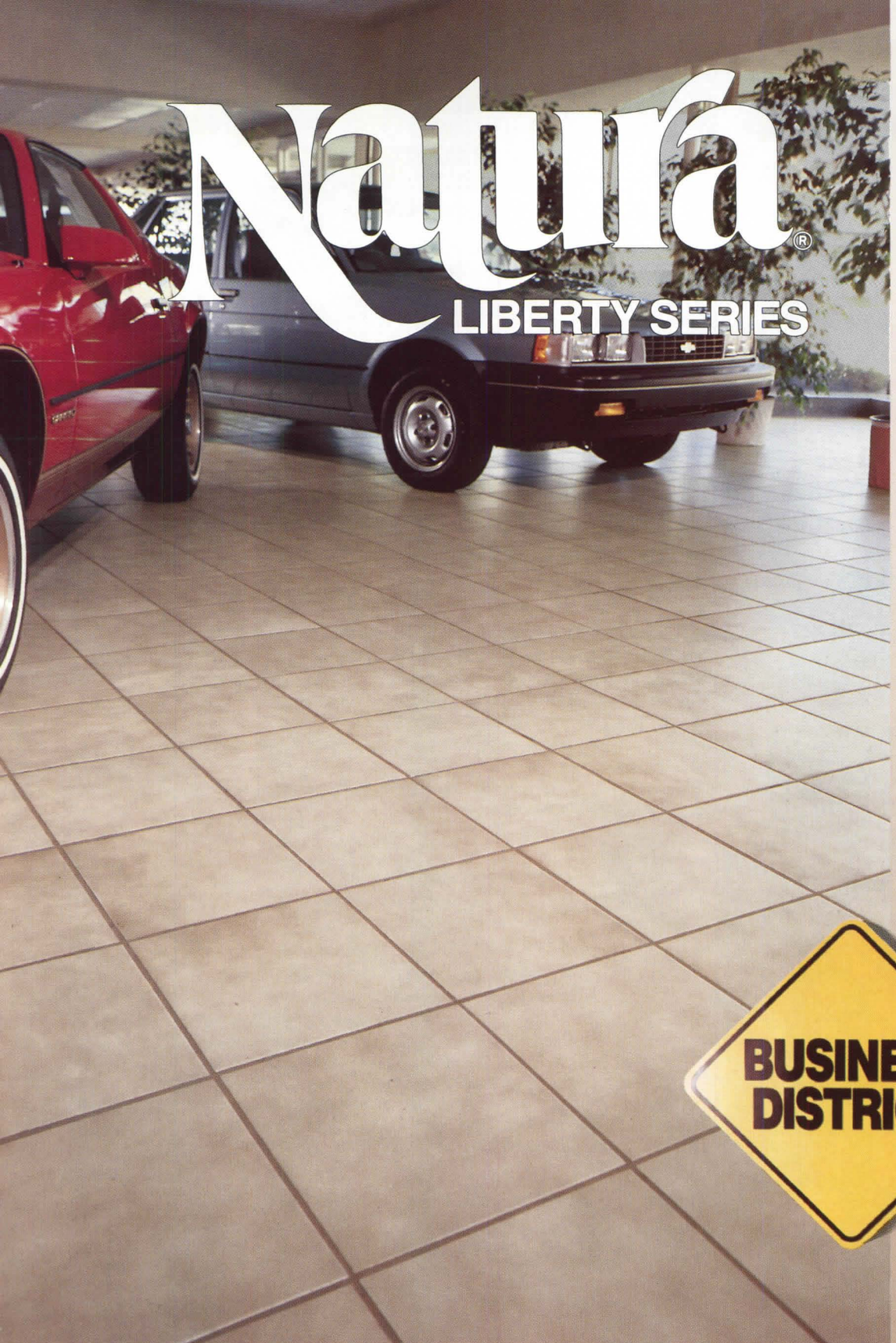
Certainly, all this sounds extraordinary, but it's just par for the course at Saddlebrook.

Condominiums from $86,000
Cluster Homes from $119,900 to $193,000
Custom Homes from $207,000
Homesites for Custom Homes from $65,000

SADDLEBROOK
The Golf and Tennis Resort
P.O. Box 7046
Wesley Chapel (Tampa), Florida 34249
(813) 971-1111

Phone Toll Free
Continental U.S. 800-237-7519
In Florida 800-282-4654

Circle **No. 393** on Reader Service Card



Rugged beauty that means business.

"Natura Liberty" is more than beautiful; this glazed ceramic tile is tough enough for the busiest floors — commercial or residential. Its unique color-on-color glazes have enduring good looks that can withstand high-traffic locations. Yet it won't overwork you when it comes to maintenance.

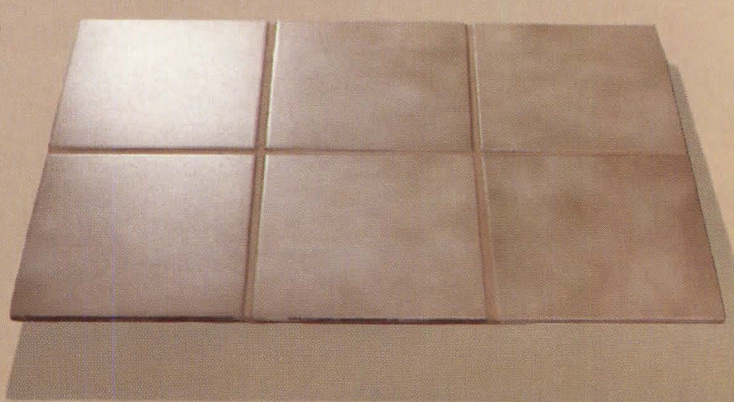
See the entire line of the new, easy-care "Natura" ceramic tiles in the showroom of your Florida Tile distributor. For the name of your nearest distributor call:

1-800-FLA-TILE.

Merrick Chevrolet
Berea, Ohio
Natura Liberty Series
8615 Graystone

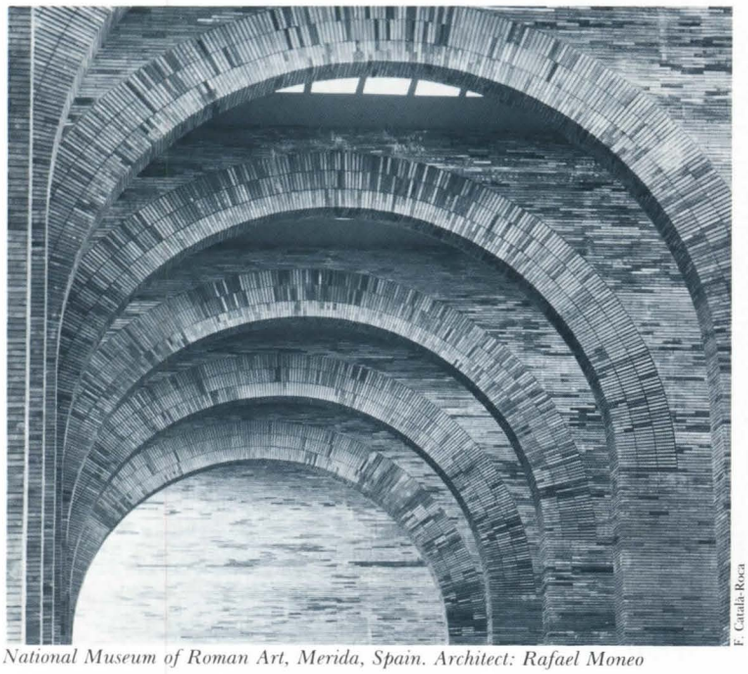
florida tile®

SIKES CORPORATION ▪ LAKELAND ▪ FLORIDA 33802



Circle **No. 354** on Reader Service Card

P/A in June



F. Catala-Roca

National Museum of Roman Art, Merida, Spain. Architect: Rafael Moneo

Moneo and his Museum

P/A's June issue will introduce Madrid architect Rafael Moneo, now chairman of the Architecture Department at Harvard, to American readers. An examination of his National Museum of Roman Art in Merida will be accompanied by an interview and a portfolio of earlier works.

P/A Awards Update

The new Physics Teaching Center at the University of Chicago by Holabird & Root, a P/A Citation winner in 1984, meets the promise of its design as a learning environment and a part of a distinguished campus.

P/A Profile: Christopher Alexander

Known widely for his provocative writings and teaching, the Berkeley, California, architect has recently completed several projects that demonstrate his principles. Coverage of these works will be accompanied by discussion of his ideas and their influence.

Technics: Computers Future

A projection of future uses of computers by architectural professionals will be made by examining computer procedures—used in other fields and in other countries—that are not yet widely applied in architecture.

A/E/C Systems '86

A preview of the annual computer systems exhibition and conference, to be held this year in Chicago, June 23–27.

Future Issues of P/A

The July P/A will present three exceptional American houses, plus a Technics feature on roofing. July and August will both bring P/A Profiles of innovative firms. The September P/A will be the annual Interior Design issue.

TOUR DELUXE

DIFFA invites you to participate in its largest fundraising effort ever.

A suggested donation of $10.00 may earn you a dream vacation for two!

The Tour Deluxe includes a flight to London on the Concorde where the winner will spend three nights at the Ritz, followed by a journey on the Venice Simplon Orient-Express to Venice. While in Venice, the winner will stay at the Cipriani for two nights, then fly back to London to board the QEII for a five day return trip home.

For complete information and entry rules, contact the DIFFA chapter in Atlanta, Chicago, Dallas, Miami, New York or San Francisco; one of the following national showrooms: Brickel, Brunschwig & Fils, Donghia, Jack Lenor Larsen, Stendig or Stroheim & Romann; one of the many local showrooms joining in this effort, or call (212) 502-0130.

DIFFA is a non-profit organization registered with the state of New York, comprised of concerned individuals in the interior furnishings industry. It is dedicated to directly supporting the fight to discover a cure for AIDS and to assist people with AIDS.

CORPORATE SPONSORS: ALMA DESK; BOLAÉ; CY MANN; DONGHIA; FIRST EDITIONS; HAWORTH; IDCNY; KNEEDLER FAUCHERE; LEE JOFA; SCALAMANDRE SILKS; SCOPE FURNITURE; STROHEIM & ROMANN.

Special thanks to: Travel Consultants Ltd./Dunwell Travel Ltd. Donovan & Green for graphic design. Sterling Roman Press, Inc. Dickard/Widder Industries Concept Typographic Services, Inc. L. S. Graphics

DIFFA

P/A Job Mart

Situations Open

ARCHITECT

Arch. design, constr. or restoration of commercial & residential prop.: Consult with client to decide design specif., materials, equipm't, estimated bldg. costs & bldg. time et.al.; plan project layout by incorporating engineering elements into design. Provide client with sample recommendations & shop drawing reviews; on-site progress superv.; prepare specif. book for each project et.al. Communicate with Iranian clients in Farsi et.al. Job Site/Interview: LA, CA; B.S. in Arch. & 2 yrs. exp. in pos.; $3,000.00/mo.; Must have current Ca. Arch. License; Knowledge in Ind. Arch., Urban Planning, Restoration of Historical Bldgs.; Modern Arch. & Decoration; Skilled in writing Specif. Book for each project & Must speak Farsi fluently. Send ad & resume to Job #WS0831, P.O. Box 9560, Scto., Ca., 95823-0560 not later than June 5, 1986. If offered employment, must show legal right to work.

Planner II. 40 hr/wk. 9 a.m. - 6 p.m. Duties: Evaluate legal/natural constraints of large real estate developments; conceptualize/illustrate/quantify development patterns; prepare written/graphic documentation, land plans, presentation quality drawings; interpret development-related ordinances; conduct research; design/prepare real estate marketing publications; execute maps, presentation quality floor/site plans; use drafting equipment, own car for site visits (10% of time traveling); some odd/evening/weekend hours (10-15%) to meet deadlines. Requirements: BS in CRP, 1 year as Planner II/Urban Planner or Architectural drafter. One university level course in each of (1) arch. design, (2) visual graphics, (3) structure, (4) arch. planning. $8.95/hour basic/overtime rate. Resume to Illinois Job Service, 910 South Michigan Avenue, Room 333, Chicago, Illinois 60605, Attn: Mrs. S. Chalem, Ref. #5085. An employer paid ad.

Architect—Responsible for design of large scale solar energy oriented residential projects. Master of Architecture (NAAB Accredited) with min. 9 units course work or thesis in Solar Energy Applications. Min. 6 mo. exp. as Architect in large scale residential projects (200 units and up). Must bring portfolio & course transcript to interview. $3000/mo. 40 hr/wk. Job site/interview: Los Angeles, CA. Send resume and ad to Job WC 1242, P.O. Box 9560, Sacramento, CA. 95823-0560 not later than 5-31-1986.

SALES REPRESENTATIVE WANTED calling on architectural firms. Add good, profitable, repeat item to your line. Exclusive, protected territory, top commission. Write and give territory covered. Salesmanager, 16008 "old" Valley Blvd., La Puente, CA 91744.

ARCHITECT

Progressive Firm on Maryland's Eastern Shore invites an Architect to join them for stimulating work in an area that emphasizes quality of life. Candidate should have good design skills with 10 years of working experience and an acute awareness of client's needs (good listener). Interested candidates should apply to James Thomas at:

George, Miles & Buhr

ARCHITECTS, ENGINEERS, PLANNERS
724 E. MAIN STREET - SALISBURY, MARYLAND 21801
301 742-3115

ARCHITECT/PARTNER

Major equity position available in well established, highly successful Palm Springs, California architectural firm. Ideal opportunity for highly motivated individual to live and work in one of the world's most beautiful communities. Send Resume to:
David L. Christian Associates, Inc.
100 S. Palm Canyon Dr.
Palm Springs, CA 92264

ARCHITECTURE

Tenure - track position effective August 15, 1986. Responsibilities include teaching in a rapidly growing BS program in Architectural Engineering Technology, and advising the student chapter of AIA. Previous college teaching or professional experience preferred. Minimum requirements are a Bachelor's degree in Architecture, with a Master's preferred. Applications accepted until May 19, 1986. Send resume and credentials to:

Dr. William E. Griscom, Chairman
Division of Technology, Fairmont State College
Fairmont, West Virginia 26554
An Equal Opportunity, Affirmative Action Employer

Design Architect req. by prominent Maryland firm. Qualified person should have degree and 3–5 + yrs. exp. in conceptual design of significant comm. and inst. projects. Ability to sketch as well as conduct effective presentations and provide future dsn. leadership is highly desired. Firm is currently in a long term growth mode and offers exceptional prof. and personal opportunities in an attractive location for the person with above average design talent. Contact our reps with conf. resume at: G. Marshall Assoc.—P.O. Box 66083—Chicago, IL. 60666.

SENIOR ARCHITECT

Take charge of drafting dept. & to consult with architects for a large architectural woodworking firm in Brooklyn, New York. Salary & benefits open. Excellent opportunity. Call Mr. Zeluck: **(718) 251-8060.**

The New Master's Program in Landscape Architecture at Florida International University has 3 tenure-earning positions for August, 1986. The program will focus on tropical/subtropical climates. Master's Degree in Landscape Architecture or a related area is required, Ph.D. preferred, with teaching, research and/or practical experience. Salary commensurate with rank and qualifications. Submit resume and three letters of reference by May 8, 1986 to: Dr. Iraj Majzub, Chairperson, Construction Department, College of Engineering & Applied Sciences, Florida International University, Miami, FL 33199. Florida International University, a member of the State University System of Florida, is an Equal Opportunity/Affirmative Action Employer.

ARCHITECTS

Black & Veatch, one of the nation's largest design firms, is experiencing continued growth and expansion. We are seeking seasoned professional architects with project and office management experience to establish architectural services in existing regional offices as well as staff architects for our home office. Challenging and rewarding opportunities for professional growth are available in the following cities:

San Francisco, California—Successful candidate will have experience and client contacts in and around California as well as California registration. Will establish new architectural services group and be responsible for contract administration, design supervision, project administration and marketing. CADD experience helpful.

Cary, North Carolina—Candidates should be registered in the Southeast and have client contacts in and around North Carolina. Will establish a new architectural group and have considerable client contact and marketing duties. Will be responsible for design administration of architectural projects such as office buildings, shopping centers, small industrial projects, etc. CADD helpful.

Kansas City, Missouri—Architects with 3-7 years experience in the design of small industrial or commercial projects. Will be responsible for sitework, plumbing, specifications, contractor contact, and some structural design. Registration preferred.

Black & Veatch offers competitive salaries and a comprehensive benefits program. Reach your full potential in a professional design environment built on a tradition of excellence. For confidential consideration, send your resume and salary history to: Tom Grogan, Dept. PA486, Black & Veatch, Engineers-Architects, 1500 Meadow Lake Parkway, Kansas City, MO 64114.

Black & Veatch
Engineers-Architects

An Equal Opportunity Employer M/F

DESIGN MANAGER

Directs and coordinates development and implementation of Airport Master Plan, capital improvement budget, and design and construction of Airport capital improvements.

MINIMUM QUALIFICATIONS

* Bachelor's degree in Architecture, Engineering or related field.
* Ten years progressively responsible experience in design of buildings and other related facilities.
* A Master's degree in architecture, engineering or related field may be substituted for one year of above experience.
* Five years supervisory experience.
* Three years experience in a management role.
* Knowledge of laws and regulations relating to Airport development.
* Knowledge of principles and practices applied in planning, location, design, construction and maintenance of public service engineering and architectural projects, including knowledge of all disciplines (architectural, civil, structural, mechanical, electrical and plumbing.)
* Knowledge of major types of building construction, materials and equipment, and of all stages of construction when possible defects may most easily be observed and corrected.
* Ability to pass a pre-employment medical physical examination.

SPECIAL REQUIREMENT

Registration as a professional architect or professional engineer in the State of Texas, or ability to obtain such through reciprocity.

APPLICATION PROCESS

Applications or resumes may be submitted to the Dallas/Fort Worth Airport Board Personnel Office, 3236 East Airfield Drive, P.O. Drawer D/FW, Dallas/Fort Worth Airport, Texas 75261. Applications will be accepted through 4:30 p.m. June 13, 1986

We are an Equal Opportunity Employer

PROJECT DESIGNERS

Marriott Corporation's Planning & Design Architectural Group has available positions to support continued growth into the 1990's. We currently offer excellent opportunities for experienced Project Designers to work on hotel projects of various sizes as well as our Lifecare Communities. Positions are located in Bethesda, MD.

Individuals will act as Head Designers on the various project teams, and in addition, give direction to, and review the work of, outside architects and design consultants.

Candidates must have Architectural Degree and state license with 5-8 years practice after degree. Excellent design ability and experience related to hotels, residential or Lifecare projects is essential, as is flexibility to work simultaneously with many consultants and departments.

We offer an exciting opportunity, competitive salary and benefits. Send resume to: **Marriott Corporation, Dept. 222.JO9, Marriott Drive, Washington, DC 20058.** To be considered, **Salary History** must be included. If unable to send resume, call (800) 638-6707, Ext. 2220. Lines will be open 8 a.m. - 6 p.m. Eastern Time. Washington, DC residents call (301) 493-2220. Lines open 24 hours a day. All inquiries will be held confidential.

Marriott® corporation

An Equal Opportunity Employer m/f

Senior Design position avail. with prominent design firm in the Southwest. Degree and reg.; coupled with 5+ yrs. exp. in concept design of diverse office, comm. and inst. projects is req. Proven dsn. exp. a must; with assoc. sketching and presentation abilities highly desired. Qualified individual will assume dsn. leadership and key mgmt role in the future; assuming abilities are successfully proven. Firm offers excellent comp. and long term growth prospects in an attractive location. Contact our reps in conf. at: G. Marshall Assoc.—P.O. Box 66083—Chicago, Il. 60666.

Florida International University has three tenure-earning positions in the Department of Construction starting Fall, 1986 (August 18, 1986). Faculty assignments will be primarily in Architectural Technology and Construction Management and will involve teaching in Broward County. We are looking for candidates with teaching and practical experience in Construction, Construction Supervision, Professional Architecture and related activities. A Master's degree in Architecture, Construction or other related areas is required, Ph.D. preferred. Application deadline is May 8th, 1986. Please submit a resume, together with three letters of reference to Dr. Iraj Majzub, Chairperson, Construction Department, FIU, Miami, FL 33199. FIU, a member of the State University System of Florida, is an Equal Opportunity/Affirmative Action Employer.

Designer req. by growing medium sized Midwest Firm. Qualified person should have degree and reg. along with 5–8+ yrs. exp. in the conceptual design and planning of inst. and comm. projects. Ability to assume a key design leadership role within the firm; coupled with presentation skills and dsn. staff management is also req. Contact our reps with conf. resume at: G. Marshall Assoc.—P.O. Box 66083—Chicago, Il. 60666.

Architect—Facilities Design—An immediate opening exists in the Architectural Services Division of the City of Rochester, New York. Successful candidate must possess New York State Registration or NCARB certificate plus minimum 3 years experience in providing professional architectural services with emphasis in planning, design and analysis of new construction projects and alterations of existing structures; some supervisory experience is required. The Architectural Services Section is responsible for providing professional services in development, design, construction, renovation, alteration and repair of all real property owned by the City including office buildings, fire stations, libraries, recreation facilities, police stations, city parking structures and various maintenance and repair facilities. Excellent benefits package. Submit letter of application and resume to Thomas Johnson, City of Rochester, Bureau of Employee Relations (Room 103-A), 30 Church Street, Rochester, New York 14614. EEO Employer/Handicapped.

Situations Wanted

Experienced industrial designer seeking employment with contemporary furniture or *lighting* manufacturer in design R&D department. Capable of fabricating high quality prototypes. Experienced in woodworking, metalworking and electronics. Willing to re-locate. For resumé please write to: J. Kenny, 2095 Yavapai Dr., Sedona, AZ 86336.

Services

ARCHITECTS & ENGINEERS PROFESSIONAL LIABILITY INSURANCE
competitive rates...excellent service representing the Schinnerer & Co program commended by AIA and NSPE
ASK FOR A QUOTE - NO OBLIGATION
STUART E. COHEN LTD.
208 Gramatan Avenue
Mount Vernon, NY 10550
(914) 667-6633

THE DIMENSION
FEET-INCH-FRACTION CALCULATOR
SPECIAL: $59.95 ea.
3 or more: $49.95 ea.
800-526-7228
SC Applied Technology, P.O. Box 7185
Columbia, SC 29202

Edwards + Shepard Agency, Inc. is the leading, most effective personnel placement agency for architects and interior designers. Call Valerie Glod for current listing of available candidates or submit resume for confidential interview. 1170 Broadway, N.Y., N.Y. 10001 (212) 725-1280.

35% off on Levelor blind and Del Mar softlight shades. Four week delivery anywhere (installation available in NY area). **Free gift** with order. Mary Smirof, ASID Associate, 78 Georgia Dr. Syosset, NY 11791, **516-921-3176** Visa Accepted.

RitaSue Siegel Agency™
A recruiting service to find architects, interior, graphic and industrial designers, marketing and sales support people for consultants and business. Confidential. Nationwide, international.
60 W. 55 St., New York, NY 10019
212/586-4750

Notice
Please address all correspondence to box numbered advertisements as follows:

Progressive Architecture
% Box
600 Summer Street
Stamford, Connecticut 06904

Advertising Rates
Non-display style: $135 per column inch. Approximately 35 words per inch. Column width approximately 1¾". No charge for use of box *number*. *Situations* wanted advertisements: $65 per column inch. Noncommissionable.

Display style $160 per column inch, per your layout. Maximum 8 inches. Commissionable to recognized advertising agencies.

Check or money order should accompany the advertisement and be mailed to Mary Miller, P/A Classified, 1111 Chester Avenue, Cleveland, OH 44114 (Telephone 216/696-7000, Ext. 2524).

P/A Advertisers' Index

* Denotes regional advertisement

Advertising Sales Offices

Stamford, Connecticut 06904:
600 Summer Street
P.O. Box 1361 *203-348-7531*

Robert J. Osborn
Publisher

Charles B. Selden, *National Sales Manager*
Francis X. Roberts, James J. O'Brien,
Donald J. Roberts, *District Managers*

Atlanta, Georgia 30326:
3400 Peachtree Road, NE-Suite 811
Lennox Tower *404-237-5528*
Ronald L. Miller, *District Manager*

Boston, Massachusetts
600 Summer Street, P.O. Box 1361
Stamford, CT 06904 *203-348-7531*
Donald J. Roberts, *District Manager*

Chicago, Illinois 60601:
2 Illinois Center Bldg
Suite 1300 *312-861-0880*
John M. Brannigan,
Mark Nugent, *District Managers*
Gail Grzybowski, *Sales Service*

Cleveland, Ohio 44114:
1111 Chester Ave *216-696-7000*
John F. Kelly, *Western Sales Manager*
Richard A. Strachan, *District Manager*

Houston, Texas 77401:
5555 West Loop South, Suite 505
713-664-5981
Calvin Clausel, *District Manager*

Los Angeles, CA 91436:
16255 Ventura Blvd, Suite 301
818-990-9000
Philip Muller, Ed Sexton, *District Managers*

Philadelphia, Pennsylvania
600 Summer Street, P.O. Box 1361
Stamford, CT 06904 *203-348-7531*
Francis X. Roberts, *District Manager*

St. Louis, Missouri
1111 Chester Avenue
Cleveland, OH 44114
216-696-7000
Richard A. Strachan, *District Manager*

United Kingdom:
Reading, RG10 OQE, England
Wood Cottage, Shurlock Row
0734-343302
Telex 848800 Techno G
Malcolm M. Thiele
Managing Director, U.K.

Tokyo, Japan 101:
Bancho Media Service
Dai-Ichi Nisawa Bldg, 5th Fl.
3-1 Kanda Tacho 2-chome
Chiyoda-Ku
03-252-2721
Genzo Uchida, *President*

Paris, France:
Continental Europe
37 rue de Miromesnil 75008
742 66 78
Yvonne Melcher, *Manager*

Recruitment/Classified
1111 Chester Ave. *216-696-7000*
Cleveland, Ohio 44114
Mary Miller, *Sales Representative*

P/A Information Guide

On the postage-paid card facing this page, circle the numbers listed below to learn more about products and services advertised in this issue.

Circle No.		Page No.
	Architectural Supplies/ Services	
337	Canon, USA	75
347	Dataprint Corp.	50
360	IDCNY	131
*	Haworth, Inc.	146
368	Koh-I-Noor Rapidograph, Inc.	44, 45
382	Pantone, Inc.	129
407	Varitronic Systems, Inc.	19
418	Wolverine Technologies Inc.	191
	Carpet & Fibers	
420	Amoco Fabrics and Fibers Co.	173
328	BASF Corp.	164, 165
344	DuPont Co.—Antron	144, 145
365	Karastan Rug Mills	158
*	Jack Lenor Larsen	34, 35
370	Lees Commercial Carpet Co.	152, 153
	Ceiling Systems	
421	Donn Corp.	63
351	Forms + Surfaces	6
403	Tectum, Inc.	62
	Computer/Computer Services	
332	CalComp Systems Div.	4, 5
356	Holguin	72
358	Houston Instrument	189
388	SKOK Systems, Inc.	79
	Doors	
321	Alumax/Magnolia Div.	10
397	Stanley Door Systems	77
	Electrical/Lighting	
319	ALKCO Manufacturing Co.	73
*	Architectural Area Lighting	48
416	Artemide, Inc.	174, 175
343	Devine, Subsidiary of Kidde, Inc.	46
363	JW Lighting, Inc./ Integralite Div.	130
372	Lazin Lighting	30
371	Leviton Manufacturing Co., Inc.	C3
384	Progress Lighting	179
	Fabrics/ Wallcoverings	
331	Brunschwig & Fils, Inc.	149
336	Croftercraft V	71
338, 339, 340	Columbus Coated Fabrics, Div. of Borden Chemical, Borden Inc.	2, 127, 182
*	Jack Lenor Larsen	34, 35
	Flooring	
325	Azrock Floor Products	C2
353	Forbo North America	41
354	Florida Tile, Div. of Sikes Corp.	198
357	Homasote	193
361	International American Ceramics	43
386	Roppe Rubber Corp.	180
398	Summitville Tiles, Inc.	76
401	Tarkett Inc.	171
406	United Ceramic Tile—Architectural Design Div.	54
	Furniture	
327	Alma Desk Co.	12, 13
329	Baker Furniture Contract Div.	132
330	Brayton International Collection	167
348	Domore Corp.	147
*	Hiebert, Inc.	156, 157
359	ICF, Inc.	33
362	JG Furniture Systems	137
*	Jack Lenor Larsen	34, 35
373	Loewenstein/Oggo	199
390	Spacesaver Corp.	62
389, 392	Steelcase, Inc.	140, 161
402	Trendway Corp.	134
*	Westinghouse Furniture Systems	64, 65
	Glass/Glazing	
364	Kalwall Corp.	178
	Hardware	
387	Rixson-Firemark	60
409	Von Duprin, Inc.	51
	Kitchen/Laundry/ Lab/Washroom	
341	Delta Faucet	29
419	Paul Associates	159
410	Villeroy & Boch	169
	Material & Systems	
334	Borden Films	38
335	C/S Group	C4
346	Dryvit System, Inc.	8, 9
376, 377	Formica Corp.	32, 162, 163
351	Forms + Surfaces	6
352	Fry Reglet	186
374	Lunstead Designs, Inc.	143
375	MM Systems Corp.	66
415	Nevamar Corp.	155
395	Sherwin-Williams, Wholesale Div.	80
413	Westinghouse Micarta Div.	78
411	Ralph Wilson Plastics Co.	82
412	Wolverine Technologies Inc.	67
414	Zero International, Inc.	192
	Mechanical	
342	Detex Corp.	30
	Roofing/Roofing Insulation	
320	Alumax Building Specialties Div.	128
326	American Hydrotech, Inc.	31
*	Bethlehem Steel Corp.	20, 21
333	CertainTeed Corp., Shelter Materials Group	16R
350	Follansbee Steel Corp.	185
379	MBCI—Metal Building Components, Inc.	24
405	U.S. Intec, Inc.	187
	Structural	
322	American Stair Corp.	176
324	Astrup Co.	42
349	Fiandre Ceramic Granite	49
367	Kawneer Company, Inc.	14, 15
396	Onda Limited	70
383	Petersen Aluminum Corp.	188
404	United States Aluminum Corp.	181
	Walls/Partitions/ Panels	
361	International American Ceramics	43
369	Latco Products	59W
380	Herman Miller, Inc.	138, 139
399	Sunar-Hauserman	150, 151
	Windows/Window Treatments	
323	Andersen Corp.	36, 37
308	Louisiana-Pacific Corp.	17, 18
381	Marathon Carey-McFall Co.	81
378	Marvin Windows	52, 53
385	Rolscreen Co.	68, 69
391	Stroheim & Romann, Inc.	168
408	Velux-America	1
*	Contact company directly	

Note: R or W after page numbers denotes material that appears in regional editions only.

The smooth look of tomorrow.

Spec-Master® Smooth Face 5262 Receptacles from Leviton.

Leviton's design for tomorrow, today! The new look for one of the oldest catalog numbers in the industry. The opening round in Leviton's design revolution. Starting today, commercial wiring devices look clean, smooth, and sleek—and Leviton is pioneering the move.

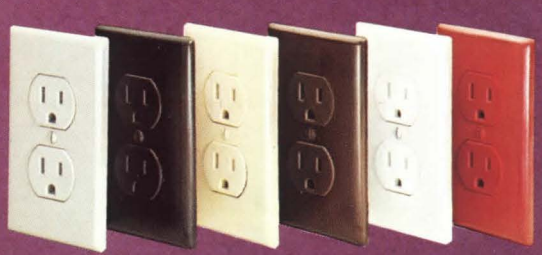
The entire Spec-Master receptacle line features the new smooth face look. And with the new look comes a whole new outlook for the industry's specifiers.

Spec-Master 5262 Smooth Face Receptacles are available in six designer colors and fit flush in Leviton's complete line of wallplates to harmonize with any modern decor. The Smooth Face 5262's are also provided in Hospital Grade and Isolated Grounding versions.

And they're as easy on the job as they are on the eyes. That all-nylon face and back provide outstanding impact resistance for top performance in high-abuse environments. Color-Spec® color coded backs identify amperage at a glance. And behind that smooth, easy-to-clean face are the quality and reliability that make Leviton Number One in commercial construction.

The sleek 5262 from Leviton. Don't wait 'til tomorrow. For a free sample, write "Spec-Master 5262" on your business card *today,* and send it to:

Leviton Manufacturing Co., Inc.,
59-25 Little Neck Pkwy.,
Little Neck, NY 11362.
(718) 229-4040, Ext. 6486.

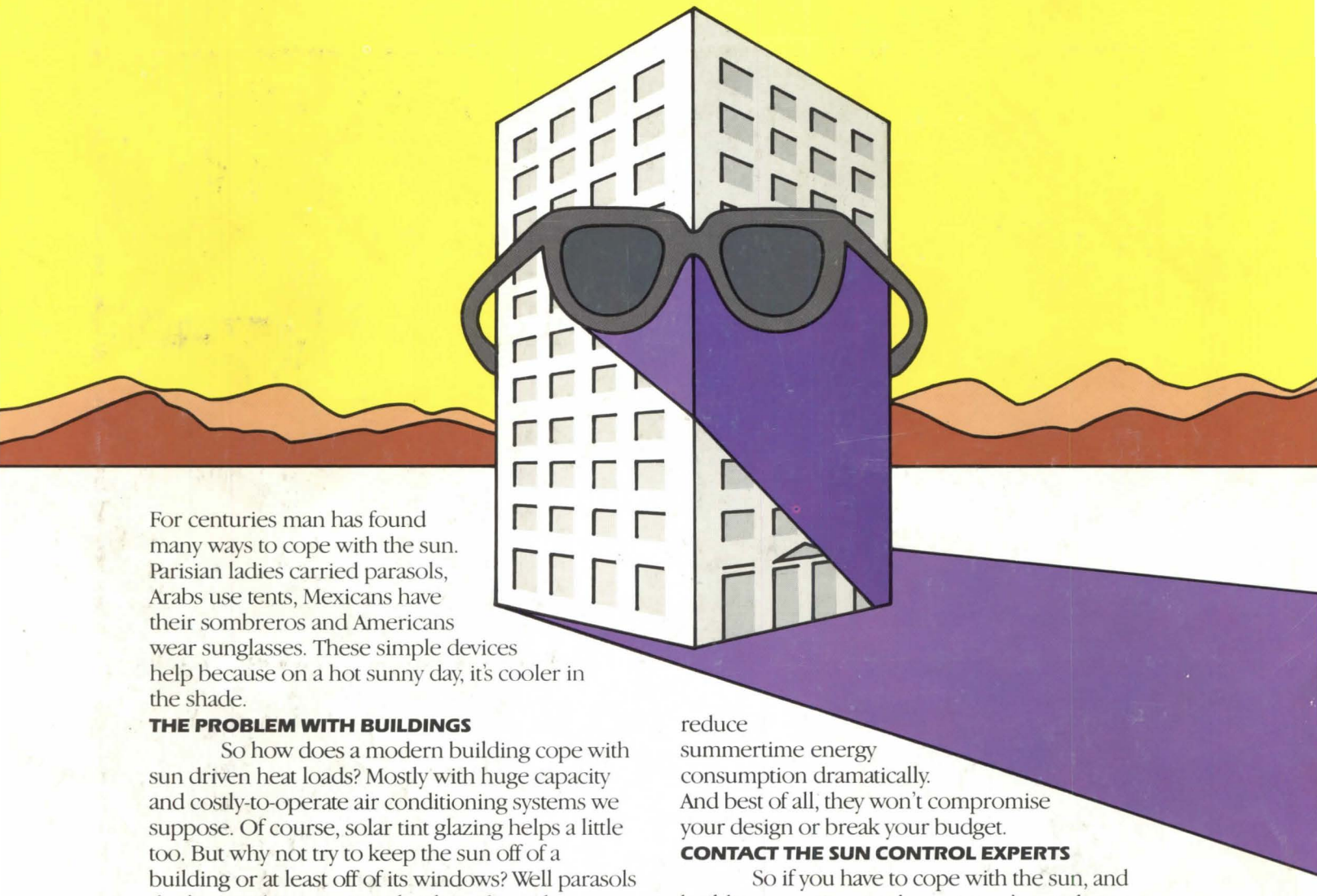


LEVITON®

Spec with confidence.
Spec Leviton.

Circle No. 371 on Reader Service Card

You could put sunglasses on your building...



For centuries man has found many ways to cope with the sun. Parisian ladies carried parasols, Arabs use tents, Mexicans have their sombreros and Americans wear sunglasses. These simple devices help because on a hot sunny day, it's cooler in the shade.

THE PROBLEM WITH BUILDINGS

So how does a modern building cope with sun driven heat loads? Mostly with huge capacity and costly-to-operate air conditioning systems we suppose. Of course, solar tint glazing helps a little too. But why not try to keep the sun off of a building or at least off of its windows? Well parasols don't go with international style and sunglasses would look awfully foolish on post modern.

ENTER C/S SUN SHADES

A lot of smart architects and owners are discovering a better way to deal with the sun's heat. C/S sun shades.

C/S sun shades, combined with non-heat absorbing building skin and proper insulation, can reduce summertime energy consumption dramatically. And best of all, they won't compromise your design or break your budget.

CONTACT THE SUN CONTROL EXPERTS

So if you have to cope with the sun, and buildings wearing sombreros aren't exactly your style, call us. We've been developing sun controls since 1953 for installations from the Arabian desert to Canada and most places in between. We'll show you lots of smart, good-looking systems or we'll even design one just for you. Cranford, New Jersey, (201) 272-5200; San Marcos, California, (619) 744-0300; Mississauga, Ontario, (416) 274-3611.

or you could use C/S Sun Shades.

THE C/S GROUP

Circle **No. 335** on Reader Service Card